YOUTH'S GOLDEN CYCLE

HOW TO GET ON IN THE WORLD

ILLUSTRATED

YOUTH'S GOLDEN CYCLE;

OR,

ROUND THE GLOBE IN SIXTY CHAPTERS:

SHOWING

How to Get On in the World,

WITH

Hints on Success in Life; Examples of Successful Men; The Blessings of Loving Mothers, Careful Housewives, Clean, Cozy Homes; What and How to Eat and Drink; What to Read and How to Write; The Structure and Uses of the Most Important Members of the Body; How to Be and Keep Strong; The Wonders of Creation, Science and Art; Little Things—their Importance; Entertaining Stories of Animals; Animals—their Language and Habits; "Queer Fishes"; A Chamber of Marvels; Ballads, Poetry, Fiction, etc., etc.

BY

JOHN FRASER, A.M.,

PROFESSOR OF RHETORIC AND ENGLISH LITERATURE IN THE UNIVERSITY OF CHICAGO; AUTHOR OF "FROM CHAUCER TO LONGFELLOW," "ARCHIE GASCOIGNE; A ROMANCE OF SKYE," "HISTORY OF SCOTTISH CHAP-BOOKS," ETC., ETC.

ILLUSTRATED.

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TO

MY CHILDREN,

LEO AND ADA,

AS BEING THE TWO LITTLE ONES WHOM I KNOW AND LOVE BEST,

AND AS REPRESENTING THE MILLIONS OF AMERICAN

BOYS AND GIRLS WHOM I WOULD LIKE

TO KNOW, AND KNOWING, SHOULD

BE SURE TO LOVE,

I

DEDICATE THIS BOOK.

JOHN FRASER.

UNIVERSITY OF CHICAGO, 1884.

"Why Cycle?" do you ask me, friend?
Because a Cycle hath no end;
And these few pages but suggest
That Cycle of immortal rest
Which, springing from no earthly soil,
Will hold Creation in its coil;
Embrace the centuries, and be
The Cycle of Eternity.
Love God, dear friend, your Neighbor and the Truth,
So shall your future Cycle be
The "Golden Cycle" of Immortal Youth.

JOHN FRASER.

INTRODUCTION.

THE rapid increase of the evils that result from the reading of pernicious literature has suggested the composition and publication of this book. Every hour, the havoc wrought by the perusal of immoral fiction by our school-boys is assuming graver aspects. Almost daily we read of bands of youthful desperadoes, just entering their teens, being broken up by the police, and nearly always it is found that the organizations so broken up were directly suggested by dime novels, and founded with the express object of robbery and terrorism,—in some cases, even murder. Listen to the words on this subject of the author of "Silver Skates,"

A WISE AND CHARMING LADY,

and, as most English-reading boys and girls well know, editor of one of the best juvenile magazines in the world. Here are her words, earnest and true:

"The mayor of Philadelphia says he could rid the jails of two thirds of the boy criminals in the next year, if he could banish bad plays from the boards of the variety theatres, and put bad books out of print. Now, it will not do to take fascinating bad literature out of boys' hands, and give them in its place Mrs. Barbauld and Peter Parley, or, worse still, the sentimental dribblings of those writers who think that any 'goody' talk will do for children. We must give them good, strong, interesting

reading, with the blood and sinew of real life in it—heartsome, pleasant reading, that will waken them to a closer observation of the best things about them. It is right and natural for a boy to want to see the world. It is right and natural for him to wish to read books that, according to his light, show him what the world is.

"THE EVIL IS THE IMPRESSION GIVEN to young minds that seeing the world means seeing the badness of the world. Let a boy understand that to see the world in a fair, manly way, one must see also its good side, its nobleness and true progress, and you at once put his soul in the way of a wholesome growth. Vile writers and worse publishers are fattening on this tendency of boys, and the culpable carelessness of parents in not helping them to satisfy it properly. Good writers and honest publishers are offering the means of remedying the great evil, and are showing the boys of this country how they may see the world, and yet remain pure and true."

Now the express object of this book is to counteract the evil influence of this vicious literature, and to furnish youth with reading that will be as exciting as any novel, and at the same time instructive, wholesome, manly, and fresh. Nor will it be of the "goody-goody" order, to which so much of our Sunday-school literature belongs. In this world of ours, the good boy does *not* get all the plums; honesty is *not* always the best policy,

FROM A MERELY WORLDLY POINT OF VIEW;

and to teach that it *is* the best, is to impress youth with the demoralizing idea that they should be honest from policy, and from policy only.

One great trouble, in a new and feverish civilization like ours, is that parents have seldom the time, and often not the education, necessary for directing the home studies of their children. The father, engrossed in business, too often confines his reading to the daily papers, and in a society where so many poor and ill-educated people suddenly acquire wealth, the pro-

portion of parents who are unable to direct their children's reading is exceptionally large. What the publishers of this book propose to do, is to help parents in this all-important matter, not only by incidentally suggesting to them what *are* the best books for youth, but by providing a large and varied collection of interesting and instructive reading,—in order to show that, to be exciting, a book need not be vicious, and that the lives of great men furnish material which, while suggesting profound moral lessons, and holding up to youth noble ideals of conduct, is yet as romantic and, in the best sense, sensational, as any furnished by the careers of

TEN-FINGERED JACKS AND JESSE JAMESES.

From the histories of these great men will there be deduced such practical lessons and advice as will be of service to all boys and girls who wish to get on in the world; after which, the way being thus prepared, the family circle will be invaded, and attention drawn to the importance of home-training, and the blessings of loving mothers, careful housewives, and clean, cosy, comfortable homes. Advice will also be given as to what and how to eat and drink; how to get strong and keep strong; and the young reader will be instructed as to the structure and uses of the more important parts and members of the body, and their functions. Thus fortified by the training and associations of home, and some knowledge of physiology, and the laws that regulate health, we shall be the better enabled to face the responsibilities and temptations of outside daily life. The reader will accordingly be taken out of doors, and introduced to

THE MYSTERIES AND WONDERS OF NATURE,

science and art. He will be told many entertaining stories of dogs, horses, elephants, lions, panthers, serpents, birds and what not; with stirring hunting stories and adventures. The great wonders of physical nature will then be explored, so that, having glanced at the works of God, the reader will be prepared the better to admire the productions of the Great Architect's highest achievement on this earth—Man. This done, there

will remain some subjects not to be classified under any particular head, and these will be disposed of in the two chapters immediately preceding the last. They will deal with things marvelous and quaint; having disposed of which, the author will be the better able to bid his readers good-bye.

In this way "Youth's Golden Cycle" will have been completed, and the round of sight-seeing and instruction brought to a close—so far as it is possible to do so within the compass of one volume, and having in view

THE IMMEDIATE AIMS OF THE PUBLISHERS.

Finally, and though last this is by no means the least important feature of the work, the book has been so arranged that while presenting one logical and symmetrical whole, each chapter is complete in itself, so that the volume can be opened at random, and read with interest at almost any page.

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CHAPTER I.

CHILD-AUTHORS AND AUTHORS FOR CHILDREN.

WHAT an interesting book might be written on child-authors and authors for children! From earliest times, some of the most charming poetry, and most of the best fiction, have been addressed to youth. For that part of it in early civilizations, all people, grown-up men and women as well as boys and girls, are merely children, with childish tastes in literature and art. Hence the fondness of savage and illiterate tribes for allegory, fable, and fairy tales. Nations, like men, are merely children of a larger growth, and their youthful literature is little more than a collection of nursery tales. But what is more to our purpose, how many of the most popular books ever written are specially addressed to boys and girls! Only think of it! Perhaps the two most widely read books in ancient literature, always excluding the Bible, are "Homer's Iliad" and "Æsop's Fables," and let scholars and critics say what they like, the adventures of Achilles are read by youth with as keen a relish as by learned men, while Æsop will always maintain his supremacy with boys and girls of all ages. And then, to come down to more modern times, think of Bunyan's "Pilgrim's Progress," Cervantes' "Don Quixote," Defoe's "Robinson Crusoe," Goldsmith's "Vicar of Wakefield," Swift's

"Gulliver's Travels," Fouquet's "Undine," "The Exiles of Siberia," the great Monsieur Dumas' inimitable series of romances about the immortal Athos, Parthos, Aramis, and Dartagnan; Charles and Mary Lamb's "Tales from Shakspeare," Miss Porter's "Scottish Chiefs," Scott's "Ivanhoe," James Grant's "Romance of War," Mrs. Stowe's "Uncle Tom's Cabin," and a whole library of other equally well-known works. Don't tell me that they were not written for boys and girls, for I know better; and are they not among the most widely and eagerly read books in the world? And so, too, in other departments of letters, particularly in poetry.

Who, let me ask, are the great modern poets of the fireside, the best beloved of youth?—who but the genial, generous, great-hearted Thomas Hood; that noblest of English (I might almost say world) poetesses, Mrs. Browning; and, finally,

OUR OWN SWEET-TEMPERED SINGER,

with the child-like heart, Henry Wadsworth Longfellow? Why, much of the very finest of modern poetry was addressed to children. Of such surely are most of Victor Hugo's exquisite lyrics; Robert Browning's "Pied Piper of Hamlin"; Emerson's "The Mountain and the Squirrel"; Alfred Tennyson's "Queen of the May," and "Little Mamie"; Mrs. Browning's "Cry of the Children"; Charles Kingsley's "Sands o' Dee"—the last song the late Duke of Albany ever sang in public; Mrs. Hemans' "Graves of a Household," and "Casabianca"; and a large proportion of the best works of Wordsworth, Whittier, Procter, Massey, Swain, Jean Ingelow, and others. Cut out of the writings of Hood or Longfellow the poems relating or addressed to children, and you cut out half their best work. The latter's noblest sonnet, "Nature," was inspired by a child's playthings; his best story, "The Golden Legend," is full of the artless prattle of the nursery; and one of the tenderest of all his poems is dedicated to "The Children's Hour." But, apart from all that, only think of the thousands of less famous but very meritorious writers—some of them indeed fully entitled to take their

place among the immortals—who are at this moment writing for boys and girls! Our youth of thirty or forty years ago were not so fortunate. A handful of books comprised their library, and they were utterly without such splendidly illustrated, well written, and altogether wholesome journals as St. Nicholas, Harper's Young People, Wide Awake, and the many other magazines, weekly and monthly, that cater to the children of to-day. In France, who so popular as the highly inventive and ingenious Monsieur Jules Verne? In England, what writers more widely read than Marryat, Mayne Reid, Smedley, Thomas Hughes, author of "Tom Brown," Dr. George MacDonald, Mrs. Oliphant, Mrs. Craik, Mr. Lewis Carroll, and Mr. Clark Russell? From Germany we have had of recent years monthly supplies of the most fascinating fairy tales, and in our own country—but the very thought is overwhelming.

WRITERS FOR YOUTH!

Why, they seem to be all writing for youth. How the names crowd in upon one: J. G. Holland, Frank Stockton, Mary Mapes Dodge, Frances Hodgson Burnett, Louisa M. Alcott, J. T. Trowbridge, Edward Eggleston, Bayard Taylor, Colonel Higginson, Bret Harte, James T. Fields, Donald G. Mitchell, Julian Hawthorne, Nora Perry, S. M. P. Piatt, and a hundred more of the best known writers in American literature. And yet, in the face of these facts, with a whole world of most fascinating and instructive literature to choose from, bequeathed by the great masters of the past, and daily contributed by popular writers of the present, young people *will* devour dime novels and other pernicious literature, the reading of which is destructive of all noble ambition, all generous sympathies, all manly, gentlemanly, christian principles and instincts.

But I have not said anything of child-authors, and surely the subject is both suggestive and inviting. Of the youth of Homer and Virgil and Horace, we know little, and hardly much more as to that of Chaucer, the father of English poetry, or of his great Italian contemporaries, Petrarch and Boccaccio, or even of

Spenser and Shakspeare; but I am quite sure that, like our great modern story-teller—dear, genial, noble, large-hearted Walter Scott—most of these world-famous men began by telling stories in the nursery. Homer and Chaucer and Boccaccio, at any rate, must have done so. They were born story-tellers, if ever story-tellers *were* born, and could no more help weaving fictions out of their childish imaginations than the distinguished Mr. Pope, some centuries afterwards, could help lisping in numbers. It was simply an instinct with them; they piped but as the linnets pipe, as Lord Tennyson—how awkwardly the new title sounds! —somewhere or other assures us he sings. But why indulge in speculation? Did not Mr. Cowley, a contemporary of Dryden and Milton, and in his day esteemed a much superior poet to either of them—did he not, I say, write an epic at seven, a comedy at eight, and a tragedy—for the entertainment, if I remember rightly, of his most gracious majesty, Charles the First—at nine years of age? Of course, none of these works survived, but tradition informs us that they were written with wonderful spirit and accuracy, and gained for the child-poet quite a reputation as a little man of letters. So, too,

WE FIND MASTER JOHN MILTON,

ere yet he was well out of long clothes, inditing metrical paraphrases of the Psalms, and doubtless meditating some great work—perhaps in celebration of King Arthur, a favorite topic, as we know, with him, and generally maturing those powers which were afterwards to produce the Epic of the Anglo-Saxon race—"Paradise Lost."

Of Alexander Pope mention has already been made, and only a passing reference can be allowed to Gray, the author of the most frequently and widely-quoted poem in the English language—the famous "Elegy on a Church-yard"; but one is sorely tempted to linger awhile by the grave of poor Chatterton—"the marvelous boy who perished in his pride." Many of you, doubtless, are familiar with the sad romance and tragic end of this most precocious of all boy poets. Born in 1752, he

was taught at a charity school in his native town of Bristol, England, and articled to an attorney. The boy—he was only a boy—with a poet's genius, and a turn for antiquities, played upon the reviving taste for old English literature, among men who had still but a faint critical sense of its form of thought or language, by inventing a series of mock antique poems, which he ascribed to an imaginary priest of Bristol, named Thomas Rowley. In 1770, Chatterton went to London, full of youthful ambition, and inspired by all the confidence of genius. But alas! the world remained blind to his great talents; deaf to his passionate entreaties; and poems, which are now among the gems of literature, were declined by the publishers, or remunerated (?) with a few pence. So, instead of fame, and distinction, and wealth, came poverty, hunger and neglect; poverty—in the midst of untold riches; neglect—in the heart of London's teeming millions. Too proud to make his destitution known; too conscious of his own genius not to bitterly resent the indifference of an unpitying world,—

CHATTERTON TURNED HIS FACE TO THE WALL

and died. His warm-hearted landlady did what she could to keep him from starvation; but his proud and impetuous spirit repelled her advances, and one morning when she visited his garret, she found the boy stretched on his pallet dead; poisoned by himself in the agony of his great despair.

And so one might go on to dwell on the childish literary efforts of some of our greatest writers, but space will not permit, and I must content myself with one more illustration of literary precocity, as exemplified in the brief life of little Marjorie Fleming, of whom the late Dr. John Brown, of Edinburgh, has left such an exquisite and pathetic little sketch. But Miss Marjorie Fleming—she was only eight years old when she died—is much too important a personage to be thus ungallantly treated at the fag-end of a chapter. Marjorie must have a chapter to herself; if alive, she would certainly insist upon it.

CHAPTER II.

MARJORIE FLEMING—SIR WALTER SCOTT'S PET—A SIX-YEAR-OLD POETESS.

THE dear little child-author of whom I, on the authority of her biographer, Dr. Brown, am going to tell you, was born in Edinburgh, Scotland, on January 15th, 1803, and died December 19th, 1811. Of her little life I need only say that it was a singularly bright and charming one, while her bewitching vivacity, and mingled shrewdness and sweetness, speak for themselves in the verses and extracts from her diary which follow. To the general reader, perhaps, the most interesting fact in her brief life will be that she was the pet of Sir Walter Scott. Time and again, when the great novelist grew wearied of writing "Waverley," he would lay down his pen, and, accompanied by his favorite dog, would issue forth to call on

HIS LITTLE DARLING "MAIDIE,"

which was his pet name for her. And he was always welcome; where was not that great, good, warm-hearted man welcome? And in her little room these two—the world's greatest novelist and this little blue-eyed, golden-haired fairy of five, would remain for three or more hours, making the house ring with their laughter. Only think how the big man and Maidie would laugh! Having made the fire cheery, he would set her down in his

ample chair, and standing sheepishly before her, would begin to say his lesson, which happened to be: "*Ziccotty, diccotty, dock, the mouse ran up the clock*; *the clock struck wan, down the mouse ran, ziccotty, diccotty, dock.*" This being done repeatedly, until she was pleased, she gave him his new lesson, gravely and slowly, timing it upon her small fingers—he saying it after her:

> "Wonery, twoery, tickery, seven;
> Alibi, crackaby, ten and eleven;
> Pin, pan, musky dan;
> Tweedle-um, twoddle-um,
> Twenty-wan; eerie, orie, ourie,
> You are out."

He pretended to great difficulty, and she rebuked him with most comical gravity, treating him as a child. He used to say that when he came to *Alibi, crackaby,* he broke down, and

PIN, PAN, MUSKY DAN, TWEEDLE-UM, TWODDLE-UM

made him roar with laughter. He said *Musky Dan* especially was beyond endurance, bringing up an Irishman and his hat fresh from the Spice Islands and odoriferous Ind; she getting quite bitter in her displeasure at his ill behavior and stupidity.

Then he would read ballads to her in his own glorious way, the two getting wild with excitement over *Gil Morrice* or the *Baron of Smailholm*; and he would take her on his knee and make her repeat Constance's speeches in *King John,* till he swayed to and fro, sobbing his fill. Fancy the gifted little creature, like one possessed, repeating:

> "For I am sick, and capable of fears,
> Oppressed with wrong, and therefore full of fears.
> A widow, husbandless, subject to fears;
> A woman, naturally born to fears.

> "If thou that bidst me be content, wert grim,
> Ugly and slanderous to thy mother's womb,
> Lame, foolish, crooked, swart, prodigious—"

Or, drawing herself up "to the height of her great argument"—

"I will instruct my sorrows to be proud,
For grief is proud, and makes his owner stout.
Here I and Sorrow sit."

Scott used to say that he was amazed at her power over him, saying to Mrs. Keith, "She's the most extraordinary creature I ever met with, and her repeating of Shakespeare, overpowers me as nothing else does."

Here is Maidie's first letter before she was six. The spelling unaltered, and there are no *commas.*

"MY DEAR ISA — I now sit down to answer all your kind and beloved letters which you was so good to write to me. This is the first time I ever wrote a letter in my Life. There are a great many Girls in the Square and they cry just like a pig when we are under the painful necessity of putting it to death. Miss Potune a lady of my acquaintance praises me dreadfully. I repeated something out of Dean Swift, and she said I was fit for the stage, and you may think I was primmed up with majestic pride, but upon my word I felt myself turn a little birsay — birsay is a word, which is a word that William composed which is as you may suppose a little enraged. This horrid fat Simpleton says that my aunt is beautifull which is intirely impossible for that is not her nature."

WHAT A PEPPERY LITTLE PEN WE WIELD!

What could that have been out of the sardonic Dean? What other child of that age would have used "beloved" as she does? This power of affection, this faculty of beloving, and wild hunger to be beloved, comes out more and more. She periled her all upon it, and it may have been as well — we know, indeed, that it was far better — for her that this wealth of love was so soon withdrawn to its one only infinite Giver and Receiver. This must have been the law of her earthly life. Love was indeed "her Lord and King;" and it was perhaps well for her that she found so soon that her and our only Lord and King Himself is Love.

Here are bits from her diary at Braehead: "The day of my

existence here has been delightful and enchanting. On Saturday I expected no less than three well-made Bucks, the names of whom is here advertised. Mr. George Crakey (Craigie), and William Keith and John Keith. The first is the funniest of every one of them. Mr. Crakey and I walked to Crakey hall (Craigie hall) hand in hand in innocence and matitation (meditation) sweet, thinking on the kind love which flows in our tender-hearted mind, which is overflowing with majestic pleasure, no one was ever so polite to me in the whole state of my existence. Mr. Crakey you must know is a great Buck and pretty good looking.

"I am at Ravelston enjoying nature's fresh air. The birds are singing sweetly — the calf doth frisk and nature shows her glorious face."

Then follows a confession: "I confess I have been very more like a little young divil than a creature, for when Isabella went up stairs to teach me religion and my multiplication, and to be good, and all my other lessons, I stamped with my foot and threw my new hat which she had made on the ground, and was sulky and was dreadfully passionate, but she never whiped me but said Marjory go into another room and think what a great crime you are committing letting your temper get the better of you. But I went so sulkily that the devil got the better of me, but she never, never, never whips me so that I think I would be the better of it, and the next time that I behave ill I think she should do it, for she never does it. . . . Isabella has given me praise for checking my temper, for I was sulky even when she was kneeling an whole hour teaching me how to write.

"Yesterday I behaved extremely ill in God's most holy church, for I would never attend myself nor let Isabella attend, which was a great crime, for she often, often tells me that when to or three are geathered together God is in the midst of them, and it was the very same Divil that tempted Job that tempted me I am sure; but he resisted Satan, though he had boils and

many many other misfortunes which I have escaped. . . . I am now going to tell you the horible and wretched plaege (plague) that my multiplication gives me you can't conceive it the most Devilish thing is 8 times 8 and 7 times 7 it is what nature itself can't endure."

This is delicious; and what harm is there in the "devilish"—it is strong language merely; even old Rowland Hill used to say "he grudged the devil those rough and ready words." "I walked to that delightful place Crakey hall with a delightful young man beloved by all his friends, especially by me his loveress, but I must not talk any more about him for Isa said it is not proper for to speak of gentalmen but I will never forget him."

"I am going to-morrow to a delightful place, Braehead by name, belonging to Mrs. Croaford where there is ducks cocks hens bubblyjocks turkeys 2 dogs 2 cats and swine which is delightful. I cam here to enjoy nature's delightful breath it is sweeter than a fial (phial) of rose oil."

This is beautiful: "I am very sorry to say that I forgot God—that is to say I forgot to pray to-day and Isabella told me that I should be thankful that God did not forget me—if he did, O what would become of me if I was in danger and God not friends with me—I must go to unquenchable fire and if I was tempted to sin—how could I resist it O no I will never do it again—no no—if I can help it. My religion is greatly falling off because I do pray with so much attention when I am saying my prayers, and my charecter is lost among the Braehead people. I hope I will be religious again—but as for regaining my charecter I despare for it."

Poor dear little sinner! Here comes the world again: "In my travels I met with a handsome lad named Charles Balfour, Esq., and from him I got ofers of marage—ofers of marage did I say? Nay plenty heard me." A fine scent for "breach of promise."

This is shocking:—"Yesterday a marrade man named

MARJORIE FLEMING.

Mr. John Balfour, Esq., offered to kiss me, and offered to marry me, though the man" (a fine directness this!) "was espused and his wife was present and said he must ask her permission; but he did not. I think he was ashamed and confounded before three gentlemen—Mr. Jobson and 2 Mr. Kings."

She seems now, when still about six, to have broken out into song:

EPHIBOL (EPIGRAM OR EPITAPH—WHO KNOWS WHICH?)

ON MY DEAR LOVE ISABELLA.

"Here lies sweet Isabell in bed,
With a nightcap on her head;
Her skin is soft, her face is fair,
And she has very pretty hair;
She and I in bed lies nice,
And undisturbed by rats or mice;
She is disgusted with Mr. Worgan,
Though he plays upon the organ.
Her nails are neat, her teeth are white,
Her eyes are very, very bright;
In a conspicuous town she lives,
And to the poor her money gives.
Here ends sweet Isabella's story,
And may it be much to her glory."

Here are some bits at random:

"Of summer I am very fond,
And love to bathe into a pond;
The look of sunshine dies away,
And will not let me out to play;
I love the morning's sun to spy,
Glittering through the casement's eye;
The rays of light are very sweet,
And puts away the taste of meat;
The balmy breeze comes down from heaven,
And makes us like for to be living."

"The casawary is an curious bird, and so is the gigantic crane, and the pelican of the wilderness, whose mouth holds a bucket of fish and water. Fighting is what ladies is not qualyfied for, they would not make a good figure in battle or in a

duel. Alas! we females are of little use to our country. The history of all the malcontents as ever was hanged is amusing." Still harping on the Newgate Calendar!

"Braehead is extremely pleasant to me by the companie of swine, geese, cocks, etc., and they are the delight of my soul."

"I am going to tell you of a melancholy story. A young turkey of 2 or 3 months old, would you believe it, the father broke its leg, and he killed another! I think he ought to be transported or hanged."

In a religious poem she begins thus loftily:

"Death the righteous love to see,
But from it doth the wicked flee."

Then suddenly breaks off (as if with laughter):

"I am sure they fly as fast as their legs can carry them!"

"There is a thing I love to see,
That is our monkey catch a flee."

"I love in Isa's bed to lie,
Oh, such a joy and luxury!
The bottom of the bed I sleep,
And with great care within I creep;
Oft I embrace her feet of lillys,
But she has got on all the pillys;
Her neck I never can embrace,
But I do hug her feet in place."

Here is one of her swains:

"Very soft and white his cheeks,
His hair is red, and grey his breeks;
His tooth is like the daisy fair,
His only fault is in his hair."

This is a higher flight:

"DEDICATED TO MRS. H. CRAWFORD BY THE AUTHOR, M. F.

"Three turkeys fair their last have breathed,
And now this world forever leaved;
Their father and their mother too,
They sigh and weep as well as you;
Indeed, the rats their bones have crunched,
Into eternity theire loanched.

A direful death indeed they had,
As wad put any parent mad;
But she was more than usual calm,
She did not give a single dam."

This last word is saved from all sin by its tender age, not to speak of the want of the *n*. We fear "she" is the abandoned mother, in spite of her previous sighs and tears.

She has a long poem on Mary, Queen of Scots:

"Queen Mary was much loved by all,
Both by the great and by the small;
But hark! her soul to heaven doth rise!
And I suppose she has gained a prize—
For I do think she would not go
Into the *awful* place below;
There is a thing that I must tell,
Elizabeth went to fire and hell;
He who would teach her to be civil,
It must be her great friend the divil."

SONNET TO A MONKEY.

"O lively, O most charming pug,
Thy graceful air and heavenly mug;
The beauties of his mind do shine,
And every bit is shaped and fine.
Your teeth are whiter than the snow,
You're a great buck, you're a great beau;
Your eyes are of so nice a shape,
More like a christian's than an ape;
Your cheek is like the rose's blume,
Your hair is like the raven's plume;
His nose's cast is of the Roman,
He is a very pretty woman.
I could not get a rhyme for Roman,
So was obliged to call him woman."

This last joke is good. She repeats it when writing of James the Second being killed at Roxburgh:

"He was killed by a cannon splinter,
Quite in the middle of the winter;
Perhaps it was not at that time,
But I can get no other rhyme."

CHAPTER III.

THE IDEAL BOY'S BOOK—POETRY FOR THE YOUNG.

IT is a mistake to think that books for children should be childish; books for boys, boyish; and far too many modern writers make precisely this mistake, as did also such old-time friends as Mrs. Barbauld and Peter Parley. The ideal boy's book is one that is neither too scientific, too crammed with facts, nor too goody-goodyish; but one that can be read with equal delight and relish by old and young, learned and ignorant. Of such are most of the world's greatest books; as, for instance, the Bible, the Iliad, the Odyssey, the Æneid, Pilgrim's Progress, Don Quixote, the Arabian Nights, and so forth. Facts are, of course, important and, to a large extent, necessary, but there are facts and facts, and teachers or writers of

THE GRADGRIND SCHOOL,

of whom Dickens has left so vivid a portrait in "Hard Times," are never either successful or popular. As I have said, there are facts and facts; facts of a generative and suggestive kind, and facts that are barren and comparatively useless. All early English histories dealt exclusively with facts of the latter kind; with dates and figures, the births and deaths of princes, the occurrence of great battles, with the numbers killed and wounded. Hume, Froude, Macaulay, Carlyle, Prescott, Bancroft, and Green have changed all that. We are beginning to

realize that it is more important to know how a man lived than when; that the publication of the "Fairy Queen" or of "Hamlet" was a greater event than the battle of Marengo or Austerlitz; that Luther was an infinitely greater man, and a more potent factor in civilization, than Edward VI., or Henry VIII., or Cardinal Mazarin.

And this suggests one reason why the study of the best poetry and fiction is so beneficial and important. They strip life of its vulgarities and common-place details; they lift us into a purer atmosphere, far above the smell of stockyards, and the roar of the stock exchange; they hold up to us lofty ideas of conduct and character; and they furnish us with noble incentives to labor and to wait, to suffer and be strong. How many a boy has been inspired by reading

"A PSALM OF LIFE"

or an "Excelsior;" how many a workman encouraged and ennobled by repeating to himself:

"What though on homely fare we dine,
  Wear hodden grey an' a' that,
Gie fools their silks, and knaves their wine,
  A man's a man for a' that.
* * * * * *
A Prince can mak' a belted knight,
  A marquis, duke an' a' that,
But an honest man's abune his might,
  Guid faith, he mauna fa' that!"

and so on.

And, then, think of how much pleasure you can afford your friends at little domestic gatherings by reciting some pleasing poem or telling some interesting tale. Even the youngest child might surely understand and be interested by the following lines by Emerson, while the oldest could hardly fail to be impressed. It is the little poem already alluded to, about

THE MOUNTAIN AND THE SQUIRREL.

Perhaps you know it already; but good poems like good stories are often better when twice told. Listen:

THE MOUNTAIN AND THE SQUIRREL.

"The mountain and the squirrel
Had a quarrel,
And the former called the latter, 'Little prig!'
Bun replied,
'You are doubtless very big,
But all sorts of things and weather
Must be taken in together
To make up a year,
And a sphere:
And I think it no disgrace
To occupy my place.
If I'm not so large as you,
You are not so small as I,
And not half so spry;
I'll not deny you make
A very pretty squirrel track.
Talents differ; all is well and wisely put,
If I cannot carry forests on my back,
Neither can you crack a nut.'"

And how full of earnest piety and sweetness and love are the following verses by Mrs. Miller:

LITTLE MAY.

Have you heard the waters singing,
Little May,
Where the willows green are bending
O'er their way?
Do you know how low and sweet,
O'er the pebbles at their feet,
Are the words the waves repeat,
Night and day.

Have you heard the robins singing,
Little one,
When the rosy dawn is breaking,—
When 'tis done?
Have you heard the wooing breeze,
In the blossomed orchard trees,
And the drowsy hum of bees
In the sun?

All the earth is full of music,
Little May,—
Bird, and bee, and water singing
On its way.
Let their silver voices fall
On thy heart with happy call:
"Praise the Lord, who loveth all,"
Night and day,
Little May.

And here I might drop this subject, were it not that I should like to show you how poetry addressed to all but the very youngest child, may be full of suggestive lessons for the old, gray-headed man. The poem is taken from a charming collection entitled "POSIES FOR CHILDREN," and I commend it to your earnest study. From the title to the close, in language, sentiment and idea, it is full of simplicity, sweetness and love.

A, B, C.

"By Alpine lake, 'neath shady rock,
The herd-boy knelt beside his flock;
And softly told, with pious air,
His alphabet as evening prayer.
Unseen, his pastor lingered near:
'My child, what means this sound I hear?'
The little fellow raised his head,
'It is my evening prayer!' he said.
'My child, a prayer yours can not be;
You 've only said your A, B, C.'
'I have no better way to pray,—
All that I know to God I say:
'I tell the letters on my knees;
He makes the words himself to please.'"

CHAPTER IV.

"THE STORY OF FLORÉNT"—WONDERFUL ADVENTURES OF AN OLD WOMAN AND A GALLANT KNIGHT.

AND now, before we pass from poetry to another subject close akin to it—Fairy Tales, allow me to introduce to you a very old friend of mine, Mr. John Gower. He lived long, long ago,—as far back as the fourteenth century—and was called the "Moral Gower," because the work by which he is chiefly remembered consists of a great number of stories strung together, after the fashion of the "Arabian Nights," and each one having for its object the pointing of some particular moral. Gower was a contemporary of Geoffrey Chaucer, the "Father of English Literature," as he has been called, because he was the first great poet to write in English; and his greatest work is called the "Canterbury Tales." I should like to tell you one or two of Chaucer's stories, and only refrain from doing so because they are so much better known than Gower's, and you can easily procure them for yourselves. But Gower's you cannot, and so I select one of his tales, that you may judge from it what sort of poetry he wrote, and have impressed on your minds the great lesson—that the first and chief test of a gentleman is that he stands by his word.

I ought perhaps to say that this story is taken from a very

"THEN," SHE CRIED, "I CHOOSE BOTH NIGHT AND DAY."—See page 59.

long poem called "Confessio Amantis," or "The Confession of a Lover," and as it was written nearly five hundred years ago, the language of the original is very antiquated, or old-fashioned,—so much so that if I gave it as written by Gower you would be unable to understand it. So I have modernized it somewhat, and old Gower being a little tedious, I have taken the further liberty of greatly shortening his story, so as to bring it as nearly as possible within the limits of one chapter. This is a very long introduction, so long it might almost have been written by Gower himself, but perhaps the goodness of the story will make up for the length of the preface.

THE STORY OF FLORÉNT.

Long, long ago—in days of old—
There lived a knight, as men have told—
A nephew he unto the King,
And chief of all his courtly ring,
Wifeless he was; Florént his name,
A man of giant strength and fame;
And, that he might world-famous be,
And strange adventures seek, did he
Ride forth, the marches all about;
And fell a time, as he was out,
And riding through a certain pass,
By enemies he taken was;
For, as it chanced, himself had slain
Branchus, who to the Capitain
Was son and heir; whereof were wroth
The father and the mother both.
And fain they on Florént had ta'en
Revenge, for he had Branchus slain;
But he being cousin to the King,
They feared upon themselves to bring
The royal wrath, so durst not slay.
Thus in perplexity were they
Among themselves, what course was best.

There was a lady, than the rest
More cunning far—as all men said—
(The grandame—she, to Branchus dead),

Who told them she would bring Florént
To death, and by his own consent,
Withouten blame to any wight.
And so she sent for this same Knight,
Accused him of her grandson's death,
And, after, thus to him she saith:
"Florént, we shall revenge forego
For that thou Branchus slew, if so
One question thou wilt answer fair,
And solemnly wilt also swear
That if thou of the truth do fail,
There shall none other thing avail,
But thou shalt die; and so, next year,
Twelve months this day, thou must appear
And answer give, for such the task,
To this one question which I ask."

The knight then prays that she reveal,
And have it written under seal,
The question, as the grandame saith,
He answer must or suffer death.
To which quoth she: "On love alone
My question hangs, as will be shown;
What is 't all women most desire,
Of what do women wish empire?"

Florént agrees, with feelings mixed;
The day was set, the time was fixed;
Under his seal he wrote his oath
In such a wise, and forth he go'th
Home to his uncle's court again;
To whom the whole adventure plain
He tells, of what did him befall;
Whereon the Emperor summons all
The wisest in the land that be;
But natheless can they not agree.
One sayeth that, another this,
Till for Florént no help there is;
Nor any hope in all the land,
But he must by his cov'nant stand.
For he, true knight, had rather die
Than break his plighted word, and lie.

When time had come, he went his way,
But first he doth his uncle pray
That he should not be over-wroth,
For that a point was of his oath
That none for him should vengeance take,
Or do of violence for his sake.
Then went he forth, adventurous knight,
And as he rode there came in sight,
Nigh to the place where he would be,
A woman, underneath a tree,
That, for to speak of flesh and bone,
So foul yet saw he never none.

The knight she quickly did espy,
And, as he would have ridden by,
She called on him, and bade abide;
So, knightly like, he turned aside
To learn, if that he might, her tale—
And she began him to bewail,
And said: "Unless thou counsel take
Of me, thou must thy life forsake."

Florént then counsel of her prayed,
And she again thus to him said:
"Florént, if I for thee so shape,
That thou through me thy death escape,
And take great worship of thy deed,
What shall I have me to my need?"
"Whate'er thou wilt!" straight answered he;
"Then give a solemn pledge," quoth she,
"That I shall have thy troth on hand,
That thou wilt be my own husband."
"Nay," said Florént, "that may not be!"
"Then, ride thou forth thy way," quoth she,
"But if thou unadvised depart,
Thou certainly a dead man art."

Florént her promised good enow
Of land, of rent, of park, of plow;
But all that counteth she as naught;
Then fell this knight in anxious thought,
Now forth—now back, he takes his way;
He knows not what is best to say;

Or to accept, or to refuse,
He knows not which of them to choose;
Or for to take her for his wife,
Or, failing that, to lose his life.

One thought his trouble did assuage,
That she was of so great an age,
That she might live but little while;
And thought to put her on an isle,
Where by no man she might be known
Till she by death were overthrown.

And thus this young and lusty knight
Unto this old and loathly wight
Then said: "If that none other chance
May make for me deliverance,
But only this particular speech,
Which, as thou sayest, thou shalt teach,
Have here mine hand, then; I have said."
And thus he plights his troth to wed.

"Now, hearken," quoth she, "what I say,
For 'scape thou canst none other way;
Make answer: 'Every woman still
Would most desire to have her will;'
Thus shalt thou bring their wiles to naught,
And when thou hast thy purpose wrought,
Come here again; thou shalt me find;
And let no thing out of thy mind."

And as, with heavy heart, Florént
Upon his perilous journey went—
He knows not how to joy attain,
For if he die, he hath a pain:
And if he live, he must him bind
To one who is of every kind
Of women the unseemliest;
Thus knoweth he not what is the best—
But, be he willing or be he loth,
Unto the castle straight he go'th,
His final answer there to give,
Or for to die, or for to live.

And when he entered the castle gate
They asked him to give answer straight.

Florént then every answer gave
His friends could think of, him to save;
But all in vain, until at last—
The time to answer all but past—
He spake right out: "A woman still
Doth most desire to have her will."
And so the answer being right,
Escapèd thus this worthy knight.

But then began his sorrow new:
For he must go, or be untrue
To her who had has troth; and so,
The shame all dreading, he doth go;
And finds her waiting for him where
He had her left before; for there
She him awaited, that old wight
Which was, indeed, the loathliest sight,
That ever met a mortal eye;
With nose so low, and brow so high.

She offers herself unto this knight,
And bids him her at once requite;
And by the bridle she him seizeth,
But God knows whether she him pleaseth!
He sorrows much he can not flee,
Unless he would untruthful be.

As sick men, who'd have health anon,
Take medicine mixed with cinnamon,
And with the myrrh, the sugar sweet,
So now, that joy and sorrow meet,
Florént must even take them both,
And wed the hag, albeit so loth—
He would always be loyal found,
As every knight thereto is bound,
What hap soever him befall.

So he, though foulest she of all,
Did her from very knightliness
As fairest lady then address.

In rags all torn, and tatter'd sore,
He set her on his horse before,
And forth his way he softly takes—
No wonder though in sighs he breaks!
But, as an owl that flies by night,
Out of all other creature's sight,
Right so this knight in daylight broad
Kept closely hidden, and shaped his road,
All in the night-time,—so to roam
Until that he had reached his home—
Then secretly, without a sound,
He brings his loathly burden round
Unto his castle, in such wise
That not a man her shape espies,
Till she is in the room, where he
His privy counsel mighten see,—
The men whom he the most could trust;
And them he told how need he must,
This loathly creature take to wife,
Else he had surely lost his life.
The privy-women then off-draw
Her rags, and as was then the law,
She had a bath, and she had rest,
And was arrayed in royal best.
But with no craft of combs might they
Make smooth her locks so hoar and grey;
Nor would she let herself be shorn,
But did her women's counsel scorn;
And so perforce she was excused,
And in such dress as then was used
She was attired; but when arrayed,
And her attire all full displayed,
Then was she fouler far to see!
But yet it may none other be,
And they were wedded in the night.
So wo-begone was never wight!

And here I must take leave of worthy Mr. Gower, and tell the rest of the story in prose. The unfortunate knight kept tossing about in a woful plight, refusing to look at his ugly partner, until at last, remembering how great a service she had

done him, he made up his mind to try and requite it. So he turned suddenly to kiss her, and lo! instead of the ugly old hag he had thought her to be, there was a beautiful—O, such a beautiful girl of eighteen! And wasn't the knight surprised? But not more surprised than puzzled, when she turned to him and, kissing him softly, said, "So you see, I am not so very bad looking after all. The pity is you can't have me nice looking both night and day. Now, which will you choose? Have me nice-looking by night and ugly by day, or nice-looking by day and ugly by night?" Florént looked into her beautiful, dark-blue, loving eyes, and answered: "Choose for me, dearest; I rely on your love." "Then," she cried, "I choose both night and day." And so it was. She was beautiful always; and it is in this way that fidelity to one's word is rewarded, and in this way that love makes beautiful the meanest object in life.

CHAPTER V.

BALLADS—"THE HEIR OF LYNNE," "THE BARRING OF THE DOOR," ETC.

HUNDREDS of years ago, away back in the fourteenth, fifteenth and sixteenth centuries, before printing had come to cheapen and multiply books, and education to elevate the masses, the only literature accessible to the common people of Europe was the *ballad*. I presume you all know what that means. It is simply an artless, lyrical story, which was handed down from one age to another by word of mouth, and has for its subject a single incident. It was not until a comparatively recent date that these early ballads were collected and printed. At first, and for two or three centuries after their original composition, they were preserved by memory alone, and recited by wandering minstrels, or bards, who went round the country, from house to house, singing these lyrical stories for a livelihood.

But I do not intend going into details; *that* might merely bore you. It will serve my purpose better to give you one or two of those ballads that you may judge for yourselves as to the sort of literature which delighted, not only boys and girls, but men and women, in the times when the famous

RICHARD THE LION-HEARTED,

the Black Prince, and the mighty king-maker, the Earl of Warwick, were in their prime.

THE HEIR OF LYNNE.

The first ballad to which I shall introduce you I have selected not as being a good representative of the ballad proper; indeed, it stands almost by itself, and is more properly a story in verse than a ballad, in the strict sense of the word. The moral, however, is so good, the incidents so dramatically conceived, and the whole narrative so lively and interesting, that it is likely to prove more attractive to youthful readers than older and intrinsically better ballads. Unfortunately I can not afford space for the whole of it; so all I can do is to give you a rude outline of the plot. The moral meant to be conveyed is the old, old one, which Shakspeare teaches in his "Timon of Athens,"—that a spendthrift has friends only so long as his money lasts. The ballad is entitled

"THE HEIR OF LYNNE."

The unthrifty heir of Lynne was left in possession of wide estates and much money, but he spent it all in riotous living, drinking and reveling every night, in cards and dice, from even to morn. Finally he has to sell his broad lands to the keen steward, *John O'Scales,* for a third of its value—all but a poor and lonesome lodge that stood far off in a lonely glen, which his father made him swear never to dispose of, for there, when he had lost all else, he would find a faithful friend. The purchase money soon follows what went before. He and his friends:

"They ranted, drank, and merry made,
Till all his gold it waxèd thin;
And then his friends they slunk away;
They left the unthrifty heir of Lynne.

"He had never a penny left in his purse,
Never a penny left but three;
The tane was brass, the other was lead,
And t'other it was of white monie."

He is not discouraged, however. He has still good friends left, and he proceeds to call on them for help. But one is "not at home;" another has paid away all his gold; and a third upbraids him as a thriftless loun, and bids him sharply begone.

In this plight he bethinks himself of the lonesome lodge — the last of his possessions. He goes there and finds it bare and desolate beyond conception — without chair, table, cheerful hearth or welcome bed —

> "Naught save a rope, with a running noose,
> That dangling hung up o'er his head."

Above it was written, in broad letters, words to the effect that, being now reduced to penury, this was the only trusty friend left. Accepting the situation, the now repentant heir proceeds to hang himself.

> "Then round his neck the cord he drew,
> And sprang aloft with his bodie:
> When lo! the ceiling burst in twain,
> And to the ground came tumbling he."

In a hole in the wall he finds three chests.

> "Two were full of the beaten gold;
> The third was full of white monie;
> And over them, in broad letters,
> These words were written so plain to see:

> "Once more, my son, I set thee clear;
> Amend thy life and follies past;
> For but thou amend thee of thy life,
> That rope must be thy end at last."

The heir of Lynne vows amendment, and with a merry heart, betakes himself to the house of *John o' the Scales*. There he found three lords "drinking of the wine so free." The heir asks *John o' the Scales* to lend him forty pence, but John asks Christ's curse to light on his head if ever he lend him one penny. His wife, being next asked, tells him emphatically to be hanged.

> "Then up bespoke a good fellowe,
> Which sat at John o' the Scales his board:
> Said, 'Turn again, thou heir of Lynne;
> Sometime thou wast a well good lord.

"Sometime a good fellow thou hast been,
And sparedst not thy gold and fee;
Therefore I'll loan thee forty pence,
And other forty, if need be."

This good fellow also advises *John o' the Scales* always to bid the heir welcome, for he has now his lands, and a good bargain it was to him. Then up and spake *John o' the Scales*, in a towering passion:

"Now, Christ's curse on my head," he said,
But I did lose by that bargain."

"Now here I proffer thee, heir of Lynne,
Before these lords so fair and free,
Thou shalt have 't back again better, cheap,
By a hundred marks, than I had it of thee."

To his intense astonishment and sorrow, the heir of Lynne pulls forth his bags of gold, and counts him down his money.

"He told him forth the good red gold,
He told it forth with mickle din;
'The gold is thine; the land is mine;
And now I'm again the Lord of Lynne!'"

He magnanimously gives the "good fellow" forty pounds, instead of the forty pence he had lent him, which compels the lady of the house to exclaim:

"Now well-a-way!" quoth Joan o' the Scales;
"Now well-a-way, and woe is my life!
Yesterday I was Lady of Lynne,
Now I'm but John o' the Scales his wife!"

"Now fare thee well," said the heir of Lynne,
"Farewell, good John o' the Scales!" said he:
"When next I want to sell my land,
Good *John o' the Scales*, I'll come to thee."

And now, to relieve the gloom, let me give you a specimen of the humorous ballad. The language is a little Scotch, but I am sure you can all understand it easily:

THE BARRING OF THE DOOR.

It fell about the Martinmas time,
And a gay time it was then;
When our gudewife got puddings to make,
And she's boiled them in the pan.

The wind so cauld blew south and north,
And blew intil the floor;
Quoth our gudeman to our gudewife,
"Get up and bar the door."

"My hand is in my hussyskep,
Gudeman, as ye may see,
An' it shouldna be barr'd this hundred year,
It'll no be barr'd for me!"

They made a paction 'tween them two,
They made it firm and sure,
That who should speak the foremost word
Should rise and bar the door.

Then by there came two gentlemen,
At 12 o'clock at night,
And they could neither see house nor hall,
Nor coal nor candle light.

"Now, whether is this a rich man's house,
Or whether is it a poor?"
But never a word would one o' them speak,
For barring o' the door.

And first they ate the white puddings,
And then they ate the black;
Though muckle thought the gudewife to herself,
Yet ne'er a word she spak.

Then said the one unto the other,
"Here, man, take ye my knife,
Do ye take off the auld man's beard,
And I'll kiss the gudewife!"

"But there's no water in the house,
And what shall we do then?"
"What ails ye at the puddin' broo,
That boils into the pan?"

O up then started our gudeman,
And an angry man was he;
"Will ye kiss my wife before my e'en,
And scald me wi' puddin' bree?"

Then up and started our gudewife,
Gave three skips on the floor;
"Gudeman! ye've spoke the foremost word—
Get up and bar the door!"

While on the subject of humorous ballads, I must not forget to call your attention to that particularly rich one, called,

THE WIFE OF AUCHTERMUCHTY.

This last very humorous ballad is well worth quoting. It relates how the husband, coming home at night wearied with the day's labor, sees his wife sitting clean and trig, and envies her. He tells her she must go to the plow to-morrow and he will keep the house. Nothing loth, she consents, and in the morning after giving him ample instruction how to watch the children in the bed, milk the cows, make the butter, etc., she goes off to the plow. The gudeman goes out to feed the seven goslings—"*a greedy gleed*"—when a hawk carries off five, and while he is lamenting the loss, the calves break loose and suck the cow. At the kirn he has even worse luck, for though he "rumlit" a full lang hour "the sorrow a scrap o' butter he got." Then the milk gets so hot it won't churn, and a greedy sow comes in and relieves him of this trouble by drinking it all up. He makes for it savagely with a crooked club, and, missing it, kills the two surviving goslings. He next lays a kindling to the kiln and starts a conflagration. From a consideration of this fatality he is called off to the bairns, and finds them in a state that sets him fairly cursing mad. He takes the bed clothes to the burn, and while attempting to wash them the flood carries them off. This last misfortune is too much, and

"Then up he gat on a knowe head,
On her [his wife] to cry, on her to shout;
She heard him and *she heard him not,*
But stoutly steered the stots about."

The result is, when she comes home she finds every thing has gone wrong, and seizing a "meikle rung" she makes for the gudeman, who judiciously makes for the door. He cries "peccavi" with a lusty voice, and the ballad winds up thus:

> "Quoth he, 'When I forsook my plow,
> I trow I but forsook mysell,
> And I will to my plow again,
> For I and this house will ne'er do well.'"

Having now laid these specimens before you, I should like to know your opinion of them. Mark, in the first place, how simple and expressive is the language. No straining after effect; no effort at fine writing; hardly a single instance even of a figure of speech. And, withal, how forcible and moving and touching; how admirably adapted to interest the simple-minded, uneducated, credulous and half-barbaric audiences to which they were originally addressed. And, by the way, does it not, at the first blush, seem strange that a species of literature specially composed and adapted for a rude and ignorant people should so generally and deeply move the readers of these advanced and cultivated times? Yet the reason is not far to seek. Naturally,

MAN'S TASTES ARE SIMPLE.

Over-refinement and over-excitement carry with them their own antidote. Vexed with the delicious subtleties of "In Memoriam," and the syntactical conundrums of "Sordello," the soul cries out for a simpler and more natural strain; for the breezy freshness of Chaucer, and the unquestioning faith and beauty of the early ballads.

As the once-fascinating queen of fashion, whose face has been bleached and affections withered by the dissipations and flirtations of a life-time, derives a mournful pleasure from the sight of her innocent grandchild, whose bright eyes and fresh complexion revive reminiscences of a youth forever fled, and early triumphs never to be repeated, so we of this latest civilization delight to linger amid the simple creations of those olden times which were the youth of the world, and refresh our jaded

spirits with the study of emotions and sentiments whose freshness and buoyancy find in us but a dreary and imperfect echo.

These old ballads are full of the loveliness and freshness of the dawn. Their pages are steeped in sunshine; their artless verses ripple over with the unpremeditated music of the lark. As we read them we catch the murmur of the brook; the sough of the wind through the tree-tops; the tinkle of the monastery bells stealing o'er the meadows. They appeal to us from out the mists and glamour of far-distant ages with a strange and inexplicable force, and come wafted down upon the wind of centuries, rich with the strange music of a buried and unremembered past. They are a voice from secret places, from silent people, and old times long dead; and as such they stir us in a strangely intimate fashion, to which artistic verse can never attain.

CHAPTER VI.

THE MORAL OF NURSERY TALES—"CINDERELLA."

SO much for poetry, and now for fiction and letters. I don't suppose there is a single reader of this book who has not, at least, heard of the famous Mr. Jack, surnamed the Giant-Killer; or of the equally well-known gentleman with the same name, who climbed the historical bean-stalk. And which one is there of all my many thousand readers, who has not shed sympathetic tears over the hard usage of poor, dear, patient, forgiving Cinderella; or cried over the sweet innocent Little Babes in the Wood, whose wee dead bodies the pitying robins covered with leaves? I don't believe there is a single boy or girl who has not heard of all these stories, in some shape or other—nursery tales, *we* call them; the Germans, *marchen*. And then there is that other most touching

TALE OF BEAUTY AND THE BEAST,

and how many, I wonder, of those who read these lines have been filled with terror and loathing by the history of that truly terrible and monstrous man, Bluebeard—the Henry VIII. of the nursery. Why, at this very moment, while writing in my study, with the bright sunshine streaming in upon me through the vines, I declare to you, on my honor as a gentleman, I can feel the old thrill of mingled horror and indignation, and pity,

with which many years ago—alas, how many!—I used to read of the terrible peril in which the poor wife was, as the savage Monsieur Barbleu, waved his scimiter above her head. And then, the happy revulsion of feeling that followed when, just at the last moment,

THE VERY LAST MOMENT,

Sister Anne saw the gallant horseman dash frantically up to the castle gate, just in time to save his sister's life, and run his sword through the old monster's body!

But if I begin to recall these early reminiscences, why, I shall never come to an end, and, indeed, I had no intention of recalling them when I began this chapter. My object was of quite another kind, and if you have just a little patience, I shall tell you.

You remember I started out by expressing my belief that every boy and girl had read or been told of these nursery tales; but how many of them understand the moral that was meant to be conveyed? Indeed, if it come to that, I shouldn't be at all surprised if a great many grown-up people—some, too, who think themselves very learned and very wise—have never thought that these were anything *but* nursery tales. Now, I want to show you that they are much more than that; that each one of them was originally meant to convey a great moral lesson, and that some of them are merely distortions of popular history.

Take, for instance, the charming story of Beauty and the Beast. What is it but an humble version of one of the most charming episodes in Spenser's great poem entitled "The Faerie Queene"? Perhaps some of you may be familiar with it, and remember how Una—a beautiful maiden, robed in white, and leading by a silken cord a milkwhite lamb, all symbolical of purity or innocence—having been deserted by her protector and champion, the Red-Crosse Knight, wanders in search of him far and wide, until at last, utterly worn out and faint almost to death, she lies down to sleep in the forest. And as she slept, a great, hungry lion came crushing through the bushes, and made as if

to spring upon her and tear her tender body to pieces; but seeing her great beauty and the exceeding sweetness of her face, he stopped all of a sudden, and slowly creeping toward her, lay down and licked her lily-white hands and feet, whereupon the poet breaks out into a splendid stanza beginning:

> "O how can beauty maister the most strong,
> And simple truth subdue avenging wrong!"

a couplet which breathes the spirit of Coleridge's fine verse:

> "But this she knows, in joys and woes,
> That saints will aid if men will call,
> For the blue sky bends over all."

In Cinderella, again, it is the beauty of sisterly affection, the triumphs of patience and love, that are preached; just as in the nursery tale on which Shakspeare's "King Lear" was founded, poor Cordelia is made to illustrate filial devotion. So, too, the redoubtable Jack, the Giant-Killer, is simply

THE CHAMPION OF THE PEOPLE,

the avenger of the wrongs of the poor and the oppressed, who appears in the bible under the name of David, the youthful slayer of the Philistinish giant; in ballad literature under that of Robin Hood, and in history is known as William Tell, Sir William Wallace, Jack Cade, Massaniello and Toussaint de L'Ouverture. And so I might go on to take up all these stories in detail, but, besides that I cannot well spare the time. I think it is better that my youthful readers, now the way has been suggested, should try to find out the meaning for themselves.

I meant to have said something about Letters — not the letters of the alphabet, you know — but letters from great men to little men. The subject, however, is too important to be dismissed at the end of a chapter, so I shall give it the honor of one all to itself, closing my remarks on Nursery Tales with the following lines, which were spoken not long ago, on the occasion of the free attendance of some thousands of poor children at Drury Lane Theatre, London, to witness the performance of the pantomime of "Cinderella."

"When Shakspeare wrote that 'All the world's a stage,'
And drew the scenes that pass from youth to age,
I wonder if his giant mind foresaw
The truths which men from that one phrase would draw!
The world's a stage. Ye children here to-day,
Who watch the progress of our fairy play,
Remember this: beneath our laughing fun
You'll find a lesson if you seek for one.

"Poor Cinderella! Every childish tongue
Her sadness and her happiness has sung;
By Ignoramus hated and deceived,
Ill-used and scorned, through weary months she grieved.
But in her troubles came a fairy friend
To crown her hopes with triumph in the end;
And, as you watch scene follow scene in turn,
This is the lesson I would have you learn:

"However poor, however low your state,
If you will strive, you may be good and great;
Never give up, your duty never shirk,
Trust in the fairy known as Real Hard Work,
Let lamps of Knowledge light the Hope of Youth,
Seek for the crystal slipper called the Truth;
And on your stage, the World, all troubles past,
Like Cinderella, you will win at last."

CHAPTER VII.

A NOBLE KNIGHT—A MODEL LETTER TO A MODEL SON.

HAVE you ever read of Sir Philip Sidney? I am quite sure you must have heard of him, for the brief chapter that narrates the story of his life is one of the most glorious in history. He was called the English "Bayard"; shall I tell you why? "Bayard" was the name of the noblest, bravest, purest and grandest knight who ever bore lance in the days of chivalry, and Sir Philip Sidney, because of his extraordinary attainments, his nobility of character, his princely generosity, his handsome bearing, his purity and general high character, was named the English Bayard. He was not only an accomplished knight, a profound scholar, a patron of the arts, and an encourager of all that was good and noble, and of all who were oppressed and struggling and poor, but he wrote some of the finest sonnets in our language, besides a long prose romance entitled "Arcadia," and a splendid "Defense of Poesie," also in prose.

But what has most endeared him to posterity was the manner of his death at the early age of thirty-one. The story has been made the theme, over and over again, of poem, painting, sculpture, oratory and even music, so that I need not enter into details. In order to recall it to your minds, for I know you have at least been told of it, sometime or other, I need only say that Sidney

was the hero who fell in the battle of Zutphen mortally wounded, in the times of the great Queen Elizabeth, and as they were bearing him off the field, suffering excruciating agony and parched with thirst, he asked for a drink. With great difficulty a cup of water was procured; eagerly he clutched it and raised it to his fevered lips; when, just at that moment a dying soldier was carried past, who, seeing the water, turned to it with such yearning eyes that Sidney quietly moving the cup his way, said, "NAY, GIVE IT TO HIM, his necessity is greater than mine."

This, then, was the brave knight to whom—then a boy of twelve—his father, Sir Henry, sent the following beautiful letter. Note, by the way, that it is in answer to two letters by Philip, one in Latin and one in French, and this when he was a mere child.

"I have received two letters from you, one written in Latin, the other in French; which I take in good part, and will you to exercise that practice of learning often; for that will stand you in most stead in that profession of life that you were born to live in. And since this is my first letter that ever I did write to you, I will not that it be empty of all advice, which my natural care of you provoketh me to wish you to follow, as documents to you in this tender age. Let your first action be the lifting up of your mind to Almighty God, by hearty prayer; and feelingly digest the words you speak in prayer, with continual meditation and thinking

OF HIM TO WHOM YOU PRAY,

and of the matter for which you pray. And use this at an ordinary hour, whereby the time itself will put you in remembrance to do that which you are accustomed to do in that time.

"Apply your study to such hours as your discreet master doth assign you, earnestly: and the time, I know, he will so limit as shall be both sufficient for your learning and safe for your health. And mark the sense and the matter of that you read, as well as the words. So shall you both enrich your tongue

with words and your wit with matter; and judgment will grow as years groweth in you.

"Be humble and obedient to your master, for unless you frame yourself to obey others, yea, and feel in yourself what obedience is, you shall never be able to teach others how to obey you. Be courteous of gesture and affable to all men, with diversity of reverence, according to the dignity of the person. There is nothing that winneth so much with so little cost. Use moderate diet, so as, after your meat, you may find your wit fresher, and not duller, and your body more lively, and not more heavy.

USE EXERCISE OF BODY,

but such as is without peril of your joints or bones. It will increase your force, and enlarge your breath. Delight to be cleanly, as well in all parts of your body as in your garments. It shall make you grateful in each company, and otherwise, loathsome. Give yourself to be merry, for you degenerate from your father if you find not yourself most able in wit and body to do anything when you be most merry; but let your mirth be ever void of all scurrility and biting words to any man, for a wound given by a word is oftentimes harder to be cured than that which is given by the sword.

"Be you rather a hearer, and bearer away of other men's talk, than a beginner or procurer of speech, otherwise you shall be counted to delight to hear yourself speak. If you hear a wise sentence, or an apt phrase, commit it to your memory, with respect to the circumstance, when you shall speak it. Let never oath be heard to come out of your mouth, nor word of ribaldry; detest it in others, so shall custom make to yourself a law against it in yourself. Be modest in each assembly, and rather be rebuked of light fellows for maiden-like shame-facedness, than of your sad friends for pert boldness. Think upon every word that you will speak before you utter it, and remember how nature hath rampered up, as it were, the tongue with teeth, lips, yea and hair without the lips, and all betokening reins or

bridles, for the loose use of that member. Above all things tell no untruth, no not in trifles. The custom of it is naughty, and let it not satisfy you that for a time the hearers take it for a truth, for after it will be known as it is, to your shame; for there cannot be a greater reproach to a gentleman than to be accounted a liar.

"Study and endeavor yourself to be virtuously occupied. So shall you make such a habit of well-doing in you that you shall not know how to do ill, though you would. Remember, my son, the noble blood you are descended of, on your mother's side; and think that only by virtuous life and good action you may be an ornament to that illustrious family; and otherwise through vice and sloth, you shall be counted *labes generis,*

ONE OF THE GREATEST CURSES

that can happen to man. Well, my little Philippe, this is enough for me, and too much, I fear, for you. But, if I shall find that this light meal of digestion nourish anything the weak stomach of your young capacity, I will, as I find the same grow stronger, feed it with tougher food.

"Your loving father so long as you live in the fear of God,

"H. SYDNEY."

Do you wonder that a boy thus trained grew up to be a brave, gallant, God-fearing gentleman?

CHAPTER VIII.

THOMAS HOOD—HIS LETTERS TO CHILDREN—OTHER LETTERS.

OF course you have heard of Thomas Hood—who has not?—the great, good, genial-hearted man of genius who wrote the "Bridge of Sighs" and the "Song of the Shirt." I should dearly like to tell you of his self-denying life, which was one long battle against misfortune and sickness and pain, in which, however, the sufferer never once lost heart, or grew morose, or slackened his faith in humanity and in God. Like a nightingale singing from out the stormy dark, this brave heart—this Mark Tapley of literature—kept pouring forth his streams of pleasantry and song from the midst of pain and disease—aye, even in the deepening shadows of inevitable death. Like our own Longfellow, he was indeed the poet of the fireside, of children; never so much at home as when in the nursery; never happier than when, after writing hard all day and night, and far into early morning, he stole on tiptoe into his children's bedroom to lay on their pillows some comical pen-and-ink sketch or funny verse to make glad their little hearts when they awakened.

I had meant only to give his letters to the children of his friend Dr. Elliott, but the temptation to make you acquainted with some of his verses relating to youth is too strong to resist.

"I REMEMBER, I REMEMBER THE HOUSE WHERE I WAS BORN."—See page 82.

When I get on the subject either of Tom Hood or of Robert Burns I never know when to stop. Both men were so eminently manly and lovable and tender, though in very different ways, I never weary of speaking about them. While Hood was a lad his little sister, Anne, died, and he wrote the following verses in her memory. To my mind they are among the most touching in the language; full of the fine tenderness and sweet simplicity and pathos which later years developed into such rare perfection; a tenderness and pathos and sympathy with all that was suffering and poor and bruised, that were constantly gushing over into rhythmical expression — now, at the sight of a wretched needle-woman,

> "Sewing at once, with a double thread,
> A shroud, as well as a shirt,"

and then at that of a drowned Magdalen — homeless, friendless, alone, in the center of teeming millions. But if I do not stop here I shall probably go on like Lord Tennyson's brook, forever, or nearly as long; so I think, if only to avert such a catastrophe, I better give you the poem now.

A DEATH-BED.

> "We watched her breathing through the night,
> Her breathing soft and low,
> As in her breast the wave of life
> Kept heaving to and fro.

> "So silently we seemed to speak,
> So slowly moved about,
> As we had lent her half our powers
> To eke her living out.

> "Our very hopes belied our fears,
> Our fears, our hopes belied;
> We thought her dying when she slept,
> And sleeping when she died.

> "For when the morn came dim and sad,
> And chill with early showers,
> Her quiet eyelids closed; she had
> Another morn than ours."

This is pure pathos, and pathos only; but in Hood's poems, I mean his better poems, there is usually a delicate intermingling of airy humor and pathos, as in the following:

"I REMEMBER, I REMEMBER."

"I remember, I remember,
The house where I was born,
The little window where the sun
Came peeping in at morn;
He never came a wink too soon,
Nor brought too long a day,
But now—I often wish the night
Had borne my breath away.

"I remember, I remember,
The roses, red and white,
The violets, and the lily-cups,
Those flowers made of light!
The lilacs where the robins built,
And where my brother set
The laburnum on his birth-day—
The tree is living yet.

"I remember, I remember,
Where I was used to swing,
And thought the air must rush as fresh
To swallows on the wing;
My spirit flew in feathers then,
That is so heavy now,
And summer pools could hardly cool
The fever on my brow!

And now for the last stanza, with the marvelously fine fancy with which it closes:

"I remember, I remember,
The fir trees dark and high;
I used to think their slender tops
Were close against the sky;
It was a childish ignorance,
But *now* 'tis little joy
To know I'm farther off from heaven
Than when I was a boy."

But all this time we are keeping the postman waiting, and I must hurry up and deliver those letters.

MY DEAR MAY:

I promised you a letter, and here it is. I was sure to remember it, for you are as hard to forget as you are soft to roll down hill with. What fun it was! Only so prickly, I thought I had a porcupine in one pocket and a hedgehog in the other! The next time, before we kiss the earth, we will have its face shaved. I get no *rolling* at St. John's Wood. Tom and Fanny only like *roll* and butter; and, as for Mrs. Hood, she is for

ROLLING IN MONEY.

Tell Dunnie that Tom has set his trap in the balcony, and caught—a cold; and tell Jeannie that Fanny has set her foot in the garden, but it has not come up yet. I hope we shall have a merry Christmas. I mean to come in my most ticklesome waistcoat, and to laugh till I grow fat, or at least streaky. Fanny is to be allowed a glass of wine; Tom's mouth is to have a *hole* holiday, and Mrs. Hood *is to sit up to supper*. There will be such doings, and such things to eat! But pray, pray, pray—mind they don't boil the baby by mistake for a *plump* pudding.

The next quotations are from letters written to the little Elliotts at the sea-side:

MY DEAR JEANNIE:

So you are at Sandgate! If you should catch a big crab, with long claws, and like experiments, you can shut him up in a cupboard with a loaf of sugar, and see whether he will break it with his nippers. Besides crabs, I used to find jelly-fish on the beach, made, it seemed to me, of sea-calves' feet, and no sherry. There were star-fish, also, but they did not shine till they were stinking. I hope you like the sea; I always did when I was a child, which was about two years ago. Sometimes it makes such a fizzing and foaming I wonder some of our London cheats do not bottle it up and sell it for ginger pop. When the sea is too rough, if you pour the sweet oil out of the cruet *all* over it, and wait for a calm, it will be quite smooth—much smoother than a dressed salad. Some time ago *exactly*, there used to be large white birds, with black-tipped wings, that went flying and screaming over the sea. Do you ever see such birds? We used to call them "gulls," but they didn't mind it.

Well, how happy you must be! Childhood is such a joyous, merry time, and I often wish I was two or three children; and wouldn't I pull off my three pairs of shoes and socks, and go paddling in the sea up to my six knees; and oh, how I should climb up the downs and roll down the ups on my three backs and stomachs.

But it is in the letter to the youngest that we have the finest flashes of airy, imaginative humor:

MY DEAR MAY:

How do *you* like the sea? Not much, perhaps; it's so "big." But shouldn't you like a nice little ocean that you could put into a pan? Have the waves ever run after you yet, and turned your little two shoes into pumps full of water? Have you been bathed yet in the sea, and were you afraid? I was, the first time, and, dear me, how I kicked and screamed! or, at least, meant to scream, but the sea—ships and all—began to run into my mouth, and so I shut up. Did you ever try, like a little crab, to run two ways at once? See if you can do it, for it is good fun; never mind tumbling over yourself a little at first. It would be a good plan to hire a little crab for an hour a day, to teach baby to crawl if he can't walk, and if I was his mamma I would, too. Bless him! But I must not write on him any more—he is so soft, and I have nothing but steel pens. And now, good-bye! The last fair breeze I blew dozens of kisses for you, but the wind changed, and, I am afraid, took them all to Miss H——, or somebody that it shouldn't.

So much for Hood's letters, and, now, to bring the subject to a fitting close, let me add a few words on the endings of some letters by famous men.

That the end crowns the work is a true saying, and nowhere is its truth more apparent than in the matter of ending a letter. The most bald, disjointed epistle is sometimes raised from the low level of the commonplace by a felicitous and smooth-flowing termination, while, on the other hand, a really admirable piece of epistolary composition may be mulcted in half its effect if the writer ends up with a "I must now conclude, as the post is going out."

Apropos of this particular termination, I may remark that I myself should be disposed to warn my readers against ever saying anything about "now concluding."

In all letters of form or courtesy, they should strive so to frame their communications that their signatures should constitute the closing words of the final sentence, and this final sentence be intimately connected with the body of the letter.

The following instances, taken at random from some of the

best letters extant in the English language, will exemplify my meaning.

Samuel Johnson, in that famous letter to Lord Chesterfield in which he so indignantly denies that he is under any obligation to the noble lord, ends thus:

Having carried on my work thus far with so little obligation to any favourer of learning, I shall not be disappointed though I should conclude it—if less be possible—with less; for I have been long wakened from that dream of hope in which I once boasted myself with so much exultation, my lord, your lordship's most humble, most obedient servant,

SAMUEL JOHNSON.

Walter Savage Landor, in an irate letter to Lord Normandy, concludes thus:

We are both of us old men, my lord, and are verging on decrepitude and imbecility, else my note might be more energetic. I am not unobservant of distinctions. You, by the favour of a minister, are Marquis of Normandy; I, by the grace of God, am WALTER SAVAGE LANDOR.

Then again, Pope, writing to Mrs. Arabella Fermor about his poem the "Rape of the Lock," winds up thus:

If this poem had as many graces as there are in your person or in your mind, yet I could never hope it should pass through the world half so uncensured as you have done. But let its fortunes be what it will, mine is happy enough to have given me this occasion of assuring you that I am, with the truest esteem, madam, your most obedient, humble servant,

A. POPE.

Turn also to that remarkable specimen of irony, the letter sent to Oliver Cromwell by the author of "Killing no Murder." The whole of this curious epistle is devoted to pointing out the various benefits which will accrue to the nation on Cromwell's death, and it closes thus:

That your Highness may be speedily in this security is the universal wish of your grateful country; this is the desire and prayer of the good and of the bad, and, it may be, is the only thing wherein all sects and factions do agree in their devotion, and it is our only common prayer. But among all that put in their request and supplication for your Highness's speedy deliverance from all earthly troubles, none is more assiduous nor more fer-

vent than he that, with the rest of the nation, hath the honour to be (may it please your Highness) your Highness's present slave and vassal,

THE AUTHOR OF "KILLING NO MURDER."

In every one of the above instances the letter runs on naturally to its conclusion, and the impression is given that the writer has finished saying all that he wants to say.

Now, in writing to strangers, whether in the spirit of friendliness or of anger, this is just the sort of impression we wish to convey. In letters, therefore, to persons with whom we are not intimate, we should aim at endings of this sort. When, however, we are writing to near friends, and our letter may be one of an interminable series, we can be far more careless about the way in which we end it. We may break off as abruptly as we please, passing from the most stirring narrative of public events to a simple good-bye, good-night, farewell, etc. This is what Horace Walpole constantly does in his correspondence with Sir Horace Mann:

Old Marlborough (Sarah, Dowager Duchess) is dying—but who can tell? Last year she had lain a great while ill without speaking; her physician said, "She must be blistered or she will die." She called out, "I won't be blistered, and I won't die!" If she takes the same resolution now, I don't believe she will. Adieu, my dear child; I have but room to say, yours ever,

HORACE WALPOLE.

It will be seen that I have drawn the above instances from the correspondence of a past age, but I have done so because it is among bygone generations that we look for the greatest excellence in the art of epistolary composition. At the same time, I must caution my readers against a slavish imitation of such models. For instance, it is now extremely old-fashioned to sign yourself, in an ordinary letter, "Yours obediently," or "Your obedient servant." When you are addressing strangers, even though they be superior to yourself in social position, "Yours faithfully" is the correct thing to put; while, should you be corresponding with some one with whom you are slightly acquainted, "Yours sincerely" or "Yours truly" will be best.

CHAPTER IX.

TALES FROM THE DRAMATISTS—THE SILENT WOMAN—THE GREAT DUKE OF FLORENCE, ETC.

IN this chapter I am going to tell you some stories taken from the old dramatists; not from Shakspeare, his works being too well known, but from two of his chief contemporaries, Ben Jonson (a sketch of whose life I give in chapter XXV) and Philip Massenger. The play of Jonson's which I have selected is entitled "The Silent Woman," and as regards the artistic way in which the plot has been conceived, and the artful manner in which everything is made to lead up to an utterly unexpected and brilliant close—what the French call *denouement*—it is one of the best comedies ever written. The scene is laid in London, and this suggests the reflection that while Jonson in his comedies mirrors the fashions and customs, the foibles and vices, the sentiment and manners of his own time and country, and of that time and country only, Shakspeare has only one play, "The Merry Wives of Windsor," which deals with contemporary English life. The life and manners, the sentiments and passions, which crowd *his* canvas, are universal in their interest; types of life and passions that being deep-seated in the elemental structure of human nature are equally truthful reflections of all times, of all peoples, of all possible conditions of society. But meanwhile "The Silent

Woman" is waiting, and it would be very ungallant to keep her longer out in the cold. As I have said, the scene is laid in London. *Morose* is an elderly gentleman with an insane susceptibility to noise. The least sound annoys him; loud conversation drives him frantic. So he has taken refuge from street outcries in a passage without thoroughfare, barricades his door with a feather-bed nailed outside, and admits the society of nobody but *Cutbeard*, a silent barber—almost as rare an exception, one would think, as a silent woman—and his servants answer only by mute signs. He is on the lookout for a dumb wife, with the object of disinheriting his nephew *Sir Eugenie Dauphine;* who, on his side, has found a young lady in his interests, whom, with the confederacy of a friend and the silent barber *Cutbeard,* he proposes to pass off on his uncle.

The conversation of the young gallants is easy, spirited and witty, and gives us perhaps the best insight we have into the manners and intercourse of the young men of fashion of the day. These are contrasted with two ridiculous would-be leaders of society (dudes, we should call them to-day)—*Sir John Daw,* a professed poet and man of learning, but an arrant gull, as his name indicates; and *Sir Amorous La-Foole,*

A MASS OF FASHIONABLE AFFECTATION

and shallowness, proud of his descent from the most ancient and widely-distributed family of the *Fooles. Sir John Daw* is a professed servant of *Dauphine's protégé,* the *Silent Woman,* and *La-Foole* has arranged a fine dinner at which she is to be introduced to the ladies of a certain college. One *Truewit,* who is not at first in the plot of his friend *Dauphine,* hearing that *Morose* contemplates marriage, thinks to do his friend a good turn by trying to frighten the old gentleman out of his proposed matrimony. And so, in the disguise of a postman or letter-carrier, he gains admittance to *Morose's* house, where, enforcing his admonition with the music of a large horn, he thunders into his ears an eloquent denunciation of marriage, and leaves the unfortunate old man nearly dead.

THE SILENT WOMAN—SHE CAN SCARCELY BE MADE SPEAK AT ALL.

"Come, have me to my chamber," he cries in a state of melancholy prostration, when his tormentor leaves him; "but first shut the door. Oh, Cutbeard, Cutbeard, Cutbeard! here has been a cut-throat with me; help me into my bed, and give me physic with thy counsel."

Truewit boasts to *Dauphine* that he has frightened his uncle out of matrimony, and is overwhelmed by the reproaches of his friend for having destroyed his cherished scheme. This is interrupted by *Cutbeard*, who comes to say that all is for the best; for *Morose* is so enraged at the intrusion, which he supposes to have been managed by *Dauphine*, that he is determined to

MARRY THE SILENT WOMAN

that very day, and has sent *Cutbeard* for her and a parson.

The *Silent Woman's* interview with *Morose* is admirable. He admires her beauty and modesty, the only difficulty being that she can scarcely be made to speak at all, and when she does, it is so low that he has to make her say everything twice over. She refers all things to his superior wisdom; and *Morose* is in an ecstasy of happiness at having found a partner who exceeds in reticence and taciturnity his fondest hopes, and he triumphs in anticipation over the disappointed expectations of his nephew.

The latter, on his side, secure in the marriage, is determined to invade his uncle with the noisiest possible celebration of his nuptials. He and his friends arrange to divert *La-Foole's* grand party into *Morose's* house; and a certain *Captain Otter*,—famous for his alternate servile submission to his wife in her presence, and his bold and passionate execration of her in her absence, as well as for his ridiculous humors in drinking from his three favorite cups, which he calls

HIS BEAR, HIS BULL, AND HIS HORSE,

is to be of the party. Further to give a zest to the joke, and to accumulate horrors on the head of poor *Morose*, they hire all the musicians they can get, especially trumpeters and drummers.

Cutbeard obeys his master's injunctions, and supplies him with a parson well suited to his humor; "one that has catched a cold, sir, and can scarce be heard six inches off, as if he spoke out of a bulrush that were not picked, or his throat were full of pith;" and the next scene opens immediately after the performance of the ceremony which has united *Morose* and *Epicœne,* as the Silent Woman is called.

There are few things in the whole range of comic drama equal to the situation when *Morose* finds, to his inexpressible consternation, that the lady to whom he has just been bound by ties indissoluble has a tongue and temper of her own; and when, to add to his misery, he is invaded by the whole company of gentlemen, collegians, musicians and fools. In this predicament he resolves on obtaining a divorce, with which view he consults all the best lawyers money can procure, and they discuss

"THE TWELVE IMPEDIMENTA,"

or legal obstacles to marriage, with a profusion of Latin terms of wit, and with warming temper and rising voices. Each hoped-for impediment is in turn disposed of as inapplicable to the case in hand; and at last, after being driven frantic by the legal bedlam, *Morose* is informed that there is no remedy. At this juncture his nephew steps forward and asks him what he shall deserve if he free him absolutely and forever from his unhappy condition; and *Morose,* though incredulous of his ability, eagerly agrees to give him an allowance for life, and leave him all his property; and in spite of the eager protestations and lamentations of *Epicœne,* he signs deeds to this effect, and then comes the sudden catastrophe:

Mor. Come, nephew, give me the pen; I will subscribe to anything, and seal to what thou wilt, for my deliverance. Thou art my restorer. Here, I deliver it thee as my deed. If there be a word in it lacking, or writ with false orthography, I protest before heaven I will not take the advantage. [*Returns the writings.*

Daup. Then here is your release, sir. [*Takes off Epicœne's peruke and other disguises.*] You have married a boy, a gentleman's son, that I have brought up this half year at my great charges, and for this composition,

which I have now made with you. What say you, master doctor? This is *justum impedimentum*, I hope, *error personal?*

Ott. Yes, sir, *in primo gradu.*

Cut. *In primo gradu.*

And with this discovery, which comes in its startling suddenness, not only on the spectators, but on all the actors, even the confederates of *Dauphine*, the play briefly winds up. It is perhaps the best unraveling of a plot that has ever been invented; it is like the pulling of a single thread which loosens and betrays all the structure of a complex web. And the play is worthy of the plot; it is one of the few of Jonson's in which we seem to be associating with real living people; and Dryden said truly of it, that, "there is more wit and acuteness of fancy in it than in any of Ben Jonson's."

My next story is called

"THE GREAT DUKE OF FLORENCE,"

from the drama of that name written nearly three hundred years ago by Philip Massenger, who flourished during the reigns of James I. and Charles I. He was born in 1584, near Wilton, Salisbury, the magnificent seat of the Earls of Pembroke, to which family his father had been a retainer. Like most of the wits of that day, Massenger contrived to get a good classical education, though he left Oxford University abruptly, and without his degree, in 1606. Going to London, he began writing for the stage, and all we know of the rest of his life is chiefly the titles of his plays and the dates of their production. It is probable he never married, and there is no hint that he ever loved. He was always complaining; a shy, melancholy, unfortunate man, who bitterly resented the humiliation of patronage, and yet could never do without it. To-day he is best known by his comedy of

"A NEW WAY TO PAY OLD DEBTS,"

which still keeps the stage, and among those of his works which I like best I would mention: "The Picture," "A Very Woman," "The Guardian," "The Roman Actor," and "The

Maid of Honor." Massenger's last days seem to have been spent in poverty and loneliness. One morning in March, 1639, he was found dead in his bed. He was buried in St. Xavier's churchyard, some comedians being his only mourners; and to show how utterly unknown or forgotten was this really great dramatist, the entry of his burial in the Register of his own Parish runs thus: "March 20, 1639–40—buried, Philip Massenger, a *Stranger*."

And now for the plot of "The Great Duke of Florence." The name of the great Duke, which title by all our early writers from Chaucer downward is used as meaning a King, is *Cozimo*, whose nephew and heir, a fine, high-spirited, generous lad, *Prince Giovanni*, has been educated by his tutor, *Charomanti*, with whose lovely daughter, *Lidia*, he of course falls deeply in love. How could it be otherwise? They had been brought up together; were young, good-looking, warm-hearted and virtuous; and had always been playmates. Unfortunately for *Giovanni* and his love, *Lidia* is so highly praised to the *Duke*, for

HER WONDROUS ACCOMPLISHMENTS AND BEAUTY,

that his royal majesty falls head over ears in love with her, merely on hearsay; so he sends in great haste for his court favorite, *Sannazaro*, whom he dispatches to the old tutor's house in the country to see this young girl, of whom rumor speaks so highly, and report to his royal master. So *Sannazaro* visits *Charomanti*, and is so fascinated by her beauty that he loves her at first sight, and determines to have her for his wife. With this object he returns to *Duke Cozimo*, and damns the gentle lady with faint praise. As for her beauty, it is so-so. Her nose is—well, *retroussé;* her mouth—it might be smaller; her voice—

IN QUALITY LIKE A PEACOCK'S;

and so on. In short, she is not at all the style of girl whom a noble Duke could ever think of making his spouse. The better to convince the *Duke* of the truth of these misstatements, the artful *Sannazaro* cunningly prevails on the unsuspicious *Prince*

to back him up in his falsehood, representing that it is to prevent the separation of *Lidia* and the *Prince* by her marriage to the *Duke*, that he is working. Very reluctantly *Giovanni*, who is every inch a gentleman and scorns to lie, falls into the trap, and if he does not lie point blank to his uncle, he does what is nearly, if not quite as bad, winks at the deceit. *Duke Cozimo* is mightily puzzled by these conflicting reports, and does not know what to believe. Never in his life has he had occasion to suspect in the very least the honor and good faith of his nephew, and yet he had received such positive accounts of *Lidia's* loveliness, that his mind is quite unsettled.

At last his suspicions are aroused; to use a homely phrase, he begins to "smell a rat," and in this way: The *Prince*, previous to his conniving with *Sannazaro* to deceive his uncle, and wishing to have *Lidia* near at hand, had prevailed on his cousin, *Fiorinda*, who was in love with him, to petition the *Duke* for permission to have *Lidia* as her companion at court. This *Fiorinda* does, whereupon the *Duke* asks her why she wants to have so unprepossessing a companion. *Fiorinda*, astonished, assures him that *Lidia* is surpassingly beautiful, accomplished and good. The *Duke*, surprised in his turn, demands her authority for such extravagant laudation; she replies, *Prince Giovanni*. This at once makes his majesty suspicious.

HE FEARS A PLOT,

and in order to confirm or dispel his doubts, he resolves to investigate the matter for himself. So, all of a sudden, away he goes on a visit to *Charomanti*, to make the acquaintance of the fair *Lidia*. But quick as he is and secret, *Giovanni* and *Sannazaro* find out his plans, and contrive to get to the old tutor's house a few minutes before the *Duke*, and with barely time to warn *Lidia*, and devise means by which to keep up the deception.

You see, my young friends, how one false act invariably leads to another. The *Prince*, having in an unguarded moment, and

to screen his friend who, he thought, had reported falsely to the *Duke* in order to further the *Prince's* marriage to *Lidia*, allowed himself to become a confederate of *Sannazaro*, now finds himself driven to further deceptions, in which he is obliged to involve the very woman he loves best. And yet the *Prince* was naturally a fine, manly, truthful fellow; a gentleman every inch of him; and he lived to bitterly repent having ever tried to deceive his uncle. But to return.

In order still further to blind the *Duke*, it is arranged that *Lidia's* maid, *Petronella*, shall pass herself off as her mistress, which she does, going to the door to receive *Duke Cosimo* in person, and treating him with a pert boldness and vulgar good humor that surprise and offend him. Finally, at dinner, *Petronella* overdoes her part; as a servant who attempted to personate the fine lady would be almost sure to do. She gets drunk and behaves in such a way that the *Duke*, inexpressibly pained and disgusted, sends for the old tutor, her supposed father, whom he has not yet seen, and to whom he complains bitterly of his daughter's misconduct and drunkenness. "My daughter bold! my daughter drunk!" exclaims the astounded father, who is not in the plot, "Impossible! I'll go and fetch her myself." And so he goes and fetches his real daughter, who has been shamming illness in bed, and brings her, greatly against her will, into the presence of the *Duke;* when, of course, the trick is discovered. Ultimately everything ends well; as the *Duke*, who in his turn falls a victim to *Lidia's* charms, recovers his equanimity on being reminded that he is a widower, and had vowed fidelity to his departed spouse. So his scrapegrace nephew is pardoned, and the curtain is rung down to the sound of marriage bells.

"THE CITY MADAM"

is another amusing play by Massenger; though by no means one of his best, being poorly conceived and not very well carried out. Still, the main idea is good, and with more careful treatment, it might have been made an exceedingly amusing and piquant picture of city life in London, three centuries ago. The

author's object is to ridicule the foolish airs and extravagant habits of city ladies, that is, the wives of wealthy London merchants, in their efforts to ape the manners of the nobility. Incidentally, too, astrologers, hypocrites, and other quacks, are trenchantly satirized. A few lines are all I can spare for the story. *Sir John Frugal*, a sensible and wealthy retired London merchant, is very much vexed by the ridiculous airs which his wife and their three daughters give themselves; by the contemptuous manner in which the girls treat and grossly insult three honest suitors for their hands; and by the importunities of his broken-down brother, *Luke Frugal*, who affects

AN AIR OF DEEP HUMILITY AND PIETY,

but whom he believes to be a scoundrel and a hypocrite. Resolved to test all five, and teach them a lesson they will not forget, he suddenly announces his intention to retire from the world, and enter a convent. So he hands over all his estates to his "dear" brother *Luke*, to whom he commends his wife and daughters, and takes his leave.

The moment *Luke* finds himself in power, all his affected humility and decorum are thrown aside. He, who had been glad to black Madam's shoes, now bullies and orders her and her daughters about. They had expected, now that *Sir John* was gone, to revel in luxury. Instead, they are stripped of their fine clothes; fed on the meagerest fare; and turned into mere household drudges; while *Luke* secretly rushes into all sorts of expensive vices, and begins to play fast and loose with his brother's property. But his brother has been all the time a secret spectator of the game, and when he thinks his wife and daughters have been sufficiently humiliated, he reappears, *Luke* is deposed in disgrace, and *Lady Frugal* and daughters, now completely humbled and repentant, are forgiven. The three ladies are reconciled to their old lovers, and all ends well.

CHAPTER X.

LITTLE THINGS—LIFE MADE UP OF LITTLE THINGS—THEIR IMPORTANCE.

SOMETIMES, as I sit in my easy chair and run over in my mind the events of the day, I feel half-disposed to exclaim, "There are no things that can be called absolutely little!" Little and great, weak and strong, short and tall, and so forth, are merely relative terms; and may mean almost anything according to the objects compared. To American girls and boys, accustomed to the sight of our vast inland seas, our Missouri and Mississippi, our Niagara Falls, the Rhine and the Rhone and the Clyde seem merely streams; Loch Lomond, the lakes of Killarney and those of Switzerland little more, so far as extent goes, than respectable millponds; and the Falls of Foyers or Lodore, like the fizzing and foam of a bottle of ginger-pop. And this, indeed, is to a large extent the moral of the great and unhappy Dean Swift's "Gulliver's Travels." Jonathan Swift, you must know, was a very proud, haughty, bitter, unhappy man, who regarded his fellows with a feeling of contempt, which found significant expression even after his death, for he left his money to found a mad-house for Irishmen. It was, therefore, his constant aim to belittle man as much as possible, and this fact will give such of my readers

THE FALLS OF LODORE.

as are familiar with the story, a key to the underlying meaning of much of "Gulliver's Travels." You may remember that when Mr. Gulliver stumbled upon the Lilliputians, a race of people so small he could carry a whole country-side of them in his overcoat pockets, he thought himself a mighty big sort of fellow; just as many a boy, before he has gone to school or college to measure his strength with other boys, thinks a great deal more of himself than he does afterward. But when sometime later Mr. Gulliver waked up one fine morning amid a field of corn, every stalk of which seemed as tall and stout as the mast of a ship, and found himself

PICKED UP BY A MIGHTY GIANT

of the race of Brobdingnagians, just as one of us might pick up a periwinkle or a daisy, he suddenly realized that he wasn't such a very big fellow after all. I mention this to illustrate the assertion with which I started out, that greatness and smallness, bigness and littleness, are merely relative terms, being in themselves incapable of measurement.

And if we stop to think of it, we shall be compelled to confess that life—your life and mine—is made up of so-called "little things." For what, after all, constitutes the sum of human existence? Is it not just those little joys and sorrows, anxieties and troubles; those little duties which must be performed; those apparently trifling details which must be attended to, that go to make up the vast aggregate? Nor must you think that because we call them little things they are really in themselves little. It is not always the mortal disease that gives the most pain;

THE GREATEST CALAMITY

or loss that stings us most. If a near and dear friend suddenly die; if, all in a moment, some unforeseen event strip us of fortune and home: we brace ourselves to bear the shock like men; and after the first, wild outburst of grief is over we make up our minds—that is, if we have minds to make up—to bear the inevitable with Christian resignation and fortitude. But with

respect to what are called small evils, little pains, they seem so much beneath our notice that we don't think it worth our while to summon up our powers of fortitude and will; and, rather than take the trouble to shoulder them off from us with one manly effort, we allow them to sting and sting. I have known men who could bear, and did bear, with heroic fortitude, to have an arm cut off,—aye, and refused to go under the influence of anæsthetics,—and who yet would be driven nearly mad by the toothache or the gout. One venerable, old gentleman in particular, whose equable temper and amiability were proverbial, rises before my mind's eye. He was known all over the place as Uncle Dan, and everybody loved him. From one year's end to the other an angry frown or wrinkle was never seen on his face, or an angry word heard to proceed from his mouth; and yet have I seen Uncle Dan thrown into a really savage and distinctly unchristian frame of mind by the sudden discovery, as he was dressing in haste to catch his morning train, that his collar stud had vanished.

Talking of collar studs, I wonder if any of my youthful readers ever lost theirs, and tried to make a pin do service for it.

Of course the girls are all right. It is their supreme privilege to be able deftly and skillfully to manipulate those little articles of toilet called pins. But I am now speaking more particularly to boys, and I have never yet met either boy or man who could

USE A PIN WITH ANY DEGREE OF DEXTERITY

worth mentioning. And so, I repeat my question, have any of you ever lost *your* collar stud and tried to make a pin do in its stead? Say, it was a cold, raw, winter's morning, with the thermometer registering from twenty to thirty degrees below zero; and the fire had gone out or had not been kindled, or the furnace was low; and you had only ten minutes left in which to take your breakfast and get to school, or to the store,—what, I ask you, were your feelings in these circumstances? After an infinite amount of neck-twisting and collar-pulling, and shirt-wrenching, until you had twisted and pulled and wrenched yourself blue in the

face and threatened to go off in a fit of apoplexy; and after having pricked yourself several times, and given utterance to various ejaculations of a kind hardly suited to the sanctity of the pulpit;—after all this, I say, let us suppose you finally succeeded in inserting the pin, and uniting collar and shirt, with a savage smile of triumph you rushed off, swallowed a hasty breakfast, and made a dash for your destination. You thought you had triumphed? Miserable youth, you know not what awaited you. From that hour forward, all day long, you were kept in a state of intermittent pain and constant irritation. Your teacher called on you to recite, and you rose, book in hand. You began to read, when, all of a sudden, just at the very worst time possible, that little pin reminds you of its presence. You stammered—you stuttered—you turned

AS RED IN THE FACE AS A TURKEY-COCK,

and your teacher, as he told you to sit down, had serious thoughts of sending for a doctor. Or suppose you are in the street. A certain acquaintance, possibly a lady with whom, for special reasons, you desire to keep on particularly good terms, approaches. Straightening yourself up, you prepare your most captivating smile; you raise your hat; you bow—when, just as you should be looking your sweetest, your lady-friend is startled to see an expression of agony distort your face. That wretched little pin has taken advantage of your sudden bowing, to insert its point into your neck, and your friend, restraining the extreme affability of manner with which she had meant to greet you, bows stiffly, and as she passes, mutters

"WHAT A FOOL

that young Smith is getting to be; he used to be almost nice-looking!"

And as it is the little things that make up life, so it is what are commonly regarded as little men—that is, multitudes of small and unknown men and women—who urge on civilization, and contribute most to national prosperity and success. Though the names of the generals only may be remembered in the his-

tory of a great campaign, it has been in a large measure through the individual valor and heroism of the privates, that victories have been won. And life, too, is "a soldier's battle"—men in the ranks having in all times been among the greatest of workers. Don't be discouraged, my boy, because your name may never flourish in history, or be immortalized in song. Many are the lives of men and women unwritten, which have for all that, influenced civilization as powerfully as the seemingly more fortunate great whose names are recorded in biography. There is no man so humble, so poor, that he does not exercise some influence. Even the obscurest person, who sets before his fellows an example of industry, sobriety, and upright honesty of purpose in life, exerts a present, which will pass into a future influence, on the well-being of his country; for his life and character pass unconsciously into the lives of others, and propagate good examples for all time to come.

How often, again, do we hear people say, "Oh, it's only ten minutes, or twenty minutes till dinner time, there's no use doing anything," or use other expressions to a like effect! Why, it is just these little spare bits of time, these odd moments, that ought most preciously to be utilized. Is there no moral in an advertisement like this:

"LOST! YESTERDAY,

somewhere between sunrise and sunset, two golden hours, each set with sixty diamond minutes, the gift of a kind Father!" By carefully working up his odd moments, Daguesseau, the great French chancellor, wrote a bulky and able book in the successive intervals of waiting for dinner, and Madame de Genlis composed several of her charming volumes while waiting for the princess, to whom she gave daily lessons. Elihu Burritt attributed his success in self-improvement, not to genius, but to having carefully utilized his "odd moments." While working as a blacksmith, he mastered some eighteen ancient and modern languages, and twenty-two European dialects. What says Solomon on the subject? "He that despiseth little things, shall perish by little

and little,—words that have been paraphrased by a popular English writer into—neglect of small things is the rock on which the great majority of the human race have split. Human life, as I have already said, consists of a succession of small events, each comparatively unimportant in itself, and yet the happiness and success of every man depend on the manner in which he deals with these small events. Character is built up on little things—little things well and honorably transacted; little household duties well performed, little words of kindness spoken,

LITTLE ACTS OF KINDNESS

done, at an opportune moment. The happiness of a household largely depends on the attention given to little things, the doing or leaving undone of which makes all the difference—and how wide that difference is!—between a clean, cosy, comfortable home, and a disorderly, dirty, ill-regulated house, which can never be a home. And so, too, the success of a man in business depends very largely on his attention to little things; and in the same way only can good government of any kind be accomplished—by well-regulated provisions for the doing of little things. Accumulations of knowledge and experience of the most valuable kind, are the result of little bits of knowledge and experience carefully treasured up. Those who learn nothing, or accumulate nothing, in life, are set down as failures, because they have neglected little things. They may themselves consider that the world has gone against them; but, in fact, they have been their own enemies.

As already remarked, a pin is a very little thing in an article of dress, but the way in which it is put into the dress often reveals to you the character of the wearer. A shrewd fellow was once

LOOKING OUT FOR A WIFE,

and was on a visit to a family of daughters with this object. The fair one, whom he half sort of loved, entered the room in which he was seated, with her dress partially unpinned and her hair untidy; he never went back. Such a fellow, you may say,

was not "worth a pin"; but he was, and afterward made a good husband. So, girls, as well as boys, but girls particularly, don't neglect little things.

M. Say, the French political economist, has related the following illustration of the neglect of little things: Once, at a farm in the country, there was a gate inclosing the cattle and poultry, which was constantly swinging open for want of a proper latch.

THE EXPENDITURE OF A PENNY

or two, and a few minutes' time, would have made all right. It was on the swing every time a person went out, and not being in a state to shut readily, many of the poultry were from time to time lost. One day a fine young porker made his escape, and the whole family, with the gardener, cook and milkmaid, turned out in quest of the fugitive. The gardener was the first to discover the pig, and, in leaping a ditch to cut off his escape, got a sprain that kept him to his bed for a fortnight. The cook, on her return to the farm-house, found the linen burned that she had hung up before the fire to dry; and the milkmaid having forgotten, in her haste, to tie up the cattle in the cow-house, one of the loose cows had

BROKEN THE LEG OF A COLT

that happened to be kept in the same shed. The linen burned and the gardener's work lost, were worth full twenty-five dollars, and the colt worth nearly double that money: So that here was a loss in a few minutes of a large sum, purely for want of a little latch, which might have been supplied for a few half-pence.

Life is full of illustrations of a similar kind. When small things are habitually neglected, ruin is not far off. It is the hand of the diligent that maketh rich; and the diligent man or woman is attentive to small things as well as great. The things may appear very little and insignificant, yet attention to them is as necessary as to matters of greater moment.

CHAPTER XI.

GREAT RESULTS FROM LITTLE THINGS—SOME FAMOUS INVENTIONS.

SOME boys and girls may be surprised to learn that little things have been the moving springs in most of the great crises which have shaken nations and influenced the fortunes of humanity. An apple led to the fall of man, and all his subsequent misfortunes and woes; and it was the fall of an apple that suggested to Sir Isaac Newton the great law of gravitation, by which the innumerable planets and suns and worlds that wheel around us in space are kept each in its separate place. A fair face and a winsome smile led to the ten years' siege of Troy, and inspired Homer to write his great epic. The theft once of a diamond necklace from a French queen convulsed Europe, and a petty neglect of some official etiquette precipitated the Franco-Prussian war. And so, too, with regard to great discoveries and inventions. These are generally the result of long and minute observation of little things; the careful and persistent accumulation of innumerable facts, each trivial in itself, but in the aggregate forming a mass of evidence from which a Darwin extracts his law of evolution, and Linnæus constructs the science of botany. Have any of my readers ever thought of what a wonderful thing it is how the navigator can steer his ship with unerring certainty through seas hitherto

untraversed, and by shores to which he was an entire stranger? And yet the foundations of this science, as also the basis of astronomy, were laid twenty centuries ago, when Apollonius Pergæus discovered what is known as the conic sections. When Benjamin Franklin made his discovery of the identity of lightning and electricity, it was sneered at. A great many learned men in Europe shrugged their shoulders and laughed, and some very wise people asked, "Of what use is it?" to which Franklin quietly replied, "What is the use of a child? It may become a man." And if electricity, as applied to practical uses, can not yet be said to have arrived at maturity, few will deny that it is, at any rate,

A SINGULARLY ROBUST AND BRILLIANT BOY.

Little over three quarters of a century has fled since Franklin's implied prophecy, and to-day whole cities are lit by electricity. When Galvani discovered that a frog's leg twitched when placed in contact with different metals, it could scarcely have been imagined that so seemingly insignificant a fact could have led to important results. Yet therein lay the germ of the electric telegraph, which binds the intelligence of continents together, and is fast converting the globe into one vast whispering gallery.

You have all, doubtless, again and again admired the steam-engine. How graceful, how beautiful! the very personification of combined swiftness and power. But I am quite sure you do not all know how far back dates the germ of the application of steam to practical purposes; so I am going to tell you. Long, long ago, when science was in its cradle, an English nobleman, well known in history as the Marquis of Worcester, was imprisoned in the Tower of London, as was the fashion of the times. This nobleman was of a very inquiring and scientific turn of mind, and one day, seeing the tight cover of a vessel of hot water

BLOWN OFF BEFORE HIS EYES,

he at once began to meditate on the power of steam. The result

of his observations he published in a book called "Century of Inventions," which formed a sort of text-book on the powers of steam, until subsequently scientific men brought the steam-engine to the state in which Watt found it when called on to repair a model of an engine by a celebrated inventor called Newcomen, which belonged to the University of Glasgow. The opportunity thus afforded, Watt was swift to profit by; and his life afterwards was devoted to bringing the steam-engine to perfection.

A pan of water and two thermometers were the tools by which Dr. Black discovered latent heat; and a prism, a lens and a sheet of pasteboard enabled Newton to unfold the composition of light and the origin of colors. An eminent foreign *savant*—*savant* is French for a man who devotes himself to the study of science, what some careless writers improperly call a scientist—once called on Dr. Wollaston, and asked to be shown over those laboratories of his in which science had been enriched by so many important discoveries, when the doctor took him into a little study, and, pointing to an old tea tray on the table, on which stood a few watch glasses, test papers, a small balance and a blow-pipe, said:

"THERE IS MY LABORATORY!"

Stothard learned the art of combining colors by closely studying butterflies' wings; a burnt stick and a barn door served Wilkie in lieu of pencil and canvas; Bewick first practiced drawing on cottage walls with rough chalk; Benjamin West made his first brushes out of a cat's tail; Ferguson, stretched on his back in the fields at night in a blanket, mapped the heavenly bodies by means of a thread with small beads on it stretched between his eye and the stars; Franklin first robbed the thunder cloud of its lightning by means of a kite made of two cross sticks and a silk handkerchief; Watt made his first model of the condensing steam engine out of an old syringe, used to infect the arteries previous to dissection; Bunyan wrote his "Pilgrim's Progress" on the untwisted paper which was used to cork the bottle of

milk brought him for his meals; Gifford worked his first problems in mathematics, when a cobbler's apprentice, on small scraps of leather, beaten smooth; and Rittenhouse, the astronomer, first calculated eclipses on his plow handle.

Again, the attention of Dr. Priestly, the discoverer of so many gases, was accidentally drawn to the subject of chemistry through his living near a brewery. One day when visiting the place he noticed the peculiar appearances attending the extinction of lighted chips in the gas floating over the fermented liquor. Although forty years old at the time, he knew nothing of chemistry. So he consulted books to ascertain the cause, but books could tell him nothing, for as yet nothing was known on the subject. Compelled, therefore, to rely on himself, he constructed a rude apparatus of his own and began a series of experiments, which resulted in the establishment of what is known as pneumatic chemistry. So, too, Sir Humphrey Davy, the inventor of the miner's safety lamp which bears his name, made his first experiment, when an apothecary's apprentice, with kitchen pots and pans; and his no less distinguished successor, Professor Faraday, performed his first experiment in electricity by means of an old bottle while he was still a working bookbinder. Then there was Joshua Heilmann,

WHO INVENTED THE COTTON SPINNER

and the wool-spinner. For years and years he had striven to master the problem, and brought himself and family to the verge of destitution. The idea took complete possession of him, and the idea was this. Of course I shall not bother you with mechanical details which you might not readily understand. But, broadly speaking, Heilmann wanted to contrive a machine for combing long-stapled cotton, the ordinary carding machine having been found ineffective in preparing the raw material for spinning, especially the finer sorts of yarn, besides causing considerable waste. Well, as I was saying, poor Heilmann struggled manfully to overcome the difficulty, but all in vain, until one evening while sitting in his ruined home he found himself

watching his daughters combing their long hair and drawing it out at full length between their fingers. Like a flash the thought struck him that if he could successfully imitate in a machine the process of combing out the longest hair and forcing back the short by reversing the action of the comb, it might serve to get him out of his difficulty. On this hint he proceeded, and after great labor succeeded in perfecting the invention, the beauty and utility of which were at once appreciated by the English cotton-spinners. Six firms combining purchased the patent for cotton spinning for England for one hundred and fifty thousand dollars; the wool-spinners paid the same sum for the privilege of applying the process to wool; and another firm one hundred thousand dollars for that of using it in the manufacture of flax.

According to a French authority, the war between England and France in 1777 was the consequence of a simple mercantile speculation. Several of our ministers (says a writer in high position at that period) have made among themselves an act of copartnership, in the commerce of America. The first expeditions

PROVED VERY PROFITABLE;

but as they have a considerable outstanding fund, they will not dissolve their partnership before they are reimbursed for their advances and receive the profits which are to arise, according to the calculations they have made. Peace would overturn all their speculations, and ruin the lenders of the various funds. The expenses, etc., of the establishment amount to an enormous sum. First of all must be paid their directors; their book-keepers; their under clerks;—then follow the mistresses of the ministers, their sons or daughters, brothers, cousins, and even their grandchildren;—then those who lend their name to this speculation, courtiers and protectors. When this world of dependents is paid, ministers are to personally gain, notwithstanding all, cent per cent. Then calculate the inferior profits which must be made before the net balance. Several of the

ministers' *protégés*, who were known to have had at first only a salary of six thousand livres, afterward enjoyed, by these commercial operations priced with blood, an income of one hundred thousand, and became lords of two or three manors. One of the chief clerks of a French mercantile house was heard to remark, in November, 1777: "If peace took place at this moment,

MY PRINCIPAL WOULD BE RUINED,

and I too. We have all our fortune in America, and we wait for it with impatience. This is the reason for which the king has not yet declared for the Americans; he will only do this when the ships we expect are safely arrived."

CHAPTER XII.

WORDS—THEIR MORALITY—THEIR SUPERSTITION—THEIR ROMANCE.

A WORD is a very little thing, is it not? and yet how much of instruction, and poetry, and romance lies in a little word! Have you ever thought of it? Perhaps not. Shakspeare, you know, talks of finding "sermons in stones;" now, I wish to show you that there are sermons in words, which a popular writer, I think Mr. Emerson, has called "fossilized poetry." Perhaps you hardly realize what the great Concord philosopher meant by that, but if you bear with me for a little I shall try to show you. Nor need you be alarmed because it is of "words" I am going to speak. Many of you, doubtless, have been in the habit of looking on words as dry things. That's such a big mistake that I had almost asked the printer to spell that "big" with the very biggest B in his whole case. But as illustration is better than mere talk any day, permit me to give you a few instances of what I mean. And first, I shall show you what an amount of instruction, moral and otherwise, is to be found in words. Take "tribulation." You all know what "tribulation" means,—very great sorrow, a state of great mental anxiety and distress. But how much clearer does the meaning appear when we are told that it comes from a Latin word *tribulum*, meaning a machine for threshing corn,—for separating the chaff from the grain! Does this throw any additional light on the word?

"Experience," the common proverb says, "teaches fools;" and experience as a teacher is usually the same thing as tribulation. It is sorrow, misfortune, distress, my dear readers, that tries a man; that sifts him through and through; that by bringing out either all that is brave and courageous and manlike makes a *man* of him, or by developing his weaknesses, his cowardice, his meanness, proclaims him to the world for the weakling he is. Or take the word "maudlin," which means something weakly foolish, sentimentally silly, as when we talk of the drunkard's "maudlin tears." Knowing this, who would ever imagine that the word comes from "Magdalene," the repentant Mary, who confessed her sins, her sorrow, and her love for the blessed Master, with bitter, bitter tears of penitence and shame. And yet, because human nature is what it is, and men's tears of seeming repentance are so often the result, not of intelligent conviction and a sincere desire to do better, but of

A SORT OF EMOTIONAL HYSTERICS,

the word has come to have its present degraded signification.

And how many words bear witness to the poverty and weakness and sinfulness of human nature! There is the word "resent," which to-day means to pay back an injury, as when we say "I shall resent that wrong." But originally, aye, and down to less than two hundred years ago, "resent" meant to pay back a kindness as well as the opposite; only, as man, owing to his inherent weakness and baseness, is much more in the habit of paying back an injury than a kindness, the word "resent" has come to be used in the one sense only—that of paying back an injury. Or, take the words "silly," "innocent," "natural," "simple." Spenser, who lived in the times of

THE GREAT QUEEN BESS,

wrote of the "silly lamb," which he spelled "seely," meaning "innocent, blameless," and in the same way both he and many other old writers were in the habit of writing of the "seely Jesus." But because persons who are pure and blameless and innocent, and of a consequence, are inexperienced in the world's

vices, unsuspicious and trusting, the word has come to have its present degraded meaning of extremely foolish or weak-minded. The Germans have the same word, sælig, but with them it retains its original meaning "blessed." And so with the words "innocent," "simple," "natural." We talk, or at least in Scotland they talk, of a weak-minded person as "an innocent" or "a natural," while "simple" has become similarly debased. The word comes from two Latin words meaning "without fold," that is, open, transparent, candid, straightforward, sincere; but inasmuch as people who are perfectly sincere and frank and transparent in their every word and action, are liable to be imposed on, and taken advantage of, "simple" has come to mean "weak-minded;" and hence we talk of a foolish fellow as a "simpleton."

But not only is there a deep moral in individual words; there is also a wealth of history and even romance and poetry. Everyone knows how very superstitious our

GREAT-GREAT-GREAT-GRANDFATHERS AND MOTHERS WERE,

as indeed thousands and thousands in country districts and half-civilized countries are to this day. Two or three hundred years ago everybody believed implicitly in what was called "astrology"—the science of the stars; by which supposed astrologers were enabled to read a person's future by consulting the relative positions of the various stars at the precise moment of his birth. If anyone question the truth of this, what have we to do? Go to the library and take down ponderous tomes of history and science to prove our assertion? Not a bit of it. All we have to do is to point to the dictionary, and ask what is the meaning of words like—"disastrous"—meaning "against the stars," from the Latin word

"ASTRA," STARS, ILL-STARRED

(ill-fated, unfortunate), saturnine, jovial, mercurial, and so forth; these last three words being from the stars severally called Saturn, Jove and Mercury. Nay, even some of our commonest exclamations bear witness to the former existence of this super-

stition. Among the lower classes, and, I much fear, even with some people who move in respectable circles, the exclamation, "O, my stars!" is not altogether unknown.

I suppose most of my readers, at any rate the boys, have at one time or another, amused themselves playing in a lumber-yard. At any rate you all know what a lumber-yard is. But I am quite sure not many of you know the origin of the word. Well, I'll tell you. Long, long ago—some two or three hundred years ago—there arose in a province of Italy, called Lombardy, a great class of merchant princes, who were among the first bankers in Europe. To this day one of the great bankers' streets in London is Lombard street. Well, these Lombardy merchants were in the habit of lending money to the nobility and other persons in need, on the security of gold and silver plate, paintings, sculpture, jewelry and so on, and the room in which these various articles were stored came to be known as the "Lombard" room, and hence by a natural transition, the law of instinctive euphonious contraction, "lumber room." Again, you have often read of a "sardonic" laugh, or a

"SARDONIC" GRIN,

meaning thereby a grotesque, wicked, fiendish sort of laugh or grin, such as Mephistopheles, or Quilp, or Uriah Heep, or M. Hugo's "L'homme qui rit" might be supposed to give. But how came the word to be used in this way? The origin was as follows: In the island of Sardinia there once grew a plant, and for that part of it may be growing there still, which was supposed to possess this peculiar property, that any person eating of it was suddenly attacked by a fit of continuous and irresistible laughter, which usually ended in death. Hence our "sardonic laugh."

Do you wish to know the character of a people? Study its vocabulary. Does not the simple word "home" convey a picture of domestic peace and serenity and comfort that no other word in any language can convey? The word "gentleman" has many meanings attached to it in our own country and lan-

FEEJEE ISLANDERS.

guage, but surely we get a distinct insight into the character of the Italian people when we learn that their word for a "gentleman" is one of which the English equivalent is "a well-dressed man." There used to be a tribe in Van Diemen's Land Islands that had a great many different names for different kinds of murder,—such as

MURDER OF FATHER BY SON,

and of son by father, of mother, of infant and so on, and yet they had no word to represent the idea of love—none to represent the idea of God. More than this; their words for murder implied no moral blame, no sense of reprobation or guilt. Murder with them meant simply manslaughter, justifiable homicide. What a terrible light does not the knowledge of these facts alone throw on the social and moral degradation of that tribe! In the Feejee Islands, in the days when cannibalism flourished, and before brave and good missionaries had carried to these poor savages the blessings of the gospel and of civilization, the natives called man "long pig" to distinguish him from that other favorite article of diet the ordinary or "short" pig. The great and good Dr. Moffat, who spent the larger portion of his long and noble self-sacrificing life in missionary labors among tropical savages, tells us of a Caffre tribe called the Bechuanas, who at one time had a word "Morimo," meaning

"HE THAT IS IN HEAVEN,"

or God; but after some years they became so degraded and sunken in vice that the word vanished from their language, or survived only as a name for a fabulous ghost, or to be used by sorcerers in their incantations. I am quite sure, too, that you would not expect much gratitude from tribes like the Abipones, or the Guarinies of Brazil, who have no word to represent the idea of "thanks."

I have already referred to the moral lessons which are often to be found in words, and as I near the conclusion of this chapter some more instances suggest themselves. Is not the fall of man, with all the sorrow and wretchedness and misery entailed on the

race, to be inferred at a glance from our language, so full of *Oh's* and *Ah's* and *Alas's* that sometimes it seems one succession of sobs? Take, too, the words censure, criticism and prejudice. "Censure" originally meant judgment, whether kindly or otherwise; so did "criticism"; while prejudice simply meant

A JUDGMENT BEFOREHAND,

favorable or otherwise. But because man is notoriously prone to be severe upon his brother man, "censure" has come to imply blame; "criticism," severity; and "prejudice," a distorted, wicked and false prejudging of a case without good reason. So, too, "retract" at first signified simply to "reconsider," but as men usually find it advisable to change their mind on careful second thought, it has acquired its present signification—to take back one's assertion or word. And so I might run on for chapters, but this must suffice to suggest how many and what important lessons may be gained from the study of individual words. Take up the dictionary for yourselves; it is a capital exercise; and examine the words at random. Study, say—knave, minion, villain, boor, varlet, churl, time-server, officious, conceits, crafty, cunning, kind, tinsel, retaliate, and animosity, and see if you cannot find for yourselves lessons in these words similar to those I have just been pointing out.

CHAPTER XIII.

IMPOSTURE IN WORDS—THE LANGUAGE OF FLOWERS—THEIR GEOGRAPHY.

BUT I have not half done yet with words, and indeed were it not that there are so many other subjects of interest waiting to be handled—and how I am ever to overtake them all I am sure I don't know—I could go on and fill the rest of the book with gossip about these very little things called words. Have you ever thought of the imposture, or to use a shorter word, the lying, there is in words? Man, you must remember, however degraded or sunk in vice, has always some secret aspirations after better things. He may not exactly know it; perhaps if you suggested the fact to him he would laugh scoffingly. But it remains a fact all the same, as witness his constant striving to hide the ugliness of vice—for vice is the only really ugly thing in God's universe—under specious and misleading names,—euphemisms, as learned men call them. Thus, what man so low that he would not wince to be called a "drunkard," who would yet only smile if hailed as a "good fellow," a "jolly fellow,"

"ONE OF THE BOYS"?

"Drunk" is an ugly word; suggestive of all that is low and

degraded and animal; but "sowing one's wild oats," "happy," "elevated,"—few resent such epithets. So, too, the common expression "white lies." My dear boys and girls, there is no such thing as a "white" lie. A lie is what is untrue; and an untruth is as black as sin can be; and no true gentleman—no true lady, will ever tell an untruth. In these days of dime novels and such like pernicious literature, boys are too apt to hear or read about scoundrels who make their living by robbery and murder. In English books they are sometimes dignified by the title of "Knights of the Road;" in French, by that of *Chevaliers d' Industrie.* Call the miserable scoundrels by their right names,

CUT-THROATS, MURDERERS, ROBBERS,

and the fictitious romance surrounding them vanishes at once. So "blackleg" and "sharper" are much better words than "sporting man," and "ruffian" is preferable to "exponent of the noble art of self-defense." Perhaps some of you have heard of the Borgias; of Lucretia and Cæsar, whose names are among the most infamous in the history, not only of Italy but of the world. They were notorious for almost every vice and sin in the black calendar of crime, but most of all for their wholesale poisonings. They were the great leaders of the nobility—they imposed the fashions; and so in those terrible times it became the fashion for people to get rid of their enemies by means of poison. Only, the murdered persons were not "poisoned." Oh, no! that would have been very improper. They were "assisted" out of the world; assisted, or as the Italian has it, *aiutata,* into Paradise; the word *aiututa* being from the same root as our word adjutant, *assistant* officer, and the i having the force of j. So, too, in France at one time, when

THE MURDER OF WEALTHY PERSONS

by expectant heirs became frightfully common, the poison by which, we shall say, a son got rid of his father, was called *poudre de succession.* In Shakspeare again, *Falstaff's* satellite, *Nym,* never talks of stealing; indeed, he never *did* steal;

he only "conveyed;" and, though, of course, this has no connection with that, real estate lawyers in England are called "conveyancers" to this day.

But this can hardly be called cheerful reading, and before I close this chapter I should like to strike a livelier chord. Let us, for example, turn, if only for a change, to the Language of Flowers. Only think of them—meadow-sweet, suggestive of clover and new-mown hay and fresh spring breezes from over heather-clad hills; and eye-bright, sun-dew, Venus' looking-glass, queen-of-the-meadow, lily of the valley, maiden-hair, sweet William, sweet Marjorie, love-in-idleness, bleeding-heart, sunflower, Reine Marguerite, passion-flower, and, though hardly so poetical, bachelor's buttons! How dreamingly, how lovingly suggestive are these names, and scores of others I could mention! How many tender and beautiful associations cluster round

THE BLUSHING BEAUTIES

of the rose, or are wrapped up in the chaste petals of the lily! Could anything be more suggestive of modesty,—quiet, unobtrusive excellence and unpretentious beauty—than the daisy, Burns'

"Wee, modest, crimson-tippéd flower,"

the favorite of the father of English poetry who well suggests the full meaning of the name when he says:

"That well by reason it men callen may
The Daisie, for it is the eye of day"?

Again, what moving incidents, what gorgeous panoramas of gallantry and romance; what a galaxy of fair faces, what a world of intrigue and tragedy and *lettres de cachèt*, and smiles and tears—does not the very name of *Fleur-de-lis* call up! And what associations cluster round every one of these names! Think of the daisy, and lo! old Dan Chaucer reissues from the buried past, surrounded by his Canterbury pilgrims, their bridle reins jingling in "the wind so clear," or the peasant poet, Scot-

land's darling son, moralizing over the same sweet flower which he too has immortalized. Show me the violet and the rue, albeit "they were withered when her father died," and poor, love-lorn,

MAD OPHELIA FLOATS INTO SIGHT

amid the tremulous water lilies. Speak of the primrose and the daffodil, and we feel the presence of Wordsworth; of the sunflower, and bright-haired Swinburne passes by; of the national emblems of England and Scotland, and once more

> "In vigorous strains Dunbar's bold music flows,
> And time still spares the Thistle and the Rose."

So, too, what sweet thoughts do not the pansies breathe; what suggestions of quiet and idyllic repose and rest make rich the heart's ease; not to talk of lady's slippers, heatherbell, marigold and a whole list of others equally suggestive, equally delightful.

But if the names of flowers be suggestive, so are those of birds. Who can listen to the nightingale without remembering Keats? the waterfowl, without recalling Bryant? the lark, without thinking of Wordsworth and Hogg? Does not the eagle,—"daring,

WITH IMPETUOUS WING AND DEFIANT EYE,

the noon-day sun,"—suggest Byron? the albatross, Coleridge? and the mavis, Burns? and was it not Shelley who soared to heaven on the wings of a skylark? Even the ill-omened raven reminds one of the ill-starred Poe, or of Charles Dickens, and the loquacious jackdaw brings to recollection him who wrote the "Ingoldsby Legends." Then, there are the robin red-breast, calling up visions of home joys, and blazing hearths, and happy Christmas eves; the eagle, the imperial splendors of world-conquering Rome; the gold-finch, so-called from the bright yellow on its wing; the king-fisher, from the royal splendors of its plumage; the lady-bird, prettily named after a legend full of grace and beauty; the robins, forever associated with the babes in the wood; and, lastly, the halcyon, meaning

peace or quiet, because the sea was supposed to preserve a perfect stillness during the fourteen days the bird was sitting on its nest.

Finally, think of the geography of words; how full of meaning and suggestive truth! The old name of Britain, you know, was Albion, as, indeed, it is still called by English orators and poets. Have you ever thought why that country was given this name? When the Romans, under Cæsar, crossed the English Channel to conquer Britain, the first sight they caught of that country was when the great, lofty, perpendicular, snow-white cliffs of Dover and the southern coast flashed on their admiring sight, dazzlingly radiant and bright in the morning sun.

"ALBA!" SHOUTED THE STALWART SOLDIERS,

instinctively and as with one voice; "Alba!" which means "white," or "silver-crested." You have often heard, too, of the Sierras—the Sierra Nevada, for instance; but have you ever stopped to ask, "Why Sierra?" Simply because *sierra* is the Spanish for "saw," and these mountains, when seen against the horizon, present a jagged outline, like the teeth of a saw. Mont Blanc means, of course, "white mountain," from its being covered with snow; Trinacria (Greek for Sicily), because three-cornered in form; Morea, being shaped like the mulberry leaf, of which the Greek is *morea;* Virginia, so-called by its founder, Raleigh, in honor of

THE VIRGIN QUEEN, ELIZABETH;

Cape Finisterre and Land's-End, because these promontories were at one time supposed to be really the end of the world. And so I might go on indefinitely, but space will not allow. What I have said, however, may be sufficient to show you how much instruction and amusement may be obtained from the study of even such a little thing as a single word.

CHAPTER XIV.

LITTLE MEN WHO HAVE BECOME GREAT.—BLUNDERING "LORD" TIMOTHY, THE ECCENTRIC MILLIONAIRE.

BUT the subject of little things is not nearly exhausted; I doubt indeed if it could be exhausted, and I shall now tell you something about great or successful men, who sprang from small beginnings; so that lads who are struggling under discouragements and poverty, may be inspired with fresh energy and hope. Our own country being new, naturally furnishes a very large number of men, who, from humble beginnings, climbed to fame and fortune. Thus, John Adams, second president, was the son of a farmer of very moderate means. The only start he had was a good education. Andrew Jackson was born in a log hut in North Carolina, and was raised in the pine woods for which that State is famous. James K. Polk spent the earlier years of his life helping to dig a living out of a farm in North Carolina. He was afterwards clerk in a country store. Millard Fillmore was the son of a New York farmer, and his house was a very humble one. His business was that of a clothier. James Buchanan was born in a small town among the Allegheny mountains. His father cut the logs and built his own house in what was then a wilderness. Abraham Lincoln was the son of a very poor Kentucky farmer, and lived in a log cabin until he was twenty-one years of age. Andrew Johnson

ECCENTRIC "LORD" TIMOTHY.—See page 132.

was apprenticed to a tailor at the age of ten by his widowed mother. He was never able to attend school, and "picked up" all the education he ever got. General Grant lived the life of a common boy in a common house on the banks of the Ohio river until he was seventeen years old. James A. Garfield was born in a log cabin. He worked on a farm until he was strong enough to use carpenter tools, when he learned the trade. He afterwards worked on a canal. So much for our presidents, and now let me give you a few instances of successful commercial men. The names of men like Peabody, Peter Cooper, A. T. Stewart, the Astors, the Vanderbilts, Gould, Field, Palmer, Pullman and others, are too familiar to need more than the simplest mention. Let me rather go back some years and give the brief outlines of the careers of great American merchants who rose to prominence early in the present, or at the close of, last century.

Among these, perhaps, no name was better known in mercantile circles, early in this century, than that of Mr. Fish, the celebrated New York merchant, better known by his soubriquet of "preserved Fish," though why "preserved," it is impossible now to say. Born of obscure parents, in Rhode Island, July 3, 1766, he commenced life as an apprentice to a blacksmith, and his next situation was that of a seaman on board a whaling ship. From being a hand before the mast, he rose to be a mate, and finally commander, and in this hazardous pursuit amassed the foundation of his great fortune. Under the firms of Fish, Cairns & Crary, and Fish, Alley & Lawrence, he established immense businesses both in this country and Europe. In 1829 he was elected President of the Tradesmen's Bank, and amassed an immense fortune.

Saul Alley, when a small boy, was bound as an apprentice to a coachmaker, during which apprenticeship his father died, leaving him totally dependent upon his own exertions, so that the very clothes he wore, he was obliged to earn by toiling extra hours, after the regular time of leaving off work had passed; the

foundation of his fortune he acquired by the exercise of frugality and prudence while a journeyman mechanic.

THE GREAT NEW YORK MILLIONAIRE,

Cornelius W. Lawrence, was a farmer's boy, and worked many a long day in rain and sunshine on Long Island. There were few lads, within twenty miles of him, that could mow a wider swath, or turn a better furrow.

Benjamin Bussey was for a long period known as one of the old school merchants of Boston, hardly one of whom now remains as representative of that highly honored and most worthy class. In the early part of his life he was engaged in the occupation of a silversmith, and on going into business on his own account he had only a very small amount of paper money, which his father had given him, accompanied with the characteristic advice of that day, to be always diligent—to spend less than he earned —and never to deceive or disappoint any one. From his grandfather he also obtained, at this time, the additional sum of fifty dollars in silver money. Having purchased the necessary tools, he had only ten dollars left as his whole capital, and owed fifty dollars borrowed money. But he possessed an iron constitution, principles of strict integrity, and a spirit of perseverance which nothing could subdue or tire. In one year he made himself acquainted with all the details of a silversmith's art; he had by his good business management acquired some capital, and his success had been equal to his anticipations.

ARTICLES OF GOLD AND SILVER,

wrought by his own hand—and well wrought, too—may still be met with all around Boston. In two years he purchased the real estate on which his store stood. Subsequently he engaged in trade in Dedham, and afterwards in Boston, soon attaining a high position as a merchant. His business rapidly increased. He became deeply interested in commerce, dealt largely with England, France and Holland, owned several large vessels, and was engaged in heavy and distant mercantile adventures—though all of them were legitimate business transactions, for he

never speculated. He seldom gave or took credit. The immense fortune which he left, went, by his will, to Harvard University.

John McDonogh was born in Baltimore, Maryland, in 1779. All we know of his youth is that he was a clerk in a mercantile store in an inland town of Maryland; and even then was noted for his eccentricities, and for an excess of imagination, which led to the apprehension that he was not of sound mind. Still his energy and intelligence secured him employment and the confidence of his employers. About the year 1800 he was sent to New Orleans, by a house in Baltimore, with a letter of credit and considerable resources. He then engaged largely in business, but soon renounced his position as agent, and, starting on his own account, became a leading and prosperous merchant. In a few years he accumulated a large fortune, say, at least three hundred thousand dollars. He was one of the nabobs of the city, and his style of living and his habits conformed to his position and resources. His mansion was one of the most showy and luxurious in the city. He kept his carriages and horses, his cellar of costly wines, and entertained on a scale of great extravagance and sumptuousness. He was in fact the center of

FASHION, FRIVOLITY, SOCIABILITY,

and of all the fashionable dissipations of the day. His person, which even in extreme old age was remarkable for dignity, erectness and courtliness, was at this period conspicuous for all the graces of manhood. Owing to some peculiar experiences of a private nature, Mr. McDonogh eventually became secluded and morose, though prosecuting his acquisition of property with augmented vigor, his peculiar passion being that of accumulating countless acres of waste and suburban land. All his views regarded the distant future. The present value and productiveness of land were but little regarded by him. His only recreation and pleasure were in estimating the value of his swamp and waste land fifty, a hundred, and even a thousand

years to come. This passion at last gained such an ascendancy over him, that he seemed to court and luxuriate in waste and desolation. He would buy cultivated places and let them go to ruin. He would build on his lots in the city,

MISERABLE SHANTIES AND ROOKERIES,

which would absolutely taint the neighborhood, and thus enable him to buy out his neighbors at low rates. He could not be induced by any offer or consideration, to alienate any of the property he had once acquired. Abstemious to a fault, and withholding himself from all the enjoyments and associations of the world, he devoted his time to the care of his large estate, to the suits in which such acquisitions constantly involved him, working for seventeen hours out of the twenty-four, the greater part of which labor consisted in writing the necessary documents relating to his titles; and in corresponding with his lawyers, and his overseers. For the fifty years of his residence in New Orleans, he never left the State, and rarely, if ever, passed beyond the limits of the corporation. He was not a usurer, a money lender, or a speculator. He acquired by legitimate purchases by entries on public lands. He dealt altogether in land. Stocks, merchandise and other personal securities, were eschewed by him. The wonder is, how, with a comparatively small revenue, his property not being productive, and his favorite policy being to render his lands wild and unsuited for cultivation, he was able to go on every year expanding the area of his vast possessions.

Another eccentric genius was Timothy Dexter, known in his own day as

THE ECCENTRIC "LORD" TIMOTHY,

and whose blunders usually proved more successful than other men's carefully laid plans. He was born in Malden, Massachusetts, January 22, 1747. After serving as an apprentice to a leather-dresser, he commenced business in Newburyport, where he also married a widow, who owned a house and a small piece of land; part of which, soon after the nuptials, was converted by him into a shop and tan-yard for his own use.

By application to business, his property increased, and the purchase of a large tract of land near Penobscot, bought in the Ohio Company's purchase, afforded him eventually so much profit as to induce him to buy up public securities at forty cents for the pound, which securities soon after became worth twenty shillings on the pound. By these and other fortunate business transactions, he prospered so greatly, that property was now no longer the sole object of his pursuit; he exchanged this god of idolatry for that of *popularity*. He was charitable to the poor, gave liberal donations to religious societies, and handsomely rewarded those who wrote in his praise. About this time, his "lordship"—

A SELF-CONFERRED TITLE—

acquired his peculiar taste for style and splendor, set up an elegant equipage, and, at great cost, adorned the front of his mansion with numerous figures of illustrious personages.

Some of his "lordship's" speculations in trade have become quite as celebrated for their oddity as those of Rothschild for their unscrupulous cunning. He once anxiously inquired of some merchants whom he knew, how he should dispose of a few hundred dollars. Wishing to hoax him, they answered, "Why, buy a cargo of warming pans and send them to the West Indies, to be sure." Not suspecting the trick, he at once bought all the warming pans he could find, and sent them to a climate where—there was every reason to suppose—ice perhaps would be more acceptable. But

"PROVIDENCE SOMETIMES SHOWS HIS CONTEMPT

of wealth by giving it to fools." The warming pans met with a ready sale—the tops being used for strainers, and the lower parts for dippers, in the manufacture of molasses. With the proceeds of his cargo of warming pans, Dexter built a fine vessel, and being informed by the carpenter that *wales* were wanting, he called on an acquaintance and said, "My head workman sends me word that he wants 'wales' for the vessel. What does he mean?" "Why, whalebones, to be sure,"

answered the man, who, like everybody else, was tempted to improve the opportunity of imposing upon Dexter's stupidity. Whalebones were accordingly bought, but finding that Boston could not furnish enough, he emptied New York and Philadelphia. The ship carpenter, of course, had a hearty laugh at his expense; but by a singular turn of fortune, this blunder was also the means of increasing his wealth. It soon after became fashionable for ladies to wear stays completely lined with whalebone, and as none was to be found in the country on account of his having thus so completely swept the market, it brought a golden price. Thus his coffers were a second time filled by his odd transactions.

CHAPTER XV.

COMMODORE VANDERBILT—THE INTREPID CAPTAIN—THE GREAT MILLIONAIRE.

WHO has not heard of the great commodore—of Cornelius Vanderbilt—founder of the house of that name? His, and for many reasons I am sorry to say it, is a name to swear by among American boys and American men. Take the present Mr. Vanderbilt, and I don't suppose there is another person in the world as wealthy. He is the undoubted possessor of $40,000,000 in government bonds; the probable holder of over $150,000,000 in railway stock and other securities, and the owner of the fastest trotting horse in the world—Maud S.! Who would not be such a man? And yet, my dear young reader, I may be able to show you before I have done with this section of "Youth's Golden Cycle," that your great millionaires are not generally to be envied; that there are infinitely nobler ambitions in life than the accumulation of money; that wealth alone never brings happiness; and in calling attention to the loveless life of poor, rich Girard—to the terrible scene that ensued on the reading of his will; in showing you John Jacob Astor, in his day beyond dispute the wealthiest man in the United States, as—no longer the possessor of riches but possessed by them—old, hopeless, godless, heartless, he was suckled like a child and tossed gently in a blanket for exercise: I shall

attempt to point one of the many lessons I would deduce from the careers of some whom the world calls its most successful men. Meanwhile we have to do with Commodore Vanderbilt, and if you read the fascinating story of his life aright you will be able, in spite of his many faults, to see much in him of domestic virtue, honesty, perseverance, manliness, self-reliance and pluck, to imitate and admire. The story may be relied on as true, having been told by the Commodore himself, and repeated, with additional facts supplied by other members of Mr. Vanderbilt's family, in a New York weekly, in 1865.

Cornelius, the eldest of nine children, was born on his father's farm on Staten Island, May 27, 1794.

A VIGOROUS, HEALTHY BOY,

fond of the open air and sports, he ill brooked the confinement of the school-house, and learned little more than to write, read, and cipher, and these imperfectly. The only books he remembered having used at school were the spelling-book and the New Testament. His real education was gained in working on his father's farm, helping to sail his father's boat, driving his father's horses, swimming, riding, rowing, and sporting with his young friends. When Cornelius was twelve years old, his father contracted to get the cargo out of a vessel stranded near Sandy Hook, and transport it to New York in lighters. It was necessary to carry the cargo in wagons across a sandy spit. Cornelius, with

A LITTLE FLEET OF LIGHTERS,

three wagons, their horses and drivers, started from home, he having the sole charge of this, for a young man, difficult affair. After loading the lighters and starting them for the city, he had to conduct his wagons home by land—a long distance, over Jersey sands. Leaving the beach with only six dollars, he reached South Amboy penniless, with six horses and three men, all hungry, still far from home, and separated from Staten Island by an arm of the sea half a mile wide, that could be crossed only by paying the ferryman six dollars. This was a puzzling pre-

dicament for a boy of twelve, and he pondered long how he could get out of it. At length he went boldly to the only innkeeper in the place, and addressed him thus:

"I have here three teams that I want to get over to Staten Island. If you will put us across, I'll leave with you one of my horses in pawn, and if I don't send you back the six dollars within forty-eight hours you may keep the horse."

The innkeeper looked into the bright, honest eyes of the boy for a moment, and said:

"I'll do it." And he did it. The horse in pawn was left with the ferryman on the island, and was redeemed in time.

Before he was sixteen he made up his mind to earn his livelihood by navigation, and occasionally alarmed his mother by threatening to run away and go to sea. His preference, however, was to become a boatman of New York harbor. On the first of May, 1810—an important day in his history—he made known his wishes to his mother, and asked her to advance him $100 for the purchase of a boat. She replied:

"My son, on the twenty-seventh of this month you will be sixteen years old. If, by then, you will plough, harrow, and plant with corn that lot," pointing to a certain field, "I will advance you the money."

The field was one of eight acres, very rough, tough and stony. To say that the work was done in time, and done thoroughly, is only another way of stating that it was undertaken and conducted by Cornelius Vanderbilt.

HE WAS A BORN CONQUEROR.

On his birthday he claimed the fulfillment of his mother's promise. Reluctantly she gave him the money, considering his prospect only less wild than that of running away to sea. He hurried off to a neighboring village, bought his boat, hoisted sail, and started for home, one of the happiest youths in the world. Almost from the outset his success was speedy and great. He made a thousand dollars during each of the next three summers. Often he worked all night, but he was never

absent from his post by day, and he soon had the cream of the boating business of the port. At that day parents claimed the services and the earnings of their children till they were twenty-one. In other words, families made common cause against the common enemy, want. The arrangement between this young boatman and his parents was that he should give them all his day earnings and half his night earnings. He fulfilled his engagement faithfully until his parents released him from it; and with his own half of his earnings by night he bought all his clothes. The war of 1812 suspended the commerce of the port, but gave a great impulse to boating, of which young Vanderbilt made the most. About this time he asked his mother's consent to marry one Sophia Johnson,

A NEIGHBOR'S LOVELY DAUGHTER,

and to his having henceforth the disposal of his own earnings. She consented. During the rest of that season he worked with new energy, saved five hundred dollars, and, in December, 1813, when he laid up his boat for the winter, became the happy husband of the best of wives.

In the following spring a great alarm seized all the seaboard cities of America. Rumors were abroad of that great expedition which, at the close of the year, attacked New Orleans; but, in the spring and summer, no one knew upon which port the blow would fall. The militia of New York were called out for three months,

UNDER A PENALTY OF NINETY-SIX DOLLARS

to whomever should fail to appear at the rendezvous. The boatmen, in the midst of a flourishing business, and especially our young husband, were reluctant to lose the profits of a season's labor, which were equivalent, in their peculiar case, to the income of a whole year. An advertisement appeared one day in the papers which gave them a faint prospect of escaping this disaster. It was issued from the office of the commissary-general, Matthew L. Davis, inviting bids from the boatmen for the contract of conveying provisions to the posts round

about New York during the three months; the contractor to be exempt from military duty. The boatmen caught at this, as a drowning man at a straw, and put in bids at rates preposterously low,—all except Cornelius Vanderbilt.

"Why don't you send in a bid?" asked his father.

"Of what use?" replied the son. "They are offering to do the work at half price. It can't be done at such rates."

"Well," added the father, "it can do no harm to try for it."

So, to please his father, but without any hope of success, he sent in his application, offering to transport the provisions at a price which would enable him to do it with the requisite certainty and promptitude. His offer was simply fair, to both parties.

On the day named for the awarding of the contract, all the boatmen but him assembled in the commissary's office. He remained at the boat-stand, not considering that he had any interest in the matter. One after another, his comrades returned with long faces, sufficiently indicative of their disappointment; until, at length, all of them had come in, but no one bringing the prize. Puzzled at this, Cornelius strolled to the office, and asked the commissary if the contract had been given.

"O, yes," said Davis; "that business is settled. Cornelius Vanderbilt is the man."

HE WAS THUNDERSTRUCK.

"What!" said the commissary, observing his astonishment, "is it you?" "My name is Cornelius Vanderbilt." "Well," said Davis, "don't you know why we have given the contract to you?" "No." "Why, it is because we want this business *done*, and we know you'll do it."

From the gains of that summer Cornelius built a superb little schooner, the Dread; and, the year following, the joyful year of peace, he and his brother-in-law, Captain De Forrest, launched the Charlotte, a vessel large enough for coasting service, and the pride of the harbor for model and speed. During the three years succeeding the peace of 1815, he saved three

thousand dollars a year; so that, in 1818, he possessed two or three of the nicest little craft in the harbor, and a cash capital of nine thousand dollars.

The next step of Captain Vanderbilt astonished both his rivals and his friends. He deliberately abandoned his flourishing business, to accept the post of captain of a small steamboat, at a salary of one thousand dollars a year. By slow degrees, against the opposition of the boatmen, and the terrors of the public, steamboats had made their way; until, in 1817, ten years after Fulton's experimental trip, the long head of Captain Vanderbilt clearly comprehended that the supremacy of sails was gone forever, and he resolved to ally himself to the new power before being overcome by it.

At that day, passengers to Philadelphia were conveyed by steamboat from New York to New Brunswick, where they remained all night, and the next morning took the stage at Trenton, whence they were carried to Philadelphia by steamboat. The proprietor of part of this line was the once celebrated Thomas Gibbons, a man of enterprise and capital. It was in his service that Captain Vanderbilt spent the next twelve years of his life, commanding the steamer plying between New York and New Brunswick. With so much energy and judgment did he conduct the line, that in a few years it yielded an annual profit of forty thousand dollars. Gibbons offered to raise his salary to five thousand dollars a year, but the captain declined the offer, 'Because,' he said, 'the other captains had but one thousand dollars, and they were already jealous enough of him. Besides, he never cared for money. All he ever did care for was to *carry his point*.'

In 1829, after twelve years of service as captain of a steamboat, being then thirty-five years old, and having saved thirty thousand dollars, he announced to his employer his intention to set up for himself. Mr. Gibbons was aghast. He declared that he could not carry on the line without his aid, and finding him

resolute, said: "There, Vanderbilt, take all this property, and pay me for it as you make the money."

This splendid offer he thankfully but firmly declined. He did so chiefly because he knew the men with whom he would have to co-operate, and foresaw that he and they could never work comfortably together. He wanted a free field. The little Caroline, seventy feet long, that afterwards plunged over Niagara Falls, was the first steamboat ever built by him. For some years his progress as a steamboat owner was not rapid. The business was in the hands of powerful companies and wealthy individuals, and he, the new-comer, running a few small boats on short routes, labored under serious disadvantages. Formidable attempts were made to run him off the river; but, prompt to retaliate, he made vigorous inroads into the enemy's domain, and kept up an opposition so keen as to compel a compromise in every instance. There was a time, during his famous contest with the Messrs. Stevens, of Hoboken, when he had spent every dollar he possessed, and when a few days more of opposition would have compelled him to give up the strife. Nothing saved him but the belief, on the part of his antagonists, that Gibbons was backing him. It was not the case; he had no backer. But this error, in the very nick of time, induced his opponents to treat for a compromise, and he was saved. Gradually he made his way to the control of the steamboat interest, until he owned, in whole or part, over a hundred steamboats, and compelled the various opposition lines to permanently reduce their fares one half. Superintending himself the construction of every boat, having a perfect,

PRACTICAL KNOWLEDGE OF THE BUSINESS

in its every detail, selecting his captains well and paying them justly, he never lost a vessel by fire, explosion, or wreck. He possessed in a remarkable degree, the talent of selecting the right man for a place, and inspiring him with zeal. Every man who served him *knew* that he would be sustained against all

intrigue and all opposition, and that he had nothing to fear so long as he did his duty.

The later events in his career are still so fresh in the public mind as not to require capitulation. My older readers will still remember, and my younger ones may have heard of, his magnificent cruise in the North Star, and how, on returning to New York harbor, his first salute was to the cottage of his venerable mother on the Staten Island shore. To her, also, on landing, he first paid his respects; an incident that forcibly reminds us of our murdered president, General Garfield, who, on being elected Chief Magistrate, and taking formal possession of the White House, proceeded first of all to kiss his gray-haired mother.

HONOR YOUR PARENTS,

boys and girls; no man or woman was ever really great who did not love and respect—mother. Every one, too, knows, or at least ought to know, that Vanderbilt presented to the government the steamer that bore his name, at a time when it was earning him two thousand dollars a day. But he gave to the war something more precious than a ship: his youngest son, Captain Vanderbilt, one of the finest and most athletic youths that ever graduated at West Point. His friends tell us that, on his twenty-second birthday, he lifted nine hundred and eight pounds. But his giant strength did not save him. The fatigues and miasmas of the Corinth campaign planted in his magnificent frame the seeds of death, and he died in 1864, after a long struggle with disease, to the inexpressible grief of his family.

Finally, after taking the cream of the steamboat business for a quarter of a century, Commodore Vanderbilt became the largest holder of railroad stock in the country. The picture given of his daily life at this time is extremely interesting and instructive, as showing with what ease

BUSINESS GIANTS

conduct their vast and complicated affairs. "At ten or eleven in the morning," writes a friend, "the Commodore rides from

his mansion in Washington Place in a light wagon, drawn by one of his favorite horses, to his office in Bowling Green, where, in two hours, aided by a single clerk, he transacts the business of the day, returning early in the afternoon to take his drive on the road. He despises show and ostentation in every form. No lackey attends him; he holds the reins himself. With an estate of forty millions to manage, nearly all actively employed in iron works and railroads, he keeps scarcely any books, but carries all his affairs in his head, and manages them without the least anxiety or apparent effort." This was written in 1864, and when the Commodore died some sixteen years later, the forty millions here spoken of had swelled to an amount that seems almost incredible, and which it is impossible to realize.

CHAPTER XVI.

STEPHEN GIRARD—JOHN JACOB ASTOR—JACOB BARKER.

HOW often boys are tempted, just as Cornelius Vanderbilt was, to run away to sea! The late Lord Lytton at one time had everything ready for such a step, but on second thoughts made up his mind to stay. And in ninety cases out of a hundred it is much better to stay at home. There is no place like it. But sometimes what is called "home" is very far from being a home indeed; in which case we can sympathize with the poor runaway, and it was from such a "home" that Stephen Girard ran away when yet little more than a child. Perhaps you have never heard of Girard? Yet in his own day he was a very great man, and his name will be remembered for centuries in connection with Girard College, Philadelphia, for the establishment of which he left six million dollars. But to begin my story. Stephen Girard was born near Bordeaux, France, in 1750. His parents were very poor, and being ill-treated at home Stephen ran away to sea, when only eleven years of age, and engaged as cabin boy in a vessel bound for the West Indies. Soon after he came to New York, as cabin boy and apprentice in the employment of Captain J. Randall. While with the latter, his deportment was distinguished by such fidelity, industry and temperance, as to win the attachment and con-

OLD JACOB BARKER'S SHIP.—See page 150.

fidence of his master, who generally bestowed upon him the appellation of "my Stephen;" and when he gave up business, he promoted Girard from the situation of mate to the command of a small vessel, in which he made several voyages to New Orleans, always applying himself with great soberness and diligence to the accomplishment of his ends. Girard was self-taught, and the world was his school. His intuitive quickness of perception and his powers of combination were such as would cause a very little instruction to go a great way. It was a favorite theme with him, when he afterwards grew rich, to relate that he commenced life with a sixpence, and to insist that the best capital a man can have is his personal industry.

THE WATER-WITCH,

or at least, the captain of the Water-Witch, was always fortunate, and he soon became part owner. Such was his confidence in his "lucky star," as almost to amount to a superstition. He first visited Philadelphia in 1769. There he soon established himself in business, and within a year was reputed a thriving man. In 1771, in partnership with Isaac Hazelhurst, he purchased two brigs, to trade to St. Domingo. Of one of them he took command himself. Both were captured and sent to Jamaica. For once his "lucky star" forsook him. All professions and all occupations, which afforded a just reward for labor, were alike honorable in his estimation. He never was too proud to work, even when he was the richest millionaire in the land. During the Revolutionary war, he bottled and sold cider and claret. In 1780, he was engaged in trade to St. Domingo and New Orleans. In 1790, on the dissolution of a partnership which had for some time existed between himself and his brother, John Girard, he was found by their mutual umpire to be worth thirty thousand dollars. At the time of the insurrection of the blacks in St. Domingo, he had a brig and schooner in port, in which many of the inhabitants deposited their most valuable goods, but were prevented by a violent death from returning to claim them. It is, however, not supposed that he received in this

manner more than fifty thousand dollars. At the time of the fever, in 1793, when consternation had seized the whole population of the city, Girard, then an opulent merchant, offered his services as nurse in the hospital; his offer was accepted, and in the performance of the most loathsome duties, he walked unharmed in the midst of the pestilence. He used to say to his friends, "When you are sick, or anything ails you, do not go to the doctor, but come to me; I will cure you."

The terms of a bargain were to him a law, which he never violated; but in his breast there was no chancery jurisdiction for the decision of causes in equity. The misfortunes of a bankrupt, in his view, were follies, which excited no commiseration.

Having been successful in his commercial speculations, and by that means made immense additions to his property, in 1811, in expectation of the renewal of the charter of the old Bank of the United States, he purchased a large amount of the stock of that institution. The charter was not renewed, and the banking house coming into his hands by purchase, at a reduced price, the Bank of the United States became Stephen Girard's bank. It was eminently convenient to the public at the time it was established, and during the war was particularly useful to the government, supplying, in fact, the want of a national institution, at a time when it was especially needed. On the establishment of the last national bank, Mr. Girard, just at the close of the subscription, took the balance of the stock, namely, three million one hundred thousand dollars. Mr. Girard did much to ornament the city of Philadelphia, and his ambition, during his long and untiring business career, seems to have been to die

THE RICHEST MAN IN THE COUNTRY,

and be remembered as the patron of learning and the benefactor of the poor. He died December 26, 1831, in the eighty-second year of his age, the Girard college and the City of Philadelphia being his principal legatees.

And now, while on the subject of American merchants, let me give you one or two anecdotes which were told me many

years ago, and which are true. The celebrated New York millionaire, founder of the family of Astor, was compelled at one time to repair to Paris, where he could avail himself, for a physical infirmity, of the skillful assistance of Baron Dupuytren. The latter thoroughly restored him, and advised him to ride out every day. This he accordingly did, the Baron often accompanying him on his rides. One day, Astor appeared by no means disposed to converse; not a word could be got out of him; and at length Dupuytren declared that his patient must be suffering from some *secret pain* or trouble, when he would not speak. So he pressed him, and worried him, until finally Astor loosed his tongue:

"Look ye, Baron!" said Astor; "how frightful this is. I have here, in the hands of my banker, at Paris, about two million francs, and cannot manage, without great effort, to get more than two and one half per cent *per annum* on it. Now, this morning, I have received a letter from my son, in New York, informing me that *there* the best acceptances are at from one half to two per cent *per month.* Is it not enough to enrage a man?" This revelation of course relieved the Baron's apprehension of any secret pain or trouble of a *physical* nature.

The following story is so like Jacob Barker,

"OLD JACOB," OF NEW ORLEANS,

that it might safely have been imagined of him as having taken place, even if it had never been narrated of him. It has been often told in days past, but will bear to be told again: Mr. Barker was a large ship-owner. He had many ships at sea, and, as was the custom in those days, as well as at present, some of them would be lost. One of Mr. B.'s ships had been a long time out of port. Fears were entertained for its safety. Sharing the general anxiety, Mr. B. called at a general insurance office, and expressed his desire to effect a fresh insurance on the vessel. The office demanded a high rate of premium. Mr. B. offered a lower figure. Without coming to any understanding, Mr. B. left the office. That night a swift messenger from New

England brought him news of the total loss of the vessel. He said simply, "Very well." Next morning, as he drove down to his counting-house, he stopped at the insurance office. He did not get out of his carriage, but calling the secretary from his seat, observed to him quietly:

"Friend, thee need not make out that policy; *I've heard of the ship.*"

"Oh, sir!—but, sir—Mr. Barker," stammered the cunning secretary, dashing back into the office and reappearing again in a moment, "we've made out the policy, and you can't back out of it!"

"How so, my friend?" asked the old Quaker very demurely.

"When you left last evening we agreed to your proposal, and the policy was made out at once. The office became liable, and you must take it.

SEE, HERE IT IS!"

and a clerk at that moment brought out the policy, with the signatures hardly dry.

"Well, friend," said old Jacob, plainly, "if thee will have it, I suppose I must take it." And he put the policy in his pocket and drove to his office. Before that evening the insurance company and all the world had heard of the loss of the ship, and of the round sum with which the company stood self-mulcted.

CHAPTER XVII.

SUCCESSFUL FOREIGNERS.

SO FAR, I have confined myself to successful men of our own country, either Presidents or merchants, but if we extend our view to other countries, how the list is swollen! From the barber's store came Jeremy Taylor, the most poetical of divines; Sir Richard Arkwright, the inventor of the spinning-jenny and founder of the cotton manufacture; Lord Tenterden, one of the most distinguished of Lord Chief Justices; and Turner, the greatest among English landscape painters. No one knows to a certainty what Shakspeare was; but it is unquestionable that he sprang from a humble rank. His father was a butcher and grazier; and Shakspeare himself is supposed to have been a wool-comber; while others insist that he was an usher in a school, and afterwards a scrivener's clerk. In very truth he seems to have been "not one, but all mankind's epitome;" for such is the accuracy of his sea-phrases, that a naval writer alleges that he must have been a sailor; while a clergyman infers from the internal evidence of his writings, that he was probably a parson's clerk; and a distinguished judge of horseflesh insists that he must have been a horse-dealer. Lord-Chancellor Campbell, on the other hand, wrote a book to prove that he *must* have been a lawyer; and of recent years, several writers have published treatises more or less elaborate to prove that he was not William Shakspeare at

all, but a certain other party known in history as Lord Bacon. Shakspeare was certainly an actor, and in the course of his life "played many parts," gathering his wonderful stores of knowledge from a wide field of experience and observation. In any event, he must have been a close student and a hard worker, and to this day, his writings continue to exercise a powerful influence on the formation of English and American character.

The common class of day-laborers has given us Brindley, the engineer, and Cook, the navigator; masons and bricklayers can boast of Ben Jonson, who worked at the building of Lincoln's Inn, with a trowel in his hand and a book in his pocket; as also of Edwards and Telford, the engineers; Hugh Miller, the geologist; and Allan Cunningham, the writer and sculptor; whilst among distinguished carpenters we find the names of Inigo Jones, the architect, Harrison, the chronometer-maker, John Hunter, the physiologist, Romney and Opie, the painters, Professor Lee, the Orientalist, and John Gibson, the sculptor. From the weaver class have sprung Simson, the mathematician, John Foster, the biographer and critic, Wilson, the ornithologist, Dr. Livingstone, the missionary traveler, and Tannahill, the poet. Shoemakers have given us Sir Cloudesley Shovel, the great admiral, Bloomfield, the poet, and William Carey, the missionary; while Morrison, another laborious missionary, was

A MAKER OF SHOE-LASTS,

and John Bunyan, of shoe-tags. Nor have tailors been undistinguished. John Stow, the historian, worked at the trade during some part of his life. Jackson, the painter, made clothes until he reached manhood. The brave Sir John Hawkswood, who so greatly distinguished himself at Poictiers, and was knighted by Edward III. for his valor, was in early life apprenticed to a London tailor. I have already made brief reference to our own great tailor and President, Andrew Johnson, and though I am now dealing chiefly with foreigners, still it is impossible in this connection to avoid saying something of a man who possessed such extraordinary force of character, and

occupied a position so distinguished. In his great speech at Washington, when describing himself as having begun his political career as an alderman, and run through all the branches of the legislature, a voice in the crowd cried, "From a tailor up." It was characteristic of Johnson to take the intended sarcasm in good part, and even to turn it to account. "Some gentleman says I have been a tailor. That does not disconcert me in the least; for when I was a tailor, I had the reputation of being a good one, and making close fits; I was always punctual with my customers, and always did good work."

Cardinal Wolsey, De Foe, Akenside and Kirk White were the sons of butchers; Bunyan was a tinker. Among the great names identified with the invention of the steam-engine are those of Newcomen and Stephenson, the former a blacksmith, and the latter an engine fireman. Huntingdon, the preacher, was

ORIGINALLY A COAL-HEAVER,

and Bewick, the father of wood-engraving, a coal-miner. Baffin, the navigator, began his sea-faring career as a man before the mast, and one of our greatest admirals, as a cabin-boy. Herschel played the oboe in a military band. Among those who have given the greatest impulse to the sublime science of astronomy we find Copernicus, the son of a Polish baker; Kepler, the son of a German public-house keeper, and himself the "garçon de cabaret"; D'Alembert, a foundling, picked up one winter's night on the steps of the Church of St. Jean le Rond, at Paris, and brought up by the wife of a glazier; and Newton and Laplace, the one the son of a small freeholder near Grantham, the other the son of

A POOR PEASANT

of Beaumont-en-Auge, near Honfleur. It is not what a man *was*, but what he *is*. Who to-day stops to inquire what your grandfather was, or if you had one? Who in the days of the First Empire cared to recall the fact that Napoleon, Emperor and King, was once forced to borrow a louis from Talma, when he lived in a garret on the Quai Conti? Who remembered that

Joachin Murat, Grand Duke de Berg and King of Naples, was the son of an inn-keeper; or that Michael Ney, Marshal of France, Prince de la Moskowa and Duc d'Elchingen, *le plus brave des braves,* was the son of a poor cobbler of Saarlouis?

AS NAPOLEON ONCE SAID,

"I trace my pedigree from Marengo and Arcola." The great conqueror boasted he was "the mean man of his race"—he had founded a dynasty. His lieutenants followed his example; the deeds of Bernadotti, King of Sweden, of Davoust, Duc d'Auerstadt, of Andoche Junot, Duc d'Abrantes, of Soult, Duc de Dalmatie, were their blazon; the heraldry on their coats of arms was carved by their swords. Our real nobility still lives on. The reason is not far to seek. It is recruited from day to day, from year to year, from century to century, by the brains, and the industry, and the bravery of the nation. The mere inherited title is held but in little honor with us. Our greatest nobles—by which I mean noble as distinguished from ignoble men—in place of living lives of inglorious ease, enter the arena of life and make for each individual a name to himself.

And so I might go on for hours illustrating the same text, but space fails; although before quitting the subject of successful merchants it would be unpardonable to pass over the House of Rothschild. I don't know but we have men as wealthy in our own country—perhaps wealthier—men like Vanderbilt, the Astors, and others like them; but Rothschild has for nearly a century been a synonym for unbounded riches, just as Crœsus was in olden times. Apart from this, however, the Rothschilds wield an influence in international politics such as no other banking firm ever did exercise; and it is therefore only fit and proper that we devote a brief chapter to the recital of the rise of this princely house.

CHAPTER XVIII.

THE ORIGIN AND RISE OF THE HOUSE OF ROTHSCHILD.

I AM quite sure there are very few, if any, readers of this book, who have not said to themselves, sometime or other, "Oh, I should so like to be rich!" By and by I propose to say something regarding this universal desire for wealth; but meanwhile shall only remark that riches in itself is not a bad thing. It is not money, but the love of money for the money's sake, and its sake only, that is the root of all evil. So that the ambition to acquire wealth is a laudable one, and it is by studying the lives of such men as Vanderbilt, and Astor, and Rothschild that boys can most readily see how they too can become rich. Not that these men are the best examples by any means by which to shape our lives, as I shall presently take good care to show. But in their business relations and methods they deserve to be studied, and that carefully.

I need hardly remind you that all the world over the house of Rothschild is the impersonation of that money power which governs the world. For nearly half a century their influence has been continually on the increase; and to them, more than to any monarch or minister of state, however potential, Europe is indebted for the preservation of peace between the great powers. To give even an outline of the immense and successful operations which have placed a German Jew, his sons, and

grandsons, at the head of the moneyed interests of the world, it would be necessary to embrace the history of European finance since the year 1812.

Mayer Anselm Rothschild was the founder of this house, about the year 1740; he was a money-changer and exchange broker, a man of fair character, and in easy circumstances. After the battle of Jena, October, 1806, Napoleon decreed the forfeiture of their states by the sovereigns of Brunswick and Hesse-Cassel, and a French army was put in march to enforce the decree. Too feeble to resist, the landgrave prepared for flight. But in the vaults of his palace he had twelve million florins—

ABOUT FIVE MILLION DOLLARS—IN SILVER.

To save this great and bulky amount of money from the hands of the French was a matter of extreme difficulty, as it could not be carried away, and the landgrave had so little confidence in his subjects that he could not bring himself to confide his case to their keeping, especially as the French would inflict severe punishment on him or them who might undertake the trust. In his utmost need the landgrave bethought himself of Mayer Anselm Rothschild, sent for him to Cassel, and entreated him to

TAKE CHARGE OF THE MONEY,

and by way of compensation for the dangers to which Mr. Rothschild exposed himself, the landgrave offered him the free use of the entire sum without interest. On these terms, Mr. Rothschild undertook the trust, and by the assistance of some friends, Jewish bankers at Cassel, the money was so carefully stowed away, that when the French, after a hurried march, arrived in the city, they found the old landgrave gone, and his treasure vanished. At the time this money was placed in M. A. Rothschild's hands, he had five sons, of whom three, Anselm, Nathan and Solomon, had arrived at man's estate. These he associated with himself. By their skillful management, the large sum of ready money at their disposal increased and multi-

plied with wonderful rapidity. The fall of Napoleon enabled the old landgrave to return to Cassel, and he gave the Rothschilds notice that he would withdraw the money confided to them; but before the notice expired, Napoleon's return from the Isle of Elba so greatly alarmed the landgrave that he urged the Rothschilds to keep the money at the low rate of two per cent per annum, which they did until his death, in 1823, when the Rothschilds refused to keep it any longer. At the time of Mayer Anselm Rothschild's death, which occurred very unexpectedly, he saw his five sons placed respectively at the head of five immense establishments, at Frankfort, London, Paris, Vienna, and Naples, all united in a copartnership which is universally allowed to be the wealthiest and most extensive the world has ever seen. And, whatever exceptions may be taken to the manner in which the business of these houses has been conducted, in some operations which have marked their career, it must be admitted that rarely does a family furnish so many members who are competent, individually, to be intrusted with such vast financial concerns.

Although Mr. Rothschild was commonly termed a merchant, his most important transactions were in connection with stocks, loans, etc. It was here that his great decision, his skillful combinations, and his unequaled energy made him remarkable. At a time when the funds were constantly varying, the temptation was too great for a capitalist like Mr. Rothschild to withstand. His operations soon attracted notice; and when by the deaths of Sir Francis Baring and Abraham Goldschmid the money-market was left without an acknowledged head—for the affairs of the latter were wound up, and the successors of the former did not then aim at the autocracy of the money market,—the name of Nathan Mayer Rothschild was in the mouths of all financial dealers as

A PRODIGY OF SUCCESS.

Cautiously, however, did the great banker proceed, until he had made a fortune as large as his future reputation. He revived

all the arts of an older period. He employed bankers to depress or raise the market for his benefit, and is said to have purchased in one day to the extent of twenty million dollars. His transactions soon covered the entire globe. The old and the new world alike bore witness to his skill; and with the profits on a single loan he purchased an estate which cost seven hundred and fifty thousand dollars. Minor capitalists, like parasitical plants, freely risked their money in speculations at his bidding. Nothing seemed too gigantic for his grasp—nothing too minute for his notice. His mind was as capable of contracting a loan for tens of millions, as of calculating the lowest possible amount on which a clerk could exist. Like too many great merchants and bankers, whose profits are counted by thousands and millions, he paid his assistants the smallest amount for which he could procure them.

Rothschild in London knew the result of the battle of Waterloo eight hours before the British Government, and the value of this knowledge was no less than

ONE MILLION DOLLARS, GAINED IN ONE FORENOON.

No bad loan was ever taken in hand by the Rothschilds; no good loan ever fell into other hands. Any financial operation on which they frowned, was sure to fail; and so conscious were they of their influence, that after the July revolution in 1830, Anselm Rothschild, of Frankfort, declared, and the declaration was made to sound in imperial ears, "The house of Austria desires war, but the house of Rothschild requires peace." In addition to their five principal establishments, they have agencies of their own in several of the large cities, both of the old world and the new. As dealers in money and bills, they may be said to have no rivals, and as the magnitude of their operations enables them to regulate the course of exchange throughout the world, their profits are great, while their risks are comparatively small, owing to the perfection of their business management. Indeed, the only heavy loss they may be said to have experienced as yet—that is, heavy for *them*—was through

the February revolution of 1848, when it is said that owing to the sudden depreciation of all funded and railroad property throughout Europe, their losses from March till December of that year reached the enormous figure of forty million dollars. But great as these losses were, they did not affect the credit of the Rothschilds, or in any degree impair their financial standing or means. The affairs of this firm in the United States have for a long time been under the direction of Mr. August Belmont, of New York, by whom they have been managed with distinguished success.

While on this subject, I may as well tell a story of an amusing adventure which is said to have happened to the Bank of England, through their having committed the great mistake of refusing to discount a bill of a large amount, drawn by Anselm Rothschild, of Frankfort, on Nathan Rothschild, of London. The bank had haughtily replied that "they discounted only their own bills, and not those of private persons." But they had to do with one

STRONGER THAN THE BANK.

"Private persons!" exclaimed Nathan Rothschild, when the fact was reported to him; "private persons! I will make these gentlemen see what sort of private persons we are!" Three weeks afterwards, Nathan Rothschild—who had employed the interval in collecting all the five-pound notes he could procure in England and on the continent—presented himself at the bank on the opening of the office. He drew from his pocket-book a five-pound note, and they naturally counted out five sovereigns, at the same time looking quite astonished that the Baron Rothschild should have personally troubled himself for such a trifle. The baron examined the coins one by one, and having put them into a little canvas bag, proceeded to draw out another note, then a third, a tenth, a hundredth and so forth. He never put the pieces of gold into the bag without scrupulously examining them, and in some instances trying them in the balance, as, he said, "the law gave him the right to do." The first pocket-book being

emptied and the first bag full, he passed them to his clerk, and received a second, and thus continued till the close of the bank. The baron had employed seven hours to change twenty-one thousand pounds. But as he had also nine employés of his house engaged in the same manner, it resulted that the house of Rothschild had drawn one million and fifty thousand dollars in gold from the bank, and that he had so occupied the tellers that no other person could change a single note. Anything which bears the stamp of eccentricity has always pleased the English. The bank, therefore, the first day was very much amused at this little display of pique. They, however, laughed less when they saw Rothschild return next day at the opening of the bank,

FLANKED BY HIS NINE CLERKS,

and followed this time by many drays, destined to carry away the specie. They laughed no longer, when the king of bankers said with ironical simplicity: "These gentlemen refuse to pay my bills; I have sworn not to keep theirs. They can pay at their leisure; only I notify them that I have enough to employ them for two months!" For two months! Fifty-five million dollars in gold drawn from the Bank of England which they had never possessed! The bank took alarm. Something had to be done, and so, next morning, notice appeared in the journals that henceforth the bank would pay Rothschild's bills as well as its own.

CHAPTER XIX.

THE ROMANCE OF POTTERY—ENAMELING EARTHENWARE INVENTED BY PALISSY.

BUT greater than the achievements of merchants, princes, warriors and even statesmen, are those of the great thinkers whose "thoughts do shake mankind"; of the great physicians who devote their lifetime to the cure of disease and the alleviation of suffering; of the great discoverers who call new worlds into activity and life; of the great inventors who, in the teeth of discouragements innumerable, and difficulties apparently insurmountable, have succeeded in wresting from nature some of her most precious secrets, and conferred untold benefits on mankind. Among the last class must ever be remembered with honor the names of Bernard Palissy and John Böttgher, a brief account of whose singularly interesting and romantic lives I now propose to give.

Bernard Palissy was born in the south of France in 1510. His parents were too poor to give him any school education. "I had no other books," said he afterwards, "than heaven and earth, which are open to all." He learnt, however, the art of glass-painting, to which he added that of drawing, and afterwards, reading and writing. When eighteen years old, the glass trade becoming decayed, Palissy left his father's house with his wallet on his back, and went out into the world to seek his fortune. For ten years he traveled over Europe, until he married,

which put an end to his wanderings; and he settled down to practice glass-painting and land-measuring in the small town of Saintes. Three children were born to him; and not only his responsibilities, but his expenses increased, while, do what he could, his earnings remained too small for his needs. It was therefore necessary for him to bestir himself.

Though only a glass-painter, he had an artistic soul, and the sight of an elegant cup of Italian manufacture directed his mind to the art of the enameling of earthenware. The sight of this cup disturbed his whole existence; and from that moment the determination to discover the enamel with which it was glazed possessed him like a passion. Had he been a single man he might have traveled into Italy in search of the secret; but he was bound to his wife and children, and could not leave them; so he remained by their side, groping in the dark, in the hope of finding out the process of making an enameling earthenware. At first, he was utterly ignorant of pottery. He could merely guess the materials of which the enamel was composed, and he proceeded to try

ALL MANNER OF EXPERIMENTS

to ascertain what these really were. He pounded all the substances which he thought likely to produce it. Then he bought common earthen pots, broke them into pieces, and spreading his compounds over them, subjected them to the heat of a furnace which he erected for the purpose of baking them. His experiments failed; and the results were broken pots and a waste of fuel, drugs, time and labor, not to speak of the opposition of his wife and friends who began to think him mad.

For many successive months and years Palissy pursued his experiments. The first furnace having proved a failure, he proceeded to erect another, out of doors. There he burnt more wood, spoiled more drugs and pots, lost more time, until poverty stared him and his family in the face. In the intervals of his experiments, he occasionally worked at his former callings—painting on glass, drawing portraits, and measuring land; but

PALISSY LEAVING HOME TO SEEK HIS FORTUNE.

his earnings from these sources were very small. At length, because of the heavy cost of fuel, he was no longer able to carry on his experiments in his own furnace, but he bought more potsherds, broke them up as before into three or four hundred pieces, and, covering them with chemicals, carried them to a tile-work a league and a half from Saintes, there to be baked in an ordinary furnace. After the operation he went to see the pieces taken out; and, to his dismay, the whole of the experiments were failures. But, though disappointed, he was not yet defeated; for he determined on the very spot to "begin afresh."

His business as a land-measurer called him away for a brief season from the pursuit of his experiments; but he signalized his return by breaking three dozen new earthen pots, the pieces of which he covered with different materials which he had compounded, and then took them to a neighboring glass-furnace to be baked. The results gave him a glimmer of hope. The greater heat of the glass-furnace had melted some of the compounds; but though Palissy searched diligently for the white enamel he could find none. For two more years he went on experimenting without any satisfactory result, until the proceeds of his land-surveying having become nearly spent, he was again reduced to poverty. But he was resolved to make one last great effort, and began by breaking more pots than ever. Over

THREE HUNDRED PIECES OF POTTERY

covered with his compounds were sent to the glass-furnace, and thither he himself went to watch the results of the breaking. Four hours passed, during which he watched, and then the furnace opened. The material on *one* only of the three hundred pieces of potsherd had melted, and it was taken out to cool. As it hardened, it grew white—white and polished. The piece of potsherd was covered with white enamel, described by Palissy as "singularly beautiful." He ran home with it to his wife, feeling himself, as he expressed it, quite a new creature. But the prize was not yet won—far from it.

To complete the invention he built a glass-furnace near his

dwelling, carrying the bricks from the brick-yard upon his back. He was brick-layer, laborer, and all. From seven to eight more months passed. At last the furnace was built and ready for use. Palissy had, in the meantime, fashioned a number of vessels of clay in readiness for the laying on of the enamel. After being subjected to a preliminary process of baking, they were covered with the enamel compound, and again placed in the furnace for the grand crucial experiment. Although his means were nearly exhausted, Palissy had been for some time accumulating a great store of fuel for the final effort, and he thought it was enough. At last the fire was lit, and the operation proceeded. All day he sat by the furnace, feeding it with fuel. He sat there watching and feeding all through the long night. But the enamel did not melt. The sun rose upon his labors. His wife brought him a portion of the scanty morning meal—for he would not stir from the furnace, into which he continued from time to time to heave more fuel. The second day passed, and still the enamel did not melt. The sun set, and another night passed. The pale, haggard, unshorn, baffled yet not beaten Palissy sat by his furnace, eagerly looking for the melting of the enamel. A third day and night passed—a fourth, a fifth, and even a sixth—yes, for

SIX LONG DAYS AND NIGHTS

did the unconquerable Palissy watch and toil, fighting against hope; and still the enamel would not melt.

It then occurred to him that there might be some defect in the materials for the enamel—perhaps something wanting in the flux; so he set to work to pound and compound fresh materials for a new experiment. Thus two or three more weeks passed. But how to buy more pots? His money was now all spent; but he could borrow. His character was still good, and a friend lent him enough to enable him to buy more fuel and more pots. These he covered with the new compound, placed in the furnace, and the fire was again lit. It was the last and most satisfactory experiment of the whole. The fire blazed up;

the heat became intense; but still the enamel did not melt. The fuel began to run short! How to keep up the fire? There were the garden palings: these would burn. So these were pulled up and cast into the furnace. They were burnt in vain! The enamel had not yet melted. Ten minutes more heat might do it. Fuel must be had at whatever cost. There remained the household furniture and shelving. A crashing noise was heard in the house; and amidst the screams of his wife and children, who now really thought Palissy's reason was giving way, the tables were seized, broken up and heaved into the furnace. The enamel had not melted yet! There remained the shelving. Another noise of the wrenching of timber was heard within the house, and the shelves were torn down and hurled after the furniture into the fire. Wife and children then rushed from the house, and went frantically through the town, calling out that

POOR PALISSY HAD GONE MAD,

and was breaking up his very furniture for firewood!

For an entire month his clothes had not been off his back, and he was utterly worn out. He was, besides, in debt, and seemed on the verge of ruin. But he had at length mastered the secret; for the last great burst of heat had melted the enamel. The common, brown household jars, when taken out of the furnace after it had become cool, were found covered with a white glaze! For this he could endure reproach, contumely, and scorn, and wait patiently for the opportunity of putting his discovery into practice as better days came round. His next move was to hire a potter to make some earthen vessels after the designs which he furnished; while he himself proceeded to model some medallions in clay for the purpose of enameling them. But how to maintain himself and family until the wares were made and ready for sale? Fortunately there remained one man in Saintes who still believed in him—an innkeeper, who agreed to feed and lodge him for six months, while he went on with his manufacture. As for the working potter

whom he had hired, Palissy soon found that he could not pay him the stipulated wages. Having already stripped his dwelling,

HE COULD BUT STRIP HIMSELF,

and he accordingly parted with some of his clothes to the potter, in part payment of the wages which he owed him.

Palissy then erected an improved furnace, but he was so unfortunate as to build part of the inside with flints. When it was heated these flints cracked and burst, and the spiculæ were scattered over the pieces of pottery, sticking to them. Though the enamel came out right, the work was irretrievably spoilt, and thus six months' more labor was lost. Persons were found willing to buy the articles at a low price, notwithstanding the injury they had sustained; but Palissy, inspired by the spirit of a true artist, would not sell them, considering that to have done so would be to "decry and abase his honor," and so he broke in pieces the entire batch. At this stage of his affairs, he became melancholy and almost hopeless, and seems to have all but broken down. He wandered gloomily about the fields near Saintes, his clothes hanging in tatters, and himself worn to a skeleton. In a curious passage in his writings he describes how the calves of his legs had disappeared, and were no longer able even with the aid of garters to hold up his stockings, which fell about his heels when he walked. The family continued to reproach him for his recklessness, and his neighbors cried shame upon him for his obstinate folly. So he returned for a time to his former calling; and after about a year's diligent labor, during which he earned bread for his household and somewhat recovered his character among his neighbors, he again resumed his darling enterprise. But though he had already searched about ten years for the enamel, it cost him about eight more years of experimental plodding before he perfected his invention. He gradually learnt dexterity and certainty of result by experience, gathering practical knowledge out of many failures.

At last, after about sixteen years' labor, Palissy took heart and called himself potter. These sixteen years had been his

term of apprenticeship to the art, during which he had wholly to teach himself, beginning at the very beginning. He was now able to sell his wares and maintain his family in comfort. But he never rested satisfied with what he had accomplished. He proceeded from one step of improvement to another, always aiming at the greatest perfection possible. He studied natural objects for patterns, and with such success that the great French naturalist, Buffon, spoke of him as "so great a naturalist as nature only can produce." His ornamental pieces are now regarded as rare gems in cabinets of virtuosi, and sell at almost fabulous prices; a small dish twelve inches in diameter having been sold some years ago for eight hundred and ten dollars. The ornaments on them are for the most part accurate models from life, of wild animals, lizards, and plants, found in the fields about Saintes, and tastefully combined as ornaments into the texture of a plate or vase. When Palissy had reached the height of his art he styled himself, "Ouvrier de Terre et Inventeur des Rustics Figulines."

CHAPTER XX.

EXTRAORDINARY CAREER OF BÖTTGHER, THE INVENTOR OF HARD PORCELAIN.

WHOM, boys, do you admire the more — Vanderbilt or Palissy? the one striving for mere personal aggrandizement; the other toiling and suffering for the general good of humanity. One hundred years hence who will remember that such men as Gould and Vanderbilt and Russell Sage ever existed, while the name of Palissy will last as long as the fine art which he created? And so with the illustrious John Frederick Böttgher, the inventor of hard porcelain, whose life presents a remarkable contrast to that of Palissy, though it also contains many points of romantic interest. Böttgher was born at Schleiz, in the Voightland, in 1682, and at twelve years of age was placed apprentice with an apothecary at Berlin. He seems to have been early fascinated by chemistry, and occupied much of his leisure in making experiments. These, for the most part, tended in one direction — the art of converting common metals into gold. At the end of several years, Böttgher pretended to have discovered the universal solvent of the alchemists, and professed that he had made gold by its means. The news spread abroad that the apothecary's apprentice had discovered the grand secret, and crowds collected about the shop to get a sight of the wonderful young "gold-cook." The King himself expressed a wish to see and converse with him, and

when Frederick I. was presented with a piece of gold alleged to have been converted from copper, he was so dazzled with the prospect of securing an infinite quantity of it, that he determined to secure Böttgher and employ him to make gold for him within the strong fortress of Spandan. But the young apothecary fled across the frontier into Saxony.

A REWARD OF A THOUSAND THALERS

was offered for Böttgher's apprehension, but in vain. He arrived at Wittenberg, and appealed for protection to the Elector of Saxony, Frederick Augustus I. (King of Poland), surnamed "The Strong." Frederick being himself very much in want of money at the time, was naturally overjoyed at the prospect of obtaining gold in any quantity by the aid of the young alchemist. Böttgher was accordingly conveyed in secret to Dresden, accompanied by a royal escort. The Elector, however, must needs leave him there for a time, having to depart forthwith to Poland. But, impatient for gold, he wrote Böttgher from Warsaw, urging him to communicate the secret, so that he himself might practice the art of transmutation. The young "gold-cook," thus pressed, forwarded to Frederick a small vial containing "a reddish fluid," which, it was asserted, changed all metals, when in a molten state, into gold. This important vial was taken in charge by the Prince Fürst von Fürstenburg, who, accompanied by a regiment of guards, hurried with it to Warsaw. Arrived there, it was determined to make immediate trial of the process. The king and the prince locked themselves up together in a secret chamber of the palace, girt themselves about with leather aprons, and, like

TRUE "GOLD-COOKS,"

set to work melting copper in a crucible, applying to it afterwards the red fluid of Böttgher. But the result was unsatisfactory; for notwithstanding all that they could do, the copper obstinately remained copper. On referring to the alchemist's instructions, however, the king found that, to succeed with the process, it was necessary that the fluid should be used "in great

purity of heart;" and as his majesty was conscious of having spent the evening in very bad company, he attributed the failure of the experiment to that cause. A second trial was followed by no better results, and then the king became furious; for he had confessed and received absolution before beginning the experiment.

Frederick Augustus now resolved on forcing Böttgher to disclose the golden secret, as the only means of relief from his urgent pecuniary difficulties. The alchemist, hearing of the royal intention, again determined to fly. He succeeded in escaping his guard, and after three days' travel, arrived at Eus, in Austria, where he thought himself safe. The agents of the Elector were, however, at his heels. They had tracked him to the "Golden Stag," which they surrounded, and seizing him in his bed, notwithstanding his resistance and appeals to the Austrian authorities for help, they carried him by force to Dresden. From this place he was shortly after transferred to the strong fortress of Köningstein. It was communicated to him that the royal exchequer was completely empty, and that ten regiments of Poles were waiting for his gold.

THE KING HIMSELF VISITED HIM,

and told him in a severe tone that if he did not at once proceed to make gold, he would be hung.

Years passed, and still Böttgher made no gold; but he was not hanged. It was reserved for him to make a far more important discovery than the conversion of copper into gold, namely, the conversion of clay into porcelain. Some rare specimens of this ware had been brought from China by the Portuguese, which were sold for more than their weight in gold. Böttgher was first induced to turn his attention to the subject by Walter von Tschirnhaus, a maker of optical instruments, also an alchemist. Tschirnhaus was a man of education and distinction, and was held in high esteem by Prince Fürstenburg, as well as by the Elector. He very sensibly said to Böttgher, still in fear of the gallows, "If you can't make gold, try and do

something else; make porcelain." The alchemist acted on the hint, and began his experiments, working night and day. He prosecuted his investigations for a long time with great assiduity, but without success. At length some red clay, brought to him for the purpose of making his crucibles, set him on the right track. He found that this clay, when submitted to a high temperature, became vitrified and retained its shape; and that its texture resembled that of porcelain, excepting its color and opacity. He had, in fact, accidentally discovered red porcelain, and he proceeded to manufacture and sell it as porcelain.

Böttgher was, however, well aware that the white color was an essential property of true porcelain; and he therefore prosecuted his experiments in the hope of discovering the secret. Several years thus passed, but without success, until

ACCIDENT AGAIN STOOD HIS FRIEND,

and helped him to a knowledge of the art of making white porcelain. One day, in the year 1707, he found his perruque unusually heavy, and asked of his valet the reason. The answer was, that it was owing to the powder with which the wig was dressed, which consisted of a kind of earth then much used for hair powder. Böttgher's quick imagination immediately seized upon the idea. This white earthy powder might possibly be the very earth of which he was in search; at all events, the opportunity must not be let slip of ascertaining what it really was. He was rewarded for his painstaking care and watchfulness; for he found, on experiment, that the principal ingredient of the hair-powder consisted of *kaolin*, the want of which had so long formed an insuperable difficulty in the way of his inquiries.

The discovery, in Böttgher's intelligent hands, led to great results, and proved of far greater importance than the discovery of the philosopher's stone would have been. In October, 1707, he presented his first piece of porcelain to the Elector, who was greatly pleased with it; and it was resolved that

Böttgher should be furnished with the means for perfecting his invention. Having obtained a skilled workman from Delft, he began to *turn* porcelain with great success. He now entirely abandoned alchemy for pottery, and inscribed over his door a distich, which, translated, reads thus:

> "Almighty God, the great Creator,
> Has changed a goldmaker to a potter."

Böttgher's further experiments with his new furnaces proving very successful, and the porcelain which he manufactured being found to fetch large prices, it was next determined to establish a royal manufactory of porcelain. The manufacture of delf ware was known to have greatly enriched Holland. Why should not the manufacture of porcelain equally enrich the Elector? Accordingly, a decree went forth, dated the twenty-third of January, 1710, for the establishment of "a large manufactory of porcelain" at the Albrechtsburg in Meissen. In this decree, which was translated into Latin, French, and Dutch, and distributed by the ambassadors of the Elector at all the European courts, Frederick Augustus set forth, that to promote the welfare of Saxony, which had suffered much through the Swedish invasion, he had "directed his attention to the subterranean treasures" of the country, and, having employed some able persons in the investigation, they had succeeded in manufacturing "a sort of red vessel far superior to the Indian Terra Sigillata"; as also "colored ware and plates, which may be cut, ground and polished, and are quite equal to Indian vessels," and finally that "specimens of white porcelain" had already been obtained, and it was hoped that this quality, too, would soon be manufactured in large quantities. The royal decree concluded by inviting "foreign artists and handicraftsmen" to come to Saxony and engage as assistants in the new factory, at high wages, and under patronage of the king.

For all his great services Böttgher was wretchedly rewarded.

Two royal officials were put over his head as directors of the factory, while he himself held the position of

FOREMAN OF POTTERS ONLY,

and at the same time was detained the King's prisoner. During the erection of the factory at Meissen, while his assistance was still indispensable, he was conducted by soldiers to and from Dresden; and even after the works were finished he was locked up nightly in his room. All this preyed upon his mind, and in repeated letters to the King he sought to obtain mitigation of his fate. Some of these letters are very touching. "I will devote my whole soul to the art of making porcelain," he writes on one occasion; "I will do more than any inventor ever did before; only

GIVE ME LIBERTY, LIBERTY!"

To these appeals the King turned a deaf ear. He was ready to spend money and grant favors; but liberty he would not give. He regarded Böttgher as his slave. In this position the persecuted man kept on working for some time, till, at the end of a year or two, he grew negligent. Disgusted with the world and with himself, he took to drinking. Such is the force of example that it no sooner became known that Böttgher had betaken himself to this vice than the greater number of the workmen at the Meissen factory became drunkards too. Quarrels and fightings without end were the consequence, and ultimately the whole of them, more than three hundred, were shut up in the Albrechtsburg and treated as prisoners of state.

Böttgher at last fell seriously ill, and in May, 1713, his dissolution was hourly expected. The King, alarmed at losing so valuable a slave, now gave him permission to take carriage exercise under a guard; and having somewhat recovered, he was allowed occasionally to go to Dresden. In a letter written by the King in April, 1714, Böttgher was promised his full liberty; but the offer came too late.

BROKEN IN BODY AND MIND,

alternately working and drinking, though with occasional

gleams of nobler intention, and suffering from constant ill-health, the result of his enforced confinement, Böttgher lingered on for a few years more, until death relieved him from his sufferings on the thirteenth of March, 1719, in the thirty-fifth year of his age. He was buried *at night*—as if he had been a dog—in the Johannis Cemetery at Meissen; and such was the treatment, such the unhappy end, of one of Saxony's greatest benefactors!

CHAPTER XXI.

MALIBRAN, THE GREAT SINGER—TOUCHING STORY OF HER KINDNESS.

I HAVE now told you of great merchants, bankers, inventors and what not, and thinking that perhaps you might want a little change, I propose now to tell you of a great artist who was also a great woman. Her name—perhaps some of you know it—was Marie Felicita Garcia Malibran, and she was one of the greatest singers that ever lived. She was born March 24, 1808; according to some authorities at Paris, and to others at Turin. She was the daughter of Manuel Garcia, the celebrated Spanish tenor singer, by whom she was instructed so thoroughly that at the age of seventeen she made her public *début* in London, March 25, 1826, in Rossini's opera "Il Barbiere di Siviglia," and achieved an instant triumph. She sang with success at public and private concerts in different English cities, and in the autumn of that year she came to New York as prima donna of an opera company, under the direction of her father.

The next year, on March 23d, she was married to Eugene Malibran, an elderly French merchant of New York; but in little more than a year financial difficulties brought unhappiness, and the young wife left her old husband, and on September 27, 1827, she returned to Europe. On January 14, 1828, she made her first appearance in Paris, repeating her English

and American successes. In 1835 the French courts pronounced her marriage with M. Malibran to be void, and on March 29, 1836, she was married to Charles de Beriot, the celebrated violinist. This marriage was a very happy one, but, alas! of short duration. A month after the marriage she fell from her horse and was severely injured; but making light of the matter, she continued to perform in opera during the summer, and in September, contrary to the advice of her physician, she appeared in England, at the Manchester Musical Festival. A nervous fever set in which soon proved fatal, and she died on September 23, 1836. A few years ago a handsome monument was erected in the cemetery at Lacken, near Brussels, over her remains, which had been removed thither from their English resting place.

Madame Malibran's voice was a mezzo-soprano of great volume and purity, and had been brought to absolute perfection by the severe training of her father. Her private character was irreproachable.

FEW WOMEN HAVE BEEN MORE BELOVED

for their amiability, generosity and professional enthusiasm. Her intellect was of a high order, and the charms of her conversation fascinated all who were admitted into the circle of her intimate friends. Her benefactions amounted to such considerable sums that her friends were frequently obliged to interfere for the purpose of regulating her finances. The following is one of the many touching stories of her kindness:

In an humble room in one of the poorest streets of London, Pierre, a faithful French boy, sat humming by the bedside of his sick mother. There was no bread in the closet, and for the whole day he had not tasted food. Yet he sat humming to keep up his spirits. Still at times he thought of his loneliness and hunger, and he could scarcely keep the tears from his eyes; for he knew that nothing would be so grateful to his poor invalid mother as a good, sweet orange, and yet he had not a penny in the world. The little song he was singing was his own—one he had composed, both air and words—for the child was a genius.

He went to the window, and looking out saw a man putting up a great bill with yellow letters, announcing that Madame Malibran would sing that night in public. "Oh, if I could only go!" thought little Pierre; and then, pausing a moment, he clasped his hands, his eyes lighted with a new hope. Running to the little stand, he smoothed his yellow curls, and, taking from a tiny box some old, stained paper, gave one eager glance at his mother, who slept; and ran speedily from the house.

"Who did you say was waiting for me?" said the madame to her servant; "I am already worn-out with company." "It's only a very pretty little boy, with yellow curls, who said if he can just see you he is sure you will not be sorry, and he will not keep you a moment." "Oh, well, let him come!" said the beautiful singer, with a smile; "I can never refuse children." Little Pierre went in, his hat under his arm, and in his hand a little roll of paper.

WITH MANLINESS UNUSUAL FOR A CHILD,

he walked straight to the lady, and bowing, said, "I come to see you because my mother is very sick, and we are too poor to get food and medicine. I thought, perhaps, that if you would sing my little song at some of your grand concerts, maybe some publisher would buy it for a small sum, and so I could get food and medicine for my mother." The beautiful woman arose from her seat. Very tall and stately she was. She took the little roll from his hand and lightly hummed the air. "Did you compose it?" she asked; "you, a child! And the words? Would you like to come to my concert?" she asked. "Oh, yes!" and the boy's eyes grew bright with happiness; "but I couldn't leave my mother." "I will send somebody to take care of your mother for the evening, and here is a crown with which you may go and get food and medicine. Here is also one of my tickets. Come to-night; that will admit you to a seat near me."

Almost beside himself with joy, Pierre bought some oranges, and many a little luxury besides, and carried them home to the

poor invalid, telling her, not without tears, of his good fortune. When evening came, and Pierre was admitted to the concert-hall, he felt that never in his life had he been in so great a place. The music, the myriad lights, the beauty, the flashing of diamonds and rustling of silks, bewildered his eyes and brain. At last she came, and the child sat with his glance riveted on her glorious face. Could he believe that the grand lady, all blazing with jewels, and whom everybody seemed to worship, would really sing his little song?

Breathless, he waited; the band—the whole band—struck up a plaintive little melody. He knew it, and clasped his hands for joy. And oh, how she sang it! It was so simple, so mournful. Many a bright eye dimmed with tears, and naught could be heard but the touching words of that little song—oh, so touching! Pierre walked home as if he were moving on the air. What cared he for money now? The greatest singer in all Europe had sung his little song, and thousands had wept at his grief. The next day he was frightened by a visit from Madame Malibran. She laid her hand on his yellow curls, and turning to the sick woman, said, "Your little boy, Madame, has brought you a fortune. I was offered, this morning, by the best publisher in London,

ONE THOUSAND FIVE HUNDRED DOLLARS FOR HIS LITTLE SONG;

and after he has realized a certain amount from the sale, little Pierre here is to share the profits. Madame, thank God that your son has a gift from heaven."

The noble-hearted singer and the poor woman wept together. As to Pierre, always mindful of Him who watches over the tried and tempted, he knelt down by his mother's bedside and uttered a simple prayer, asking God's blessing on the kind lady who had deigned to notice their affliction. The memory of that prayer made the singer more tender-hearted, and she who was the idol of England's nobility, went about doing good. And in her early, happy death, he who stood beside her bed and smoothed her pillow, and lightened her last moments by his undying affection,

MADAME MALIBRAN, THE GREAT SINGER, VISITS LITTLE PIERRE.

was little Pierre of former days, now rich, accomplished and the most talented composer of the day.

For myself, I never did hear Malibran, though I have heard all the great singers of the last twenty years: Mario, Giuglini, Tamberlik, Reeves, Campanini, Tetjiens, Ilma de Murska, Gerster, Nilsson, Materna, Foli, the Bettinis, Kellogg, Cary, Scalchi, Brignoli, Sinico, Jenny Lind and Patti, with a host of others.

I REMEMBER AS IF IT WERE YESTERDAY

when I first heard Nilsson in opera. It was at the Academy of Music, New York city; and if I remember rightly, in "Faust," and so delighted was I that, on going home, I wrote the following stanza in her praise, which the curious may find in *Scribner's Monthly* for 1872 or '73:

TO CHRISTINE NILSSON.

Winter has come, the birds have fled;
Their leaves the red-lipped roses shed;
But in thy crystal throat, Christine,
Perpetual summer lurks unseen;
For sleeps therein, in shine or hail,
The perfect-throated nightingale;
While on thy lips the roses lie
That live when all their sisters die.

CHAPTER XXII.

A GREAT AMERICAN DOCTOR—DOCTOR MARION SIMS.

"SEND for the doctor!"—how often one hears the cry, and yet indispensable though the doctor is, he has had, and always will have, his enemies. Rabelais, the witty Frenchman, sneered at the entire profession, and that other famous countryman of his, Jean Batiste Moliere, was constantly holding it up to ridicule. Indeed, some of his first plays were satirical farces on the medical profession. He once told Louis XIV., when speaking of his doctor, "Sire, we talk together; he prescribes; I never take his physic, and consequently I get well." On another occasion he defined a doctor as "a man whom people pay to relate trifles in the sick room, until either

NATURE HAS CURED THE PATIENT

or physic has killed him."

But Rabelais and Moliere lived many, many years ago, and the science of medicine and surgery has vastly improved since then. In their time it was only natural to laugh at doctors, who were nearly all quacks, at one time believing that the only and infallible cure for everything was water, with which they literally deluged the unfortunate patient; and at another time putting their entire confidence in bleeding. If, in the one case, the victim died, which he generally did, it was because he had

not swallowed sufficient water; if in the other, because he had not lost enough blood. Of their blood-letting propensities, so late even as the present century, many writers have complained —some humorously, some bitterly. When Tom Hood went to Germany, somewhere about the year 1836, he was constantly suffering from violent spasms of the chest, coughing, ague, and blood-spitting, and to crown all, the doctors proved themselves leeches indeed. Like the rest of their countrymen, they bled him so unmercifully that he grew weak and thin. "I heard the other day," he writes, "of a man who had no fewer than fifty-five leeches on him. The man who bled me, and there are several bleeders here, told me he had attended eighty patients that month! One of

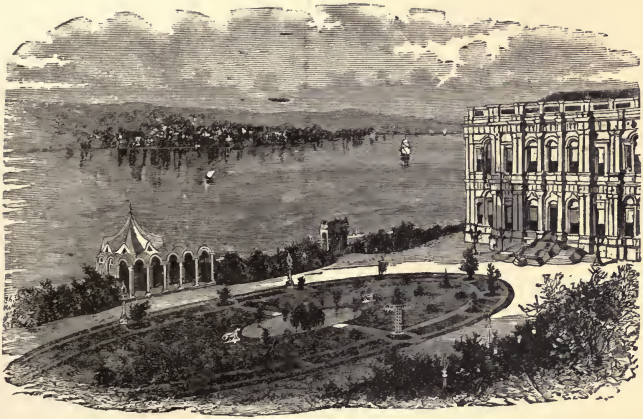
THE BLISTERS WOULD DRAW A WAGON."

But, as I have said, these days are past. Surgery, at any rate, has been raised to the dignity of a science, and even medicine is slowly struggling through its empirical stage. The ideal modern physician is everybody's friend, and however we may regret being obliged to send for him, when he *does* come, no visitor is more welcome. And the great man of whom I am going to speak was in very truth and deed a model, an ideal physician. If the story of one thousandth part of the good he did—secretly, and not letting even his right hand know what his left hand did—were published, it would fill many volumes. When I look back to the days in which I knew him; recall his kindly face; his bright, beaming eye; his gentle, reassuring smile; his courtly ease and womanly delicacy—when, I say, I remember these things, and all he did for me and mine, it is hard to keep back the tears that will press forward in regretful memory of Dr. Marion Sims. Yes, that was his name; the name of the most famous American surgeon, in his way, that ever lived; a scientist who will always rank among the foremost men of his age; and one whose death on November 13, 1883, created a profound feeling of sorrow and regret all over the civilized globe. This great man, as I have said, was Dr. James

Marion Sims, whose fame was world-wide, and whose contributions to medical science and literature won for him conspicuous recognition in Europe as well as in America. It is now twelve years since I was intimate with Dr. Sims. We lived at that time in the same block in Madison avenue, New York city, and he attended my wife through a long, dangerous and tedious illness, with a skill, a kindness, an invariable courtesy and good humor, that compelled our love and almost veneration. Dr. Sims was a native of South Carolina, where he was born on January 25, 1813. As a boy he was unusually industrious, studious and thoughtful, and such opportunities as were given him to obtain an education he improved to the utmost.

WHEN NINETEEN YEARS OLD HE GRADUATED from South Carolina College, and three years later completed a course at Jefferson Medical College, Philadelphia.

In 1836, he commenced practice at Montgomery, Alabama, making a specialty of gynecology, though he also became known for his skill in general surgery. His abilities and his industry soon secured for him an excellent standing in the community, and within a few years he developed qualities which drew upon him the attention of men eminent in medical science. He is credited with having announced to the profession, in 1845, a new theory of the nature and origin of *trismus nascentium*, about which he published various articles in the *American Journal of Medical Science*. In 1853, Dr. Sims went to New York, and in addition to building up a lucrative practice, succeeded in establishing a hospital for women. His proposition for such an institution at first provoked so strong an opposition, that he was almost disposed to abandon the project, but his wife encouraged him by her strong faith in the ultimate success of his efforts, and he held on until the victory was fully won. The institution was at first supported by private contributions, with a grant of two thousand five hundred dollars from the Common Council, but in 1858, a charter was obtained from the legislature, with an appropriation of fifty thousand dollars, and the city



HOSPITAL FOUNDED BY DOCTOR SIMMS.

gave the land at Forty-ninth street and Lexington avenue, upon which to erect pavilions, with an appropriation of ten thousand dollars. Dr. Sims worked with heroic zeal to advance the interests of his great project, and he received valuable aid from many other eminent practitioners, and ladies and gentlemen of this city. He went abroad and studied the architectural designs and systems of management of like institutions, and the New York city hospital was planned on his suggestions. The first pavilion was ready for the reception of patients in 1866, and, unlike most philanthropists, Dr. Sims lived to see the institution which he founded, surpass even his own expectations in importance and usefulness.

Dr. Sims's reception in Europe was of the most cordial and flattering character. By special invitation he operated in several of the great hospitals in Paris, Brussels, London and Dublin, and his extraordinary success elicited the warmest praise from some of the most eminent practitioners in Europe. He was greeted in many places as one of the

GREATEST SURGICAL DISCOVERERS

and operators of the age. The French people were especially impressed with him, and the French government conferred upon him the order of Knight of the Legion of Honor. Honors were also paid to him by the King of Belgium, and he was decorated by the Italian, Spanish and Portuguese governments.

Dr. Sims took his family to Europe in 1862, and he spent a large part of his time there during the next six years. In 1870 he returned to Paris, from New York, to visit his family, which he had left abroad. When the Franco-Prussian war broke out, Dr. Sims was induced to take charge of the Anglo-American Ambulance Corps as surgeon-in-chief. This was the first ambulance corps to arrive at Sedan, where it rendered service of incalculable value, and the fame of Dr. Sims was greatly enhanced by the heroism, energy and remarkable skill displayed by him. Dr. Sims built up a large practice in France and Belgium, where his services were in constant demand among

people of wealth and high social standing. His genial manners and magnetic social qualities made him very popular abroad as well as at home. As a man, he was generous and sympathetic to a fault, and while his practice lay among the wealthy, here and abroad, his services were always at the command of the poor and unfortunate. He was conspicuously loyal in his friendships, and in all the relations of life illustrated the highest traits of true, manly character.

Dr. Sims was, during his lifetime, elected an honorary member of scores of medical and scientific societies in every part of Europe and in every part of this country; and he was a great admirer of all the fine arts. Among his most intimate friends he numbered almost all the eminent artists, singers, composers, actors and actresses of the day; and I can remember well how, with tears in her beautiful eyes, poor Adelaide Neilson once told me, that she simply adored Marion Sims. And well she might; many a good turn he did her. In 1875

HE WAS ELECTED PRESIDENT

of the American Medical Association, which is regarded by many as the highest medical honor in the United States.

During the last two years of his life, Dr. Sims spent a couple of months of each autumn in New York city, the winter in Rome or Nice, and the remainder of the year in Paris and other parts of France. During this time he has written many articles on surgical questions. His health for some time past had not been altogether robust, his system having never fully recovered from the effects of a severe attack of pneumonia three years ago. He had expected to sail for Europe, with his family, on Saturday, November 10th, and was looking forward to a winter of rest and peace in his Italian home. But it was ordered that he should depart on another and longer journey. He has crossed the sea on whose farther shore all life's voyagers drop anchor at last; he has found a sweeter and deeper rest than any earthly clime affords. Generations yet to come, sharing the benefits of his labors and discoveries, will keep his memory green and fragrant.

CHAPTER XXIII.

A WESTERN ASTRONOMER—MR. S. W. BURNHAM, M.A., OF CHICAGO.

INCIDENTALLY I have told you of the difficulties with which great inventors and scientific men have had to contend, and the poorness of the instruments with which they had at first to conduct their experiments; but most, if not all, of these distinguished men were foreigners, and I should be unwilling to dismiss this section of the "Golden Cycle" without giving you an example of one of our own countrymen who, from humble beginnings, has achieved a world-wide fame. You know the old proverb—a prophet is no prophet in his own country? which means pretty much the same thing as the brilliant Frenchman's aphorism—a hero is no hero to his valet, or the more familiar saying—familiarity breeds contempt. Persons with whom we are brought up and educated; whom we meet familiarly every day; whose secrets we share; fail to impress us with that vivid sense of their personality which is the first thing to arrest the attention of a stranger. Not only do we know all their little weaknesses and failings, but we have become so accustomed to their virtues, their talents, it may be their genius, that these no longer inspire us with the admiration and respect with which we should naturally regard them if possessed by a stranger. If you stand too close to a great painting, statue or building, you can-

not realize its proportions, its beauties, its harmony; and the larger, and greater, and grander the work of art, the farther back you must stand. And this will suggest one of the reasons why the subject of this chapter is so little known to the American public that, although his name is familiar as a household word in scientific circles in Europe, in his own city of Chicago there are only a few score of persons who have even heard of him in connection with his life's labor—astronomy. Another reason is, that, like most great searchers after truth, Mr. Burnham is an extremely modest and retiring man. For years he has occupied a seat alongside Judge Drummond, of the United States Circuit Court, in Chicago, as stenographer, or short-hand reporter to the court, and only a very few of the many lawyers who frequent the place know that that modest, industrious clerk is one of the most distinguished astronomers living. "What!" exclaimed the United States district attorney, who practiced daily in Judge Drummond's court, "Our Burnham the Chicago astronomer! why, I have known him for these twelve years past, and knew there was

A NOTED ASTRONOMER IN CHICAGO

by the name of Burnham, but never suspected our quiet, modest friend was the man. I never heard him utter a word about astronomy!" "Very likely," replied his friend, "and if you had known him for a hundred years it might have been the same thing, for except to intimate friends and men of similar tastes he never alludes to his scientific investigations." Well, it is of this Western astronomer whose name is better known in St. Petersburg, London, Berlin, Paris and Rome than in the city in which he has spent the best twenty years of his life that I now wish to talk to you.

Mr. Sherburne Wesley Burnham was born, six and forty years ago, in Thetford, Vermont, and at the Thetford Academy—then noted for its educational excellences—he received a good English education. As to his youthful predilections and pursuits, I only know that they were not especially in the direction of scientific subjects. Indeed, it was not until he had grown

MAPPING THE HEAVENS.

up and adopted stenography as a profession that Mr. Burnham had his attention directed to astronomy; and in a way which is so curious as to warrant my telling it to you. During the late civil war, Mr. Burnham was stationed with the army in New Orleans, holding the position of short-hand reporter at head-quarters. One afternoon he went out for a walk, and as he was strolling leisurely along the street, his eye was attracted by the notice of a book auction. He entered as the auctioneer was crying Burritt's "Geography of the Heavens,"—the well-known work by a brother of the more famous Elihu Burritt. The subject was one in which Mr. Burnham had at that time no special interest, but for some reason which he could never explain—he bid for the volume, which was knocked down to him. On examining it, he found it contained

CHARTS OF THE SIDEREAL HEAVENS.

In these he became interested, and took advantage of the first bright night to study the heavens for himself, and to trace out the various constellations and principal stars described on Mr. Burritt's charts. Further study of the work served to deepen his interest, and he bought a small one-inch telescope. This, after some time and before leaving New Orleans, he exchanged for a larger instrument, which he took with him to Chicago, somewhere about the year 1862. He also became interested in microscopy, and carried on his study of both subjects simultaneously. Up to this time he had not read much about astronomy, and it was the coming into possession of Rev. T. W. Webb's "Common Objects for the Telescope" that determined his future line of study and caused him to devote his entire energies to astronomical investigations during his leisure hours. Meanwhile he kept on reading the best books on physical and mathematical astronomy, and mastered the general features and principles of the science. Engaged in these quiet studies and his short-hand reporting, nothing important occurred until Messrs. Alvan Clark & Sons, of Cambridge, the most famous telescope-makers in the world—came to Chicago to set up the great tele-

scope in the Dearborn Observatory, in the University of Chicago. The setting up of this telescope, and the presence on the spot of such famous makers as the Clarks, suggested to Mr. Burnham the advisability of getting a larger one himself; and accordingly, although personally a stranger to the Clarks, he wandered up into the tower one day as they were at work, and after some conversation asked them for what they would make for him a six-inch telescope, as good as could be made? The reply was, eight hundred dollars. "Well," said Mr. Burnham, "I think I shall order one; go ahead." And so they took their time, and by and by our amateur astronomer was the happy possessor of the new instrument, which proved to be one of the finest the Clarks ever made. But the problem still remained of having his telescope equatorially mounted. In this, for he liked to do things as simply and cheaply as possible, he had recourse to mother-wit. Procuring a large piece of timber, he sank it deep in the ground in the back yard of his little house on Vincennes avenue, near Ellis Park, and about two blocks from the Dearborn Observatory. Around this timber he built what his friends used laughingly to call a "cheese-box"; on the top of which he placed

A DOME THAT COULD BE TURNED

round and round at will. Most of the work he did with his own hand. It was with this little telescope, thus rudely mounted, that the modest, quiet, short-hand reporter made his first important discoveries of double stars—discoveries which a few years later attracted the attention, and commanded the admiration of scientific men in Europe.

All this time he went on with his regular business, and was at his place in court every day, working to support his family, and in the evening stealing out to his back yard to study the heavens till daylight drove him to his bed. No wonder that, when a visitor, perhaps from Europe, went in search of this sleepless, sharp-sighted astronomer, to pay his respects, and make a visit to his observatory, he was told by the street children that Mr.

Burnham was a queer man, and lived nights in that "cheese-box!" His next door neighbors generally did not know him, or what to make of the odd-looking structure in his back yard; and the younger people associated the star-gazer with vague ideas of necromancy, fortune-telling, and magical incantations. But his observatory as yet was far from being complete. He had now an excellent telescope, equatorially mounted, but he had no micrometer, and lacked besides several other instruments necessary for the measurement of the stars which he discovered. Even if he had possessed them, he did not as yet know how to make the measurements. In this emergency, he thought of the great Italian astronomer, Baron Dembowski, of whom I shall have more to say presently, and who was then

THE MOST DISTINGUISHED STAR MEASURER

living. To the Baron, Mr. Burnham sent a few of his new discoveries of close double stars, with a respectful suggestion to the great man that he might like to verify and measure them. This the Baron was only too glad and proud to do, and more than that, it led to an intimacy and charming correspondence which terminated only with the Baron's death. About this time Reverend Mr. Webb, of England, author of the book which had so much interested Mr. Burnham, made his acquaintance and frequently corresponded with him. This friendship had also a direct effect on Mr. Burnham's career, for Mr. Webb was so profoundly impressed with his friend's discoveries and attainments that in 1874 he nominated him as Fellow of the Royal Astronomical Society and secured his election, an honor never but once before conferred on an American. Mr. Burnham's reputation went on increasing rapidly in every country except his own, where the subject of double stars had never attracted much attention. Early in 1873 he sent his first catalogue of eighty-one double stars, discovered by himself and measured by Baron Dembowski, to England for publication, and it was printed in the *Monthly Notices of the Royal Astronomical Society* in March, 1873. A second list of twenty-five more new doubles appeared in the

same publication in May, 1873; a third, of seventy-six, in December, 1873; a fourth, of forty-seven, in June, 1874, and a fifth of seventy-one, in November, 1874. Here were three hundred new double stars, all of them close and difficult, brought to the notice of European astronomers in less than two years, and all of them discovered with a six-inch telescope, in a back yard in Chicago, by a new man—a quiet, short-hand reporter, whom nobody till now had ever heard of in science. It was truly a sensation among astronomers abroad; for, during the previous twenty years all the observers of the world had not made such a contribution of new doubles to this department of astronomy. By this time he was well known abroad, and was in correspondence with nearly all the leading European astronomers. Two years later, M. Angot, one of the French astronomers who were sent to the islands of the Pacific Ocean to

OBSERVE THE TRANSIT OF VENUS,

returned through the United States, under instructions from his government to visit and to report on the appliances and work of American observatories. Among the places he visited was Chicago, and the person in whom he was most interested was our amateur astronomer on Vincennes avenue. In Mr. Burnham's little observatory, M. Angot was greatly interested, and said he had never seen one where such important results had been accomplished by such simple and inexpensive appliances. He found no sidereal clock, no transit instrument, nothing, in short, but a six-inch telescope, mounted equatorially on a stout piece of timber sunk in the ground. The telescope was even without the usual clock-work to keep its motion in correspondence with the rotation of the earth. He describes Mr. Burnham's ingenious substitute for this clock: A long, vertical tube filled with sand, with an orifice at the bottom through which the sand may escape, after the manner of an old-fashioned hour-glass. A lead plunger, following the descent of the sand to the tube, gives the proper motion to the telescope, and holds it as firmly on a star as can be done by clock-work. He describes also Mr. Burn-

ham's ingenious mode of construction and reading off his circles, by which much saving of time is secured. The discoveries and work done with this little telescope tested at the time the sight of the best observers in Europe, and the resources of much larger and better equipped instruments. Otto Struve, the great Russian astronomer, in a letter addressed to Mr. Burnham, in 1876, said he had devoted forty years of his life to the zealous observation and study of double stars; "but when," he said, "I think of what you have done in so short a time, I am almost ashamed of my own labors." How great these labors of Struve were may be judged from Mr. Burnham's own words, as given in his "Double Star Observations," in the *Memoirs of the Royal Astronomical Society*, vol. xliv: "Omit the observations (meaning measures, not discoveries) of Dembowski and Otto Struve, and our knowledge of

NINE TENTHS OF THE DOUBLE STARS

would not be materially advanced in the last thirty years." This was written in 1879, and Mr. Burnham's own measures and discoveries since would render the insertion of his own name necessary to preserve at the present time the truth of the statement. As soon as Mr. Burnham had access to the great eighteen and a half inch telescope of the Chicago Observatory, he applied himself to the measurement of double stars, and became as noted an expert in this difficult work as Baron Dembowski and Otto Struve, as his publications in the *Memoirs of the Royal Astronomical Society* show. He never having had instruction from any practical astronomer, his methods of work were original and showed great ingenuity. The form of the micrometer in general use did not suit him, and he invented one which has been almost universally adopted, and which the Clarks now attach to all their best telescopes. A picture of the new micrometer may be seen in *Monthly Notices* and in the *Memoirs of the Royal Astronomical Society* (vol. xlvii, p. 172). In 1877, M. Flammarion, of Paris, sent to Mr. Burnham a mass of printed proofs and a letter, stating that he had completed, and had put in

type, his "Catalogue of Double Stars which had shown Orbital or other Motion;" but he continued, "Before I publish it, I beg to submit the proofs to you for correction and revision—you, whom the scientific world now places at the head of this department of siderial astronomy." The proofs were corrected, and a large number of new measures and new systems in motion were added, which brought forth enthusiastic acknowledgments and compliments from the great French astronomer. I mention these things to show you in what estimation this man, of whom Chicago knows nothing, was held by the greatest of European astronomers so far back as 1877. Not only this, but besides his election as Fellow of the Royal Astronomical Society of England, he had also been made a member of the great German Astronomical Society. When a dispute in astronomy, involving acuteness of vision, has arisen in Europe, which could only be determined by a series of

THE CLOSEST AND MOST ACCURATE OBSERVATIONS,

Mr. R. A. Proctor, the well-known astronomer, has repeatedly called in Mr. Burnham as umpire, whose modest statement has always settled the question. At the date of which I am speaking, 1876 and 1877, Mr. Burnham had been for four years a regular contributor to *Monthly Notices of the Royal Astronomical Society*, of London, *Astronomische Nachrichten*, of Germany, and other European journals, and had published nine catalogues, embracing nearly five hundred of his own new double stars. When at this time it was suggested to give him the use of the great telescope in the Dearborn Observatory—absolutely unused till then—the President of the Astronomical Society asked, "Who is Mr. Burnham?" On September 20, 1876, however, he was appointed acting-director of the observatory, which honorary position he held until April 11, 1877, when, through local personal jealousies into which I need not enter, this order was rescinded; the door of the observatory was closed upon him, and he returned to his back yard and "cheese-box." It was too late, however, to consign such a man to obscurity.

His name had begun to be known in this country, and a war-cry was sounded in the leading daily papers of New York, Boston, Cincinnati and Chicago; the *American Journal of Science*, at New Haven, took up the matter, and in a short time the Directors of the Observatory were very glad to stop these indignant protests and restore to Mr. Burnham the use of the great equatorial. Since then, happy in the cordial and active co-operation of the present genial director, Professor George W. Hough, he has gone steadily on with his observations, until his friends can say he has discovered more double stars—over one thousand—and measured them, than any other man, living or dead. To Vol. xliv of the *Memoirs of the Royal Astronomical Society*, he contributed one hundred and sixty-seven quarto pages of double-star observations, taken during 1877–8, and comprising his tenth catalogue of two hundred and fifty-one new double stars, with measures, and micrometrical measures of five hundred double stars. In Vol. xlvii, of the same great work (1882–3), will be found one hundred and sixty pages of similar observations made by him, comprising his thirteenth catalogue of one hundred and fifty-one new double stars, with measures, and micrometrical measures of seven hundred and seventy double stars. But his great work—what the learned would call his

OPUS MAGNUM,

is yet to be published,—a complete catalogue of all the double stars ever discovered, with their right ascension and declination, the names of the various discoverers and all the measures taken by them. This all-important work, and tabulated record of all that is known of double stars, the government, through the Naval Observatory at Washington, undertook to publish some years ago, but in the press of its regular publications gave up the task after printing some fifty or sixty pages. It is a matter of satisfaction, however, to learn that in all probability the Smithsonian Institute at Washington will complete the work, in which case Mr. Burnham will bring his catalogue down to the present hour.

CHAPTER XXIV.

"O, RARE BEN JONSON!"

IN Chapter X, I gave you the outline of one of Ben Jonson's best comedies, and now I should like to make you acquainted with the author himself. Take him all in all, he is our greatest dramatist after Shakspeare, and one of the most notable figures in that great band of poets, dramatists and wits that crowded the age of Elizabeth, and even into the reigns of her successors. Already you have been introduced to great merchants, inventors and physicians, and I think it only fair that the claims of literature should be acknowledged as well. Descended from a respectable Scotch family of Annandale, Ben Jonson was born in London, in 1574. He was a posthumous child, and, his mother marrying again, he was brought up by her and his step-father, who was a bricklayer. Having by his brightness attracted the attention of some unknown friend of means, he was by his aid sent to Westminster School, and subsequently to Cambridge University; but, not having sufficient means to support himself there, was forced to return to London after a few months, there to take up his step-father's trade. A lad, however, of Jonson's high spirits, genius and ambition could not be content long to work with a trowel, and after a short time he laid it down in disgust, enlisted in the army, and crossed with his regiment to Flanders. There he fought a duel with one of the enemy, whom he killed and

despoiled in sight of both armies, and, apparently satisfied with the glories and uncertainties of war, returned to London, a youth of eighteen, proud, passionate and penniless. Having neither friend, profession nor trade, he did what most of the penniless young wits of that age did—took to the stage; with what success is not known, as his hasty temper soon brought him into collision with a fellow-actor, who challenged him. A duel followed; the challenger was killed, and

JONSON WAS THROWN INTO PRISON.

There he lay in danger of his life, until rescued by the kindly offices of a Catholic priest, in return for whose services the least thing Jonson could do—seeing he had neither influence nor money—was to turn Roman Catholic. So, in 1593, we find him once more adrift in London—a lad of nineteen—with a great muscular body, a strongly marked, almost ugly face, a sound education, great ambition and noble ideals of art, but absolutely friendless and penniless. Need I say what he did? What does so many an impecunious poet do, but fall in love, and, not knowing how to support himself, undertake to support a wife? So Jonson married, and, driven by necessity, took to writing plays or helping others to write them. And so he struggled on, we know not how; living from hand to mouth; a Bohemian of Bohemians; but in all his poverty and struggles clinging fast by his noble ideals of art, and determined—when the opportunity offered—that he would not pander to vulgar tastes, or degrade his high office as poet by stooping to catch popular applause.

And at length the opportunity—which, at least once in life, is said to come to all—came to him. In 1595 his

"EVERY MAN IN HIS HUMOR"

was accepted at the Rose theatre, was produced, proved a success, and the obscure playwright became famous. From this time, for over twenty years, Jonson was floated gloriously onward on the wave of prosperity and fame; hardly broken by two brief terms of imprisonment into which some political squibs

brought him, and one of which is notable as having given his mother an opportunity of showing the high spirit that ran in the family, and was so strong in her son. On the occasion referred to it was feared that Jonson would have to submit to the indignity of having his ears cut and his nose slit; dreading which, his mother visited him in prison, taking with her some poison, by drinking which he might escape the dreaded outrage. Fortunately Jonson was liberated in good time, and the anecdote is of value only as illustrating the Spartan courage and spirit of the family. In 1606, 1609 and 1610, respectively, appeared Jonson's greatest plays—"The Fox," "The Silent Woman" and "The Alchemist"; and in 1613 their author visited France as tutor to Sir Walter Raleigh's eldest son. Three years later Shakspeare's death left Jonson undisputed master of English drama, and in 1618 he was appointed Poet Laureate. This was an eventful period in the poet's life, as about this time his wife died and he himself paid his ever-memorable

VISIT ON FOOT TO SCOTLAND,

where he was entertained, with malicious hospitality, by the Scotch poet, Drummond, of Hawthornden, who made notes of his unsuspecting guest's conversation, which were afterwards given to the world, and have done much to form the popular estimate of Jonson's character.

This year, 1619, marks the highest point of the poet's prosperity. The universities of Oxford and Cambridge united in honoring themselves and him by conferring on him the degree of M.A., and King James tried very hard to persuade him to accept a knighthood. But Jonson's sturdy independence and contempt for merely titular dignity made him refuse the honor, which so many others would have given so much to obtain. In the court his was one of the most notable and distinguished figures. He was a frequent visitor to the tower, where Sir Walter Raleigh was now confined, and helped him in the composition of his "History of the World." With Lord Bacon also he was on terms of intimacy. The friend of King James,

and courted by the nobles, beauties and wits of the day; acknowledged on all hands to be the greatest scholar and poet of the times; earning a handsome income by the writing of masques; this was indeed the proudest period of his life. But already the clouds were beginning to gather. The great men of Elizabeth's spacious times were dying out. Shakspeare had gone; Raleigh was in prison; Spenser had dreamed his last; Bacon was on the eve of his fall; and a new race was springing up, with new fashions and new tastes, to whom the strong passions and mighty lines of the Elizabethan drama were distasteful. Finally, in 1625, Jonson's great friend and patron, King James, died; disease, precipitated and strengthened by late hours and strong wine, laid hold of the big body; melancholy seized the great mind, and want began to stare him in the face. And so, deserted by the court, for the writing of masques had been taken from him; forsaken by old friends, broken in health and spirits, the old poet was forced once more to have recourse to the stage, which he did in 1629, when his "New Inn" was produced, and failed.

From this point his course was steadily downwards. Other plays were produced from time to time, but at best with indifferent success. King Charles more than once extended to him a not ungenerous support, and now and then some old admirer sent him help for

"AULD LANG SYNE;"

but as a rule his life went down in sickness and shadow and travail, both of body and mind. Finally, just toward the end, his wife and children dead, his friends gone, with only an old woman and a priest to attend him; racked by pain, tortured in spirit, surrounded by medicine bottles, and gasping toward his end in a comfortless garret, his soul caught for a brief space a last glimpse of those celestial splendors that had fired his youthful imagination, and in his dying hours his genius flashed up into one bright, pure and pellucid flame of genuine poetry. It was "The Sad Shepherd"—his last effort; and in the effort—

happy, let us in all charity presume—the old poet died. This was in August, 1637, and a few days later he was buried in Westminster Abbey. There was, at the time, a talk of erecting a monument on his grave, but the civil war broke out; a race arose that knew not Jonson, and despised Shakspeare; and so his resting-place remained unmarked until, one day, an obscure admirer by the name of Jack Young, taking notice of the unfigured slab, gave a mason eighteen pence, and had cut in the stone the memorable words:

"O, RARE BEN JONSON."

CHAPTER XXV.

THE LIVES AND TIMES OF CAREY, MARSHMAN AND WARD.

I HAVE now shown you how several of our most successful men "got on;" have narrated the heroic efforts of eminent inventors who worked for no merely personal motive, as did the great merchants and bankers of whom I have spoken, but for the benefit of mankind and the ages; I have briefly glanced at the noble life and unselfish achievements of one of America's greatest surgeons; and have told you a touching story of a famous singer's goodness of heart; but not yet have I held up to you the highest example, not only of integrity, perseverance, unselfishness and energy, but of moral heroism—of a Christ-like life—of a sublime devotion to the highest interests of humanity—and *that* I now propose to do in devoting this chapter to a brief review of the life and times of Carey, Marshman and Ward. Some of you may not even have heard of these illustrious men, for youth like age is too apt to be fascinated by those types of greatness which find expression amid

THE ROAR OF CANNON

and the flash of arms; in thrilling adventures of physical daring; in gigantic speculations and vast accumulations of wealth. But there is a type of greatness that infinitely transcends all these;

the greatness achieved by men who have devoted their lives and means and talents and energies to the elevation and bettering of their fellow creatures; and I should feel that I was not doing my duty did I close my list of successful men, without impressing upon you the great lesson which I trust you will gather from this chapter.

No historian has told us what kind of a shoemaker was Clarke Nichols, of Hackleton; but he had the most wonderful apprentice in all Northamptonshire, England. The son of the parish clerk and school-master of Pury, William Carey had what store of letters his father could give. To this he added the whole of a Latin vocabulary, found we know not where. He was always busier with the structure of plants and insects than of soles and uppers. In Nichols' house he found a commentary with here and there a Greek word. Of course he was puzzled, but was not to be put down. At Pury lived

A LEARNED WEAVER,

Tom Jones, from whom young Carey got assistance, and learned the meaning of the various Greek words he came across in his reading. When sixteen or seventeen years old he received deep religious impressions; and after a time began to tell others of his experiences. In the midst of this good work he adopted Baptist views, and Dr. Ryland, of Northampton, says that "on the 5th of October, 1783, he baptized a poor journeyman shoemaker in the river Neu, a little beyond Dr. Doddridge's chapel in Northampton." Who, upon the banks of the Neu that day, imagined that the poor youth would win a name on the banks of the Ganges greater than that won by all the celebrities of Northampton?

At nineteen, Carey took a business and a wife. He was unfortunate in both—the former, he was never capable of managing, and the latter was not to be managed. Not only was she infinitely his inferior, but she was incapable of understanding his pursuits, of sympathizing with his noble aims, or of feeling proper respect for his grand character. Nothing prospered with him but his garden. His congregation could not give him as

much as would buy clothes. He was long troubled with fever and ague. He trudged and toiled to make and sell shoes; but gave up his first "charge," and accepted that of a little Baptist congregation in the village of Moulton. Here he hoped to do well by keeping a school, the master of which had just left. But he was not cut out for a pedagogue, any more than for a tradesman. "When I kept school," he remarked afterwards, "it was the boys kept me." At any rate the school could not "keep" him, as all he made out of it was something less than two dollars a week. His church raised him fifty-five dollars a year, and some fund paid him twenty-five dollars. Well might he again turn to his "last." He plodded once a fortnight to Northampton with his wallet on his shoulder, full of shoes going, and of leather coming back. Thirty years afterwards, when dining with the Marquis of Hastings, Governor-General of India, and, overhearing a general officer—who, though an officer, was certainly no gentleman—inquire of an aid-de-camp whether Mr. Carey had not been a shoemaker, Carey stepped forward and exclaimed:

"NO, SIR; ONLY A COBBLER."

Moulton was a memorable place to Carey, for here he went deep into biblical study; here he made the acquaintance of Dr. Ryland and Andrew Fuller, and the venerable author of "Help to Zion's Travelers," the father of Robert Hall; and, above all, here was born within the soul of William Carey, that idea which has already made his name renowned, and whence will come to it increasing veneration with every succeeding age. It was in a poor cot, in that poor village, that, after reading Cook's Voyages, he was teaching some boys geography. Christendom was a small part of the world. The heathen were many. Was it not the duty of Christians to go to them? It does not appear that he received this idea from any one. God sent the thought direct into his soul. It inflamed and filled it. It became his chief theme. Pasting some sheets together, he made a kind of map of the world, and entered in it all the particulars he could

glean as to the people of the respective countries. Andrew Fuller found him, the fruitless school abandoned, working at his last with his map on the wall before his eye; and while the hand plied the awl, revolving the condition of that wide world, and its claims on Christian men and women. About this time, at a certain meeting of ministers, Dr. Ryland called on the young men to name a topic for discussion. Up started Carey, and proposed: "The duty of Christians to attempt to spread the Gospel among heathen nations." The venerable preacher sprang to his feet, frowned and thundered out:

"YOUNG MAN, SIT DOWN!

When God pleases to convert the heathen, he will do it without your aid or mine!" All the old men of his denomination were steadily against him, but by degrees the young were brought to his side. At the age of twenty-eight, Carey removed to Leicester, somewhat improving his circumstances by going there; but, what was more to him, getting among good libraries and cultivated men. As his ample intellect laid in stores of knowledge, the internal fire turned all to missionary fuel.

The meeting of Baptist ministers in Nottingham, at the end of May, 1792, must ever be noted in the church history of India and the world. The pastor of the church at Leicester, William Carey, was appointed to preach. The fire which had burned under the constant musing of five years, to which books of travel, and maps, and histories had been daily fuel; prophecies and precepts, oil; and the discouragement of sage and good men but covering that sent it deeper: had leave to burst out at last. The pinch of want, the wear of labor, the keen sorrow of inability to give a good cause an influential advocacy, had all wrought deeply on the soul of Carey in his long training. The pent-up feelings of five years, pregnant fountains of the events of many centuries, burst out upon the assembled ministers and congregation as if a geyser had sprung at their feet. Dr. Ryland said he would not have wondered had the people "lifted

GOVERNMENT HOUSE, CALCUTTA.—See page 212.

up their voice and wept." The burden of that ever-memorable sermon was:

1. Expect great things from God.
2. Attempt great things for God.

One result was that at the next ministers' meeting, held at Kettering, a society was formed for propagating the gospel among the heathen, and a collection made, amounting to some sixty-five dollars odd; in English money, £13 2s. 6d.; and so the Baptist Missionary Society became an established fact.

The question now was, what country should be chosen as its field? And just at this juncture a letter came from Bengal, written by a Mr. Thomas, asking for assistance toward spreading the gospel there. He was a flighty—what most people would call half-cracked—ship's surgeon; one of those creatures who live in the torrid zone, bordering on insanity, full of great plans and devouring zeal, of crotchets, temper and genius. But he was full of something else that redeemed and atoned for all his eccentricities; full of a passionate, earnest love for the Master, and for his fellow-men. And this was the instrument used by Providence to open the Gospel commission among the Bengalese in their own tongue, and to turn to their shores the firm and well-considered steps of Carey. After writing this letter, Thomas, aided by a large-hearted gentleman named Charles Grant, an Indian official, spent three years laboring among the natives. Then, as usual, he quarreled with his best friends, and returned to England, where he arrived in time to lay his plans before the infant society, which adopted him as its missionary, and appointed Carey to accompany him.

CHAPTER XXVI.

CAREY, MARSHMAN AND WARD—CONTINUED.

I HAVE not space to enter at detail into the difficulties these two men had to overcome before they succeeded in getting to India. At first Mrs. Carey would not hear of being dragged there with her four children. Then, the East India Company, which owned all the ships sailing to India, would rather have seen a band of devils land there than a band of missionaries. But, finally, every obstacle was surmounted, and on June 13, 1793, Thomas, Carey, Mrs. Carey—for the indefatigable Thomas had literally plagued her into going—her sister, and the children, embarked on board a Danish Indiaman, and on November 11th, the soil of Bengal was first pressed by a man whose name will ever shine on the first pages of its Christian history.

Without money, or goods, or letter of credit; plagued by a wife and, what is worse even than that, a sister-in-law full of bitterness and reproaches; what was Carey to do? For many a weary day he supported himself by his gun, amid

THE REMOTE AND DEADLY JUNGLES

that fringe the Bay of Bengal—called the Sunderbunds. At last, through Thomas, he secured a position in an indigo factory, owned by a good friend, Mr. Udney, where Carey was soon installed, with a moderate income, at the head of a large estab-

lishment of natives, to whom he could preach the Gospel. He at once wrote home to the Society, saying that he no longer needed to be paid from their funds, and requesting that what they would consider as his salary should go to print the New Testament in Bengalee. Not only this, but of his actual salary he devoted a fourth, and sometimes a third, to the purposes of his mission. But his comparative prosperity was not to remain unclouded. He was prostrated by fever; one of his children was carried off by dysentery; and his wife's reason fled, never to return.

STILL CAREY WORKED ON;

worked at that secular duty for which he had neither heart nor head, and at those studies and sacred labors for which he had such a heart and head as were hardly ever given to another man. He translated the New Testament; he preached; he itinerated; he set up as an improver of agriculture; reared plants and flowers, which he dearly loved; and sent for implements from England.

There was also another matter which he did understand. The Bible was ready to be printed in Bengalee. He obtained types. A wooden press was presented to the mission by Mr. Udney, and Carey wrote home for a press and paper, adding that if they could send a "serious printer," such a man as he had known in Derby before leaving England, he would be a great blessing. The factory was now broken up, and Carey set up one for himself at Kidderpore. He had now been laboring unaided and alone for over five years, and you may imagine how overjoyed he was at learning of the arrival of four colleagues. Carey at once wrote, urging them to join him in the interior. But he was there as an indigo-planter; they had avowed themselves missionaries, and in that character dared not settle on the territory of the East India Company. One of them, however, protected by a Danish passport, set out to persuade Carey to come and settle in Serampore. This was no other than that very printer whom Carey had mentioned as having seen in

Derby, and his name was William Ward. He had never forgotten some words Carey had said to him, on a walk before his departure for India. Since then, Ward had become a popular newspaper editor, had imbibed republican principles, had twice been prosecuted by the state for his advocacy of the same, and on each occasion had been defended by Erskine. At Hull, he joined the Baptists, went to college, became a minister, then missionary to India, and so completely broke away from politics that for ten years after settling at Serampore he did not even take in a paper. It was, you may well believe, with no little excitement that Ward jumped from his boat, and walked from the river to the house of the man whose influence had attracted him from the heart of England to

THE DISMAL FLAT OF BENGAL.

Carey went back with him to Serampore, to enter into their great work with Joshua Marshman, whose name and reputation were to take a place beside his own, and out of whose family India was to welcome the pen of John Marshman, and the sword of his son-in-law, Havelock. At Serampore, happily, the missionaries found the governor and authorities among their friends, and, according to a well-meant but impracticable plan of Mr. Carey's (a favorite idea of his), they agreed to live together as one family. They were to dine at one table, to place all their income in a common fund, by whomsoever earned, and to allow each family a certain sum for "personal expenses."

About this time they were greatly cheered; the first Indian convert was baptized—Hindu Krishnu. Carey officiated, and the ceremony was profoundly impressive. It was, indeed, a momentous occasion; for the superstitions of centuries were shaken to their foundation, when the waters of the "sacred" river went over the Hindu, and the name of the Father, the Son, and the Holy Ghost, sounded across an arm of the Ganges. That evening the Lord's Supper was first celebrated in the language of Bengal; that evening the cup of the missionaries was full of joy and hope. Krishnu was but one; a continent

was coming up behind him. About six weeks later occurred another great event; the New Testament was placed complete in the hand of its happy translator; being the first *prose* work printed in Bengalee, except a code of laws. And so the good work went bravely on; and after three more eventful years, there was celebrated the first Christian marriage of Hindu converts; the first solemn inauguration of that happy community, the Christian family, before which the seraglios of Bengal were eventually to disappear.

And so twelve years passed; twelve years since Carey was smuggled into Calcutta, and sheltered in a hovel by the charity of a heathen. And now he was to reap of the fruits of his labor. It was a high day at Government House—that

SUPERB RESIDENCE,

built at a cost of seven hundred and twenty-five thousand dollars, for the Governors-General, by the most splendid of their line. The fashion, wealth, and beauty of Calcutta crowded its noble throne-room. From all parts of that vast country they flocked. The most eminent men in the native community; learned Brahmins from all parts of the empire, their simple dress setting off by contrast the gorgeous uniforms and state attire of high officials; the opulent rajahs and baboos, and the representatives of the native princes of India, in their plumed and jeweled turbans, were assembled to do honor to the majesty of British power. Nor was the occasion unworthy of the august assembly; it was the formal honoring by a public disputation of Fort William College. On the dais, at the head of this grand assembly, surrounded by the judges and high officers of state, was seated the magnificent Marquis of Wellesley, in the full meridian of his great renown. And there, in that presence, stood forth the meek but mighty ex-cobbler of Moulton, William Carey, as professor, both of Bengalee and Sanskrit, for on him devolved the task of addressing a speech to the great Viceroy in the latter language, the sacred tongue of India. And nobly did Carey proclaim his high mission before the assembled mag-

nates, and took his place as bravely as he wore his honors humbly.

And here I must take leave of this noble trio. My space will not permit me to follow them much further. The literary work accomplished by Carey and Marshman, was little short of miraculous. They dealt with languages, hard and untried languages, as other men might with poetry. They mastered the living and the dead; those spoken at their doors, those spoken far away. They made grammars, and translations of Scripture and of native works into English, on a scale that was perhaps more gigantic than practically wise; but, as a prodigy, nothing like it has ever been done. They conceived grandly, lived like great souls in a wide sphere, and wrought for millions, and for all coming generations. But wonderful beyond all, and a proof of patience combined with intellectual power never exceeded, was Marshman's undertaking, *in the midst of his other labors*, to learn Chinese. And he did learn it, and actually translated the Scriptures into it; and then, to get money to print them, he translated "Confucius," for which the rich liberally subscribed. And the man who did this was earning for the Mission, with the help of his wife, ten thousand dollars a year, by keeping a boarding-school. They lived out of the common stock, and had besides five hundred dollars a year for their family expenses. Think of that, and then fall down and bow the knee to railway monopolists and lucky gamblers in stock.

CHAPTER XXVII.

FAMOUS BLIND PEOPLE—BLIND POETS, PREACHERS, PHYSICIANS AND TRAVELERS.

IN former chapters I have told you of men who carved out for themselves great fortunes and great names in the face of many and, to ordinary people, insuperable difficulties. But these difficulties were outside ones; they were not physical or mental, resulting from defects in body or mind of the men themselves. The cases I am going to bring before you now are much more wonderful than any we have yet considered; for they relate to men and women who have achieved distinction in spite of that saddest and most disabling of all physical afflictions—total blindness. To me it has always seemed a somewhat singular fact that two of the three greatest epic poets of the world were blind—Homer and Milton; while the third, Dante, was in his later years all but, if not altogether, blind. So, too, was the great Celtic bard, Ossian, whom the First Napoleon regarded as, next perhaps to Bunyan, whose "Holy War" was his delight, the greatest author who had ever lived. Have you ever read any of Ossian? He is not so popular to-day as he once was, but his poems will well repay perusal. Out of Milton and Dante I know no works so uniformly majestic and sublime; and among all blind poets no one has more strikingly portrayed the emotions native to a sense of blindness, than the venerable Ossian. In almost every poem in the entire collection, he laments over his

sightlessness, in strains so touching, as are not only indicative of condition, but prove that the emotions awakened by this affliction have been the same in

EVERY AGE OF THE WORLD

and state of society. In the Fourth Book of Fingal, he thus sadly mourns over his deprivations.

"Daughter of the land of snow, I was not so mournful and blind; I was not so dark and forlorn, when Ever-allin loved me!"

Again, in the same book of that poem, he thus addresses Malvina:

"But I am sad, forlorn and blind: no more the companion of heroes! Give, lovely maid, to me thy tears."

In "Carthon" he alludes touchingly to feeling and hearing, the two senses on which every blind person most depends. "I feel the sun, O Malvina! leave me to my rest. Perhaps they may come to my dreams. I think I hear a feeble voice! The beam of heaven delights to shine on the grave of Carthon. I feel it warm around." And again, in the Fifth Book of Fingal, lamenting the fall of that hero: "I hear not thy distant voice on Cona. My eyes perceive thee not. Often forlorn and dark, I sit at thy tomb, and feel it with my hands. When I think I hear thy voice, it is but the passing blast. Fingal has long since fallen asleep, the ruler of the war!" In the characters of Crothar, Lamor and Barbarduthal, who are represented blind, Ossian so perfectly delineates the gestures and feelings consequent upon such a state as could be done by no author who was not prompted by experience. In "Croma," the poet, speaking of his interview with Crothar and that hero, and referring especially to the shield presented to him by Fingal, thus speaks:

"Dost thou not behold it on the wall? for Crothar's eyes have failed. Is thy strength like thy father's, Ossian? Let the aged feel thine arm! I gave my arm to the King; he felt it with his aged hands."

Lastly, how sublime is the following apostrophe to that orb whose light he never more should see!

"O thou that rollest above, round as the shield of my fathers! Whence are thy beams, O Sun! thy everlasting light? Thou comest forth in thy awful beauty; the stars hide themselves in the sky; the moon, cold and pale, sinks in the western wave; but thou thyself movest alone. Who can be a companion of thy course? The oaks of the mountain fall; the mountains themselves decay with years; the ocean shrinks and grows again; the moon herself is lost in heaven: but thou art forever the same, rejoicing in the brightness of thy course. When the world is dark with tempests, when thunder rolls and lightning flies, thou lookest in thy beauty from the clouds, and laughest at the storm. But to Ossian thou lookest in vain, for he beholds thy beams no more: whether thy yellow hair flows on the eastern clouds, or thou tremblest at the gates of the west. But thou art, perhaps, like me, for a season; thy years will have an end. Thou shalt sleep in thy clouds, careless of the voice of the morning. Exult then, O Sun, in the strength of thy youth! Age is dark and unlovely; it is

LIKE THE GLIMMERING LIGHT OF THE MOON,

when it shines through broken clouds, and the mist is on the hills: the blast of the north is on the plain, the traveler shrinks in the midst of his journey."

So, too, Homer, in his account of Demodocus, in the Odyssey, and of the Cyclopean giant, whose eye Ulysses had put out, in the ninth book of the same poem, utilizes his own sightless experience; while Milton, in the third book of "Paradise Lost," in "Samson Agonistes," in his famous sonnet to Cyriac Skinner and in others of his poems, frequently dwells on the same subject.

How directly do the following words of his go to every reader's heart:

"Thus with the year
Seasons return; but not to me returns
Day, or the sweet approach of even or of morn,
Or sight of vernal bloom, or summer's rose,
Or flocks, or herds, or human face divine,

But cloud instead, and ever-during dark
Surround me! . . .
So much the rather thou, celestial Light!
Shine inward, and the mind through all her powers
Irradiate; there plant eyes; all mist from thence
Purge and disperse; that I may see and tell
Of things invisible to mortal sight."

Dr. Blacklock, also, in the following expressive lines, not only paints his own experience, but that of his entire class:

"Wide o'er my prospect rueful darkness breathes
Her inauspicious vapor; in whose shade,
Fear, grief, and anguish, natives of her reign,
In social sadness gloomy vigils keep;
With them I walk, with them still doomed to share
Eternal blackness, without hope of dawn."

The man from whose works I quote these lines was not only a blind poet of great merit, but also a minister of the Church of Scotland, and a doctor of divinity. When only six months old, in 1721, he was seized with small-pox and lost his sight: just as Carolan, the celebrated Welsh bard and lyrist, who flourished toward the close of the seventeenth century, lost his. Nor is Dr. Blacklock the only blind man who has labored with distinction from the pulpit. During the second half of the seventeenth century flourished the Rev. Richard Lucas, D.D., who after writing many works, and preaching eloquently and faithfully in the service of the Church of England, was buried in Westminster Abbey in 1715. Later still, the Rev. William Jamieson, D.D., filled with great acceptance the chair of Professor of History in Glasgow University, and at this moment one of my own senior classmates in the same great seat of learning, the Rev. George Mathieson, D.D., is among the most brilliant and

POPULAR PULPIT ORATORS

in the Church of Scotland. For many years he has labored in the lovely little town of Innellan, daintily perched on the green and thickly wooded bank of the river Clyde, and commanding

one of the most charming views in the world. There Doctor Mathieson, Sunday after Sunday, not only preaches eloquent sermons, but actually recites the psalms and the usual portions of Scripture; and the way in which he does it is this: A faithful and most loving sister reads aloud to him, and he memorizes. Since I last had the pleasure of hearing him, and spending a delightful evening at his manse, Doctor Mathieson has earned more general distinction by his contributions to periodical literature, and some years ago his own university conferred on him the degree of doctor of divinity.

Then, too, there have been famous blind physicians, notably Doctor James Hugh, of Carlisle, England; organists and composers, like John Stanley; pianists, like "Blind Tom;" noble and fearless patriots, like John Ziska; biographers, like James Wilson, of Richmond, Virginia; scientific men and naturalists, like Huber,

THE GREAT AUTHORITY ON BEES,

and in his day a member of most of the learned academies of Europe; warriors and kings, like John, King of Bohemia; American poetesses, such as Misses Frances Jane Crosby, Cynthia Bullock, Daphne S. Giles, and Alice Holmes; and poets of an earlier age, like John Gower, to whom I have already introduced you, and "Blind Harry," of Scotland, author of the long, epical poem entitled "The Bruce."

But, in one sense, more wonderful than any of these, was the case of James Holman. When twenty-five years of age, in 1811, he lost his sight while serving as lieutenant in the Royal Navy of England, off the coast of Africa. And what do you think he turned to then—this sailor, stricken with blindness in

THE FLOWER OF HIS YOUTH?

He became an explorer and traveler. Only think of that. Yes, and traveled all alone through France, Italy, Russia, Poland, Austria, Saxony, Prussia, Hanover, Ceylon, Siberia and a large portion of Asia.

I am writing this chapter far away from all libraries; in a

spot secluded from the world of business and letters; where I have no access to books; and so am forced to rely upon my memory. Otherwise I could swell the list indefinitely. But the names I have mentioned may suffice to impress on you the fact that perseverance, energy and pluck will fight their way, and win distinction against any and all odds—even the severest physical affliction. Why, at this writing, the postmaster-general of England is a blind man, who, before he entered Parliament, had achieved a world-wide reputation as Professor Fawcett, as instructor in political economy in Oxford University. And not only is the honorable professor an eminent political economist, and one of the best postmasters-general England has ever had, but he is an enthusiastic and successful fly-fisher for trout and salmon.

Another point which I would impress upon you, in this connection, is the fortitude and sweet patience with which great blind men and women have borne their sad affliction. I should like very much to repeat to you Milton's sublime sonnet on his blindness, but not having it beside me I give you another of his poems, to me, in some respects, the noblest of all his productions:

I am old and blind!
Men point at me as smitten by God's frown;
Afflicted and deserted of my kind·
Yet am I not cast down.

I am weak, yet strong;
I murmur not that I no longer see;
Poor, old, and helpless, I the more belong,
Father supreme! to Thee.

O, merciful One!
When men are farthest, then art Thou most near;
When friends pass by me, and my weakness shun,
Thy chariot I hear.

Thy glorious face
Is leaning towards me; and its holy light
Shines in upon my lonely dwelling place—
And there is no more night.

On bended knee
I recognize Thy purpose clearly shown:
My vision Thou hast dimm'd, that I may see
Thyself—Thyself alone.

I have nought to fear;
This darkness is the shadow of Thy wing;
Beneath it I am almost sacred; here
Can come no evil thing.

O! I seem to stand
Trembling, where foot of mortal ne'er hath been,
Wrapp'd in the radiance of Thy sinless land,
Which eye hath never seen.

Visions come and go:
Shapes of resplendent beauty round me throng;
From angel lips I seem to hear the flow
Of soft and holy song.

Is it nothing now,
When heaven is opening on my sightless eyes?—
When airs from paradise refresh my brow
The earth in darkness lies.

In a purer clime
My being fills with rapture—waves of thought
Roll in upon my spirit—strains sublime
Break over me unsought.

Give me now my lyre!
I feel the stirrings of a gift divine:
Within my bosom glows unearthly fire
Lit by no skill of mine.

CHAPTER XXVIII.

FAMOUS LITTLE MEN—GENERAL TOM THUMB.

AND now, having spoken so much about Big Men, I think it is only fair that we devote a word or two to Little Men, and it is really remarkable how many of the world's great men have been little men. Giants in body are not usually giants in mind, and the fat man or fat woman is generally the stupidest person in the circus. On the other hand, little people are usually quick, lively, full of vitality, and talent and life. Whether there is any necessary or natural connection between littleness of body and greatness of mind, or greatness of body and, if not littleness, at any rate, slowness of mind, it is impossible to say; but this we do know, that the relations of mind and body are very intimate, and their mutual and reflex influence very strong. Had not Pope been a puny little weakling, who all through life had to be padded up with stays and attended by a nurse, we should in all probability have wanted the "Dunciad" and "Essay on Man"; and had not blindness compelled John Milton to turn his eye upon

THAT INNER WORLD OF MEMORY

and imagination, from which to create a newer and fresher and lovelier world than any visible to the physical eye, he would hardly have written the Epic of the Anglo-Saxon race. It was

the lameness of Scott and Talleyrand that made the one a poet and novelist, and the other a statesman and diplomatist; and no one can doubt that the bitterness and morbid irritability caused by Byron's club-foot drove him into verse. And so, too, history is full of examples of pygmies, who, tormented by a mortifying consciousness of their physical inferiority, have been provoked thereby to show that their lack of flesh and blood has been far more than made up to them in brains. Many a Lilliputian in body, remarks Professor William Matthews, in one of his many entertaining and instructive gossips, has proved himself a Brobdingnagian in intellect. When Lord Nelson was passing over the quay at Yarmouth to take possession of the ship to which he had been appointed, the people exclaimed, "Why, make that little fellow a captain?" The sneer of disparagement was but a "foregone conclusion" in his own mind, and he thought of it when he fought the battles of the Nile and Trafalgar. Had Bonaparte been six inches higher, says Hazlitt, it is doubtful whether he would have gone on that disastrous Russian expedition, or whether he would even have been First Consul or Emperor. It was the

NICKNAME OF "LITTLE CORPORAL"

that probably first pricked the sides of his ambition, and stung him into that terrible activity, which made all Europe tremble.

Nearly all the poets, and many of the greatest prose writers of ancient and modern times, have been little men. I suppose most people are familiar with the famous impromptu retort made by Dr. Watts to a lady who had twitted him on the smallness of his stature:

> "Were I as tall as reach the pole,
> Or grasp the ocean in a span,
> I must be measured by my Soul—
> The MIND'S the standard of the Man."

One of the great poets of Athens was so small that his friends fastened lead to his sandals to prevent his being toppled over or blown away. Aristotle was a pygmy in person, though a giant

in intellect; and so, though in a less degree, were Æsop, De Quincey and Moore. Of Pope, I have already spoken more than once, but so important a man will bear to be spoken of often. He was so small and crooked that some wit compared him to an interrogation point, and Hazlitt asks of him, very pertinently, "Do we owe nothing to his deformity? He doubtless soliloquized, 'Though my person be crooked, my verses shall be straight.'" It was owing, doubtless, in some degree, to the fact that he could boast of but four feet and six inches in stature, that that phenomenon of the eighteenth century, the Abbé Galiani, owed the vast and solid erudition which Grimm says he joined to a luminous and profound general knowledge. Personally, says Marmontel, the Abbe was the prettiest little harlequin that Italy ever produced; but upon the shoulders of that harlequin was the head of Machiavelli. Tom Moore, the Irish poet mentioned a few lines back, was so small that George IV. once threatened to clap him into a wine-cellar.

In this connection I have reserved to the last a little man with whose name all boys and girls are familiar, and whom indeed many of them must have seen, and spoken to, and possibly shaken hands with. Of course, I allude to

GENERAL TOM THUMB.

Over forty years ago a lady from Waterford, New York, who was visiting Hartford, Connecticut, told this bit of experience to her friends there:

"When I was in Bridgeport last week," she said, "I saw the finest, funniest little fellow in the world. The friends whom I was visiting wanted me to go to a children's school to see the smallest boy that ever attended any school. I went, and the schoolmistress called up 'Charlie,' when a mite of a fellow came and stood on her held-out hand and recited his letters." This little fellow was Charles Sherwood Stratton, afterwards known as General Tom Thumb, and the story gives a good idea of his size and the impression he made on people when he first came before the public. It was in November, 1842, that Mr. Barnum,

the great showman, discovered him at his home in Bridgeport, Connecticut, and a few weeks later that he made his appearance in New York. "He was not two feet high," says Mr. Barnum; "he weighed less than sixteen pounds, and was the smallest child I ever saw that could walk alone. After some coaxing he was induced to talk with me, and he told me that he was the son of Sherwood E. Stratton, and that his own name was Charles S. Stratton. After seeing him and talking with him I at once determined to secure his services from his parents, and exhibit him in public."

Hereupon, however, occurred a difficulty. The child was very small, it was true, being not much higher than a man's knee. But then he was only five years old, and if that were known people might refuse to believe that he was a dwarf. Accordingly, when he was advertised in New York, six years had been added to his age, several inches subtracted from his height, and the place of his birth changed from Bridgeport to England. Here is the announcement that appeared in the *Courier and Enquirer* of December 17, 1842: "General Tom Thumb was born in Lancashire, England, and arrived in this country in the steamer *Columbia* a short time since. He is eleven years of age, weighs fifteen pounds two ounces, and is exactly twenty-two inches high. Beyond all question he is the greatest dwarf of whom we have any account, being smaller than Sir Jeffrey Hudson, who was accidentally sewed up in a pie to the amusement of his friends, and alongside of whom Major Stevens declares himself to be a giant. Of a verity, he is the greatest curiosity we have ever seen. . . . No description can possibly enable the reader to form any idea of the diminutiveness of this little gentleman. . . . We shrewdly suspect that his cane is no more or less than

THE HANDLE OF A STEEL PEN

with a button on the larger end of it."

The General at once made a great sensation. People who are middle-aged now recollect with what delight they went to his

entertainments when children, listened to his songs, enjoyed his quick wit, and admired the presents he received. For a year he charmed the children and interested the grown people of New York, and then Mr. Barnum determined to take him to England. Here his success was even greater than at home. A house was hired in one of the fashionable neighborhoods, cards were sent out to the nobility, in a few days elegant carriages blocked the street in front of the door, while crowds of distinguished people thronged the drawing-rooms for a glimpse of the little General, and finally he was summoned to Buckingham Palace by Queen Victoria.

An older person might have been frightened by the importance of the occasion and the elegance of the company, but the General was only a child, and was too used to crowds by this time to show any shyness or fear. He talked to the Queen as if she were his mother, and delighted all the royal household by his bright manner and clever speech. Her Majesty presented him with a beautiful gold watch and chain, and other gifts were made to him by the different members of the family. When it became known that he had visited court the interest of the public increased. Entertaining stories were everywhere told of his cleverness and wit. On one occasion, it was related, the Duke of Wellington came into the hall while the General was representing the character of Napoleon Bonaparte. Walking up to the platform, the old Duke pleasantly inquired:

"What are you thinking of, General?"

The little fellow, who had been pacing up and down the stage, lost in thought, looked up from underneath his cocked hat and recognized the Duke.

"I was thinking," he said quickly, "of the loss of Waterloo."

One can get a good idea of the excitement that prevailed by reading what was said at the time. Haydon, an artist who was exhibiting his pictures in the same building, and to whose exhibition no one went, tells us that in one week twelve thou-

sand persons paid to see Tom Thumb, while only one hundred and thirty-three and one half went to see his show. So great was the enthusiasm over the little General, that he is said to have made half a million of dollars out of his two years' European tour.

In 1863 Tom Thumb's public career reached its highest point in his marriage to Lavinia Warren Bump. This young lady, who was also a dwarf, had been discovered by Mr. Barnum the year previous at her home in Middleborough, Massachusetts, and placed on exhibition at the Museum in New York. She was then about twenty-two years old, and quite attractive in her personal appearance. Crowds flocked to the Museum to see her, and the excitement rivaled that caused by Tom Thumb twenty years before. The General himself became interested, and not unnaturally formed the idea of making her his wife. Happily Miss Warren, as she was called, listened favorably to his suit, and in a short time the little couple had become engaged. Their wedding was arranged by Mr. Barnum on a scale of great splendor, and many who are yet young remember the sensation which it caused. New York had fewer sensations then than now, and

THE MARRIAGE OF GENERAL TOM THUMB

was quite a wonderful event. On the tenth of February, 1863, the ceremony was performed at Grace Church, New York. A large and fashionable company was present, no one being admitted who had not a card of invitation; it is said, indeed, that as much as fifty dollars was bid for a ticket, of which, however, none were sold. The best man was the rival dwarf, Commodore Nutt, and the bridesmaid, Miss Minnie Warren, Lavinia's sister. After the wedding a reception was held at the Metropolitan Hotel, and the little couple went off on their bridal tour. On the fifteenth of July, 1883, Tom Thumb suddenly died. He had grown since he was first exhibited to be forty inches in height, and at the time of his death weighed about seventy pounds.

CHAPTER XXIX.

HOW TO GET ON IN THE WORLD—BE HONEST—BE AMBITIOUS—BE RESOLUTE—MASTER YOUR BUSINESS.

HAVING now told you something of men who got on well in the world, you will naturally ask, How did they get on? how can I get on? and this is precisely the question; for these two questions make practically one, which I now propose to answer. And first of all I would say, be honest, be truthful, be sincere. On this corner-stone of honesty, truthfulness or sincerity—for they mean the same thing—is built the character of a gentleman. Show me the boy who will not tell a lie, and I don't care what his faults may be, I am ready to stake my all on that boy's success in life. Charity, they say, covers a multitude of sins; but even charity does not cover a tenth part of the area of shortcomings and faults that absolute honesty does. A boy may be slow, even stupid; many of the greatest men—Scott and Goldsmith, for example—were

SLOW, AND EVEN STUPID BOYS;

and his employer will forgive him. He may be careless, flighty, too fond of play, too little inclined to work; his temper may be quick, his health bad; he may have a hundred weaknesses or faults, and yet, seeing he is but a boy, all will be overlooked by a wise parent or employer. But let him be untruthful; let him be dishonest, and what then? For, practically, untruthfulness

and dishonesty are the same thing. There is little difference in degree, and none in kind between a thief and a liar—a theft, indeed, being merely a lie in action. And how honesty is prized and respected by every one! Who would not like to be able to say with Thackeray, in the words which

HE MAKES HIS OLD GOLD PEN SAY—

the pen with which he had written much of his best work:

> "Nor pass the words as idle phrases by;
> Stranger! I never writ a flattery,
> Nor signed the page that registered a lie."

And so, in every walk of life, business, literature and art. No poem, no painting, no work of fiction, no system of philosophy, was ever known that was not based on sincerity, on honesty. "Look into thine own heart, and write!" said Sir Philip Sidney, and the greatest writers ever since, from him to our own Longfellow, have been also the most sincere. The fame of the warrior, the statesman, the inventor, the orator, the explorer—*that* is something we should all like to have; but for my own part, I can think of no nobler, no grander epitaph a man could desire to have inscribed upon his tombstone than this:

"HE NEVER TOLD A LIE."

And, though, as has been pointed out in the introduction, honesty is not *always* the best policy (from a merely worldly point of view), it generally turns out to be so in the long run, and, like virtue, is its own reward. Some years ago, the directors of the Bank of England received an anonymous letter, stating that the writer had

MEANS OF ACCESS TO THEIR BULLION ROOM,

the room in which the gold was stored. They treated the communication as a hoax, and took no notice of it. Another and more urgent and specific letter failed to rouse them. At length the writer offered to meet them in their bullion room at any hour they might please to name. This startled them. They communicated with their correspondent through the channel he had indicated, appointing the hour of midnight for the rendezvous.

A deputation of the board, lantern in hand, repaired to the place, locked themselves in, and awaited the arrival of the mysterious correspondent. Punctual to the hour a noise was heard below. Some boards in the floor were without much trouble displaced, and in a few minutes the Guy Fawkes of the bank stood in the presence of the astonished directors. His story was straightforward and simple. In the course of his labors as one of the sewer-cleaners for the city, he had discovered an old drain that ran right under the bullion room, by means of which he could have abstracted large sums of money. Inquiry was made; the facts were proven; no money had been abstracted, and the gratified and relieved directors rewarded the poor man's honesty with

A PRESENT OF FOUR THOUSAND DOLLARS,

and what, to him, must have been a handsome annuity for the rest of his life.

But not only must you be honest in what you say and do, but as to how you dress and live. Never dress, or give yourself airs above your station in life. It will impose upon no one, for although you may be successful at first, detection and shame are sure to result in the long run. If you are a jackdaw, *be* a jackdaw, and

DON'T STRUT ABOUT IN BORROWED PLUMAGE.

The moment you speak your voice will betray you. One of the great curses of modern society is the desperate effort so many people make to "keep up appearances." In this country it is not quite so bad as in European communities where the spirit of caste predominates, but even here, particularly in our large cities, much happiness and solid comfort are sacrificed to this vulgar ambition to make a brave show. It is not the clothes that make the man; nor the money that is in his pocket; it is what is in the man himself. Yet I have known of the happiness of a household being wrecked through a seal-skin sacque, or a horse and buggy. And what is this insane keeping up of appearances but rank dishonesty? The boy or girl, the man or woman, who

tries to appear to be other than he or she really is, is simply a sham.

There is, remarks a popular writer, a dreadful ambition abroad for being "genteel." We keep up appearances too often at the expense of honesty; and, though we may not be rich, yet we must seem to be so. We must be "respectable," though only in the meanest sense—in mere vulgar, outward show. We have not the courage to go patiently onward in the condition of life in which it has pleased God to put us; but must needs live in some fashionable state to which we ridiculously please to call ourselves, and to gratify the vanity of

THAT UNSUBSTANTIAL GENTEEL WORLD

of which we form a part. There is a constant pressure and struggle for front seats in the social amphitheatre; in the midst of which all noble self-denying resolve is trodden down, and many fine natures are inevitably crushed to death. What waste, what misery, what bankruptcy, come from all this ambition to dazzle others with the glare of apparent worldly success, I need not describe. The mischievous results show themselves in a thousand ways—in the rank frauds committed by men who dare to be dishonest, but do not dare to seem poor; and in the

DESPERATE DASHES AT FORTUNE,

in which the pity is not so much for those who fail, as for the hundreds of innocent families who are so often involved in their ruin.

Boys, never be ashamed of your trade. If you are a barber call yourself a barber, and not a "tonsorial artist;" if a tailor, call yourself a tailor, and not a "fashionable costumer." It was a good trait in that quaint old quaker, Isaac T. Hopper, that he was not ashamed of the shop. It is related of him, by his biographer, that one day, while he was visiting a wealthy family in Dublin, during his sojourn abroad, a note was handed to him, inviting him to dine the next day. When he read it aloud, his host remarked: "Those people are very respectable, but they are not of the first circle. They belong to our church,

but not exactly to our 'set.' Their father was a mechanic." "Well, *I'm* a mechanic myself," said Isaac; "perhaps if thou hadst known that fact thou wouldst not have invited me!" "Is it possible," responded his host, "that a man of your information and appearance can be a mechanic?" "I followed the business of a tailor for many years," rejoined his guest;

"LOOK AT MY HANDS.

Dost thou not see the mark of the shears? Some of the mayors of Philadelphia have been tailors. When I lived there, I often walked the streets with the chief justice. It never occurred to me that it was any honor, and I don't think it did to him."

But honesty of itself is not sufficient. It goes a long way, but not *all* the way, as witness the thousands and thousands of honest men who die poor, if not almost in destitution. A boy must also have ambition. It is the easiest thing in the world to be poor. Content may or may not be a virtue, and even at its best it is only a second rate virtue after all. No really great man ever *was* contented this side heaven; and even in heaven it is difficult to think how there can be heaven without development, without progress. Therefore a wholesome ambition is

A GOOD THING TO HAVE AND CHERISH.

The higher the aim, the nobler the execution; better perish as Franklin than eke out an inglorious existence as Jones. What says the late Lord Lytton?

> "The athlete, nurtured for the Olympian games,
> Gains strength at least for life."

And so with all of us. No matter though we fail to secure all at once, or at any time, the object of our ambition. The mere attempt is an education in itself, and the exertion put forth will but strengthen us for another and perhaps triumphant effort.

But ambition will be worse than useless unless backed by will-power.

BE RESOLUTE.

Will-power, remarks a popular essayist, has many names, but the thing itself is always the same. It may be called "grit,"

or "pluck," or "determination," or "stubbornness," it matters not; its power is the same, and if well directed, will accomplish more than talent or even genius without it. A person of very ordinary ability is sure to achieve success if possessed of will-power enough to drive him on to overcome obstacles and surmount difficulties; while it is just as true that a mind of unusual strength, gifted with great talents or even genius, is sure to fail if it lack energy to *do* and dare. There is not a boy in the land who cannot win an honorable place in the world if he have the pluck to make up his mind that he will sacrifice everything to accomplish his purpose. Lord Beaconsfield, England's great Prime Minister, said that he started out in life determined to win that position before he died. With Jewish blood in his veins, and everything against him, he made up his mind that

ALL THE WORLD SHOULD KNOW

and honor him before he died, and he succeeded. Although his race was generally regarded with suspicion and disfavor, he never denied his kinship to it, and, keeping the one object before his mind, died Lord Beaconsfield, after having twice attained the Premiership and made his Queen an empress. When discouraged he remembered how Joseph, four thousand years before, rose from the position of slave to be the Prime Minister of the Pharaohs, and two thousand years later, another of his blood filled the same position to the King of Persia.

"What has been done, can be done again," he said. "I am not a slave, I am not a captive, and by energy I can overcome greater obstacles." The result proved how truly his words were prophetic, because prompted by the spirit within which felt its power. Let every boy resolve at once that the world shall feel his power before he dies. There never was a time when boys had so many opportunities as now. If they work all day

THEY STILL HAVE A GOOD CHANCE

to study in the evening, and soon obtain an education that will raise them above their present surroundings and open new doors to them.

One of Chicago's most prominent lawyers tells of a time when he wandered over the farm in Tennessee, a barefoot boy. Circumstances shut him in like a prison. An orphan, and poor, he looked at the mountains around as a wall over which there was no possibility of escape. The more he felt shut in, the stronger grew the longing to be a man and see the world. Every bit of paper, every book became a teacher to him, and at last came a chance to go to school. Already he dreamed of what lay beyond his native town, and after a few years he found the stepping stones by which

HE CLIMBED INTO THE GREAT WORLD.

At every step of progress he found new obstacles to be overcome, but the same spirit of determination helped him, until to-day he stands high in his profession, and an honor to our land. Was he the only Tennessee boy in that place, or at that time, who wandered barefoot among his mates, filled with indescribable longing for a sight of the great world, and dreams of what it contained? Where are the rest, and why have their dreams been unrealized? Only because they lacked will-power. Joseph was a dreamer, but he lives to-day in history because he had pluck to make the most of every circumstance and use it for wise ends; and so with Andrew Jackson, and Abraham Lincoln, and James A. Garfield, and most of the men whose careers make illustrious American history. Such dreamers are not idle visionaries. Time, money, talents, all are nothing

IF THE ENGINE IS LACKING

to drive them to execute according to their ability. Among our statesmen, our scientists and our thinkers, we find the majority that have won distinction have done so in the face of poverty, ignorance and adverse circumstances; and the reason is plain. Life is so full of hindrances and obstacles, that they only who can overcome the greater will succeed. All others fall out of the ranks and are lost to the world forever.

Will-power is to be cultivated. It can be strengthened, like the memory, by unceasing practice, and when persons find

they are weak in will, or too easily coaxed or persuaded against their conscientious resolves, they must brace themselves by learning how to say *no, firmly* but kindly. Half the battle of life is won by the person who has learned to say *No!* Occasionally we meet persons with too much of this force, and we call them disagreeable and stubborn, but once direct in right channels, we have men that move the world.

MASTER YOUR BUSINESS.

The neighbors of the Philadelphia millionaire, Stephen Girard, attributed his success largely to luck. They called him "the lucky man," and many of them thought they could do as well as he, if they only had his luck. But the great volumes of his letters and papers, preserved in a room of the Girard College, show that his success in business was not due, in any degree whatever, to good fortune. Let a money-making generation take note, that Girard principles inevitably produce Girard results. The grand,

THE FUNDAMENTAL SECRET OF HIS SUCCESS,

as of all success, was that he *understood his business—he had mastered it.* He had a personal, familiar knowledge of the ports with which he traded, the commodities in which he dealt, the vehicles in which they were carried, the dangers to which they were liable, and the various kinds of men through whom he acted. He observed everything, and forgot nothing. He had done everything himself which he had occasion to require others to do. His directions to his captains and supercargoes, full, minute, exact, peremptory, show the hand of a master. Every possible contingency was foreseen and provided for; and he demanded the most literal obedience to the maxim, "Obey orders, though you break owners." He would dismiss a captain from his service forever, if he saved the whole profits of a voyage by departing in any way from his instructions. He did so on one occasion.

Doubtless among my young readers there are some who have formed the resolution to get on in the world and become rich.

I advise all such to observe how young John Jacob Astor went about it.

MARK THE SECRET.

It was not plodding merely, though no man ever labored more steadily than he. Nor was it merely his strict observance of the rules of temperance and morality, though that is essential to any worthy success. The great secret of Astor's early, rapid and uniform success in business appears to have been that he acted always upon the maxim that

KNOWLEDGE IS POWER.

He labored unceasingly to *learn his business,* whatever that business might be. Thus, when serving his first employer, Mr. Bowne, a fur merchant, he put his whole soul into the work of getting a knowledge of furs, fur-bearing animals, fur-dealers, fur-markets, fur-gathering Indians, fur-abounding countries. In those days a considerable number of bear skins and beaver skins were brought directly to Bowne's store by

THE INDIANS AND COUNTRYMEN

of the vicinity, who had shot or trapped the animals. These men Astor questioned, and neglected no other opportunity of procuring the information he desired. It used to be observed of Astor that he absolutely loved a fine skin. In later days he would have a superior fur hung up in his counting-room as other men hang pictures; and this, apparently, for the mere pleasure of feeling, showing, and admiring it. He would pass his hand fondly over it, extolling its charms with an approach to enthusiasm; not, however, forgetting to mention that in Canton it would bring him in five hundred dollars—so heartily did he throw himself into his business.

CHAPTER XXX.

HOW TO GET ON IN THE WORLD—CONTINUED. BE PUNCTUAL—BE THRIFTY—STORY OF BARNUM.

BOYS, be punctual. Punctuality is the soul of industry, as much as brevity is of wit. Over how many a wasted life and lost hereafter could not the awful words "Too Late" be written:

"Too late, too late; ye cannot enter now!"

In the household, as in the larger affairs of business and out-door life, punctuality is indispensable. How many domestic misunderstandings, how many grumblings would be avoided in innumerable homes, if this virtue were only more cultivated and prized! Late breakfasts, making the anxious man of business late in reaching the counting-house, and putting him into an ill-temper for the rest of the day; late dinners—when the worn-out husband returns at the close of his day's work hungry and tired; "too late" for train, for church, for market; "cleanings" out of time, and "washings" carried on till midnight; bills put off with a

"CALL AGAIN TO-MORROW;"

engagements and promises unfulfilled—what a host of little nuisances spring to mind at thought of the unpunctual housewife! Only think of that, my girls; and you, my boys, remember how easily one loses confidence in the unpunctual man of business; and strive to cultivate a virtue which can be very easily acquired,

and once acquired, becomes a second nature, never to be lost. Punctuality, it should be remembered, is not a mere matter of courtesy; it is a point of conscience. To break an engagement or fail to keep it, is equivalent to breaking one's word. John Quincy Adams, who filled a greater number of important offices, political and civil, than has any other American, was pre-eminently punctual. He was an economist of moments, and was never known to be behind time. So great was his reputation in this respect that when in his old age he was a member of the House of Representatives at Washington, and a gentleman observed that it was time to call the House to order, another replied, "No, Mr. Adams is not in his seat." The clock, it was found, was actually three minutes too fast; and, before the three minutes had elapsed, Mr. Adams was at his post.

The story goes that Colonel Rahl, the Hessian commander, who, in the American Revolution was routed and taken prisoner at Trenton,

LOST THE BATTLE THROUGH PROCRASTINATION.

Engrossed in a game at cards, he postponed the reading of a letter which reached him, informing him that Washington was about to cross the Delaware, and thus lost the opportunity of thwarting the design of the American general. Washington, on the other hand, was so rigidly punctual, that when Hamilton, his secretary, pleaded a slow watch as an excuse for being five minutes late, he replied: "Then, sir, either you must get a new watch, or I must get a new secretary."

Sir Walter Scott's punctuality was also proverbial. He made it a rule to answer every letter on the day of its receipt, except where inquiry or deliberation was needed. He rose every morning at five o'clock and lit his own fire. He then shaved and dressed, and by six o'clock was seated at his desk, with his papers arranged before him in the most accurate order, his works of reference marshaled round him on the floor, and at least one favorite dog watching his eye, outside the line of books. Thus, by the time the family assembled for breakfast, between nine and

ten, he had done enough—to use his own words—to break the back of a day's work.

"Punctuality," said Louis XIV., "is the politeness of kings." It is the duty of gentlemen, and the necessity of men of business. Nothing sooner begets confidence in a man than the practice of this virtue, and nothing sooner shakes confidence in him than the want of it. If a man is not up to time, we conclude that he does not respect us; and if he is careless of his time he is probably careless of his business, and, therefore, not a man to be trusted.

BE THRIFTY.—If boys and girls only realized the life-long misery which that man entails on himself who runs into debt, they would shrink from it as from the deadliest poison. Many a brilliant genius, many a promising life, has been crushed utterly out by this terrible monster.

DEBT IS LIKE THE "OLD MAN OF THE SEA"

in Sinbad's travels: once let it clutch you round the neck, and you will find it next to impossible to shake it off. And then think of how the consciousness of being in debt demoralizes the whole man; to what petty shifts it drives him: to what meannesses: to what lies! By and by he starts at every knock: he dreads the postman's call: he is ashamed to go abroad: he slinks, like poor Sawyer, down lanes and by-streets. He is degraded in others' eyes as well as in his own. He grows morose, irritable, crabbed. His wife and family suffer. Home becomes hell. He takes to drink, and after that—you can fill up the rest of the picture for yourselves.

How then, do you ask, can one keep out of debt? Live within your means. Every one can do that if he only will. You remember poor Micawber, Wilkins Micawber, Esquire, in Dickens's "David Copperfield," and the many ingenious dodges, green spectacles and other disguises included, to which he was driven, to baffle his creditors? And yet poor Micawber was a philosopher in his way, a sound political economist, and knew

exactly how to keep out of debt. You remember his parting advice to little David ?

"My other piece of advice, Copperfield," said Mr. Micawber, "you know. Annual income twenty pounds, annual expenditure nineteen, nineteen six; result—happiness. Annual income twenty pounds, annual expenditure twenty pounds ought and six; result—misery. The blossom is blighted, the leaf withered, the god of day goes down upon the dreary scene, and—and in short you are forever floored. As I am !"

The first step in debt is like the first step in falsehood; almost involving the necessity of proceeding in the same course, debt following debt, as lie does lie. Haydon, the painter, dated his decline from the day on which he first borrowed money. He realized the truth of the proverb:

"Who goes a-borrowing,
Goes a-sorrowing."

The significant entry in his diary is: "Here began debt and obligation, out of which I have never been and never shall be extricated as long as I live. His autobiography shows but too painfully how embarrassment in money matters produces poignant distress of mind, utter incapacity for work, and constantly recurring humiliations. The written advice which he gave to a youth when entering the navy was as follows: "Never purchase any enjoyment if it cannot be procured without borrowing of others."

"NEVER BORROW MONEY;

it is degrading. I do not say never lend, but never lend if by lending you render yourself unable to pay what you owe; but, under any circumstances, never borrow." It was debt, incurred through the fault of others, that drove Scott to work so hard as to induce premature decay, and, besides precipitating poor Hood's end, compelled him to fritter away his magnificent genius in trivial burlesque and pun. Debt demoralized Daniel Webster, and Theodore Hook, and Sheridan, and Fox, and Pitt. The Cardinal de Retz preferred confinement in the Castle of

BE THRIFTY—"THE MILL WILL NEVER GRIND WITH THE WATER THAT HAS PAST."

Vincennes to being dunned by creditors; Mirabeau's life was made wretched by duns, in order to escape whom he was glad for his father to obtain a *lettre de cachet*, and have him imprisoned; and the brilliant and witty author of "School for Scandal," the eloquent arraigner of Warren Hastings, Richard Brinsley Sheridan, died in literal destitution, in the custody of sheriffs' officers, who abstained from conveying him to prison merely because they were assured that to remove him would cause his immediate death. Indeed, if I remember rightly, one particularly importunate creditor arrested his dead body, and, but for the intervention of some noble mourners who paid the debt, the funeral would have been indefinitely delayed.

The great and wise Dr. Johnson, author of the first really good English dictionary, held that early debt is ruin. "Do not," said he, and I wish all my readers to weigh the words carefully, "accustom yourself to consider debt as only an inconvenience; you will find it a calamity. Poverty takes away so many means of doing good, and produces so much inability to resist evil, both natural and moral, that it is by all virtuous means to be avoided. . . . Let it be your first care, then, not to be in any man's debt"; to which I would add, nor any woman's, especially your wife's.

"RESOLVE NOT TO BE POOR.

Whatever you have, spend less. Poverty is a great enemy to human happiness; it certainly destroys liberty, and it makes some virtues impracticable, and others extremely difficult. Frugality is not only the basis of quiet, but of beneficence. No man can help others that wants help himself; we must have enough before we have to spare."

Finally, boys, bear in mind that no matter how large your income may be, let it run into the millions, you are still but a poor man, a beggar, if you exceed it. And now, by way of a pleasant wind-up, let me show you what thrift can do:

In 1841, says Mr. Barnum, I purchased the American Museum in New York, without a dollar, for I was not worth a dollar in

the world. But I was never disheartened. I always felt that I could make money fast enough, if I only set my mind to it. I remember meeting a friend in Broadway a few weeks before I came in possession of the Museum.

"Well," said I, "Mr. A., I am going to buy the American Museum."

"*Buy it!*" said he, for he knew I had no property. "What do you intend buying it with?"

"Brass," I replied, "for 'silver and gold have I none.'"

It was even so. Everybody who has any connection with theatrical, circus, or exhibition business, from Edmund Simpson, manager of the old Park Theater, or William Niblo, down to the most humble puppet-show man of the day, knew me perfectly well. Mr. Francis Olmsted, the owner of the Museum building, a noble, whole-souled man as one often meets with, having consulted my references, who all concurred in telling him that I was "a good showman, and would do as I agreed," accepted my proposition to give security for me in the purchase of the Museum collection, he appointing a money-taker at the door, and crediting me, toward the purchase, with all the money received, after paying expenses, allowing me fifty dollars per month on which to support my family, consisting of a wife and three children.

This was my own proposition, as I was determined so to live that six hundred dollars per annum should defray all the expenses of my family, until I had paid for the Museum; and

MY TREASURE OF A WIFE

(for such a wife *is* a "treasure") gladly assented to the arrangement, and expressed her willingness to cut the expenses down to four hundred dollars per annum if necessary.

One day, some six months after I had purchased the Museum, my friend, Mr. Olmsted, happened in at my ticket office, at about twelve o'clock, and found me alone, eating my dinner, which consisted of a few slices of corned beef and bread that I had brought from home in the morning.

"Is this the way you eat your dinner?" he inquired.

"I have not eaten a warm dinner since I bought the Museum, except on the Sabbath," I replied, "and I intend never to eat another until I get out of debt."

"Ah! you are safe, and will pay for the Museum before the year is out," he replied, slapping me familiarly on the shoulders; and he was right, for in less than a year from that period I was in full possession of the Museum, as my own property, every cent paid out of the profits of the establishment.

CHAPTER XXXI.

HOW TO GET ON IN THE WORLD, CONTINUED—BE SELF-RELIANT—BE METHODICAL—JAY GOULD'S METHOD—BE POLITE.

OU know the old proverb, "God helps those who help themselves"? And so he does. The man who goes through life relying on others; who, like Micawber, instead of resolutely putting his shoulder to the wheel, waits for something to "turn up," will die poor, unrespected and unwept. The fable of the labors of Hercules is the type of all human doing and success. Every youth should be made to feel that his happiness and well-doing in life must necessarily depend mainly on himself, and the exercise of his own energies, rather than upon the help and patronage of others. And this is one reason why so few boys who are born, as the common saying has it, with a silver spoon in their mouth, ever achieve greatness. Inheriting fortunes, they did nothing to acquire; they lack the severe discipline of life, out of which *men* are made. The late Lord Melbourne embodied a piece of useful advice in a letter which he wrote to Lord John Russell, in reply to an application for a provision for one of the sons of the poet Moore: "My dear John," he wrote, "I return you Moore's letter. I shall be ready to do what you like about it when we have the means. I think whatever is done should be done for Moore himself. This is more distinct, direct and intelligible. Making a small provision for

young men is hardly justifiable, and it is of all things the most prejudicial to themselves. They think what they have much larger than it really is, and they make no exertion. The young should never hear any language but this: 'You have your own way to make, and it depends upon your own exertions whether you starve or not.' Believe me, etc.—Melbourne." Therefore, my dear boys and girls, be self-reliant. All the great men in history were self-reliant, and perhaps the most illustrious example I can call to mind at this writing is John Milton, the blind author of "Paradise Lost."

On the occasion of a familiar interview one day, between Sir Thomas Buxton and Rothschild, the latter said: "My success has always turned upon one maxim. I said, *I* can do what *another* man can, and so I am a match for all the rest of 'em. Another advantage I had—I was always

AN OFF-HAND MAN;

I made a bargain at once. When I was settled in London the East India Company had eight hundred thousand pounds in gold to sell. I went to the sale and bought the whole of it. I knew the Duke of Wellington *must* have it. I had bought a great many bills of his at a discount. The Government sent for me and said they must have it. When they had got it they didn't know how to get it to Portugal, where they wanted it. I undertook all that, and sent it through France, and that was the best business I ever did in my life.

"It requires," continued Rothschild "a great deal of boldness and a great deal of caution to make a fortune; and when you have got it, it requires ten times as much wit to keep it. If I should listen to one half the projects proposed to me, I should ruin myself very soon.

"One of my neighbors is a very ill-tempered man. He tries to vex me, and has built a great place for swine close to my walk. So when I go out, I hear first, 'grunt, grunt,' then 'squeak, squeak.' But this does me no harm. I am always in good humor. Sometimes, to amuse myself, I give a beggar a

guinea. He thinks it is a mistake, and for fear it is a mistake, and for fear I should find it out, he runs away as hard as he can. I advise you to give a beggar a guinea sometimes—it is very amusing."

BE METHODICAL—

methodical in everything; in your habits, life, reading, writing. I don't mean that you should carry method to the ridiculous excess recommended in such stupendously stupid books as Todd's "Student's Manual," but as methodical as is consistent with a reasonable freedom and elasticity of life. Most of you have doubtless studied, or are studying, composition, and perhaps rhetoric; and many chapters would hardly suffice to contain the titles of all the manuals, textbooks and treatises written on the subject. Now let me give you a little bit of advice. I myself have taught rhetoric for many years, and the conviction I have arrived at after all my labors is, that textbooks and rules are next to valueless. He who would acquire the art of writing well, must have ever these four golden rules before him:

1. Write often.

2. Have all you write carefully revised by some competent person.

3. Study the best authors.

4. *Write methodically.*

Most boys and girls, when assigned some subject to write about, sit down without any preparation, and dash into ink right away. Down goes the first thought that comes into their head; *that* suggests another, and the whole thing is left to accident. The result is a poor, scattered, jejune composition, without form or aim, which makes no distinct impression on the reader. Instead of this, you should always think out your subject carefully beforehand. Jot down the various leading thoughts that suggest themselves. Then arrange them in logical and rhetorical order, beginning with the weakest and most general and advancing by degrees to the strongest and most specific, so as to insure a climax, and having done all that, then, but not till

then, sit down and write. And so with reading. Miscellaneous reading is, of course, better than none; but 'topical' reading is better than any. By 'topical' reading I mean this: select some subject in which you are particularly interested, and make that the basis of your reading, so that while for variety's sake you occasionally wander into other fields of thought, the staple of your studies day after day is this one particular subject. In this way you will acquire definite, fixed principles and exact, suggestive knowledge; whereas, if, butterfly-like, you roam from magazine to magazine, history to art, science to fiction, and so on, your ideas will be nebulous and your knowledge unsatisfactory and inexact. Further, scattered habits of reading necessarily lead to scattered habits of thought, and in the long run make continuous mental exertion next to impossible. And so in actual life

METHOD IS ALL-ESSENTIAL.

Look at Jay Gould; the enormous amount of business which he has to get through every day. What is the secret of its successful accomplishment? Method. Here is what a reliable correspondent says of the great railway king's manner of getting through business:

"No man has more enemies on Wall street than Jay Gould, and there is no telling what shape their enmity may assume. Scores, and even hundreds, of ruined speculators ascribe their misfortunes to him, and many of these are only waiting a suitable opportunity of revenge. Gould seems to be conscious of this, and therefore keeps concealed as much as possible. He is, indeed, the hidden power of Wall street. He rarely leaves his office, and no one can obtain admittance until a series of statements has been made. A card is placed in the visitor's hands, on which is printed as follows: 'State name,' 'State residence,' 'State business.' These being printed one above the other, with broad blanks to be filled out, have a rather forbidding appearance, and many who wish to see Gould are deterred at the very outset. When the card is sent in, the

chances are much against an interview. There are not more than a score of persons whom Gould wants to see. Gould reaches his office with a perfected scheme of operation. He is not obliged to look at the morning papers for stock reports, as these have been read from the 'ticker' as they take place, and if he should be at his house they are sent up by telegraph. Before he goes to bed, Gould has a complete idea of all that has been done in Wall street, and he awakens in the morning with a clear and decisive system for the day's work. It is this anticipation of the future which gives him such advantage over other operators. As soon as he is seated at his desk, Mirosini brings in the telegrams, and also all newspaper articles that have a financial importance. This is all Gould wants to know. He cares nothing for politics, or other public matters, except as they may bear upon his interests. It will take from one to two hours to reply to dispatches and to telegraph orders, and as Gould controls nearly

FIVE THOUSAND MILES OF RAILROAD TRACK,

this is no small task. While sitting in his office, he may be conferring with men in St. Louis, Chicago and San Francisco, almost at the same time. Then the stock exchange 'ticker' begins its reports, and a half dozen brokers are kept under telegraphic orders. By this time business calls are made. Each man whose card is approved has a brief space given him. In this manner Gould does a tremendous amount of business in a short time. He seems always self-possessed, and generally holds the vantage ground, but even when cornered he concedes in a handsome manner what might be demanded under a legal process. No man can be in Gould's presence five minutes without feeling his power. His eyes have a penetration which seems to reach the hidden depth of thought Those eyes, indeed, are a curiosity—so black, so piercing, and so sullen. They at once proclaim the selfish power of a relentless autocrat, whose motto has invariably been, 'rule or ruin.'"

"Method," said the Rev. Richard Cecil, "is like packing

things in a box; a good packer will get in half as much again as a bad one." Cecil's dispatch of business was extraordinary, his maxim being, "The shortest way to do many things is to do only one thing at a time"; and he never left a thing undone with a view to recurring to it at a period of more leisure. When business pressed, he rather chose to encroach on his hours of meal and rest than omit any part of his work. DeWitt's maxim was like Cecil's:

"ONE THING AT A TIME."

"If," said he, "I have any necessary dispatches to make, I think of nothing else till they are finished; if any domestic affairs require my attention, I give myself wholly up to them till they are set in order."

There is no fallacy more untrue, I had almost said pernicious, than the common one which associates genius and want of method. Without going back to Chaucer, Spenser, Shakspeare, Milton, Gray, Scott, Moore and Southey, take recent and contemporary authors. Half the great success acquired in many different departments by the late Lord Lytton was due to his inflexibly methodical habits. Dickens was as precise in his methods of writing and editing as the most rigid official martinet; and so were Trollope, and Bryant, and Longfellow, and Emerson, and George Eliot, and Charles Reade; and so are Mr. William Black, and Mr. Edmund C. Stedman, and Mr. R. H. Stoddard, and Mr. Prescott, and Mr. Bancroft. Finally,

BE POLITE.

Our life, as I have already reminded you, is made up of little things. This being so, let us not despise little acts of kindness, the preference of others to ourselves, and the seeking to make others happy. In these more than in outward acts of ceremony does true politeness consist. Sir Philip Sydney showed us this, when, as he lay dying on the battle-field, he sent away the cup of water untasted to a soldier lying near, with the words, "This man's necessity is greater than mine." Sometimes one sees a boy who seems to fancy that to be polite is beneath him; that manners

may be all very well for girls, but are not meant for his noble self. But let all such remember that politeness is necessary to

TRUE MANLINESS

and nobility of character. Sometimes, too, one sees young people who behave with great propriety in company, but are sadly rude and overbearing at home. Now good manners are of little use if only exhibited on show day. There is no truth in them then. They are shams. Those who so behave play the hypocrite. Do let us be genuine and thorough. After all, a mere surface goodness rarely deceives. True politeness pays. So said an officer who during a hot engagement bowed his thanks to a friend, and so escaped death from a cannon-ball, which decapitated the man behind him.

CHAPTER XXXII.

HOW TO GET ON IN THE WORLD, CONTINUED—MIND DETAILS—BE HOPEFUL—NEVER BE TOO SURE.

BE attentive to details. Of this I have incidentally treated when speaking of little things, and need not say much more about it. The great Duke of Wellington owed much of his success to his extraordinary mastery of the minutest details; and Mr. Gladstone, England's Prime Minister, and of all her many Chancellors of the Exchequer, the greatest, would never have achieved his present position and name but for his extraordinary powers of application and faculty of mastering details. Washington was as particular as Wellington in matters of detail, and it is a remarkable fact, that he did not disdain to scrutinize the smallest outgoings of his household—determined as he was to live honestly within his means—even when holding the high office of President of the American Union. So, too, with Napoleon. Though many of his days were occupied by inspections of his troops—in the course of which he sometimes rode from thirty to forty leagues a day—and by reviews, receptions and affairs of state, leaving but little time for business matters, he neglected nothing on that account, but devoted the greater part of his nights, when necessary, to examining budgets, dictating dispatches, and attending to the thousand and one matters of detail in the organization

and working of the imperial government, the machinery of which was, for the most part, concentrated in his own head.

An eminent English millionaire, who rose, as most of that class have, from obscurity, says that the first money he recollects possessing was gained in the following manner: "I went," he says, "to school a distance of three miles. One day, on my way, I picked up a horse-shoe, carried it about three miles, and sold it to a blacksmith for a penny.

THAT WAS THE FIRST PENNY I RECOLLECT POSSESSING,

and I kept it for some time. A few weeks after, the same man called my attention to a boy who was carrying off some dirt opposite his door, and offered, if I would beat the boy, who was somewhat bigger than myself, to give me a penny. I did so. He made a mark upon the penny, and promised that if I would bring it to him that day fortnight, he would give me another. I took it to him at the appointed time, when he at once fulfilled his promise, and I thus became possessed of three pence, since which I have never been without money, except when I gave it all away." It is hard to tell what point involves the most difficulty, the art of first obtaining a little "nest egg," or the use and management of it when once possessed. Even after his head was white with the frosts of nearly four-score years, Girard gave the minutest attention to the most trivial thing that could affect his fortune.

BE HOPEFUL.

Nothing, remarks Mr. Smiles, can compensate for the loss of hope in a man; it entirely changes the character. "How can I work, how can I be happy," said a great but miserable thinker, "when I have lost all hope?" One of the most cheerful and courageous, because one of the most hopeful, of workers was Carey, the missionary, of whom I told you in Chapters XXVI and XXVII. When in India, it was no uncommon thing for him to weary out in one day, three pundits, who officiated as his clerks, he himself taking rest only in change of employment. Carey, as you will remember, was supported in his labors by

Ward, the son of a carpenter, and Marshman, the son of a weaver, and by their labors a magnificent college was erected at Serampore, sixteen flourishing stations were established, the Bible was translated into sixteen languages, and the seeds were sown of a beneficent moral revolution in British India.

AN EMINENTLY CHARACTERISTIC ANECDOTE

has been told of Carey's perseverance as a boy. When climbing a tree, one day, his foot slipped, and he fell to the ground, breaking his leg by the fall. He was confined to his bed for weeks, but when he recovered, and was able to walk without support, the very first thing he did was to go and climb that tree. Carey had need of this sort of dauntless courage for the great missionary work of his life, and nobly and resolutely he did it. It is not ease, but effort; not facility, but difficulty, that makes men. There is, perhaps, no station in life in which difficulties have not to be overcome before any decided measure of success can be achieved. These difficulties are, however, our best instructors, as our mistakes often form our best experience. Charles James Fox was accustomed to say that he hoped more from a man who failed, and yet went on in spite of his failure, than from the buoyant career of the successful. "It is all very well," said he, "to tell me that a young man has distinguished himself by a brilliant first speech. He may go on, or he may be satisfied with his first triumph; but show me a young man who has *not* succeeded at first, and nevertheless has gone on, and I will back that young man to do better than most of those who have succeeded at the first trial."

We learn wisdom from failure much more than we do from success. The early savans, in their futile search for the philosopher's stone, stumbled on many all-important facts; facts which have been made the basis of modern chemistry. We often discover what *will* do by finding out what will not do; and probably he who never made a mistake never made a discovery. It was the failure in the attempt to make a sucking-pump act, when the working-bucket was more than thirty-three feet above the

surface of the water to be raised, that led observant men to study the law of atmospheric pressure, and opened a new field of research to the genius of Galileo, Torrecelli and Boyle. John Hunter used to remark that the art of surgery would not advance until professional men had the courage to publish their failures as well as successes. Watt, the engineer, said, of all things most wanted in mechanical engineering, was a history of failures. "We want," he said,

"A BOOK OF BLOTS."

When Sir Humphrey Davy was once shown a dexterously manipulated experiment, he said: "I thank God I was not made a dexterous manipulator, for the most important of my discoveries have been suggested to me by failures." Another distinguished investigator in physical science has left it on record that, whenever, in the course of his researches, he encountered an apparently insuperable obstacle, he generally found himself on the brink of some discovery. The very greatest things—great thoughts, discoveries, inventions—have usually been nurtured in hardship, often pondered over in sorrow, and at length established with difficulty. Beethoven said of Rossini, that he had in him the stuff to have made a good musician, if he had only, when a boy, been well flogged; but that he had been spoilt by the facility with which he produced. Men who feel their strength within them need not fear to encounter adverse opinions; they have far greater reason to fear undue praise and too friendly criticism. When Mendelssohn was about to enter the orchestra at Birmingham, on the first performance of his "Elijah," he said laughingly to one of his friends and critics, "Stick your claws into me! Don't tell me what you like, but what you don't like." It has been said, and truly, that it is the defeat that tries the general more than the victory.

WASHINGTON LOST MORE BATTLES THAN HE GAINED;

but he succeeded in the end; and the Romans, in their most victorious campaigns, almost invariably began with defeat.

The accidental destruction of Sir Isaac Newton's papers, by

his little dog "Diamond" upsetting a lighted taper upon his desk, by which the elaborate calculations of many years were in a moment destroyed, is a well-known anecdote and need not be repeated It is said the loss caused the philosopher such profound grief that it seriously injured his health and impaired his understanding. An accident of a somewhat similar kind happened to the manuscript of the first volume of the late Mr. Carlyle's "French Revolution." He had lent the manuscript to a literary neighbor to peruse. By some mischance, it had been left lying upon the parlor floor, and became forgotten. Weeks ran on, and the historian sent for his work, the printers being loud for "copy." Inquiries were made, and it was found that the maid-of-all-work, finding what she conceived to be a bundle of waste paper on the floor, had used it to light the kitchen and parlor fires with! Such was the answer returned to Mr. Carlyle, and his feelings may be imagined. There was, however, no help for him but to set resolutely to work to re-write the book, and he turned to and did it. He had no draft, and was compelled to rake up from his memory, facts, ideas and expressions which had long since been dismissed. The composition of the book in the first instance had been a work of pleasure; the re-writing of it a second time was one of pain and anguish almost beyond belief. That he persevered and finished the volume under such circumstances, affords an instance of determination of purpose which has seldom been surpassed.

Lastly,

NEVER BE TOO SURE OF ANYTHING.

When contradicted, bear it modestly. However sure you may be, there is always a possibility of your being wrong. Apropos of this, I remember a little Chinese story told me many years ago. Here it is: There were two short-sighted men, Ching and Chang, who were always quarreling as to which of them could see best. As they had heard there was to be a tablet erected at the gate of a neighboring temple, they determined that they would visit it together, on a given day, and put their

powers of eyesight to the test. But, each desiring to take advantage of the other, Ching went by stealth to the temple, and looking quite close to the tablet, he saw an inscription, with the word, "To the great man of the past and future." Chang also went; prying yet closer, and in addition to the inscription, "To the great man of the past and future," he read, in smaller characters, "This tablet is erected by the family of Ling in honor of the great man." On the day appointed, standing at a distance from which neither could read, Ching exclaimed, "The inscription is 'To the great man of the past and the future.'" "True," said Chang, "but you have left out a part of the inscription, which I can read but you cannot, and which is written in small letters, 'Erected by the family of Ling in honor of the great man.'" "There is no such inscription!" said Ching. "There is!" said Chang. So they waxed wroth, and after abusing one another, they agreed to refer the matter to the high priest of the temple. He heard their story, and quietly said, "Gentlemen, there is no tablet to read; it was taken into the interior of the temple yesterday.

CHAPTER XXXIII.

HOW TO GET ON IN THE WORLD, CONTINUED—LEARN SOME TRADE—BE ABSTINENT—THREE GOLDEN RULES—ROTHSCHILD'S ADVICE.

BOYS, always have a trade to fall back on. No matter what your circumstances may be, it can never harm you to learn some respectable trade, and in a life so full of ups-and-downs as this, it may at any hour be of the utmost advantage to you. In a new country like ours, a skillful, sober tradesman is perhaps the most independent of all men. Millionaires are not independent: far from it. They do not possess the wealth, so much as the wealth possesses them. Do you think Vanderbilt or Gould enjoys life more, is freer or more his own master, than honest John Smith, the mason, or Johnson, the bricklayer? Not a bit of it. These enormously rich men are the slaves of their wealth. Night and day, they are kept in a fever of excitement by every change of weather, or fresh move in politics, or fresh manipulation of stocks. The boy who has mastered a trade has done better than merely to insure his life. The benefit of *that* will go to others, but in learning a trade he acquires a fortune of which no power on earth can ever deprive him. Banks may burst, insurance companies collapse, and ruin stare the merely rich man in the face at any moment; but the man who has mas-

tered a trade need never be at a loss to secure a comfortable livelihood.

Mr. Girard, the Philadelphia banker of whom I have told you in a previous chapter, had a favorite clerk, and he always said "he intended to do well by Ben Lippincott." So when Ben got to be twenty-one, he expected to hear the governor say something of his future prospects, and perhaps

LEND A HELPING HAND

in starting him in the world. But the old fox carefully avoided the subject. Ben mustered courage. "I suppose I am free, sir," said he; "and I thought I would say something to you as to my course; what do you think I should better do?" "Yes, yes, I know you are," said the old millionaire; "and my advice is that you go and learn the cooper's trade." This application of ice nearly froze Ben out, but recovering his equilibrium, he said if Mr. Girard was in earnest he would do so. "I am in earnest;" and Ben sought the best cooper in Spring Garden, became an apprentice, and in due time could make as good a barrel as the rest. He announced to old Stephen that he had graduated, and was ready to set up in business. The old man seemed gratified, and immediately ordered three of the best barrels he could turn out. Ben did his very best, and wheeled them up to the old man's counting-room. Old Girard pronounced them first-rate, and demanded the price. "One dollar," said Ben, "is now as low as I can live by." "Cheap enough—make out your bill." The bill was made out, and "Old Steve" settled it with a check for twenty thousand dollars, which he accompanied with this little moral to the story: "There, take that, and invest it in the best possible manner; and if you are unfortunate and lose it, you have a good trade to fall back upon, which will afford you a good living."

Strive to acquire good habits while you are young; when you grow up the task will be infinitely harder. As the boy is, the man is, or, as Wordsworth puts it, "the child is father of the man." "Like the flakes of snow that fall unperceived upon the

earth," says Jeremy Bentham, "the seemingly unimportant events of life succeed one another. As the snow gathers together, so are our habits formed; no single flake that is added to the pile produces a sensible change; no single action creates, however it may exhibit, a man's character; but as the tempest hurls the avalanche down the mountain, and overwhelms the inhabitant, and his habitation, so passion, acting upon the elements of mischief which pernicious habits have brought together by imperceptible accumulation, may overthrow the edifice of truth and virtue."

BE ABSTINENT—NEVER DRINK,

on any consideration, and never smoke—at any rate, don't smoke until you are twenty years old. So long as you are growing, smoking is extremely hurtful and dangerous; reducing the vitality, stunting the growth, deranging the nervous system; and if you don't smoke until you are twenty,—why, the chances are you will never smoke at all. To his abstinence from liquor and tobacco, Amos Lawrence attributed much of his success in life. In his youth, he was accustomed, with his companions, every forenoon to make a drink compounded of rum, raisins, sugar, nutmegs, etc., with biscuit—all palatable to eat and drink. After being in the store four weeks, he found himself admonished by his appetite of the approach of the hour of indulgence. Thinking the habit might make trouble if allowed to grow stronger, without further apology to his seniors, he declined partaking with them. His first resolution was to abstain for a week, and when the week was out, for a month, and then for a year. Finally, he resolved to abstain for the rest of his apprenticeship, which was for five years longer. During the whole period, he never drank a spoonful, though he mixed gallons daily for his old master and customers. It must have been a difficult thing for young Lawrence, when but a clerk, thus to form and adhere to such a resolution—for the contempt now so frequently bestowed upon the drinker was then the portion of him who would *not* drink. At the same time, though

not indifferent to the fascinations of the weed, he resolved not to use tobacco in any form. He loved its odor in youth, and in advanced life he kept a fine Havana cigar in his drawer to smell of. He confessed to a weakness for the "scented rappee," with which those of former times were accustomed to cram their nostrils; yet, he never used an ounce of snuff. He chewed but one "quid," and that before he was fifteen.

What was one of the chief secrets of the marvelous success of Commodore Vanderbilt? Not only was he the best boatman in New York harbor; not only did he attend to business more regularly and strictly than any other; but

HE HAD NO VICES.

His comrades spent at night much of what they earned by day, and when the winter suspended their business, instead of living on the last summer's savings, they were obliged to lay up debts for the next summer's gains to discharge. In the three years of willing service to his parents, Cornelius Vanderbilt added to the family's common stock of wealth, and gained for himself three things—a perfect knowledge of his business, habits of industry and self-control, and the best boat in the harbor.

So, too, in the case of James Gordon Bennett, the founder of the *New York Herald*, this same thing is to be specially noted as one of the chief and indispensable causes of his success. *He had no vices.* He never drank to excess, or gormandized, or gambled, or even smoked, or in any other way wasted the vitality needed for a long and tough grapple with adverse fortune. What he once wrote of himself in an early *Herald* was strictly true: "I eat and drink to live—not live to eat and drink. Social glasses of wine are my aversion; public dinners are my abomination; all species of gormandizing, my utter scorn and contempt—when I am hungry, I eat; when thirsty, drink. Wine or viands taken for society, or to stimulate conversation, tend only to dissipation, indolence, poverty, contempt, and death." This was an immense advantage, which he had in common with several of the most mischievous men of

DECIDE WHETHER YOU WILL BE VOTER ALL YOUR LIFE, OR BE VOTED FOR.

modern times; with Calhoun, Charles XII., George III., and others. Correct bodily habits are of themselves such a source of power, that the man who has them will be extremely likely to gain the day over competitors of ten times his general worth who have them not. Dr. Franklin used to say, that if Jack Wilkes had been as exemplary in this particular as George III., he would have turned the King out of his dominions. In several of the higher kinds of labor, such as law, physic, journalism, authorship, art, when the competition is close and keen, and many able men are near the summit, the question, who shall finally stand upon it, often resolves itself into one of physical endurance. This man Bennett would have lived and died a hireling scribe, if he had had even one of the common vices. Everything was against his rising, except alone an enormous capacity for labor, sustained by strictly correct habits. And so, too, with Stephen Girard and John Jacob Astor,—*they had no vices.*

On this matter of abstinence I could speak for hours. The matter of drinking or not drinking is, to the youth, all important. It may seem a manly thing to be able to toss off a glass of beer, and by no means harmful. My dear boys, in three cases out of four, it is the first step that leads to a long succession of misfortunes, sorrows, heart-breakings, shame, and, it may be, despair, ruin and death. There are some men, I know, who can drink—as the common saying is—and let it alone; but they are the merest handful compared with the thousands upon thousands who *cannot* drink and leave it alone. The great Dr. Johnson, surely a man of exceptional force of character and will-power, when asked why he did not drink, replied,

"I DARE NOT.

I like wine, but I fear it. I *cannot* drink and let alone; therefore I do not drink at all." How many a man of talent and genius would, if he spoke earnestly, be compelled to say, "I can attribute every serious misfortune and sorrow and difficulty I have encountered in life to drink." Total abstinence is a safe-

guard against a thousand evils. The mere ability to say *No, every time* when tempted to drink is a fortune—a fortune which a prudent man if at all inclined to be intemperate, would not exchange for all the wealth of a Rothschild.

Apropos of this advice, listen to

A WATER-DRINKER'S EXPERIENCE.

I've worked in the heat, and I've worked in the cold,
I've worked with the young, and I've worked with the old,
I've worked very late, and I've worked very soon,
I've worked by the sun, and I've worked by the moon;
But I'm sure I can tell you without any fear,
I can work very well without any beer.

I've worked far from home, and I've worked rather nigh,
I've worked in the wet, and I've worked in the dry,
I've worked amongst corn, and I've worked amongst hay,
I've worked by the piece, and I've worked by the day;
And I'm sure I can tell you without any fear,
I can work very well without any beer.

I've worked amongst lime, and I've worked amongst chalk,
I've worked amongst still folks, and those that could talk,
I've worked amongst iron, and worked amongst wood,
I've worked amongst bad, and I've worked amongst good;
But wherever I go there's nothing to fear
So much as the foolish, made foolish by beer.

I've written and read, I've summed and I've talked,
I've been out on pleasure with friends, and I've walked,
But never, no never, good use could I see,
In taking strong drink, so hurtful to me;
Thus, I'm sure I can tell you, without any fear,
These things can be managed without any beer.

Finally, let me repeat to you the advice given by three of the world's most successful men of business. David Ricards, the English Jew broker, accumulated an immense property. He had what he called his three golden rules in business, the observance of which he always pressed upon his private friends. These were: Never to refuse an option when you can get it; cut short your losses; let your profits run on. By cutting short

one's losses, Mr. Ricards meant that when a broker had made a purchase of stock, and prices were falling, he ought to resell immediately. And by letting one's profits run on, he meant that when a dealer possessed stock and the prices were rising, he ought not to sell until prices had reached their highest, and were beginning again to fall.

Sir Thomas F. Buxton, in a letter to his daughter, says: We yesterday dined at Ham House, to meet the Rothschilds, and very amusing it was. He (Rothschild) told us his life and adventures. He was the third son of the banker at Frankfort. "There was not," he said, "room enough for us all in that city. I dealt in English goods. One great trader came there, who had the market to himself; he was quite

THE GREAT MAN,

and did us a favor if he sold us goods. Somehow I offended him, and he refused to show me his patterns. This was on a Tuesday. I said to my father, I will go to England. I could speak nothing but German. On the Thursday I started. The nearer I got to England the cheaper goods were. As soon as I got to Manchester, I laid out all my money, things were so cheap, and I made good profit."

"I hope," said ——, "that your children are not too fond of money and business to the exclusion of more important things. I am sure you would not wish that."

"I am sure I would wish that," said Rothschild; "I am sure I would wish that. *I wish them to give mind, and soul, and heart, and body, and everything to business; that is the way to be happy.* Stick to one business, young man," said Rothschild addressing Edward; "stick to your brewery, and you may be the great brewer of London. But be a brewer, and a banker, and a merchant, and a manufacturer, and you will soon be in the *Gazette.*"

Commodore Vanderbilt being asked one day what he considered to be the secret of success in business, replied:

"Secret? There is no secret about it. All you have to do is to attend to your business and go ahead."

Commenting on which, a friendly biographer says: "With all deference to so eminent an authority, we must be allowed to think that that is not the whole of the matter—three things seem essential to success in business: 1. To *know* your business. 2. To attend to it. 3. To keep down expenses until your fortune is safe from business perils."

CHAPTER XXXIV.

HOW TO GET ON IN THE WORLD, CONTINUED—FINAL ADVICE—DON'T BE IN A HURRY.

THERE still remain one or two things I should like to say, before leaving this subject of how to get on, and one of these is DON'T BE IN A HURRY. One of our great faults as a nation is this fatal spirit of impatience, which is so dominant in every department of life, society, commerce, literature and art. The boy, while still in short clothes, longs to be doing for himself, and chafes at what he considers the unprofitable confinement of school or college. "What," he asks, "is the use of Latin and Greek, of philosophy and learning, of science and art? Two thirds of our most successful men have been ignorant, or only half educated. Did Flood know Latin? Has Mackey ever even heard of Thucydides? What did the first Astor, and Vanderbilt, and Girard, and Sage know of higher mathematics, or logic, or mental and moral philosophy? And if, with a bare knowledge of the three 'Rs,' these men acquired enormous fortunes, why should a boy be compelled to spend from five to eight years at school and college?" Now, I am not going to enter into any detailed argument on the many points suggested by this specious but only too common style of argument; but I would direct the attention of my readers to one or two thoughts which they might do worse than think over at their leisure. What, let me ask you, is the ideal of success that the vast majority of

American youth place before themselves? Success is a relative term, and may mean

ANY ONE OF A THOUSAND THINGS.

Mr. Gould is a successful man; so was Blondin, of Niagara tight-rope notoriety; so is Mr. Spurgeon; so is Colonel Ingersoll; so is Sullivan, the slugger; and Rowell, the pedestrian; and Slosson, the billiard expert; and Catch-'em-out, the great base-ball player; so are Mr. Gladstone and General Butler; and so were the philanthropist Howard; the discoverers of the circulation of the blood and of vaccination, Doctors Harvey and Jenner; Napoleon, Alexander the Great—and so on. What is it you mean by success? And if you, my young reader, answer frankly, you will say: The acquisition of wealth; I would be a millionaire. This, I say, is the goal which the average educated American youth would win; nor can he help cherishing such ambitions. Whose names occur most frequently in the newspapers; are oftenest on the lips of men in the household, in the street-car, in the store? Is it those of men and women eminent for their piety, their learning, their high character, their philanthropy? No. It is the names of gigantic speculators, grasping railway and telegraph monoplists, the Napoleons of the stock exchange and the Bourse; and inevitably our youth are impressed—deeply and fatally impressed—with this fictitious greatness, and consciously or unconsciously they adopt these men for their models. Now, could anything be more pernicious, more demoralizing than this? And what is the remedy? Simply a reform—a revolution of public sentiment. And how is that reform, that revolution, to be brought about? By education. Let every boy and girl spend as much time as they can possibly spare at school or college; let their teachers hold up to them noble ideals of life and action; let them feel that glorious inspiration that results from the study of great, grand, unselfish lives nobly sublime; and while they will, as it is only right they should, desire to acquire a fortune, they will desire it in quite a different spirit, and

acquiring it, possess it in quite a different way from him whose only example has been a Vanderbilt or a Gould.

But, again, why is it that so many retired millionaires either drop into premature graves, or feel impelled to return to active life? Simply because, outside their particular profession or business, they have cultivated no intellectual pursuit or pleasure; and when their business has been given up, and the novelty of idleness has passed, they are left absolutely without resources. How different would be their case if, from boyhood upwards, they had cultivated literature, and sweetened the asperities of life with the

BEAUTIES OF PHILOSOPHY AND SONG!

No man, let him be ever so engrossed in business, can become narrow and cramped in sympathies and thought, who keeps his mind constantly open to the refining and liberalizing influences of literature. Retired from business, and, it may be, the world, he has resources at command, compared with which those of unlettered Pharaohs sink into insignificance; resources which no despot can take from him, and no reverse of fortune destroy.

You would be a great millionaire like John Jacob Astor, would you? and in your eagerness to clutch your first thousand dollars, you would forego the advantages of a sound, classical education? Let me draw you a picture of that modern Crœsus as he was in his old age, at the height of his prosperity, the possessor of countless millions. Never having acquired a taste for reading, or a love of science or art, he could think of nothing but business; could talk of nothing else; dream of nothing else. Here is his picture as drawn by a friendly pencil:

When all else had died within him, when he was at last nourished like an infant at a woman's breast, and when, being no longer able to ride in a carriage, he was daily tossed in a blanket for exercise, he still retained a strong interest in the care and *increase* of his property. His agent called daily upon him to render a report of moneys received. One morning, this gentleman chanced to enter his room while he was enjoying his

blanket exercise. The old man cried out from the middle of his blanket,—

"Has Mrs. —— paid that rent yet?"

"No," replied the agent.

"Well, but she must pay it," said the poor, old man.

"Mr. Astor," rejoined the agent, "she can't pay it now; she has had misfortunes, and we must give her time."

"No, no," said Astor; "I tell you she can pay it, and she will pay it. You don't go the right way to work with her."

The agent took leave, and mentioned the anxiety of the old gentleman with regard to this unpaid rent to his son, who counted out the requisite sum, and told the agent to give it to the old man as if he had received it from the tenant.

"There!" exclaimed Mr. Astor when he received the money, "I told you she would pay it if you went the right way to work with her."

Who would have twenty millions at such a price?

Or take this other sketch, from the same pen, of another rich man—

"SUCCESSFUL," AS THE WORLD CALLS IT—

of whom I have already spoken more than once—Stephen Girard. Up to the moment of his death he could think only of business, and when he came to die, all his immense wealth could not procure him a single real friend—one genuine expression of love. Friendless, in the best sense of the word friendless, loveless, alone, he had gone through life, and now, with neither son nor daughter to mourn or to inherit, he died; and what followed? Let Mr. Parton answer:

"Death having dissolved the powerful spell of a presence which few men had been able to resist, it was to be seen how far his will would be obeyed, now that he was no longer able personally to enforce it. The old man lay dead in his house in Water street. While the public out of doors were curious enough to learn what he had done with his money, there was a smaller number within the house—the kindred of the deceased—in

whom this curiosity raged like a mania. They invaded the cellars of the house, and, bringing up bottles of the old man's choice wine, kept up a continual carouse. Surrounding Mr. Duane his lawyer, who had been present at Mr. Girard's death, and remained to direct his funeral, they demanded to know if there was a will. To silence their indecent clamor, he told them there was, and that he was one of the executors. On hearing this, their desire to learn its contents rose to fury. In vain the executors reminded them that decency required that the will should not be opened till after the funeral. They even threatened legal proceedings if the will were not immediately produced; and at length, to avoid a public scandal, the executors consented to have it read. These affectionate relatives being assembled in a parlor of the house in which the body of their benefactor lay, the will was taken from the iron safe by Mr. Duane.

"When he had opened it, and was about to begin to read, he chanced to look over the top of the document at the company seated before him. No artist that ever held a brush could depict the passion of curiosity, the frenzy of expectation as expressed in that group of pallid faces. Every individual among them expected to leave the apartment

THE CONSCIOUS POSSESSOR OF MILLIONS,

for no one had dreamed of the probability of his leaving the bulk of his estate to the public. If they had ever heard of his saying that no one should be a gentleman on *his* money, they had forgotten or disbelieved it. The opening paragraphs of the will all tended to confirm their hopes, since the bequests to existing institutions were of small amount. But the reader soon reached the part of the will which assigned to ladies and gentlemen present such trifling sums as five thousand dollars, ten thousand, twenty thousand; and he arrived ere long at the sections which disposed of millions for the benefit of great cities and poor children. Some of them made not the slightest attempt to conceal their disappointment and disgust. Men

were there who had married with a view to share the wealth of Girard, and had been waiting years for his death. Women were there who had looked to that event as the beginning of their enjoyment of life. The imagination of the reader must supply the details of a scene which we might think dishonored human nature, if we could believe that human nature was meant to be subjected to such a strain."

Do you see now why, while deferring perhaps too much to the mercantilism of these times, I have narrated the careers of successful merchants and bankers, I have not stopped there; but have also held up the infinitely higher patterns of the devoted physician, the unselfish and indefatigable inventor, the dauntless, large-hearted,

CHRIST-LIKE MISSIONARY?

In an age when competition is so keen, other things being equal, that man who is best equipped will be sure to win. Knowledge when rightly applied is always power, and there is no business, occupation or trade, from banking to shoe-blacking, in which knowledge will not tell. Even on so simple a matter as letter-writing, how much may not one's success or failure depend; and yet how few boys can write a good business letter!

CHAPTER XXXV.

HOMES AND MOTHERS—INDEBTEDNESS OF GREAT MEN TO THEIR MOTHERS—"MEMORIES OF THE OLD KITCHEN"—TWO SHORT FABLES.

HOME! There is no other word in any language that conveys a meaning so laden with sweet and precious memories. "Home, home! sweet, sweet home"; the words vibrate through one's being; their pleasant refrain makes melody in the mind through all the weary years of life; and at the very last it is the Christian's blessed consolation that he is going home. It is the home, more than school, or college, or university, that educates the youth and shapes the man and woman. Hence, the unspeakable importance of domestic training; for, whatever may be the efficiency of schools, the examples set in our homes must always be of vastly greater influence in forming the characters of our future men and women. The home is

THE CRYSTAL OF SOCIETY,

the nucleus of national character; and from that source, be it pure or tainted, issue the habits, principles and maxims which govern public as well as private life. The nation comes from the nursery. Public opinion itself is for the most part the outgrowth of the home; and the best philanthropy comes from

the fireside. What says Longfellow, child-hearted laureate of the "Ingleside"? Listen:

> "By the fireside there are peace and comfort,
> Wives and children, with fair, thoughtful faces,
> Waiting, watching
> For a well-known footstep in the passage."

And again:

> "Each man's chimney is his golden mile stone;
> Is the central point, from which he measures
> Every distance
> Through the gateways of the world around him."

To readers of this book I need hardly dilate on the pleasures and delights of home; nor is it necessary to enforce on them the imperative nature of the duty that rests on them to respect and obey and love their parents and one another. At the same time, a word or two even on these points may not be out of place. One of the great vices of modern society in this United States of ours is irreverence. You see it in our newspapers, in our literature, in the works of our humorists, aye, even in our pulpits. And you see it, I regret to say, in the manner in which young people behave to their parents and speak of them. It was not so in olden times, when

THE YOUNG SQUIRE

was proud to "carve before his father at the table," and parents and old age were alike respected. The truth is, American boys and girls are allowed too much of their own way, and begin to think themselves men and women, and attempt to act as such, before they are into pants and long clothes. Especially have I been told that boys, while polite enough to other boys' sisters, are proverbially rude to their own. I say I have been *told* so; each of my readers will know for himself whether the accusation be true or false. This, however, is certain: there is no man with one spark of honor or true manliness in his breast, who will not instinctively defend his sister if she is insulted in the street. He will instantly put himself between her and the danger. Neither

THE DEPTH AND POWER OF A MOTHER'S LOVE.

is there any brother, worthy of the name, who will not defend the honor of his sister if vile tongues asperse it. But more than this is required of a loyal brother. He should make himself a wall about his sister to shield her from every evil and unholy influence. Every young man knows other young men; he knows their character, their habits, their good and evil qualities. He knows the young men whose lives are impure. He knows those who indulge in strong drink, those who are godless and profane, those whose lives are stained with debauchery. Can he be a true brother and permit such a young man to be the companion of his pure and gentle sister? Can he allow her, in the innocence of her heart, to accept the attentions of such a young man, to lean upon his arm, to look up into his face with trust? Can he see a friendship forming, strengthening between his sister and such a young man, and remain silent, uttering in her ears no voice of warning or protest, and yet be a loyal, faithful brother to her?

This is a place for plain, strong and earnest words. Surely young men do not think of this matter seriously, or they would require no argument to convince them of their duty. Put the case in the strongest possible form, and bring it close home.

YOU HAVE A SISTER PURE AS A LILY.

She has grown up beside you in the shelter of the home. Her eyes have never looked on anything vile. Her ears have never heard an impure word. You love her as you love your own life. A young man seeks to win her regard and confidence. He stands well in society, has good manners, is attractive, intelligent. But you know that his secret life is unchaste, that he is the victim of habits which will in the end bring ruin and dishonor. Your sister knows nothing of his true character. Can you permit him to become her companion? Are you not bound to tell her that he is not worthy of her? Can you do otherwise and be a faithful brother? Besides this standing between his sister and danger, every brother should also show her in his own life the ideal of the truest, purest, most honorable manhood. If it be true that the best shield a sister can make for her brother is to show him in

herself the loftiest example of womanhood, it is true also that the truest defense a brother can make for his sister is a noble manhood in his own person. If he is going to shield his sister from the impure, he must not himself be impure. He must show her in himself such a high ideal of manhood that her soul shall unconsciously and instinctively shrink from everything that is vulgar, rude or evil. Let no brother think that he can be a shelter from evil to his sister if his own life be not unsullied and true.

As to your duty to your father; well, if your father is worthy the name, he will take care to see *that* enforced for himself. But as to your mother—what can I say? what can anyone say? It is with a feeling of unspeakable reverence, with bowed head, and prayerful heart, that I dare even approach the subject. "I owe everything I am and have, to my mother, and after her my wife," said ex-president Garfield.

"A KISS FROM MY MOTHER,"

said Benjamin West, "made me a painter." Lord Langdale, looking back upon the admirable example set him by his mother, exclaimed, "If the whole world were put into one scale, and my mother into the other, the world would kick the beam." Mrs. Schimmel Penninck, in her old age, was accustomed to call to mind the personal influence exercised by her mother upon the society amidst which she moved. When she entered a room it had the effect of immediately raising the tone of the conversation, and as if purifying the moral atmosphere—all seeming to breathe more freely and stand more erectly. "In her presence," says the daughter, "I became for the time transformed into another person."

Samuel Lee, professor of Hebrew at the University of Cambridge, England, was seventeen years of age before he conceived the idea of learning a foreign language. Out of the scanty pittance of his weekly earnings as a carpenter, he purchased at a bookstore, a volume, which, when read, was exchanged for another; and soon, by degrees, he advanced in knowledge. He

had not the privilege even of balancing between reading and relaxation; he was obliged to pass from bodily fatigue to mental exertion. During six years previous to his twenty-fifth year, he omitted none of the hours usually appropriated to manual labor, and he retired to rest regularly at ten o'clock in the evening. And yet, at the age of thirty-one years, he had actually taught seventeen languages. When asked

"WHAT IS THE SECRET OF YOUR SUCCESS?"

the learned professor modestly replied, "I had a good mother." And what was the advice to his sons, of the great Baron Rothschild, lying at the point of death? Let me tell you the story, which, besides illustrating my immediate text, shows that the greatest millionaires are after all only men. The Baron's affairs happening to call him to Frankfort, he went there and was seized with his last illness. All the doctors in the land could do nothing for him, and as a last hope, Mr. Tavers, the eminent surgeon, made a rapid journey to see if English science could avail the dying Crœsus. The effort was vain, and the inevitable fate was well and worthily met. There appears even a certain degree of dignity in his resignation to the last struggle, and something touchingly manful in the wording of the will which was to surrender to others the gold won by the sweat of his brain. Breathing an almost patriarchal simplicity, it recommends his sons to *undertake no great transaction without the advice of their mother,* of whom he speaks with tender and even touching affection.

"IT IS MY SPECIAL WISH

that my sons shall not engage in any transaction of moment, without having previously asked her maternal advice." The first intelligence of the death of the great financial monarch was received by the same method which had so often contributed to his success. Beneath the wings of a pigeon, shot in sport at Brighton, were discovered the words, "*Il est mort.*" (He is dead). His remains were carried to England. The Austrian, Prussian, Neapolitan and Portuguese ambassadors assisted at

his funeral. The coffin or casket which contained his remains was elaborately carved and gorgeously ornamented, looking like some splendid piece of artistic skill, destined for the boudoir of a lady, rather than for the damp of the grave.

Cornelius Vanderbilt attributed much of his success in life to his mother, who was a singularly wise and energetic woman. She was, indeed, the mainstay of the family, since her husband was somewhat too liberal for his means, and not always prudent in his projects. Once, when her husband had fatally involved himself, and their farm was in danger of being sold for a debt of three thousand dollars, she produced, at the last extremity, her private store, and counted out the whole sum in gold pieces. She lived to the great age of eighty-seven, and left an estate of fifty thousand dollars, the fruit of her own industry and prudence. Her son, like many other distinguished men, loved to acknowledge that whatever he was for good, he owed to the precepts, the example, and the judicious government of his mother.

Another splendid wife and mother was Mrs. Aaron Burr. Indeed, the twelve years of Burr's married life were his best and brightest; and among the last words he ever spoke was a pointed declaration that his wife was the best woman and the finest lady he had ever known. It was her cultivated mind that drew him to her. "It was a knowledge of your mind," he once wrote her, "which first inspired me with a respect for that of your sex, and with some regret, I confess, that the ideas you have often heard me express in favor of female intellectual power are founded in what I have imagined more than in what I have seen, except in you."

And what words can express

THE DEPTH AND POWER OF A MOTHER'S LOVE!

Once, years ago, in the village of Careggi—whether it were that due precautions had not been taken, or that the disease was of a peculiarly malignant nature—one after another, first the young and then the old, of a whole family, dropped off. A woman, who lived on the opposite side of the way, the wife of a

laborer, the mother of two little boys, felt herself attacked by fever in the night; in the morning it greatly increased, and in the evening the fatal tumor appeared. This was during the absence of her husband, who went to work at a distance, and only returned on Saturday night, bringing home the scanty means of subsistence for his family for the week. Terrified by the example of the neighboring family, moved by the fondest love for her children, and determining not to communicate the disease to them, she formed the heroic resolution of leaving her home and going elsewhere to die. Having locked them in a room, and sacrificed to their safety even the last and sole comfort of a parting embrace, she ran down the stairs, carrying with her the sheets and coverlet, that she might leave no means of contagion. She then closed the door, with a sigh, and went away. But the eldest, hearing the door close, went to the window, and, seeing her running in that manner, cried out, "Good-by, mother," in a voice so tender that she involuntarily stopped. "Good-by, mother," repeated the youngest child, stretching its little head out of the window. And thus was the poor afflicted mother compelled, for a time, to endure the dreadful conflict between the yearnings which called her back and the pity and solicitude which urged her on. At length the latter conquered, and, amid a flood of tears and the farewells of her children, who knew not the fatal cause and import of those tears, she reached the house of those who were to bury her. She commended her husband and children to God, and in two days she was no more.

And now let me close with two little fables, and a short poem, all bearing on home and matters domestic.

THE FISH AND HIS WIFE.

A fish, that had been nibbling at a very enticing bait, had such a strong suspicion of a hidden hook, that he returned hungry to his cave. Addressing his wife, who was busy with her preparations for dinner, he remarked casually, "I saw, my dear, a very delicate morsel just above our roof. I think, if

you would fetch it, it would be quite an addition to our little meal." With that cheerful alacrity so abundantly bestowed by devoted wives on selfish husbands, by one stroke of her fins, and one whisk of her tail, she had the bait in her mouth—but also, alas! the fatal hook in her gills. Thus was her husband bereaved, and her million and a half babes left motherless.

Moral.—Without puzzling my readers with the yet unexplained fact, that the more selfish and exacting the husband, the more devoted and obliging we always see the wife, I shall draw a lesson from this fable, viz., that when anything difficult or dangerous is to be done, it is good policy to get some one else to do it.

CAT AND DOG.

A cat and dog, who had been brought up together from kittenhood and puppyhood, continued fast friends through life. Their mistress, a widow, would often sit with a pleased smile, watching their innocent gambols. Sometimes she had to interfere, when their play became too boisterous for her neat little kitchen. On one occasion, this widow went into the village to visit an old friend, a maiden lady in easy circumstances. Dandy, the dog, followed her. She was shown into a bright, pretty parlor, where she found the old lady seated at a window with her work-basket at her feet, in which lay a beautiful tortoise-shell cat. She was occupied with her crochet, and before she could disentangle her zephyrs and her thoughts to welcome the widow (for she was puzzling out a new stitch), Dandy had laid his rough paw on Miss Tortoise-shell's satin coat, and uttered the short, sharp bark which his own puss so well knew to be the invitation to a romp. Such unparalleled impudence of course aroused Miss Tortoise-shell's just indignation. She rose with an injured air and bristling back, and before you could say "Jack Robinson," Dandy was making a hasty retreat, with scratched nose and bleeding ears.

Moral.—Do not carry the familiarity of home life into general society.

MEMORIES OF THE OLD KITCHEN.

MEMORIES OF THE OLD KITCHEN.

Far back in my musings, my thoughts have been cast
To the cot where the hours of my childhood were passed.
I loved all its rooms, to the pantry and hall,
But that blessed old kitchen was dearer than all.
Its chairs and its table, none brighter could be,
For all its surroundings were sacred to me,
To the nail in the ceiling, the latch on the door;
And I loved every crack of that old kitchen floor.

I remember the fire-place with mouth high and wide,
The old-fashioned oven that stood by its side,
Out of which, each Thanksgiving, came puddings and pies,—
How the joy from our little hearts flashed to our eyes!
And then, too, St. Nicholas, slyly and still,
Came down every Christmas, our stockings to fill;
But the dearest of memories I've laid up in store,
Is the mother that trod that old kitchen floor.

Day in and day out, from morning till night,
Her footsteps were busy, her heart always light;
For it seemed to me then that she knew not a care,
The smile was so gentle her face used to wear.
I remember with pleasure what joy filled our eyes
When she told us the stories that children so prize;
They were new every night, though we'd heard them before
From her lips, at the wheel, on the old kitchen floor.

I remember the window where mornings I'd run,
As soon as the daybreak, to watch for the sun;
And I thought, when my head scarcely reached to the sill,
That it slept through the night, in the trees on the hill,
And the small tract of ground that my eyes there could view
Was all of the world that my infancy knew;
Indeed, I cared not to know of it more,
For a world in itself was that old kitchen floor.

To-night those old visions come back at their will,
But the wheel and its music forever are still;
The band is moth-eaten, the wheel laid away,
And the fingers that turned it lie mouldering in clay;
The hearthstone, so sacred, is just as 'twas then,
And the voices of children ring out there again;

The sun through the window looks in as of yore,
But it sees stranger feet on the old kitchen floor.

I ask not for honor, but for this I would crave,
That when the lips speaking are hushed in the grave,
My children will gather theirs round at their side,
And tell of the mother that long ago died;
'Twould be more enduring, far dearer to me,
Than inscription on marble or granite could be,
To have them tell often, as I did of yore,
Of the mother that trod the old kitchen floor.

CHAPTER XXXVI.

HEALTHY HOMES—CLEANLINESS.

NOW, boys and girls (and I ask the girls particularly to pay attention to this—old girls, if there are any such, as well as young girls), I am going to talk to you of healthy homes and cleanliness. To begin with, then, what think you is the best method to raise a man above the life of an animal? Why, replies Mr. Smiles, to whom I am mainly indebted for what follows, to provide him with a healthy home. The home, is, after all, the best school for the world. There—children grow up into men and women; imbibe their best and their worst morality, and have their morals and intelligence, in a great measure, well or ill-trained. Men can only be really and truly humanized and civilized through the institution of the home. In the good home, are domestic purity and moral life, and in the bad one, individual defilement and moral death. As I said in the chapter immediately preceding, the school-master has really very little to do with the formation of the characters of children. These are formed in the home by the father and mother, by the brothers, sisters, and companions. It does not matter how complete the education given in schools. It may include the whole range of knowledge; yet if the pupil is under the necessity of daily returning to a home which is indecent, vicious, and miserable, all this learning will prove of comparatively little value. Character and disposition are the result of home training; and

if through bad physical and moral conditions, these are deteriorated and destroyed, the intellectual culture acquired in the school may prove an instrumentality for evil rather than for good.

But the home should not be considered as a place for eating and sleeping merely; but as one where self-respect may be preserved, and comforts secured, and domestic pleasures enjoyed.

THREE FOURTHS OF THE PETTY VICES

which degrade society, and swell into crimes which disgrace it, would shrink before the influence of self-respect. To be a place of happiness, exercising beneficial influences upon its members, and especially upon the members growing up within it, the home must be pervaded by the spirit of comfort, cleanliness, affection, and intelligence. And in order to secure this, the presence of a well-ordered, industrious, and educated woman is indispensable. And here I wish to speak particularly to girls. Many of you will soon be women, and ultimately wives and mothers, and you ought to know how important it is to have clean, healthy, comfortable homes. Besides, so much depends upon the woman that we might almost pronounce the happiness or unhappiness of the home to be woman's work. No nation can advance except through the improvement of the nation's homes; and they can be improved through the instrumentality of women alone. Women must *know* how to make homes comfortable; and before they can know, they must be taught.

Women, therefore, must have sufficient training to fit them for their duties in real life. Their education must be conducted throughout with a view to their future position as wives, mothers, and housewives. But among all classes, even the highest, the education of girls is rarely conducted with this object. Among the working people, the girls are sent out to work; among the higher classes, they are sent out to learn a few flashy accomplishments; and men are left to pick from them, very often with little judgment, the future wives and mothers of the United States.

Too frequently, young men attach little or no importance to the intelligence or industrial skill of young women; and they only discover their value when they find their homes stupid or cheerless. Boys and men alike are caught by the glance of a bright eye, by a pair of cherry cheeks, by a handsome figure; and when they

"FALL IN LOVE,"

as the phrase goes, they never bethink them whether the "loved one" can mend a shirt or cook a pudding. And yet, and bear the fact in mind, Jenny, the most sentimental of husbands must come down from his "ecstatics" as soon as the knot is tied; and then he soon enough finds out that the clever hands of a woman are worth far more than her bright glances; and if the shirt and pudding qualifications be absent, then woe to the unhappy man, and woe also to the unhappy woman! If the substantial element of physical comfort be absent from the home, it soon becomes hateful; the wife, notwithstanding all her good looks, is neglected; and the liquor saloon separates those whom the law and the church have joined together.

Men are really desperately ignorant respecting the home department. If they thought for a moment of its importance, they would not be so ready to rush into premature housekeeping. Ignorant men select equally ignorant women for their wives; and these introduce into the world families of children whom they are utterly incompetent of training into rational or domestic beings. The home is no home, but a mere lodging, and often a very comfortless one at that. I speak not of the poorest laborers only, but of the best-paid workmen in the manufacturing cities. Men earning from twenty to thirty dollars a week—or more than the average pay of ministers and clerks—though spending considerable amounts on whisky and beer, will often grudge so small a part of their income as five dollars a week to provide decent homes for themselves and children. What is the consequence? They degrade themselves and their families. They crowd together, in foul neighborhoods, into dwellings

possessing no elements of health or decency; where even the small rental they pay is in excess of the accommodation they receive. The results are inevitable: loss of self-respect, degradation of intelligence, failure of physical health, and premature death. Even the highest-minded philosophy placed in such a situation, would gradually gravitate toward brutality.

But the amount thus saved, or rather not expended on house-rent, is not economy; it is reckless waste. The sickness caused by the bad dwelling, involves frequent interruptions of work, and drains on the savings-bank or the benefit society. Though the loss to the middle and upper classes is great, the loss is not for a moment to be compared to that which falls on the working-classes themselves, through their neglect in providing wholesome and comfortable dwellings for their families. It is, perhaps, not saying too much to aver that one half the money expended by benefit societies in large towns may be set down as pecuniary loss arising from bad and unhealthy homes.

But there is a worse condition still. The low tone of physical health thereby produced is one of the chief causes of drunkenness. Mr. Chadwick, the well-known sanitarian, once remonstrated with an apparently sensible workman on the expenditure of half his income on whisky. His reply was, "Do you, sir, come and live here, and you will drink whisky too." To build a wholesome dwelling costs little more than to build an unwholesome one. What is wanted on the part of the builder is a knowledge of sanitary conditions, and a willingness to provide proper accommodation. The space of ground covered by the dwellings is the same in both cases; the quantity of wood, or of brick and mortar need be no greater; and pure air is of the same price as foul air. Light costs nothing.

A HEALTHY HOME,

presided over by a thrifty, cleanly woman, may be the abode of comfort, of virtue, and of happiness. It may be the scene of every ennobling relation in family life. It may be endeared to a man by many delightful memories—by the affectionate voices

of his wife, his children, and his neighbors. Such a home will be regarded, not as a mere nest of common instinct, but as a training ground for young immortals, a sanctuary for the heart, a refuge from storms, a sweet resting-place after labor, a consolation in sorrow, a pride in success, and a joy at all times.

In connection with the subject of comfortable homes it would be ungrateful not to mention the name of the late Mr. Peabody, the great American banker. It would take a volume to discuss his merits, though we must dismiss him in a paragraph. He was one of the first to see, or, at all events, to make amends for the houseless condition of the working-classes of London. In the formation of railways above and below ground, in opening out and widening new streets, in erecting new public buildings, the dwellings of the poor were destroyed, and their occupants swarmed away, no one knew whither. Perhaps they crowded closer together, and bred disease in many forms. Societies and companies were formed to remedy the evil, to a certain extent. Sir Sidney Waterlow was one of the first to lead the way, and he was followed by others. But it was not until Mr. Peabody had left his splendid benefaction to

THE POOR OF LONDON,

that any step could be taken to deal with the evil on a large and comprehensive scale. His trustees have already erected ranges of workmen's dwellings in many parts of the metropolis, which will, from time to time be extended to other parts. The Peabody dwellings furnish an example of what workingmen's dwellings ought to be. They are clean, tidy and comfortable homes. They have diminished drunkenness; they have promoted morality. Mr. Peabody intended that his bounty should "directly ameliorate the condition and augment the comforts of the poor," and he hoped that the results would "be appreciated, not only by the present, but by future, generations of the people of London." From all that the trustees have done, it is clear that they are faithfully and nobly carrying out his intentions.

CHAPTER XXXVII.

FLOWERS—ROSES—THE STORY OF OCEOLA.

"Flowers are lovely; Love is flower-like;
Friendship is a sheltering tree;
O, the joys that come down shower-like
Of Friendship, Love, and Liberty."

SO sings Coleridge, and almost every poet, since the first versifier lisped in rude, alliterative numbers, has sung the praise of flowers; and it is always a good sign of a man or woman, boy or girl, that he or she loves, and is careful of, flowers. Show me a cottage, however humble, in the windows of which are geraniums and roses and mignonette, sending abroad their sweet fragrance, and in front of which is a little plot of ground, no matter how little, which is neatly laid out with flower-beds, and I shall tell you that that is the home of contentment, and domestic purity and peace. And it is a luxury which every one can enjoy. The wild flowers bloom alike for rich and poor, and smell as sweetly to the beggar as to the king. Nay, I doubt whether they have been more enjoyed by the poets who have sung the "dew sweet eglantine," than by the hand-laborer, whose toils have been beguiled by the fragrance of its green leaves, which are among the sweetest of all that scent the morning air. But it is of the rose, the flower of flowers, that I wish to speak now. How inexhaustible are the riches of even a single bush! There was a

time, toward the close of last century, when a China rose fetched as much as two thousand five hundred dollars, and tulips sold for fabulous sums. Then how interesting it is to watch their growth! The bud expanding to supply the place of the flower that strews its petals on the earth, leaves us scarcely time to regret its loss, or to feel that a charm is gone. The exuberant flowers adorn the whole summer, and diminish by slow degrees as the autumn advances, as if unwilling to leave the parent stem to cold sterility. What can exceed

THE BEAUTY OF THE ROSE

on a summer morning, half-blown, and bathed in dews that shine red in the early sunbeam, as it reflects on them the hues of the folded petals?

> "Ah! see, deep blushing in her green recess,
> The bashful virgin rose, that half revealing,
> And half within herself, herself concealing,
> Is lovelier for her hidden loveliness."

The English rose, the symbol of royalty, is of a rich crimson hue, and large, but not double. This is the

> "Flower which of Adon's blood
> Sprang, while from that clear flood
> Which Venus wept, another white was born."

This white rose, graceful as is its tall stem, laden with innumerable flowers, is rivalled by the rose of Scotland, low of stature, and delicately beautiful, spreading in the shade its modest boughs, covered with a shower of small sweet blossoms, as thick as the snowflakes of winter. The yellow rose, which is a native of Italy and the south of France, is comparatively rare in England, as is the Austrian rose, which is sulphur-colored on the outside, and scarlet within. The double yellow, which grows wild along the shores of the Levant, is shy of blooming abroad, and seldom shows its full and ample flowers in perfection above once in a lifetime. Among the Greeks, the rose was esteemed the first of flowers; nor can any lover of antiquity be indifferent to the sacred flower of the Muses, blooming on the

mountain of Pieria. The China rose continues to flourish in winter, when others have faded, and our windows are graced by that which the Romans were at great expense to procure, and for which Nero did not scruple to give one hundred and fifty thousand dollars to decorate one magnificent supper.

The rose grows in the cold clime of Northern Lapland,

> "Where pure Niemis' fairy mountains rise,
> And fringed with roses, Tenglis rolls his stream."

But in the sunny plains of Persia it attains its greatest perfection, and the inhabitants of that land consider it especially their own. They call it by many names, and not only are their gardens filled with it, but their apartments and baths are continually strown with its ever-opening flowers; and they celebrate its beauties in

THE FEAST OF ROSES,

which is not wholly discontinued as long as it is in bloom. In Persia, the rose-bush sometimes attains the height of fourteen feet. There, too, the air is vocal with the songs of the nightingale, as he warbles where

> "His queen, the garden queen, the Rose,
> Unbent by winds, unchilled by snows,
> Far from the winters of the West,
> By every breeze and season blest,
> Returns the sweets by Nature given
> In softest incense back to heaven;
> And grateful yields that smiling sky
> Her fairest bloom, and fragrant sigh."

The rose bears a conspicuous part in the gorgeous poetry of the East, furnishing similes and allusions as numerous as its own flowers; and it has been made the subject of a thousand allegories and fictions. The German fable of the origiu of the moss-rose is well known. The angel of the flowers, awakening from his slumbers beneath the shade of a rose-bush, offered to bestow whatever it required, and, when it asked for another grace, he threw around the flower a veil of moss. There is also

a legend of Palestine, which ascribes the origin of the rose itself to the unjust condemnation of a holy maiden, whose pile, when the torch was applied, became in a moment bright with innumerable roses, the first that had blossomed out of the precincts of the garden of Eden. With these, the people, it is said, triumphantly wreathed her head as they conducted her to her home. The name of Syria has been supposed to be derived from *suri*, a species of rose to whose superiority Virgil bears testimony, when, in describing an era of universal happiness, he says:

"Each common bush shall Syrian roses bear."

In India, blighted and forsaken as she is for the sin of her children, there still are "valleys of their roses plentiful."

The custom of strewing flowers around the dead is probably of a date as ancient as the affection that seeks to associate all that is best and sweetest with those for whom it weeps. The Turks, the Spaniards, and the French, with all their dissimilarities, agree in this; the exalted and the humble have alike gathered roses to scatter round the departed. Milton invokes the musk-rose:

"To strew the fragrant hearse where Lycid lies,"

and the peasantry of South Wales vie with one another in planting the graves of their friends with memorial-flowers. Herrick, in one of the most enchanting of his artless lyrics, sings:

"SCATTER YE ROSE-BUDS WHILE YE MAY,"

and other poets innumerable have drawn lessons from her beauty, though Tennyson denies that there is any moral shut within the petal of the rose.

Flowers are not of very general use as food for insects, but the rose-beetle banquets on that after which it is named; the carpenter-bee cuts round patches from the green leaves of the bush to line its nest; and on the rose the butterfly basks in the sunshine, feasting on the nectar it contains. By the Arabian physicians the crimson rose was greatly valued; the hundred-

leaved, also, is used for infusions and syrups; and from the pericarp of the Scotch rose a peach-colored dye is obtained. Fragrant as are the waters distilled from our garden-roses, that derived from the eglantine is by many esteemed still more. The famed rosewater of Egypt is drawn from the white rose, which is extensively cultivated for the purpose. But more costly, and still more intensely sweet, is the ottar or attar of roses, which is imported from Egypt and the East Indies. To produce it, a cask filled with rose-leaves and water is set in the sun for a few days, when a number of oily particles rise to the surface; these are gradually collected into a scum, which is taken up by means of a little cotton, and squeezed into a phial. It is said that not above half an ounce of this precious perfume can be extracted from one hundred pounds' weight of roses.

I meant, on commencing this chapter, to confine myself to the rose, but as there is some space left I shall repeat to you, as well as I can remember, some verses on another flower which I contributed many years ago to *Scribner's Monthly*, now better known as the *Century*. I don't know that I can give them as they were originally printed, being one of that somewhat numerous class of people who never can quote correctly, but the moral suggested will be sufficiently obvious to show the bearing the verses have on some of the preceding remarks:

THE LILY.

A lily in my garden grew,
  Amid the thyme and clover;
No fairer lily ever blew,
  Search all the wide world over.
Its beauty passed into my heart
  (I know 'twas very silly);
But I was then a little maid,
  And it—a full-blown lily.

One day, a learned man came by,
  With years of knowledge laden,
And him I questioned, with a sigh,
  Like any foolish maiden;

"Wise sir, please tell me wherein lies
(I know the question's silly),
The *something* that my art defies,
And makes a perfect lily."

He smiled, and stooping plucked the flower,
Then tore it—leaf and petal,
And talked to me for full an hour,
And thought the point to settle;
"Herein it lies," at length he cries,
But I—I know 'twas silly;
Could only weep, and sob, "Alas,
But—Doctor—where's my lily?"

And now, having given you some verses, let me send you away in a merry humor with the following beautiful story, out of which a famous French writer has constructed a very charming and fascinating romance:

The story is told of a poor French prisoner who in his captivity became exceedingly attached to a flower.

HE WAS THROWN INTO PRISON

by Napoleon because he was supposed to be an enemy of the government. One day as Charney, for that was his name, was walking in the yard adjoining his cell, he saw a plant pushing up from between the stones. How it came there he could not tell. Perhaps some one carelessly had dropped the seed; or perhaps the seed had been blown over the wall by the wind. He knew not what plant it was, but he felt a great interest in it. Shut in within those walls, away from all his friends, not permitted to interest himself with either reading or writing, he was glad to have this little living thing to watch over and love. Every day when he walked in the court he spent much time in looking at it. He soon saw some buds. He watched them as they grew larger and larger, and he longed to see them open; and when the flowers at length came out he was filled with joy. They were very beautiful. They had three colors in them—white, purple, and rose; and all round the edge ran a delicate silvery fringe. Their fragrance, too, was delicious. Charney

examined them more than he had ever examined plant before; and never did flowers look so beautiful to him as these.

With infinite care he guarded his plant from all harm. He made a frame-work from such things as he could get, so that it should not be broken down by some careless foot or by the wind. One day there was a hail-storm; and to keep his tender plant from the pelting of the hail, he stood bending over it as long as the storm lasted. The plant was something more than a pleasure and a comfort to the prisoner. It taught him some things which, though a very wise man, he had never learned before. When he went into the prison he was an atheist. He did not believe there was a God; and among his scribblings on the prison wall he had written, "All things come by chance." But as he watched his loved flower, its opening beauties told him that there is a God. He felt that none but God could make that flower, and he said that the flower had taught him more than he had ever learned from the wise men of the earth.

In other ways, too, the cherished and guarded plant proved of great service to the prisoner, for it was the means of his being set free. Let me tell you how this happened. Along with Charney, there was another prisoner, an Italian, whose daughter came to visit him. She was much interested by the tender care which Charney took of his plant. At one time it seemed as if it were going to die, and Charney felt very sad. He wished that he could take up the stones around it, but he could not without permission. The Italian girl managed to see

THE EMPRESS JOSEPHINE,

and told her about it; and so permission was given to Charney to do with his plant as he desired. The stones were taken up, and the earth loosened, and the flower was soon as bright as ever again. Now Josephine thought much of flowers. It is said that she admired the purple of her cactuses more than the Imperial purple of her robe, and that the perfume of her magnolias was pleasanter to her than the flattery of her attendants. She, too, had a cherished flower—the sweet jasmine, which she

had brought from the home of her youth, a far-off island of the West Indies. This had been planted and reared by her own hand, and though its simple beauty would scarcely have excited the attention of a stranger, it was dearer to her than all the rare and brilliant flowers that filled her hot-houses. She thought a good deal, therefore, of the prisoner that took such good care of his one flower. She inquired about him, and after a little time persuaded the Emperor to

GIVE HIM HIS FREEDOM.

And when Charney left the prison he took the plant with him to his home; for he could not bear to part from the sweet companion that had cheered him in his lonely prison life, taught him such lessons of wisdom, and was, at last, the means of setting him free.

CHAPTER XXXVIII.

CLEANLINESS—ITS MORAL AND PHYSICAL BEAUTY.

A SCOTCH member of Parliament once, when speaking from the hustings, was interrupted by a dirty-looking man, who called out: "If ye were re-elected tae Pairliment, what wa'd ye be inclined tae tak the tax aff?" The M. P., eyeing his interlocutor's soot-begrimed face and hands, replied grimly: "Off soap, my friend." Possibly some of my readers can catch the moral, though I hope the cap won't fit very many of them. In my young days, however—particularly on cold, winter mornings—we boys were not extravagantly fond of cold water. Dipping the end of the towel in the basin, some of us used to apply the moistened linen, and even that in a very gingerly fashion, to the tip of our nose, and a little way on each side. I don't know how it is now with boys; I am speaking of many years ago. But all the same, it should never be forgotten that cleanliness is indeed next to godliness. Show me a persistently dirty boy, and I shall know at once that he is slovenly, unambitious and lazy; or an untidy, filthy man, and the chances are he drinks and has lost self-respect. In a previous chapter I spoke of the necessity of having healthy homes; but not only do we want a better class of dwellings, we require the people to be so educated as to appreciate them. An Irish landlord took

CLEANLINESS.

his tenantry out of their mud-huts, and removed them into comfortable dwellings, which he had built for their accommodation. When he returned to his estate, he was greatly disappointed. The houses were as untidy and uncomfortable as before. The pig was still under the bed, and the hens over it. The concrete floor was as dirty as the mud one had been. The panes of the windows were broken, and the garden was full of weeds. The landlord wrote to a friend in despair. The friend replied: "You have begun at the wrong end. You ought to have taught them the value of cleanliness, thriftiness and comfort." To begin at the beginning, therefore, we must teach young people, and through them the old, the necessity of cleanliness, its virtues and its wholesomeness; for which purpose it is requisite that they should be intelligent, capable of understanding ideas conveyed in words, able to discern, able to read, able to think. In short, the people, as children, must first have been to school, and properly taught there; whereas, we have allowed the majority of the working-people to grow up untaught, nearly half of them unable to read and write, and then we expect them to display the virtues. tastes, judgment and forethought of well-educated beings.

It is of the first importance to

TEACH CHILDREN CLEANLY HABITS.

This can be done without teaching them either reading or writing. Cleanliness is more than wholesomeness. It furnishes an atmosphere of self-respect, and influences the moral condition of the entire household. It is the best exponent of the spirit of thrift. It is to the economy of the household what hygiene is to the human body. It should preside at every detail of domestic service. It indicates comfort and well-being. It is among the distinctive attributes of civilization, and marks the progress of nations.

Dirt—which Lord Palmerston wittily defined as matter in the wrong place—forms no part of our nature, although some boys, I am sorry to say, seem to think otherwise. Dirt is a

parasite, feeding upon human life and destroying it. It is hideous and disgusting. There can be no beauty where it is. The prettiest girl is made repulsive by it. Children are made fretful, impatient and bad-tempered by it. Men are degraded and made reckless by it. There is little modesty where dirt is, for dirt is indecency. There can be little purity of mind where the person is impure; for the body is

THE TEMPLE OF THE SOUL,

and must be cleansed and purified to be worthy of the shrine within. Dirt has an affinity with self-indulgence and drunkenness. The sanitary inquirers have clearly made out that the dirty classes are the drunken classes, and that they are prone to seek, in the stupefaction of beer, gin, and opium a refuge from the miserable depression caused by the foul conditions in which they live.

I need scarcely refer to the moral as well as the physical beauty of cleanliness—cleanliness which indicates self-respect, and is the root of many fine virtues, and especially of purity, delicacy and decency. One might even go further, and say that purity of thought and feeling results from habitual purity of body; for the mind and heart of man are, to a very great extent, influenced by external conditions and circumstances; and habit and custom, as regards outward things, stamp themselves deeply upon the whole character, alike upon the moral feelings and the intellectual powers.

Moses was the most practical of sanitary reformers. Among the Eastern nations generally,

CLEANLINESS IS A PART OF RELIGION,

just as it was among the old Romans, whose public and private baths were miracles of costliness and beauty. They esteem it not only next to godliness, but as a part of godliness itself. They connect the idea of internal sanctity with that of external purification. They feel that it would be an insult to the Maker they worship to come into His presence covered with impurity. Hence the Mohammedans devote almost as much care to the

erection of baths as to that of mosques; and alongside the place of worship is usually found the place of cleansing, so that the faithful may have the ready means of purification previous to their act of worship.

"What worship," says a great writer, "is there not in mere washing! Perhaps one of the most moral things a man, in common cases, has it in his power to do. Strip thyself, go into the bath, or were it into the liquid pool of a running brook, and there

WASH AND BE CLEAN;

thou wilt step out a purer and a better man. This consciousness of perfect outer pureness—that to thy skin there now adheres no foreign speck of imperfection—how it radiates on thee with cunning symbolic influences to thy very soul! Thou hast an increased tendency toward all good things whatsoever. The oldest Eastern sages, with joy and holy gratitude, had felt it to be so, and that it was the Maker's gift and will."

The common well-being of men, women and children depends upon attention to what at first sight may appear comparatively trivial matters. And unless these small matters be attended to, comfort in person, mind and feeling is absolutely impossible. The physical satisfaction of a child, for example, depends upon the attention that is paid to its feeding, clothing and washing. These are the commonest of common things, and yet they are of the most essential importance. If the child is not properly fed and clothed, it will grow up feeble and ill-conditioned. And as the child is, so will the man be.

CHAPTER XXXIX.

SANITARY SCIENCE—ITS IMPORTANCE—PHYSICAL AND MORAL HEALTH.

AND now a word or two as to sanitary science. Don't be frightened; I am not going to be very technical, and of all the sciences, this is the simplest and easiest of attainment. It should be taught in every school and college; being so simple in its nature that a child of seven could easily master its principles. Of late years, I am glad to think much has been done to spread the doctrines of this science. There is no mystery attached to it; otherwise we should have had professors teaching it in colleges, and graduates practicing it among the people.

Sanitary science may be summed up in one word, cleanliness. Pure water and pure air are its essentials. Wherever there is impurity, it must be washed away and got rid of. Thus sanitary science is one of the simplest and most intelligible of all the branches of human knowledge, and as such, recommends itself specially to the study of youth. Perhaps it is because of this that, like most common things, it has continued to receive so little attention. Many still think that it requires no science at all to ventilate a chamber, to clean out a drain, and to keep house and person free from all uncleanness. There never was a greater mistake.

Sanitary science may be considered an unsavory subject. It

deals with dirt and its expulsion from the skin, from the house, from the street, from the city. It is comprised in the words,—"wherever there is dirt, get rid of it instantly; and with cleanliness let there be a copious supply of pure water and of pure air for the purposes of human health."

Take, for instance, an unhealthy street, or block of streets, in a large town; there you find typhus fever constantly present. Cleanse and sewer the street, supply it with pure air and pure water, and fever is forthwith banished. Is not this a much more satisfactory result than the application of drugs? How many persons in this country annually fall victims to fever, originated by causes which are preventable. The result is the same as if these many thousands were annually taken out of their wretched dwellings and put to death! We are shocked by

THE NEWS OF MURDER;

by the loss of a single life by physical causes! And yet we hear, almost without a shudder, of the reiterated statement of the loss of tens of thousands of lives yearly from physical causes in daily operation. By neglect of the ascertained conditions of healthful living, the great mass of the people lose nearly half the period of their natural lives. "Typhus," says a medical officer, "is a curse which man inflicts upon himself by the neglect of sanitary arrangements." The connection is close and intimate between physical and moral health, between domestic well-being and public happiness. The destructive influence of an unwholesome dwelling propagates a moral typhus worse than a plague itself. When the body is enfeebled by the depressing influences of vitiated air and bodily defilement, the mind, almost of necessity, takes the same low, unhealthy tone;

SELF-RESPECT IS LOST;

a stupid, inert, languid feeling overpowers the system; the character becomes depraved; and too often—even to snatch a momentary enjoyment, to feel the blood bounding in the veins—the miserable victim flies to strong drink for relief; hence, misery, infamy, shame, crime and wretchedness.

This neglect of the conditions of daily health is a frightfully costly thing. It costs the rich a great deal of money in many ways for the support of women made husbandless, and children made fatherless by typhus. It costs them, also, a great deal in disease; for the fever often spreads from the dwellings of the poor into the homes of the rich, and carries away father, mother, or children. It costs a great deal in subscriptions to maintain dispensaries, infirmaries, houses of recovery, and asylums for the destitute. It costs the poor still more; it costs them their health, which is their only capital. In this is invested their all; if they lose it, their docket is struck, and they are bankrupt. How frightful is the neglect, whether it be on the part of society or of individuals, which robs the poor man of his health, and makes his life a daily death!

Why, then, is not sanitary science universally adopted and enforced? I fear it is mainly because of indifference and laziness. To remove the materials of disease requires industry, constant attention, and increased expenditure, which means increased taxation. The foul interests hold their ground, and bid defiance to the attacks made upon them. "Things did very well," they say, "in the good old times; why should they not do so now?" When typhus, or yellow fever, or cholera breaks out, they tell us that nobody is to blame.

THAT TERRIBLE NOBODY!

How much he has to answer for! More mischief is done by Nobody than by all the Everybodies in the two hemispheres. Nobody adulterates our food. Nobody poisons us with bad drink. Nobody supplies us with bad water. Nobody spreads fever in blind alleys and unswept lanes. Nobody leaves towns undrained. Nobody fills jails, penitentiaries, and convict stations. Nobody makes tramps, politicians, thieves and drunkards.

Homes are the manufactories of boys and girls, and as the homes are, so will the boys and girls be. Mind will be degraded

by the physical influences around it, decency will be destroyed by constant contact with impurity and defilement, and

COARSENESS OF MANNERS,

habits, and tastes will follow as a matter of course. You cannot rear a kindly nature, sensitive against evil, careful of proprieties, and desirous of moral and intellectual improvement, amidst the darkness, dampness, disorder, and discomfort, which, unhappily, characterize so large a portion of the dwellings of the poor in our large towns; and until we can, by some means or other, improve their domestic accommodation, their low moral and social condition must be regarded as inevitable.

CHAPTER XL.

GERMAN CHILDREN—THEIR HOMES, THEIR SCHOOLROOMS, THEIR PLAY-GROUNDS.

IN this chapter I mean to tell you how children are brought up in Germany. In England and Scotland, you know, they are brought up pretty much in the same way as here, only a good deal more strictly as a rule. But, speaking generally, their education is much the same; the public school institution in both countries is similar; they talk the same language; study the same books, and to a large extent play the same games, though under different names. I need not therefore dwell longer on English children; but the Germans are entirely different, and as so large a proportion of our population is German it may interest American boys and girls to know how their little friends in "Fatherland" are brought up. And as one should always begin at the beginning, suppose we turn our attention first to the baby. Happily for us, the German baby is a very quaint and interesting little morsel of humanity, and is very well worthy of a few words of description. This is a recognized fact in its own country, where, if a prophet is not a prophet, a baby is most emphatically a baby, and where it figures largely in all picture-books, is exhibited in the bakers' windows at Easter in the form of cakes, with two great currants for eyes, and dangles in sugar from at least one branch of every Christmas tree, besides being modeled and remodeled for a variety of other purposes. It is wrapped up in a long, narrow

pillow, which is turned up at the little feet, and tucked under the dimpled chin. Three bands of bright blue ribbon are passed round this pillow in different places, and tied in large bows in front.

IN THIS CHRYSALIS STATE

nothing of the baby is visible but the small round face, and that is encircled and partly hidden by a cap.

This mode of swaddling has its advantages. Baby's limbs are in no danger of being broken by an accidental fall; it can not scratch its little face to pieces with its sharp, rosy nails; and it can be placed on a table, a shelf, or the counter of a shop like a plate of soup, or a loaf of bread, or a parcel of goods, or anything else inanimate—almost anywhere to attract attention. The other side of the question of course suggests itself. Would not the baby prefer to kick its legs about in freedom, and stretch its arms and limbs, and would not they become all the stronger for the exercise? Besides this, there is such a thing as placing too great confidence in baby's complete safety when strapped up in its cushion.

A party of peasants had once to carry their child some distance to church to be christened. It was winter, and the snow lay thick on the ground. After the ceremony, the parents, sponsors and friends took some refreshments at a neighboring inn, to fortify themselves for the home journey; and, I fear—though this is only a guess—there must have been "schnapps" as well as "pretzels" in their lunch. They then set out in great good humor, and reached home safely with the pillow, but there was no baby in it. Perhaps they had by mistake held the pillow upside down; perhaps the blue bows had become loose; let this be as it may, the baby had slipped out, and was found lying on the snow, half way between the church and the village. Fortunately being a sturdy little fellow, he escaped with a cold in his head, which the fond parents endeavored to cure by popping him, pillow and all, into the oven, that was still warm from the baking of the christening cake!

Curiously enough, when last in Scotland, and out one day trout-fishing in Loch Awe, an inland lake in the western Highlands of that country, a similar story was told me, and a "holy well" by the road-side, pointed out as the spot where the baby had been left. In this case, however, there could have been no "schnapps" or "pretzels"; it was most likely "glenlivet" and oatcake.

But to return. After the baby is released from his pillow-bondage he passes a year or two in much the same way as children of his tender age do in other countries, entering gradually into the

WONDERLAND OF FABLE AND POETRY,

which has nowhere so warm a home as in Germany. Giants, dwarfs, gnomes, fairies, wizards and witches, good spirits and bad spirits, surround him on every side. He never doubts their existence; believing in them all—Rubezahl, Pelzmärtel, Santa Claus, Frau Hölle, and above all the Christ-child; a figure representing which is often swung before the window of the little one's bedroom in the gray dawn of Christmas morning. In this manner the next few years pass between the fairyland of fable-lore and wholesome home discipline. The rod has still an honorable place in German house-holds. It peers from behind the looking glass all the year round, and is always adorned at Christmas with a bright new ribbon, which is bound round it with much ceremony.

When the little ones are four years old, or even earlier, many of them go for some hours, or a day, to the kindergarten (children's gardens), which a good man named Fröbel, instituted years ago. The rooms in which these are held, are provided with low benches, and the walls are decorated with bright pictures, by means of which, and of small blocks of wood, sticks, colored straws, balls, rings, thread, stones, shells, and clay, the children receive their first impressions of beauty, of fitness, and of use. But they are not allowed to sit too long. Constant changes is the order of the day. From time to time the mistress makes a sign,

GERMAN SCHOOLS—FIVE MINUTES LATE.

and all leave their play-work and assemble around her. "This is the way we clap our hands, when we march round the school," says she, suiting the action to the word; and the little ones form themselves into a kind of procession, and follow her movements, clapping and shouting to their heart's content. On summer afternoons their walk usually extends to

A SMALL GARDEN OR ORCHARD,

hired during the summer months for the use of the school. A few rough benches and tables, perhaps a swing and a diminutive gymnastic arrangement, indicate the purpose to which the garden is applied, and here a couple of hours are spent in the open air below the apple trees, in alternate work and play.

Singing, of course, is not forgotten; when is it ever forgotten in Fatherland? The simplest words are put to the simplest melodies, and are sung with a will. If now and then a childish voice begin before the others, or perform a little solo on its own account when all the rest have finished, what does it matter?

Short tales are told, and the shortest words used in the telling; for if a big word creeps into the narrative the children cannot remember it. In their sixth or seventh year, German children commence school-life. The latest festal occasion they have enjoyed has foretold the coming event. Among their presents then have figured a brand-new satchel, slate and pencil, copy-book, and sponge-box. The satchel is rather large, for it is bought with an eye to future requirements; if for a boy, it has a hairy cover, or lid; if for a girl, one of oilcloth; on both the initials of the name appear in large,

BRIGHT, BRASS LETTERS.

The children begin their day early; for the elder ones have all to be at their places in school by seven, from Easter to October, and by eight in the winter. The little ones and the girls are expected by eight all the year round. What a hurry and commotion! Rubbing the sleep out of their eyes takes the children the longest time; washing and dressing the shortest. Then a cup of milk or coffee and a "wecken" (waking-roll) are

hastily despatched, and mother helps to hook the satchel, and pops another "wecken" or "pretzel" into each pocket, and father gives them a parting admonition to be good and attentive to their masters; and away they go. If there be a garden to the house the girls pluck some flowers for their mistress, who places them in water on her desk, so that all the class may inhale their fragrance.

The school duties commence with a hymn, said or sung. Then a portion of Scripture is read, and a short prayer offered. After this, Latin and Greek in the boys' schools, French in the girls' schools, geography, history, etc., in both, succeed each other in lessons of an hour's length. The domestic rod is exchanged for a cane, with which unruly or

LAZY BOYS GET "TATZEN"

(a stroke on the palm of the hand) or, in very bad cases, *hosen-spanner*, a severer form of punishment; but the latter is falling into disuse. The girls are punished by bad notes. If a girl has three bad notes, she must report herself to the director, or rector, as he is entitled; and this is considered a great disgrace. The rector is the nominal head of the staff of professors, masters and governesses who give instruction in the great schools for girls; but in most towns there is a prelate above him, and above the prelate a queen, a princess or a duchess; and the dread of being specially reported to one or other of these grand personages keeps the little girls in excellent order. Singing and gymnastics belong to the school duties. Gymnastics, especially, is a national institution, and takes the place in Germany that the outdoor games do in America. Of course, cricket, football, etc., have been introduced into parts of the country, but with no great success. Such games can only become national in a country of boarding-schools, where the boys remain together after lesson time, and can commence their practice of a game without loss of time. Where the children disperse after lessons, and have to return to their respective homes, some at a considerable distance, time is too short for

anything but a turn on the horizontal or parallel bars, or, with the girl, a swing, or a run with the skipping-rope. The principal outdoor amusement, if we except the numberless games common to all countries, as "I spy," "Puss in the Corner," etc., are skating and sleighing in winter, and soldiering in summer.

Sleighing is a great amusement, and one of long duration in Germany, when old winter keeps to his long-established custom, and makes his arrangements with a view to furthering this favorite pastime. Old winter and nature being propitious, the children make the best use of all their holiday hours, and pulling their fur or worsted caps over their ears, and thrusting their hands into their moleskin gloves, hurry away to the top of the hills with their mountain sleighs, and then seating themselves on them, with or without a stick to guide them, descend the frozen slope with great rapidity, only stopping at the bottom, where some little ditch or dried-up runnel stays their further progress. Another way of coming down, called

THE "WHALE" DESCENT,

is lying on the sleigh, head downwards, with outstretched arms and legs. The steeper the hill and the more numerous the sleighers, the wilder and more dangerous the sport, and the more loved by the boys, who almost prefer it to the summer's amusement of soldiering. In a military land like Germany, the gay uniforms, the music, the flags, the processions, are the first things that attract a child's eye, and his earliest wish is for a helmet, a wooden sword and a drum. Sometimes papa presents his young son with a whole suit of regimentals for his birthday; and it is very droll to see a hero of six march with conscious dignity up and down before his father's house, or touch his cap with martial salute. As the boy grows older, the military spirit continues. In most parts of Germany, every saint's day is a school-holiday. Besides this, there are half-holidays for heat. If the thermometer stand at eleven o'clock a.m., at twenty degrees Réaumur (equal to seventy-seven degrees Fahrenheit),

the schoolboy is entitled to ask for a holiday in the afternoon. These precious respites from learning are occupied in making excursions to some fine old ruin, a cloister, or a fort; or away go the boys in troops to the heights, or woods, or plains that surround their town or village. They are decked with many a stray scrap of armor, helmets of all descriptions, a mail shirt or two, spurs, etc., and all have a wooden sword, a superannuated gun that has long since ceased firing, or a blunt saber, brought from some distant land and kept at home as a relic. On one of the heights that surround the town, perhaps in the middle of a wood, stands a fort of rude construction, that has been made by boys in remote years, and has been used by generations of boys since. Here

THE FLAG IS HOISTED;

the boys divide into two parties; one party mans the fort and defends the flag, and the other endeavors to cross the moat and storm the position. Of course there is plenty of noise; and the blast of the never-failing horn, and the shouts of the boys, often guide father and mother, who are taking their afternoon walks, to the spot. The mothers look on with something like terror, fearful of sprained ankles, wounds, bruises; but the father enjoys the sight. He remembers how he played at the same fort when he was a boy, and enters thoroughly into the spirit of the game.

After the summer is over, comes autumn with, in southern Germany, its vintage. Most schools get a special holiday, of about a fortnight in length, for the vintage season. The little girls and boys are presented with miniature "buttens," and fill them with ripe grapes. Then they carry them down the narrow vineyard steps to the wine-press below. In the evening bonfires are made, fire-works let off, pistols fired, songs are sung; bread, butter, cheese, sausage disappears in large quantities, and bowls of the sweet wine freshly pressed from the grapes are drunk. Then all return home in the cool autumnal evening; the children in advance, walking in procession, and each carrying a

lighted torch or a Chinese lantern. After autumn, come with rapid strides winter and the Christmas holidays. Brief they are, only ten days in length, but perhaps all the more enjoyable because of their brevity. The boys and girls have fair-money given them (for there is always a fair held before Christmas), with which they can make their little purchases and contributions to the Christmas-tree. Then the attics have to give up their treasures; and the miniature castle, with its moat, drawbridge and regiments of soldiers drawn up in martial array in the castle yard—the villa, with its pleasure-grounds, its lakes, its playing fountains—the doll-houses, dolls, kitchens, pantries, shops, theaters, etc., all come under review, are painted afresh, repaired, newly papered, newly arranged; the dolls are sent to

THE DOLL DOCTOR

(in some towns there is a so-called doll-doctor, whose whole time is employed in repairing the tender constitutions of these fragile creatures), and some addition is made as a surprise to each different toy. The children write their "Wünsch-zettel"—a list of the new presents which they would like to get—and mamma and papa choose from the rather long list what they think suitable. The tree is bought, and hidden, and decorated in secrecy, and on Christmas eve papa lights it with great ceremony, after mamma has arranged the presents and a great plateful of cakes for each member of the household. Then the doors are opened, and the impatient children are admitted. The next week is a week of business. Selling, buying, cooking (all on a small scale), dolls' christenings, dolls' parties, theatrical performances, etc., etc., follow each other in rapid succession, till New Year's Day is passed and the holidays are over. Then it is that all the larger toys vanish to the attic, and are not to be brought down again till another twelvemonth has flitted past with its school-life and its home pleasures, and the Christ-child moves once more past the window, and the frosted fir-tree stands in festal array and awaits its guests.

CHAPTER XLI.

THE BLOOD, HOW MADE—FOOD, HOW DIGESTED.

PASSING now from the home and the fireside, let us examine the structure of our own bodies; for clean and comfortable homes will be of little use if our bodies are not healthy and strong. And first, let us study for a little, the subject of blood; how it is made, from what, and for what. Blood, then, is made from the food you eat, and in much the same way as sap in plants is made. The plant's food, you must know, is in the ground, and its stomach is the root, in which are a number of little mouths to suck up the food. And just so, in your stomach and in that of all animals, there are a great many little mouths or suckers that extract the nourishing or blood-making part of the food. I need hardly say that the mouths in the root of the plant do not suck up all the soil; but only that part of it that is nutritious and will make the plant grow. And just so the mouths in the animal stomach do not

SUCK UP ALL THE FOOD,

but only that part of it which is good for the animal's growth, or, in other words, that will make good blood. In the ground itself, there is no sap, but only what can be made into sap; and so in your food, there is no blood but only what can be made into blood; and the business of the mouths in the root, and of the

mouths in the stomach, is just this,—to take in what will make sap, and what will make blood; and with such nicety do they do this that it is very seldom they take in anything that will not make sap and food respectively.

Have you ever tried to count how many different things are made from the blood, or from how many different kinds of food blood can be made? Only think of the variety of articles you sometimes eat at dinner, and in respect of variety, we Americans are ahead of all other nations. Not that I think this is anything to boast of. Fewer dishes, and plainer food better cooked, more thoroughly and slowly masticated, and better digested, would be much preferable to the absurdly numerous and indifferently cooked hotch-potch of everything now served up at hotels, to be hastily swallowed and imperfectly digested. Just think for one moment of the dishes on an ordinary hotel bill of fare!

THE MERE SIGHT STAGGERS A FOREIGNER,—

fruit, soups, oysters, fish, fowl, game, tongue, beef, steak, *entremets*, bacon, liver, beans, tripe, fishballs, potato (ordinary and sweet), turnip, cabbage, squash, egg-plant, apple-sauce, tomatoes, cranberry, celery, pudding, pie, ice-cream, filberts, raisins, etc. Better far, a plate of soup; a bit of nicely cooked fish; a rare, thick, juicy steak; a mealy potato boiled in its jacket; and some rice pudding and milk; than all this heterogeneous array of conflicting foods. But, apart from this, does it not seem strange that blood can be made from such a mixture? Yet so it is; there being something in all these different things that helps to make the blood.

In different animals, too, the blood is made from different things. Man, except an occasional Nebuchadnezzar, does not eat grass; neither does a dog, if he is well; nor does a cow eat meat. It would be no good if they did. The mouths of their respective stomachs would not suck up anything from these things. The business of the cow's stomach is to extract nutriment from grass, and meal, etc., not from meat. Men's stom-

achs again are made in such a way that blood can be made from a greater variety of things than in the case of any other animal.

But these little mouths of which I have just told you, do not extract the blood-making substance as soon as the food is put into the stomach. The food must first be digested, and as this process is a very delicate and interesting one, I shall explain it to you. When you swallow your food, there is a liquid formed in the stomach which mixes with it; and after a little time, changes all the different kinds of food in such a way that the whole looks as if it were all one thing. The meat, and potato, and pie, etc., are not only well mixed, but they are so changed that you could not tell one from the other. When the food becomes changed in this way, the little mouths begin their work upon it; by sucking from it a white fluid very much like milk; and it is from this fluid that the blood is made.

But before the food goes into the stomach at all, several things have to be done. In the first place, it has to go through the mill, and be ground down very fine in the mouth by

TWENTY LITTLE GRINDERS,

which we call teeth. The object of this is obvious, for the finer the food, the more easily will the digestive fluid in the stomach change it into blood. So you see that you must not swallow your food too fast, as, I fear most American boys and girls, and even men and women, do—and hence our dyspepsia and sallowness of complexion—but must let the mill in your mouth grind it thoroughly.

But not only is the food ground; it is also well moistened by a fluid called saliva, which little factories about the mouth keep making and supplying all the time the mill keeps grinding. You have sometimes, no doubt, remarked: "How my mouth waters!" especially at the sight of some particularly tempting fruit or pie. Well, it is this saliva that you feel when your mouth waters. The two largest of these factories are just below the ears. It is these that swell up so much when one has the mumps. Generally these saliva factories do only a moderate

business; making only enough liquid to keep the mouth moist; and sometimes they do not make enough even for this; in which case the mouth gets dry, as when one is in fever. It is when you eat that these factories do the most business, for they then have to make a good deal of fluid to mix with the food. Indeed, it would almost seem as if they really knew when it was necessary for them to put on, as we say, double steam, and work their hardest.

The food of plants needs moistening just as our food does. The rain moistens it for the root, the stomach of the plant, so that it may get nourishment from it. When you water the dry earth in a flower-pot you do for the food of the plant what the saliva factories do for your food. Sometimes in fever, as I have just told you, the mouth is very dry. This is partly because

THE SALIVA FACTORIES

have almost stopped work; hardly any saliva comes through their canals into the mouth. It would be hard work then to eat dry food. The dry cracker must be moistened before it can be eaten, just as plants need watering after a long drought.

CHAPTER XLII.

THE CIRCULATION OF THE BLOOD—THE HEART.

AND now, you will naturally ask, how is the blood circulated all through the body, and so continuously that from birth to death there is no cessation? The answer is simply this: In precisely the same way as the sap is circulated in a plant or tree, going up one set of pipes and down another. So, in your body, there are two different sets of pipes for the blood to run through, which are called respectively, arteries and veins. The blood is kept in motion by a pump placed in your chest, which pump we call the heart, and which works all the time—night and day. Place your hand on your left breast and you can feel it pumping, especially if you have been running very fast or otherwise exerting yourself, when it works very hard. Now, at every one of these beats which you feel,

THE HEART PUMPS THE BLOOD

out into a main pipe or large artery, from which other arteries branch out in every direction, and, in their turn, send out still smaller arteries, at the ends of all of which are exceedingly small vessels, called capillaries, from the Latin word *capilla*, which means a hair. They are really smaller than the finest hairs, for you cannot see them with the naked eye. When you cut your finger you divide a great many of these vessels, and the blood oozes out from them. When any one blushes, these capillaries

in the skin of the face are full of blood, and this causes the redness. These capillaries are everywhere, so that wherever you prick yourself it will bleed. Now, the blood goes out from the heart by one set of pipes, the arteries, and returns by another set, the veins—some of which lie very deep, while others are so near the skin that you can easily see them in your arm and hand. But the arteries you cannot see, as they nearly all lie very deep. And why? Because if an artery of any size is wounded, it is not easy to stop its bleeding, for the heart is forcing the blood through it; but it is easy to stop the bleeding of a wounded vein, because the blood in it is going quietly back to the heart. And it is just because it is

SO DANGEROUS TO WOUND AN ARTERY

that God has placed them so deep that they cannot be easily harmed. They are also guarded in another way, being made much stronger than the veins. If they were not so, such is the pressure on them, they would be very apt to burst every now and then, and this weakness of the coating of the arteries is said to have been the immediate cause of the sudden death of the late Duke of Albany.

The blood sent from the heart through the arteries is red; but the blood returned to the heart through the veins is dark, which is the reason why the veins which you see under the skin look dark. What a wonderful machine is this heart of ours! Day after day, month after month, year after year, from the cradle to the grave, it keeps merrily pumping away, and yet never grumbles, never strikes, never grows discouraged; doing in each moment the precise duty of that moment; and not being expected to make two or more beats at once, but only one. And is there not a lesson here for all of us; teaching boys and girls, men and women, that if one only goes right on, performing cheerfully every duty as it comes along, he will do a great deal in a life time, and he will do it easily and pleasantly; if only he does not keep looking ahead and bothering himself about how much he has to do, and how little time to do it in?

Perhaps you have heard the story of the discontented pendulum? No! Then I shall tell it you. One day, the pendulum of

A CLOCK IN A FARMER'S KITCHEN,

in thinking over the ticking that it had to do, became discouraged and concluded to stop. The hands on the clock-face did not like this, and had a talk with the pendulum about it. The pendulum was, after a while, persuaded to begin its work again, because it saw, as the hands said, that it always had a moment to do every tick in. The pendulum's foolish waste of time in complaining made the farmer's clock an hour too slow in the morning.

AND NOW LET ME EXPLAIN

why you breathe, and how. You remember that I told you how the blood which comes back to the heart is dark blood, and consequently not good blood. To make it fit for use it has to be made into good red blood, and the factory where this is done is the lungs. Just as fast as the dark blood goes to the heart, it is sent into the lungs to be made into red blood; after which it goes back to the heart to be sent all over the body. And this is done by the air you inhale, which, as often as you draw a breath, goes down into the lungs and changes the blood it finds there. So now you see why it is that in order to keep alive, you must breathe; for if the air did not go down into the lungs, the dark blood, which cannot sustain life, would not be changed into red. And this is how death is caused in drowning; as, the air being shut out by the water, the blood is not changed in the lungs; but goes back to the heart dark instead of red, and in this non-life-sustaining form is sent all over the body. The heart and the lungs fill up your chest. The lungs cover up the heart, except a little part of it on the left side; where you can feel its beating so plainly. The lungs are light, spongy bodies; light, because full of little cells for the air to go into. It is in these cells that the blood is changed by the air.

But breathing is of use to us in another way: it makes the voice. If we did not breathe in the way we do,—if we only

breathed as fishes breathe,—we could not speak, or shout, or sing. The sound of the voice is made in what is commonly called

"ADAM'S APPLE,"

near the top of the throat. This is a sort of musical box, across which are stretched two flat cords. Now, when we speak or sing, the air, coming up out of the lungs, strikes on these cords, and makes them vibrate or shake; just as the vibration of the fiddle-string makes a sound when the bow is drawn over it; or the wind makes an Æolian harp musical. In the same way, the wind that is blown up from your lungs makes the cords in Adam's apple vibrate; and the chest may be said to be the bellows of

THE LITTLE MUSICAL BOX IN YOUR THROAT.

Fishes, as you all know, have no voice, because they have no musical box, and if they had they could not use it, for the only way in which it can be used is by blowing air through it. Neither the frog nor the sea-lion can use his, so long as he is under water; he has to stick his head up out of the water when he wants to croak or bark.

CHAPTER XLIII.

HOW WE THINK—ALL ABOUT THE BRAIN AND NERVES.

HAVE any of my young readers ever stopped to ask for what was the body built—for what is it kept in repair? why all this most intricate machinery, this nice adjustment of parts and forces, these delicate and complicated processes? It is because the body is designed to be the dwelling-place, or house, of the mind, or soul; that is, the thinking part of you. But the body is something more than a house for the soul; or—"soul" being often used to signify "spirit," or "life-essence," as in Homer, etc., as distinct from the *ego* that thinks—as I shall in future call it, mind. The head, where the mind dwells, is only a small part of the body; but it uses all the other parts. When the hand is moved, it is the mind that uses it; when you walk, it is the mind that directs the legs and feet; and so it is the mind that commands, and operates through, the eye, and nose, and ear. The body, therefore, may be regarded as made up of many different kinds of machinery expressly contrived and put together so as to be most easily operated upon and directed by the mind. And the object of eating, and drinking, and breathing, and having the blood circulate, is to make this machinery subservient to that use.

But how is it, you may ask, that the mind uses this ma-

chinery? Raise your hand. What makes it go up? It is what we call the muscles. They pull it, and up it goes. But what makes them do it? Simply because, consciously or unconsciously, the mind wills them do it. As the mind, however, is not among the muscles, but in the head, how does it get at the muscles to make them work? We all know it does not go out of the brain to them, as a man goes out of his house to instruct his workmen. The mind stays in the brain all the time; but there are

WHITE CORDS, CALLED NERVES,

that go from the brain to all parts of the body—like so many electric or telephone wires—by means of which the mind sends its instructions to its servants, the muscles. This it does by means of one set of what we call nerves, and, in turn, it receives messages from the senses by another set. Suppose you put your finger on an object; how does the mind know how that object feels? whether it is hard or soft, rough or smooth? Simply by means of these nervous cords that connect the finger and brain. When you touch the object, something goes,

AS QUICK AS A FLASH,

from the finger along these nerves to the brain, where the mind is lodged, and lets the latter know what kind of a thing it is which your finger has touched. And so in smelling, tasting, hearing and seeing. The nerves connecting the brain with the nose, palate, ears and eyes convey the different sensations or messages from and to these various organs and the brain or mind. Now, the brain is the softest part of the body, and it is in it that the ends of all these innumerable nerves are bundled or bunched together. I say innumerable, because the nerves, by dividing, spread out, so that there are little nerves everywhere. If you prick yourself with a pin anywhere, there is a little nerve there that connects that spot with the brain, and tells the mind about it, so that, from that great bundle of the ends of nerves, the mind is constantly learning what is going on at the other ends of them, in all parts of the body. A great business the mind has to do in attending to all these ends of

nerves in the brain; and how strange it is that it does not get confused, when so many messages are coming to it over its wires from every quarter! It always knows where a message comes from. It never mistakes

A MESSAGE FROM A FINGER

for one from a toe, or even a message from one finger for one from another. And so, too, in sending out messages to the muscles, there is no confusion. When you want to move a finger, your mind sends messages by the nerves to the muscles that do it. The message always goes to the right muscles. It does not go sometimes to the muscles of another finger by mistake, but you always move the finger which you wish to move.

The man in the telegraph office receives messages by the same wires by which he sends them out. It is not so, as I have told you before, with the mind's wires, the nerves; the mind receives messages from the senses by one set of nerves, and sends messages to the muscles by another set. If you burn your finger, you pull it away from the fire. Now, in this case

THE MIND GETS A MESSAGE

from the finger by the nerves, and so knows of the hurt. The message goes from the finger along some nerves to their ends in that bundle in the brain; and the mind, being there on the watch, receives it. Now what does the mind do? Does it leave the finger to burn? No; it sends a message at once along some other nerves to the muscles that can pull the finger out of harm's way.

DEER ATTACKED BY A WILDCAT.

CHAPTER XLIV.

THE FIVE SENSES—HOW WE SEE—THE EYE.

AND now let me tell you something about the five senses. Of these, the two most important are sight and hearing, and we shall therefore examine them first. Have you ever thought what a wonderfully delicate and beautifully constructed organ the eye is? No instrument which the cunning of man has ever contrived can be compared to it for a moment. Only you must remember this: the eye is an instrument only. The eye does not see; it is the mind behind it that sees, and makes use of the eye, as we should of a telescope, to see through. Let us examine its construction.

What we call the white of the eye is a strong, firm sort of bag, filled mostly with a jelly-like substance, which makes it a firm ball. If it were empty it would be like a bag. Into the open part of this, in front, is fitted

A CLEAR WINDOW,

through which the light goes, and through which you can look into the bag or ball of the eye. You cannot look through the jelly-like substance that is there, and see the very back of the inside of the eye-ball; but it is like looking into a dark chamber, and is so dark because lined with something that is almost black. If this were not so, the eyes would be dazzled with the light, just as they now are when the light is very dazzling. Inside of the front window of the eye there is a fluid as clear as water, in which you see a sort of curtain with a round opening in

it, which opening is called the pupil of the eye. It is not always of the same size. When there is a very bright light, it is small; but when the light is dim, it is large, for then you want all the light that you can get in that dark chamber where the jelly is. The circular curtain in which this opening is, we call the iris. Its outer edge is fastened all round to the inside of the eyeball, and on both sides of this curtain is the watery fluid of which I have told you. The iris, as you know, is of different colors in different persons; and hence

BLUE, BLACK AND GRAY EYES.

This curtain makes the eye very beautiful; but its chief use is to regulate the quantity of light that goes into the eye. When there is a great deal of light, the curtain is drawn in such a way that the round opening is very small; but when there is little light, it is drawn so as to make this opening large. This curtain must be made very nicely, or it would be puckered when the opening in it is changed in this way.

And now, of course, you want to know how it is you see. Well, it is done in this way. The light that goes in through

THE PUPIL MAKES AN IMAGE

or picture there of everything that is before the eye. This image it makes on a very thin sheet spread out on the back part of the dark chamber where the jelly is; just as light reflects images of things in a looking-glass; the only difference being that the image or picture in the eye is very small. When you see a tree pictured in the still water, the picture is as large as the tree itself; but the picture in your eye of a whole landscape, with all its trees, houses, hills, etc., does not cover a space any larger than a ten cent piece. But how does the mind in the brain know anything about these pictures? It knows them by means of a nerve, that goes from the brain to the eye, and is spread out where the pictures or images are made. It would do no good to have the pictures made in the eye, if the nerve could not tell the mind about them. The eye might be perfect, and yet there might not be any seeing. It is as necessary to have

the nerve in good order as it is the eye itself. It is not your eye, as I have already told you, that sees; it is your mind, and in seeing, it uses both the nerve and the eye.

You have two eyes, and when you look at one thing, say a house, there is a picture of the house in both eyes.

THE NERVES TELL THE MIND

in the brain about the two pictures. How is this? Why does not the mind see two houses? It is because the pictures in the two eyes are exactly alike, and both nerves, therefore, tell the same story; if they did not, then the mind would see two houses; that is, it would see double, as it is called. You can see double by pressing one eye sidewise while you let the other go free. The eye, as every one knows, is exceedingly tender. It is therefore guarded very carefully; so carefully that it is really very seldom hurt. But notice that it is just where it would be

LIKELY TO BE HURT

if it were not thus guarded. It is right in the front part of the head, where it must be for the mind to use it in seeing; and it is open much of the time. You would suppose, then, that it must very often be struck and hit by things that are thrown about; but it is really very seldom hit so as to be much hurt. The parts about the eye are often injured, but the eye itself generally escapes. We often see the eyelids and cheeks black and blue from a blow, and yet the tender and delicate eye is as sound as ever. People say, in such cases, that the eye is black and blue, but this is not so; the injury is all on the outside, and does not enter the eye.

Now let us see in what ways the eye is guarded. It is placed in a deep bony socket, and the bones stand out all around it. Over it the bone of the forehead juts out; below and to the outside stands out the cheek bone, and on the inside it is protected by the nose. Now you can see that a blow with a stick would be very likely to strike upon some of these walls of bone, and the eye would then escape. Indeed, a stick can not hit the eye itself unless it is shoved against it endways. But even if the stick get

beyond these bony walls, it may not hurt the eye, after all. Perhaps you never thought what use there is in being able to wink so quickly.

SEE WHAT WINKING DOES.

It shuts the eyelids over the eye, so that nothing can get into it unless it is something sharp enough to pierce through the lids; and a blow will not hurt the eye, unless it is hard enough to bruise it through the lids. And how quick is the work of that winking muscle! A common saying is

"IN THE TWINKLING OF AN EYE."

The moment that the eye sees anything coming toward it that may injure it, this muscle shuts it up out of sight as quick as a flash. It hardly seems as if there was time for a message to go from the eye to the brain, and then another back from the brain to that muscle in the lids. But all this takes place.

THE NERVE OF THE EYE TELLS THE MIND

of the danger, and the mind sends a message to the winking muscle. But this winking muscle does something more than shut the eye in; it pushes it back in its socket, so that it is a little farther out of the way of a blow; and it does not push it directly against the hard bone of the socket, but against a soft cushion of fat. Nor is this all. When the eye sees a blow coming, this same muscle acts so strongly that it wrinkles the skin of the eyelids, and pulls down the eyebrow, and draws up the cheek, so that the blow commonly hits on the eyebrow or cheek, or both, while the eye is safe, shut up and pushed back in its cavern upon its cushion of fat.

And now of what use do you think the hairs on the eyebrows are?

FOR GOOD LOOKS,

you may say. Certainly, and for something more. They defend the eye, and in this way. The eyebrows make the perspiration of the forehead drop off upon the cheek, instead of running down into the eye, just as the eaves of a house carry off the rain and prevent it from running down the sides of the house. Per-

haps you will ask what hurt the perspiration would do if it should run down into the eye? It would be very disagreeable; and, beside, it would irritate the eye, and make it red and inflamed. So, too, the eyelashes not only beautify—they defend the eye by preserving it from dust and insects. But even if a speck manage to elude the eyelash, there is still another defense, the tears which immediately begin to flow to wash the intruder out! Commonly the gland or tear factory makes only enough tears to keep the eye a little moist, but as soon as anything gets into the eye and irritates it

THE TEAR FACTORY

sets to work briskly, and sends down the tears abundantly. At the same time the winking muscle keeps moving the lids, and generally what is in the eye is soon washed out.

Tears are continually flowing into the eye. If they did not the eyeball and the inside of the lid would become dry, and they would not move easily on each other. You would have to keep wetting them with water to prevent friction. The tear factory, which is just above the eye, continually sends down through some little tubes or ducts just enough tears to make the motion of the eye and lids easy. But what becomes of the tears? They do not commonly run out over the lids, and they must go somewhere. I will tell you about this. If you look at any one's eyelids, you can see in each lid a little hole at the end of the edge toward the nose. The tears go into these holes, and down through a duct that ends in the nose. This duct may be called the sink-drain of the eye, for the tears, after washing the eye, run off through it. The two little holes or mouths in the lids commonly take in all the tears that come to them; but when we cry, the tear factory makes tears so fast that these mouths cannot take them all in. The tears, therefore, overflow their banks, the lids, and run down on the cheek.

CHAPTER XLV.

HOW WE HEAR, SMELL, AND TASTE.

WHAT is sound? If you look at a large bell when it is struck, you can see a quivering or shaking in it; and it is this that makes the sound that we hear. You can see the same thing in the strings of a piano when they are struck, and in the strings of a violin as the bow is drawn over them. The wind makes the music on the Æolian harp in the window by shaking its strings, and when you speak or sing, the sound is made by the quivering of two flat cords in the throat.

But when a bell is struck, how does the sound get to our ears? The quivering, or vibration, as it is called, of the bell, makes a similar quivering or vibration in the air, and this vibration is continued along through the air to our ears, and can go through other things besides the air. Indeed, it will go through something solid even better, as you may prove for yourselves by putting your ear at the end of a log and getting someone to scratch on the other end with a pin, when you can hear it very plainly. The vibration made by the pin travels the whole length of the log to your ear; but if you take your ear away from the log you cannot hear it, for the vibration or sound cannot come to you so far through the air. This is the principle of the telephone.

The nearer you are to where the sound is made the louder it

is; and the farther sound travels the fainter it is; the vibration becoming fainter and fainter, till after a while it is entirely lost.

WHAT, AGAIN, IS AN ECHO?

It is when a sound that you make comes back to you; and is caused in this way. The vibration strikes against some rock, or house, or other obstacle, and then bounds back to you, just as a wave striking against a rock rebounds, or as light is reflected from a mirror. And this suggests the reason why a person speaking in a building can be heard more easily than one speaking in the open air—simply because the vibrations are shut in by the walls. For the same reason it is you can hear a whisper through a speaking tube extending from one part of a building to another; the vibrations being shut up in the tube, and unable to spread out in all directions. But how is it, you may ask, that we hear sound when it comes to our ears? How does the mind know anything about the vibration in the air? This vibration does not go into the brain where the mind is; it only goes a little way into the ear, and then stops. It comes against

THE DRUM OF THE EAR,

and can go no farther. How then can the mind know anything about it? This I shall explain to you. The vibration of the air goes into the ear to a membrane fastened to a rim of bone, and comprises what is called the drum, and shakes it. This shakes a chain of little bones that are on the other side of this drum-head. The last of these bones is fastened to another small drum, which, of course, is shaken in its turn. This drum covers an opening to some winding passages in bone, which are filled with a watery fluid. Now the shaking of the second little drum, makes this fluid shake, and the shaking being felt by the nerve of hearing, is by it communicated to the mind in the brain. Sound, as I have told you, spreads in all directions in vibrations or waves. Now the more of these waves the ear can catch, the more distinct is the hearing. Some animals that need to hear very well, have very large ears, as for instance, the

hare, rabbit, and long-eared bat; and why? Because the larger the ear the more waves of sound it can arrest, which explains why when we wish to hear distinctly, we place the palm of our hand to our ear. Those who are very hard of hearing sometimes use an ear-trumpet, as it is called. In using it, the large trumpet end is turned toward the person speaking, so as to catch the vibrations, while the tube part of it is placed in the ear.

Some animals can turn their ears so as to hear well from different directions. How quickly the horse pricks up his ears when he sees or hears something which he wants to know more about; and then he can turn his ears backwards when he wants to do so. It is in such timorous animals as

THE HARE, THE RABBIT, AND THE DEER

that we see the ears most movable. They are on the watch all the time for danger, and they quickly turn their ears in the direction of the least sound they hear. I have told you how well the eye is guarded; and so, also, are the inner parts of the ear, where the hearing is really done; the fluid-filled passages of which I have spoken, being inclosed in the very hardest bone in the whole body. Then, too, the entrance into the ear is also well protected and that in a curious way. The pipe that leads into the drum of the ear is always open, and, as you know, insects are very apt to crawl into such holes; but they cannot into the ear, that being protected by wax.

Have you ever thought how it is that you *smell* anything? You put a flower to your nose, and the fragrance is pleasant to you. Now what is this fragrance? Is it something that goes up into your nose? You can see nothing come from this flower; but in reality very fine particles come from it, finer than the finest powder, which float everywhere about in the air, and, as you breathe, go with the air into your nostrils. Every perfume that you smell is made of such particles. But how do you think the mind knows anything about these particles when they come into the nose? It is in this way. In the lining of the nostrils are the fine ends of the nerve of smell; so fine,

indeed, that you cannot see them. Now the fine particles of which I have spoken, touch these ends of the nerve, and the nerve tells the mind about them; and this is smelling. The nose is a more extensive organ than most people think it is. There are divisions in it which fold on one another in such a way that there is a great deal of surface in the nose, and the ends of the nerve of smell are all on this surface. Some animals have a very sharp smell; the divisions in their nose being very great in extent, so that the nerve spreads over a large surface. This explains why

THE DOG IS ABLE TO TRACK HIS MASTER

by scenting his footsteps, and the cat can so quickly detect the presence of rats and mice by the smell. Some persons, too, have a particularly sharp smell for certain things, and the story is told of a blind gentleman who could always tell when there was a cat anywhere near him by his sense of smell. Once he was very sure that there was one near by, though no one could see her; he insisted upon it that he was right, and after a while pussy was found in a closet of the room. There was also a blind and deaf person who could distinguish between different people of his acquaintance by the sense of smell; and I myself, have known very little boys and girls who had a particularly sharp sense of smell for jelly, puddings, candies, and cake. The sense of *smell* affords us great enjoyment. The Creator has, for the purpose of gratifying us, scattered sweet-smelling flowers all over the earth, which are all perfume factories, made by Him to give us pleasure. He could have made the flowers and fruits in such a way that they would have no smell; but, in His desire to please us, and make us happy, He has given to them

A GREAT VARIETY OF ODORS.

There are, it is true, some unpleasant smells in the world, but these are not nearly as common as the pleasant ones; and many of them are manifestly very useful in warning us of danger. For example, the unpleasant odor of filth and decay tells us where the causes of disease are, so that we may get rid of

them; and plants that are poisonous generally have a disagreeable odor, which leads us to avoid them.

The sense of *taste* is another source of gratification to us. The nerve of this sense has its fine ends mostly in the tongue. What we take into the mouth touches these ends of the nerve, and the nerve tells the mind about it; this is tasting. Besides the pleasure we have from the taste, the great use of this sense is to guide us in the

PROPER SELECTION OF FOOD.

Animals choose the kinds of food that are proper for them, by their taste, and they very seldom make a mistake. The sense of taste, like that of smell, sometimes warns us of danger. If our food tastes bad, we know there is something wrong with it, and do not eat it, and so, perhaps, avoid being made sick.

CHAPTER XLVI.

THE SENSE OF TOUCH—HOW INSECTS FEEL.

THE sense of *touch* also gives a great deal of knowledge to the mind. This sense has a large number of nerves in all parts of the body, and they are continually making reports to the mind. Especially busy in this way are the nerves in the tips of the fingers. It is by the fine ends of these nerves that the mind finds out how different things feel; whether they are soft or hard, smooth or rough, etc. I have known of blind people, in whom this sense had been educated to such a point that they could tell colors by the touch. These nerves in the tips of the fingers are of great service to the mind in guiding it in using the muscles. In playing with the fingers on an instrument, the feeling in the ends of them is a guide to the mind in working them; and so it is in anything we do with them. You could not accomplish some of the easiest things if there were no sense of feeling in your fingers; could not even button or unbutton your coat.

The nerves of touch are not placed on the surface of the skin. We have really two skins, an outer and an inner one. The nerves are in the inner skin, and are covered by the outer skin. This outer skin is very thin except on the soles of the feet and palms of the hands; and from its thinness is called the scarf-skin. It is this which is raised when a blister is drawn; and, as you know, it does not hurt to prick this when we want to

let the water out; but if the needle touch the inner skin, where the nerves are, you feel it very quickly. Now,

WHEN YOU TOUCH ANYTHING,

the nerves in the inner skin feel it through the scarf-skin, which is so thin and soft the nerves can feel through it, at the same time, that it affords a good protection to them. If it were not for this the nerves would be affected too much by things rubbing against them. They could not even bear the air. If you had no scarf-skin, you would be in great distress all the time. You know what pain you experience if you rub off the skin, as it is called, anywhere. It is the scarf-skin only that is rubbed off, and this exposes to the air the fine ends of the nerves in the inner skin. The ends of

THE NERVES OF TOUCH ARE IN ROWS

on the tips of the fingers, and it is these nerves that make the curved lines that you can see so plainly. There are no animals that have such perfect instruments of touch as our fingers are. Animals that have hoofs, as the horse and the cow, cannot feel much with their fore feet. They have their sense of touch mostly in their lips and tongues. The elephant has this sense chiefly in the finger-shaped thing at the end of his trunk. There is not much feeling in the paws of dogs, cats, etc. The whiskers of the cat are feelers. There are nerves at the root of each of these long hairs, so that when anything touches the whiskers the cat's mind knows it at once.

Insects have feelers extending from their heads. Sometimes these are very long, as in the ichneumon fly. We see insects, as they are going about, touch things with these feelers as we do with our hands. Bees can work in the dark, guided by their feelers; indeed, the bee will not work at all if his feelers are cut off. Insects sometimes appear to tell one another things by their feelers. In every hive of bees there is a queen. If she die, those that know about it go around very quickly, telling the other bees by striking their feelers with their own; and those that are told tell others, and thus the sad event is soon known all over the hive.

CHAPTER XLVII.

HOW TO KEEP STRONG—WHAT AND HOW TO EAT—SLEEP.

HAVING now told you of some of the most important members of the body, and the various functions they perform, I can the better enforce a few homely lessons and homely advice as to how to preserve health. "All work and no play," though a very old saying, will bear repetition, for it expresses a great deal of significant and suggestive truth. In this country, I fear, boys and girls do not take nearly enough physical exercise, particularly out of doors, and hence to a large degree the cause of the narrow chests, drooping shoulders, sallow cheeks and want of vitality and life which characterize American boys and girls, and American men and women, too, as compared with their ruddy-cheeked, brawny-limbed, broad-chested cousins across the Atlantic. In England, boys and girls take out-door exercise all the year round, and gymnastics and sports, like cricket, rowing, football and the like, have an important place in the round of studies in every college and school. Therefore, boys, take plenty of exercise, and that as much as possible in the open air.

And next, as to the skin, you should take great care of it; for on it health a great deal depends. Keep it clean; keep it warm; keep it dry; give it air; have a regular scrubbing all over

your body every Saturday night; and if you can manage it, you should every morning wash, not only your face, but your throat and breast with cold water, and rub yourself quite dry with a hard towel till you glow all over. You should keep your hair short, if you are boys; it saves you a great deal of trouble and dirt. Then, the inside of your *head*—you know what is inside your head—your brain; you know how useful it is to you; the cleverest pair of hands among you would be of little use without brains; they would be like a body without a soul, a watch with the mainspring broken. Now, you should consider what is best for keeping the brain in good trim. One thing of great consequence is, *regular sleep and plenty of it.* Every one of you boys and girls should have at least nine hours in your bed every four-and-twenty hours, and should sleep all the time if you can; but even if you lie awake it is rest to your wearied brain, as well as to your wearied legs and arms. Sleep is

THE FOOD OF THE BRAIN.

Men may go mad and get silly if they go long without sleep. Too much sleep is bad; but I need hardly warn you against that, or against too much meat. You are in no great danger from these.

From the brain we go to the *lungs*—you know what they are—they are what the butchers call the *lights.* Here they are; they are the bellows which keep the fire of life going; for you must know that a clever German philosopher has made out that we are all really burning—that our bodies are warmed by a sort of burning, or combustion, as it is called—and fed by breath and food, as a fire is fed with coals and air. Now the great thing for the lungs is plenty of fresh air, and plenty of room to play in. About seventy thousand people die every year in Britain from that disease of the lungs called consumption, and nearly as many in this country; and it is certain that more than the half of these deaths could be prevented if the lungs had fair play. So you should always try to get your houses well ventilated: that means to let the air be often changed, and free from

impure mixtures; and you should avoid crowding many into one room, and be careful to keep everything clean, and put away all filth; for filth is not only disgusting to the eye and the nose, but it is dangerous to the health. "I have seen," writes Dr. John Brown, the great Edinburgh physician who wrote about Marjorie Fleming, "a great deal of cholera, and been surrounded by dying people who were beyond any help from doctors, and I have always found that where the air was bad, the rooms ill ventilated, cleanliness neglected, and drunkenness prevalent, there this awful scourge, which God sends upon us, was most terrible, most rapidly and widely destructive. Believe this, and go home and consider well what I now say, for you may be sure it is true."

Now we come to the *heart*. You all know where it is, and, as I have already told you, it is

THE MOST WONDERFUL LITTLE PUMP

in the world. There is no steam engine half so dexterous at its work, or so strong. There it is in every one of us, beat, beating—all day and all night, year after year, never stopping, like a watch ticking; only it never needs to be wound up—God winds it up once for all. It depends for its health on the state of the rest of the body, especially the brains and lungs. But all violent passions, all irregularities of living, damage it. You know it is not only dangerous to have anything the matter with the heart; it is the commonest of all causes of sudden death. It gives no warning; you drop down dead in a moment. So we may say of the bodily as well as of the moral organ, "keep your heart with all diligence; for out of it are the issues of life."

We now come to the *stomach*. You all know, I dare say, where it lies! It speaks for itself. Our English cousins are very respectful to their stomachs. They make a great deal of them, and we make too little. Now I wish I saw American boys and girls as nice and particular about their stomachs, or rather what they put into them, as their cousins in England. Indeed, so much does your genuine John Bull depend on his

stomach, and its satisfaction, that we may put into his mouth the stout old lines of Prior:

"The plainest man alive may tell ye
The seat of empire is the Belly;
From hence are sent out those supplies,
Which make us either stout or wise;
The strength of every other member
Is founded on your Belly-timber;
The qualms or raptures of your blood
Rise in proportion to your food,
Your stomach makes your fabric roll,
Just as the bias rules the bowl:
That great Achilles might employ
The strength designed to ruin Troy,
He dined on lions' marrow, spread
On toasts of ammunition bread;
But by his mother sent away,
Amongst the Thracian girls to play,
Effeminate he sat and quiet;
Strange product of a cheese-cake diet.
Observe the various operations,
Of food and drink in several nations.
Was ever Tartar fierce or cruel,
Upon the strength of water-gruel?
But who shall stand his rags and force,
If first he rides, then eats his horse!
Salads and eggs, and lighter fare
Turn the Italian spark's guitar;
And if I take Dan Congreve right,
Pudding and beef make Britons fight."

Now in this country we do *not* eat; we merely swallow; and food improperly masticated will necessarily be improperly digested. This, continued over a long time, must inevitably induce various diseases, and among them that trouble from which Americans as a people suffer most—dyspepsia. When I first visited New York many years ago one of the first things to arrest my attention was the lunch bar in a fashionable restaurant. Along the front were ranged those high stools, on which one cannot sit comfortably, and against which one cannot lean comfort-

THE YOUNG REQUIRE MUCH SLEEP.—See page 337.

ably, so that he has to half sit and half stand. At first I could not tell why this was so, but when I saw the gentlemen swallow their lunches it was all clear. Why, while I was making up my mind what to have, a customer came in, called for something, swallowed it, paid for it, and was out of the place before I had decided what to take!

And while on this subject I don't think I can do better than repeat to you the much-needed advice given by a distinguished English physician, Sir Risdon Bennett, as to the times and frequency of meals. In his opinion, the present more usual practice of three meals a day has good reason, as well as custom, in its favor. When work of any kind is being done, whether mental or bodily, the intervals between taking food should not be so long as to entail demands on the system when its store of material for the generation of force is exhausted. An ordinary full meal, in the case of a healthy man, is generally considered to have been completely digested and to have passed out of the stomach in four hours. A period of rest should then be granted to the stomach. Assuming that two hours are allowed for this, the interval between one meal and another would be six hours; and this accords with the experience of most men. During rest and sleep there is less waste going on, and especially during sleep there is a greatly diminished activity of all the functions of the body. The interval, therefore, between the last meal of one day and the first of the next may be longer, as it generally is, than between the several day meals. Assuming that breakfast be taken about eight or nine o'clock, there should be

A MIDDAY MEAL

about one or two. The character of this must depend on the nature of the day's occupation and the convenience of the individual. With women and children this is generally their hungry time, and the midday repast, whether called luncheon or dinner, is the chief meal. So is it with the middle and laboring classes, for the most part. But for merchants, professional men, and others, whose occupations take them from home all the day, this

is inconvenient, and, moreover, it is not found conducive to health or comfort to take a full meal in the midst of the day's work. There can, however, be no doubt that much evil arises from attempting to go through the day without food, and then, with exhausted powers, sitting down to a hearty meal. Something of a light, easily digestible, but sustaining character should be taken towards one or two o'clock.

"Meat teas" are a very common institution among the middle classes, but in Sir Risdon Bennett's opinion, the practice of taking tea with a principal meal is not to be commended. Tea does not promote digestion of the food in the stomach, and especially is not adapted to accompany meat, but rather bread and farinaceous articles. Meat teas, as a daily habit, are calculated to promote dyspepsia. The best time for tea is an hour or two after food. While fully recognizing the value of alcohol and other stimulants under special circumstances, Dr. Lauder Brunton speaks very forcibly on

THE SUBJECT OF INTEMPERANCE,

and points out the evil effects of stimulants upon the health of persons who cannot be called intemperate, yet who are in the constant habit of taking very small quantities of wine, beer, or spirit at all hours throughout the day. The following table of comparative mortality is instructive:

An intemperate person's chance of living is: At twenty, 15.6 years; at thirty, 13.8 years; at forty, 11.6 years; at fifty, 10.8 years; at sixty, 8.9 years.

A temperate person's chance of living is: At twenty, 44.2 years; at thirty, 36.5 years; at forty, 28.8 years; at fifty, 21.25 years; at sixty, 14.285 years.

In these days, when there is so much talk of overwork of the brain, it is not a little encouraging to find an eminent authority stating that for one instance in which the brain is overworked there must be many hundreds or thousands of cases in which it is not used enough, even for the ordinary conditions of health. And yet, although the brain may suffer from want of

exercise, the evils of over-strain—especially in the case of young people—must be fully recognized. Evening preparation of school lessons is not without its dangers; night-work often induces sleeplessness and a long train of attendant evils, and contributes largely to the nervousness and debility which are becoming so common among school children, particularly in towns, while it fails in securing advancement at all equal to what might be got from much less strenuous and protracted study earlier in the day. The most arduous mental work required of a child ought to be imposed on it when mind and body are in their prime vigor, between nine o'clock and noon, and certainly nothing but the lightest work should devolve upon it after five o'clock.

Questions of food, drink and labor naturally lead on to another important health consideration—rest and sleep. It cannot be denied that, as a rule, the largest amount of the best work in life is done by those who can sleep well. Nor to a healthy man is any amount of work, apart from worry and anxiety, perhaps, injurious, which is followed by a due amount of *sound* sleep. What is a due amount varies widely in different persons. This is due in great part to the constantly varying degrees of activity of the vital changes. Thus, although these are most active in the young,

THE YOUNG REQUIRE MUCH SLEEP,

because the rapid rate of repair during that period is met by the rapid rate of waste during the day. Both by day and night the changes are then most active. The aged also require much sleep, because, although there is comparatively little waste during the day, the process of repair is slow also. Harassed brain-workers should encourage sound sleep as much as possible if they wish to preserve their health and strength. Late meals should be avoided, and mental work should be put aside at least an hour or two before retiring to rest. To sum up the whole matter, how is health to be preserved? By temperate and discriminating use of food and drink; by due exercise of both mind

and body, but with the avoidance of worry, and of haste to get wealthy or to acquire all knowledge; by attention to all natural health laws, such as the need for pure air, clothing adapted to climate and the body of the wearer, etc., and by paying due regard to the necessity of sleep and rest. From such things result a "sound mind in a sound body," and a healthy and vigorous old age, with all the faculties unimpaired.

CHAPTER XLVIII.

LOWER ANIMALS—QUADRUPEDS—VARIETY OF STRUCTURE.

AND now that I have told you something about man, and the structure of the human body, have dwelt on the advantages of good, clean, well-ventilated homes, and the blessings of good mothers, and have given you some advice as to health and other matters, I propose to take you out of doors, and introduce you to the lower animals, among whom you will doubtless find many old friends. And, first, I shall begin with four-footed animals, this division being generally placed by naturalists highest in the scale of importance. In every class of this extensive order it is easy to trace a similarity, more or less striking, to man. The ape, in all its varieties, presents, even to the eye of a child, a ludicrous caricature of the human form and features, and even the dog, when at his master's command he erects himself upon his hind legs, offers a striking resemblance in its general structure to his owner. The forelegs are formed like our own, and if we turn to his posterior extremities, we shall find the haunch, the shank, the heel and the foot of man distinctly represented in those of the brute, though suited to the structure of the rest of the body to which they belong. This resemblance, though it is visible even in the birds and fishes, is in these classes comparatively faint and imperfect, and the nearer

approach to perfection, on the part of quadrupeds, which this similitude to the human family seems to indicate, is confirmed by other observations. It is true that birds, possessing the advantage of wings, are more rapid in their journeys, and more discursive in their habits. They can leave the swiftest quadruped far behind, and need no ship to waft them beyond the sea; but their bodies are necessarily lighter, and their limbs less muscular, while the brain is smaller, and they are in general much inferior in sagacity. The eagle,

THE NOBLEST OF THE BIRDS,

will not abide a comparison with the lion or the elephant. In casting our eyes over the various species of quadrupeds, we see them placed in all latitudes, and intended for every conceivable mode of existence. One, subsists on roots; another, on leaves and herbage; a third, on grain; and a fourth, by preying on its weaker neighbors; and, as we might have expected, the structure and organs of each are beautifully adapted to the situations they occupy, and the mode of life they are intended to pursue. The more narrowly we inspect the faculties of these creatures, with reference to their circumstances, the more clearly shall we perceive the truth of this assertion. Compare, for example, if it can be done without a smile, the structure of the mole, with that of the cat; the former, dwelling in a subterranean apartment, habitually forcing its way through earth, and stones, and gravel; the latter, subsisting on birds and mice, which it seizes, by means of its teeth and claws, with an agility the most surprising. The mole, to facilitate the means of its existence, possesses a round body, clothed in a smooth coat of hair, soft as velvet, and so close, that the soil cannot penetrate it. Its snout is hard and cartilaginous, like that of the hog. Its anterior extremities consist chiefly of feet, resembling the human hand, fixed to the sides, without the intervention of legs, and admirably suited to the purpose of removing the earth as it pushes its way. Its eyes are made so small, as to be hardly perceptible, in order that it may not be incommoded by the dust or the sand

through which it passes; while the diminutive ears, which are peculiarly sensitive, are securely defended from every ordinary annoyance. The first appearance of the mole, at once proclaims its entire unfitness for existing on the surface of the soil, and demonstrates that the Creator intended it to burrow under ground. The cat, on the other hand, gives direct and unquestionable proof of its superior destiny. The eye, active and suspicious, turns with rapidity from one point to another

IN SEARCH OF A VICTIM,

or in preparation for escape. The ear, pricked up as in the act of listening, gives instant notice of all that occurs immediately around it, and keeps the animal in readiness to spring upon its prey, or to fly from its pursuers, as circumstances may direct. The limbs, both posterior and anterior, are admirably suited to its natural disposition, being formed more for agility and sudden impulses, than for sustaining lengthened and persevering exertion. The hinder legs, composed of the usual number of bones and joints, every division of which is long in proportion, much inclined, and moved by muscles of great activity, afford all the advantage of a lengthened and rapid spring, without imposing the awkwardness of limbs stretching to an immoderate length from the body. The forelegs, clothed with flesh, which is more tendinous than muscular, and armed with claws of great sharpness and power, give the little animal a manifest superiority in striking its victim, and defending itself against oppression.

The difference in structure, which is so easily perceived, between the mole and the cat, is not less remarkable, though it may be less striking, between the latter and its neighbors of the canine race. The cat is formed for very rapid, but not for long-sustained, movements. It leaps upon its prey. It climbs the nearest tree when flying from its enemy, or it skips about in graceful gyrations, when indulging in a mirthful mood; but its motions are all sudden, and soon over; and we have seen how its structure answers to its habits. The dog, on the other hand, depends mainly upon his perseverance. Having once perceived

the scent of his prey, he seeks to overtake it, more by the constancy and ardor of a sustained pursuit, than by extreme speed of foot. Accordingly, his limbs are formed rather for continuous running, than for

MAKING A SUDDEN SPRING.

The hind leg is less bent, because its parts are shorter in proportion to its height. The paws and forelegs are not so formidably armed; nor does he require that they should be so, for his prey is generally exhausted by its efforts to escape, before it is secured. His eye is less keen, but his sense of smell, on which he chiefly relies, is more acute. The hare and the rabbit escape him by superior swiftness, and, when taken, it is because their powers of endurance, or their steadiness and perseverance, are inferior to his. Their structure is not less adapted to their necessities than is his, the struggle between the constancy of the one, and the speed of the other, is not more interesting to the sportsman, than instructive to others. There is no department in the wide field of natural history, in which there do not exist proofs, as beautiful as they are ample, of the adaptation of the animal creation to the posts appointed for them, respectively, in the economy of the world.

CHAPTER XLIX.

ANIMAL LEGENDS — CURIOUS SUPERSTITIONS ABOUT SNAKES, ETC.

IN a former chapter I tried to show you how largely the moral element enters into even our nursery tales. In this I shall introduce you to the animal in a new light—as the hero of legendary fiction and fable. Perhaps you know that the deer is one of the few animals that weep like human beings; but you will hardly be familiar with the pretty legend that aims at accounting for this. Let me tell it to you. Nine princesses were once, long, long ago, carried off by an enchantress, who placed them in an uninhabited island, and changed them into so many white does. As the Romans were on their way to Britain, some of the soldiers came by chance to this island. Here they were met by

THE NINE DOES,

two of which became devotedly attached to them. When the soldiers were about to quit the island the two does would have followed them had they not felt scruples at leaving their sisters in misfortune. While placed in this embarrassing position they burst into tears, and suddenly died, bequeathing to the whole race of deer the human faculty of weeping.

Two Norwegian fables respectively account for the short tail of the bear and the white tip of the fox's tail. The bear, it seems, was once met by the fox, who carried a load of fishes, and

who, on being asked how he had caught them, replied, "By angling." The bear expressed a desire to know an art so useful, when the fox told him he had only to make a hole in the ice and insert his tail. "You must stop long enough, and not mind if it hurts you a little," said the friendly adviser; "for

A SENSATION OF PAIN

is a sure sign that you have a *bite*. The longer the time, the more the fish. Nevertheless, when you have a good, strong bite, be sure that you pull out." The credulous bear did so, and kept his tail in the hole till it was frozen fast. When he pulled, the end of the tail came off, and hence the shortness of the appendage to this day. So much for the bear's tail; now for the fox's. A good woman wished to hire a herdsman, and various animals offered their services. First came the bear. "Have you a pleasant call for the animals?" asked the woman. The bear growled, to give a specimen of his suavity; but his voice was found unmusical, and the woman rejected his services. Next the wolf offered to fill the vacancy, and on the same question being put, howled by way of response, and was likewise dismissed. The fox was the third candidate. Three is ever the lucky number; and his voice being attenuated to the most mellifluous quality, his services were accepted. Of course,

THE FOX WAS DECEITFUL,

for an honest fox is unknown in the region of fable and tradition. He soon showed a rapacity beyond the ordinary nature of foxes, as he devoured goats, sheep and even oxen; devoting a separate day to each kind of viand. On the coming of the third day, his mistress asked him where he had left the cattle, when he replied that their heads were in the brook and the other extremity in the hedge. The woman was churning, but determined to see for herself how things were going on. During her absence the fox poked his nose into the churn, and devoured the cream, which so much exasperated the good lady on her return, that, taking up the remaining lump of coagulated

cream, she dashed it at the fox with such force that she caused the permanent whiteness on the tip of his tail.

As in ancient fable, so also in mediæval tradition—that is, the tradition of the middle ages, say from the ninth to the fourteenth century A.D.—the serpents play an important part. A French legend gives a curious account of the manufacture of diamonds by these reptiles. On the thirteenth of May, it seems, the various snakes, adders and vipers are in the habit of holding a "monster meeting" on the banks of a certain lake, and work together at the production of a peculiarly large diamond. Each of them spits forth some brilliant moisture, which it has carried under its tongue; and the two choicest of the party, whose talent is perceived by a sort of instinct, receive this fluid, which at once acquires solidity. It is finally polished by the whole body, which is done by each snake passing over it. When it is

A PERFECT DIAMOND

it is flung into a pond, that the jay may not carry it off and use it for the decoration of its feathers. In old jays' nests, according to this story, some of these diamonds may be found; but the more recent birds have become more scrupulous or less skillful, since, if these are in the possession of the treasure, it is only by virtue of inheritance. In Swedish legends, a certain white snake, which makes its appearance once in a century, is conspicuous. During the day it keeps itself concealed in mountains, near metallic veins, and among the roots of trees, and while thus hidden sucks up all the mystic virtues of the three natural kingdoms. Whoever can catch such a snake becomes possessor of all its secrets, and hence it is eagerly sought by witches, who boil it with a mixture of herbs. When caught, it should be grasped firmly round the middle, when it lets go its skin, by licking which a great store of preternatural knowledge may be acquired. At Lucerne, Switzerland, it is said, there is yet a many-colored stone, which is a charm against pestilence, and which was dropped in a fluid state by a flying serpent. In German stories, the king or queen of the snakes is as prominent as the white

snake of Sweden; and he who attains possession of the crown of this monarch acquires both wealth and the power of making himself invisible. A snake with a golden crown on its head, and with a bunch of silver keys in its mouth, once met a peasant, and would, probably, have enriched him, but the terrified man aimed a blow at it, whereupon it vanished. It is not always so easy to keep possession of this crown, even when the lucky snake is discovered.

THE KING OF THE ADDERS

once went to bathe in a stream, and when he came out of the water discovered that his crown, which he had left on the grass, had been carried off by a peasant. He whistled a signal, which brought together all the snakes of the district, and these at once attacked the marauder on every side, hissing, and spitting, and crawling about his cart of corn, and gnawing holes in all the sacks. The peasant, awed by an assemblage so august and so mischievous, threw down the crown, which the adder-monarch at once replaced on his head, and then vanished, followed by all his subjects.

A young girl, in another German legend, was more successful in retaining the rare treasure. She found about fifteen snakes all tied into a noisy knot, and with a crowned head among their number. The girl laid her white apron by the snakes as a sort of trap, and the ruler placed in it his crown, which proved to be of pure gold set with emeralds. The girl snatched it up, and although the shriek of the snake-king was so piercing that it completely deafened her, she had presence of mind not to let it go, and sold it for a large sum of money. At Salzburg, which is a famous place for wild tales, the queen of the snakes appears as an avenger. A magician once informed the municipal authorities of the city that for a stated price he would collect all the snakes of the district into a certain trench, and there put them to death. His offer was gladly accepted, and the sound of a fife which he blew drew together an enormous quantity of reptiles from the secret nooks of the streets and houses, all of

which crawled into the fatal trench. When they had reached the destined spot the fife was sounded once more, and the magician murmured an occasional incantation between the notes. Suddenly a very old and gigantic snake,

THE QUEEN-SNAKE,

appeared before the sorcerer, and terrified him to such a degree, that he let his fife drop and paused in his incantations. The snake darted at him, twined herself like a girdle around his waist, and flung him senseless into the trench, where he was slowly tortured to death by the rest.

CHAPTER L.

THE LANGUAGE OF ANIMALS.

ANIMAL language! you cry. Why, yes. Do you think the animals do not communicate with one another? Language is not necessarily spoken. There is the language of the eye, of the tail, of the ear; the language of signs, whether by action or figures; as well as spoken or written languages; and before I have finished this chapter I hope to show you that animals have indeed a language of their own. So, too, have fishes and birds, as any sportsman will tell you, and if I had space I could narrate scores of stories, all going to show how quick even fishes and birds are to, as we say, "take a hint" from one another. *Language*, as far as the communication of ideas, by certain modes of contact, by gesture, or by sounds, can be called by that name—seems to be possessed in common by all living creatures. The first or simplest form in which this faculty is manifested among animals, is that of contact—a species of inter-communication, beautifully illustrated by such insects as the ant. "If you scatter," says the author of the 'Introduction to Entomology,'

"THE RUINS OF AN ANT'S NEST

in your apartments, you will be furnished with a proof of their language. The ants will take a thousand different paths, each going by itself, to increase the chance of discovery. They will meet and cross each other in all directions, and will, perhaps,

wander long before they can find a spot for their re-union. No sooner does any one find a little chink in the floor, through which it can pass below, than it returns to its companions, and, by means of certain motions of its antennæ, makes some of them understand what route they are to pursue to find it, sometimes even accompanying them to the spot. These, in their turn, become the guides of others, till all know which way to direct their steps." The mode of communication employed by bees, beetles and other insects is much of the same nature, being almost entirely confined to contact, and rarely, if ever, partaking of gesticulation, which may be considered as the next form of language in the ascending scale.

In expressing their wants, feelings and passions, almost all the higher animals make use of gesticulation. The dog

SPEAKS WITH HIS EYE AND EAR

as significantly as he does with his voice. The wagging of his tail is quite as expressive as the shake of a human hand, and no pantomime could better illustrate conscious error, shame or disgrace than his hanging ears, downcast look, and tail depressed, as he slinks away under rebuke. The dog, indeed, is an admirable physiognomist, whether actively or passively considered. If you can read anger, fear or craving in his countenance, so will he read kindness or surliness in yours, just as readily as he can interpret the physiognomy of one of his species. Observe that huge mastiff gnawing a bone on the other side of the street, and see how the Newfoundland coming up on this side deports himself. First, he stands stock-still; not a muscle of his frame is moved; the mastiff takes no notice of him. Next, he advances a few steps, looks intently, and wags his tail once or twice; still not a glance from the mastiff, which is evidently striving not to observe him. On the Newfoundland goes, with an indifferent amble, keeping as close to this side as he can, and thinks no more of the mastiff. Had the latter, however, lifted his head from the bone, had he exchanged one glance of recognition, had he brushed his tail even once along the pavement, the New-

foundland would have gone gamboling up to him, even though the two might have had a tussle about the bone in the long-run. Here, then, is an example of strict physiognomy or pantomime, quite as well understood among animals as the most ardently expressed sounds. Again, mark that couple of terriers, bound on a secret rabbiting excursion to yonder hill-side. Two minutes ago, that shaggy native of Skye was dozing on his haunches, as little dreaming of a rabbit-hunt as of a journey to the antipodes. But his little pepper-and-mustard friend awoke him from his reverie, and pricking up his ears, gamboled significantly around him. Next he scampered outwards for a dozen of yards or so, looked anxiously back; again scampered forwards, looked back, whined, and returned. Then he set out, scenting the ground as if he had made some important discovery, stopped suddenly, made a short detour, tracking some imaginary scent, as if a treasure of venison lay beneath his nose. This at length rouses

HIS FRIEND OF SKYE,

and away they boot as slyly to the hill as any couple of poachers. Now our pepper-and-mustard hero is beating the whin-bushes, while his comrade stands outside the cover, ready to pounce upon the first rabbit that makes its appearance. Not a whine, not a yelp is heard, the whole is conducted by signs as significant and as well understood as the most ingenious system of marine signalizing.

Independent of the humble kind of expression which gesticulation implies, many of the higher animals are possessed of vocal language, by which they can give the most intelligible utterance to their feelings of delight, fear, pain, alarm, recognition, affection, and the like. Nor does this language differ in aught but degree from that which we ourselves enjoy. Our organs may be capable of a greater variety of tones and modulations; and yet, in some cases, this is more than questionable. All that can be said is, that the human organization is capable of more perfect articulation, and this articulation is a thing of art,

THE QUERY.

imitation and experience, depending upon the higher degree of intelligence with which the creator has endowed us. The brute creation express their feelings and passions by certain sounds, which are intelligible not only to those of their own species, but in a greater or less degree to all other animals. Man, in his natural state, does little or nothing more. It is civilization, the memory of many experiences, aided by his higher mental qualities, which gives him his spoken language; each new object receiving a name founded on association with previously known objects, and each conception receiving expression by association with ideas formerly entertained. Nothing of this kind takes place among animals; their limited endowments do not permit of it, as the range of their existence does not require it. Their language may be considered as stationary in a natural state, though capable of some curious modifications under human training, or even under certain peculiar changes of natural condition. It is to this range of animal expression that I would now direct attention.

Take that barn-yard cock, for example, which five minutes ago was

CROWING DEFIANCE.

from the top of the paling to his rival over the way, and hear him now crowing a very different note of delight and affection to his assembled dames. In a few minutes you may hear his peculiar "cluck, cluck," over some tid-bit he has discovered, and to which he wishes to direct their attention; his long-suppressed, guttural cry of alarm, if the mastiff happens to be prowling in the neighborhood; or his soft blurr of courtship, when wooing the affections of some particular female. All of these notes, even to the minutest modulation, are known to the tenants of the barn-yard, which interpret them in the sense in which they were intended. Or take the barn-yard hen and observe the language by which she communicates with her young. By one note she collects and entices them under her wings, by another calls them to partake of some insect or grain she has discovered;

by a third, warns them of danger, should any bird of prey be sailing above; by a fourth, calls them away to another place, or leads them home, should they have strayed to a distance. Nor are these various calls known instinctively, as is generally believed, by the young brood. I have watched the habits of the barn fowl with the closest scrutiny, and am convinced that a knowledge of the mother's notes is, to the young, a process of acquirement; in the same manner as a human child quickly, but nevertheless by degrees, learns to comprehend tones of affection, doting, chiding, and the like.

The knowledge of the lower animals is, in almost every instance, acquired; a process necessarily more rapid in them than in man, as they much sooner reach the limit of their growth and perfection.

ANIMAL LANGUAGE

is most perfect and varied among such animals as are gregarious in their habits. Let the most ignorant of natural history attend for a few days to the habits of a flock of birds, herd of oxen, horses, deer, elephants, or the like, and he will find that they make use of a variety of sounds often totally different from each other. Friendly recognition, hatred, fear, mirth, satisfaction, the discovery of food, hunger, and so on, are expressed each by a peculiar note, which is distinctly and instantly comprehended by the whole flock. And as among men, when simple sounds are insufficient, so among animals, gesticulation is made use of to assist the comprehension and deepen the impression.

CHAPTER LI.

WHAT ANIMALS USE FOR HANDS.

THOUGH animals do not have hands, they have other members which they make use of to do many things which we do with our hands. I suppose most of my readers have seen a dog dragging a rope, or carrying a stick in his mouth while he swims. That dog was making his teeth answer in place of hands; and dogs always do this when they carry things. So, too, the cow and the horse crop the grass with their front teeth, with which also they take up almost any kind of food, as a potato or an apple; so that these teeth answer for hands to the cow and horse. Their lips also serve the same purpose in many cases. Thus the horse gathers his oats into his mouth with the lips, which also serve for hands to such

ANIMALS IN ANOTHER RESPECT,

namely, feeling; for animals feel things with their lips just as we do with the tips of our fingers. I have read somewhere of a blind mute, whose finger tips, by reason of constant hard work had lost the perception of delicate touch, who used his lips to read the raised letters of his Bible. Once, I remember, my horse, in cropping grass, took hold of some that was so stout and loose that he pulled it up by the roots, and in eating it was much troubled by the dirt. What do you think that horse did? Why

he quietly knocked the grass several times against the fence, holding it firmly in his teeth, and thus got the dirt out, just as people expel dust from a mat or rug. More wonderful still, Dr. Hooker speaks of a horse that would lift a latch or shove a bolt with his front teeth as readily as you could with your hand. In this way he would often get out of the barn-yard; but this was at length prevented by a very simple contrivance. A piece of iron was fixed at the end of the bolt in such a manner that you could not shove the bolt unless you raised the iron at the same time. Probably this puzzled the horse's brain. Even if he understood it, he could not manage the two things together. I have heard of a horse that would take hold of a pump-handle with his teeth and pump water into a trough when he wanted to drink. This was in a pasture where there were several horses; and

WHAT IS VERY CURIOUS,

the other horses, when they wanted to drink, would, if they found the trough empty, tease this horse who knew how to pump; they would get around him, and bite and kick him till he would pump some water for them.

Monkeys have four members like hands, being sort of half way between hands and feet, and with these they are very skillful at climbing. There are also several varieties of monkeys that use their tails as a sort of fifth hand. The cat frequently "makes hands" of her paws, sometimes of her teeth, and sometimes of both together. It is with her sharp claws that she climbs. With them, too, she catches mice, rats or anything you hold out for her to run after. It is with her paws that she strikes, just as angry children and men sometimes do with their hands. When the cat moves her kittens from one place to another, she takes them up with her teeth by the nape of the neck. There is no other way in which she can do it. She cannot walk on her hind feet and carry them with her fore paws. It would almost seem as if it would hurt the poor little kitten to be carried in that sort of way, but it does not. When a

squirrel nibbles a nut to make a hole in it, he holds it between his two fore paws like hands; as also does the dormouse.

THE BILL OF A BIRD

is used as its hand, with which to gather food to put into its crop. When you throw corn to the hens, how fast they pick it up and send it down into their crops to be well soaked! The humming-bird has a very long bill, in which lies a long, slender, and very delicate tongue. As he poises himself in the air before a flower, his wings fluttering so quickly that you can't see them, he runs his bill into the bottom of the flower where the honey is, and puts his little long tongue into it. A duck's bill is very peculiarly made. Every one, of course, knows that it gets its food under water in the mud, and so can't very well see what it gets. It has to work altogether by feeling, for which purpose its bill is furnished with nerves, having a row of pointed things all round the edge.

THESE LOOK VERY LIKE TEETH,

but they are not teeth. They are used by the duck in finding its food, which it does in this way. Thrusting its bill down it takes it up full of mud, mixed with which are many things which the duck lives on. The nerves tell the duck what is good, and it lets all the rest go out between the prickles. It is a sort of sifting operation, the nerves in the sieve taking care that nothing good shall pass out.

One of the most remarkable substitutes for a hand is the trunk of the elephant, the variety of uses to which it can be put being very wonderful. With it, the elephant can strike blows as heavy almost as that of a sledge hammer. With it also can he wrench off the branches of great trees, or even pull up small trees by the roots. With his trunk does the elephant carry his young, and very amusing it is to see an old elephant carefully wind that flexible and sinuous member round the new-born elephant, and carry it gently along. But the elephant can also do some very little things with his trunk, which is furnished on the tip with a very nimble sort of finger, by which he can pick

up the smallest crumbs, and put them into his mouth; or take up a piece of money from the ground as easily as you could with your fingers.

AN ELEPHANT HAS BEEN SEEN

to take a whip with this fingered end of his trunk, and use it as handily as a teamster would; very much to the amusement of the spectators. With his trunk, too, he can reach a considerable distance, this being all the more necessary because he has so very short a neck that he could not get at his food without the long trunk. Observe, too, how he can turn this trunk about in every direction, and twist it in every way. It is really a wonderful piece of machinery, if the word machinery be permitted in this connection. Cuvier, a great French anatomist, says that it contains over

THIRTY THOUSAND LITTLE MUSCLES,

every one of which receives its orders by nerves from the mind in the brain. In the end of the trunk are two holes, through which he can suck water, and thus fill his trunk. Then he can turn the end of it into his mouth, and let the water run gently down his throat. But sometimes he uses the water in another way, blowing it out with great force like a whale. This he does when he wants to wash himself, directing his trunk in such a way that the water will flow all over him. He sometimes pours out the water in play, for even such great animals have their amusements and sports just like children. Indeed, the elephant is only a big baby after all, being full of all sorts of fun and innocent mischief. He has his likes and dislikes, too; at times discharging the water from his trunk at people whom he does not like, or against whom he has a grudge. Possibly you have read the story of the tailor who pricked the trunk of an elephant with his needle. This was very cruel of the tailor, and he was well punished for it, because, one fine day, as the elephant was passing the store, in the window of which the knight of the goose sat sewing, the indignant elephant deluged him with water and mud, which he had taken from a ditch for the purpose.

CHAPTER LII.

HORSES AND DOGS—SOME CURIOUS ANECDOTES.

PERHAPS the two animals boys like most are the horse and dog. To ride a horse and own a dog were among my own earliest ambitions; and was I not proud, and did not I think myself a man, that morning—well do I mind it—when first I was allowed to mount the doctor's horse, bareback, and ride him to the well, there to water him and let him drink! Many things have happened to me since then; some of them of a kind to stamp themselves forever on the mind, and whiten the hairs, and add to the wrinkles on forehead and cheek. But those morning rides—I am not going to tell you how many summers ago that was, for the little black rat by my side mightn't like it, wishing her husband to be thought ever so young or more so—rise much more vividly before the mind than other events that formed actual crises in life. The freshness and glory of

THE ARGYLESHIRE HILLS,

with the morning sunlight tinting their heathery slopes, and touching with fingers of gold the tops of fir and birch and oak; the great Atlantic, moaning uneasily far below as it broke in gentle swells of melodious silver on the white and pebbly beach; the fishing skiffs returning from their night's task, their sails of white and russet and orange conspicuous on the blue expanse of

Lochfyne; the farm wagons passing, heavily laden with sweet-smelling hay; the farm-girl with her steaming pail of odorous milk tripping lightly along; the birds carolling from bush and bank and brake; and all the lovely sights and sounds, the freshness and the glory, that make more beautiful than ought on earth I have ever seen or heard in nature, an autumn morning in the heart of the Argyleshire hills! Yes, they all come back to me now, and as I write these lines amid the roar and rush of the great western metropolis of this new world, I seem to smell the keen salt odors of the sea—to drink in the splendid freshness and gladness of the morning air—as I did in those earlier and happier days, gone—with their freshness and their beauty and their unquestioning delight in nature and God and man—never to return. But meanwhile our horses are impatiently pawing, and if we ever finish this chapter we had better

BEGIN IN EARNEST.

I have said how popular are horses and dogs, and yet, though the former is now so universally domesticated, and in spite of much research, and much contest, its wild and original state is unknown. I quote the most recent and sober opinions, divested of all views of the present nature, in saying that this animal is nowhere wild at this day, except where it appears to have escaped from the domestic state. Was it ever so, any more than the camel? It is more widely necessary to man, and equally adapted to his wants. I know not why it should not have been created with and for him; essentially domestic, his appointed servant. Its back is that which man would have made for his own use, had he constructed it; the mouth is almost the only one which bears the bit without suffering; it has the only foot (if its congeners be excepted) which will endure an additional weight under rapid motion; it is the only wild animal, of similar power, which is tamed in a few hours; and nothing but an appointed instinct could have thus taught it to submit, and even to rejoice in its rider. How easily it is attached to man, and to human society, I need not say. But the proofs must not be sought for

OLD FIDELITY.—See page 360.

in our own country, where men are not satisfied unless they gain, by severity and force, that which would be voluntarily and cheerfully given to kindness. I may also add that the horse, like other domestic animals, is capable of having his faculties improved by the skill of man, an adaptation doubtless intended for a benevolent purpose, although not always worthily employed. Is swiftness the object? An animal is produced that rivals the wind; race-horses have been known to run a mile a minute. Is it strength we require? Look at the English dray-horse whose powers are excelled by the elephant only. On Surrey Iron Railway, we are told, a horse dragged fifty-five tons, walking at the rate of four miles an hour. Do we ask for endurance of fatigue? The Toorkomans will furnish an example in their cavalry, which are trained to advance and retreat at the rate of

ONE HUNDRED MILES A DAY.

"When I was in Persia, in 1800," writes Sir John Malcolm, "a horseman, mounted on a Toorkoman horse, brought a packet of letters from Shiraz to Zeherary, which is a distance of five hundred miles, within six days." The size, the quality, the docility, is suited to every locality and occasion which man may find necessary for his use, from the Shetland and Canada pony to the race-horse and courser. Well might Job exclaim: "The glory of his nostrils is terrible. He paweth in the valley, and rejoiceth in his strength; he goeth on to meet the armed men. He mocketh at fear, and is not affrighted; neither turneth he back from the sword. The quiver rattleth against him; the glittering spear and the shield. He swalloweth the ground with fierceness and rage; neither believeth he that it is the sound of the trumpet. He saith among the trumpets, 'Ha! ha!' and he smelleth the battle afar off, the thunder of the captains, and the shouting."

Finally, though not naturally inclined to swim, the horse, when put to it, will sometimes make remarkable efforts in this way. A few years ago, a gentleman residing in the neighborhood of Dumfries, Scotland, in riding at night along the shore

from Skinburness to Boness, on the Cumberland coast, mistook his way in passing a creek, being deceived by a light on the Scotch side. His horse carried him directly across the Solway Frith, and he landed at Newby, not far from Annan. The distance is fully two miles, but the horse did not, perhaps, swim more than a third part of that way, the tide being low. A much more remarkable feat is described by M. de Pages in his

"TRAVELS ROUND THE WORLD,"

and confirmed by Sparman, of a horse which saved some seamen ready to perish in a wreck off the Cape of Good Hope. "The sea ran dreadfully high, and broke over the sailors with such amazing fury, that no boat whatever could venture off to their assistance. Meanwhile, a planter determined to make a desperate effort for their deliverance. He alighted and blew a little brandy into his horse's nostrils, and again seating himself in the saddle, he instantly pushed into the midst of the breakers. At first both disappeared, but it was not long before they floated to the surface, and swam up to the wreck; when, taking with him two men, each of whom held by one of his boots, he brought them safe to shore. This perilous expeditiou he repeated no fewer than seven times, and saved fourteen lives; but on his return the eighth time, his horse being much fatigued, and meeting a most formidable wave, he lost his balance, and was overwhelmed in a moment. The horse swam safely to land, but his gallant rider was no more."

OLD FIDELITY.

Old Fidelity is the name of what is probably the most widely known of any dog in America, and the only living thing that went through the great Chicago fire of 1871. He was found in an unfinished safety deposit vault in the basement of Fidelity building, October 11, 1871, the Tuesday following the fire. Mr. Thomas B. Bryan, who owned the building and the business at that time, says the dog was owned by a watchman in the International Bank, next door to him. The dog probably went into the open vault from fear or possibly for shelter from the

flames. He was badly burned, his feet were blistered, and he had inhaled the hot air to that extent that it was only with very careful nursing that his life was saved. Mr. Bryan gave him the name of Old Fidelity, but he was better known as Fido for short. Hundreds of people flocked to see Fido as a relic from the great fire; in this way he gained great notoriety. He was friendly with every one, and would give his paw to shake hands when asked. He was very dignified and never allowed familiarity from strangers. He was aristocratic in his bearing, and seemed to feel the importance of his position as guardian of the vaults. He was several years on exhibition at the Exposition building, at the request of the managers. After he became the property of the Bank and Safety Deposit Company he was twice stolen from them, probably to secure the rewards, as they offered very liberal amounts for his return, giving two hundred dollars at one time. James Clancy was the name of the watchman who took care of Fido after the fire, and until his death, and grieved over him as though he had been a child. He died in 1878, and was supposed to be about fifteen years old, having achieved many honors, made hosts of friends, and I believe has gone where all good doggies go.

But it is the shepherd's dog which, at present, claims our particular attention. This variety is, indeed, one of the most remarkable of the whole tribe for its

FIDELITY AND INTELLIGENCE.

He is easily trained to know the nature and extent of his sphere of duty; he perfectly understands all the ordinary commands of his master, and with admirable sagacity, united to the most unwearied industry and perseverance, he executes them. Hogg, the Ettrick Shepherd, has recorded some instances of the peculiar faculties and habits of the shepherd's dog, in which he unites the advantage of experience with happy powers of description; and I cannot better illustrate the extraordinary adaptation of this interesting animal to the service of man, than by selecting one or two of his examples. "My dog, Sirrah," he writes,

"was, beyond all comparison, the best dog I ever saw. He was of a surly and unsocial temper; disdaining all flattery, he refused to be caressed, but his attention to my commands and interests will never again, perhaps, be equaled by any of the canine race. When I first saw him, a drover was leading him by a rope. He was both lean and hungry, and far from being a beautiful animal. He was scarcely a year old, and knew so little of herding that he had never turned a sheep in his life; but as soon as he discovered that it was his duty to do so, and that it obliged me, I can never forget with what anxiety and eagerness he learned his several evolutions. He would try every way deliberately, till he found out what I wanted him to do; and when I once made him understand a direction, he never forgot or mistook it again. Well as I knew him, he often astonished me; for, when hard-pressed in accomplishing the task that he was put to, he had expedients of the moment that bespoke a great share of the reasoning faculty." One of Mr. Hogg's anecdotes of this favorite dog's exploits, I may shortly state: About seven hundred lambs which Mr. Hogg had under his care at weaning time, broke off at midnight, in three divisions, to the neighboring hills. The night was dark, but the faithful Sirrah, though unseen, was at hand, and, hearing his master lamenting the disaster, set silently off in search of the recreant flock. Mr. Hogg and a companion searched all night for the runaways, but in vain; and in the morning were under the necessity of returning to relate the disaster to their owner. On their way home, however, they discovered a lot of lambs at the bottom of a deep ravine, called the Flesh Cleuch, and the indefatigable Sirrah standing in front of them, looking round for assistance.

"WHAT WAS OUR ASTONISHMENT,"

says he, "when we discovered that not one lamb of the whole flock was wanting! How he had got all the divisions collected in the dark, is beyond my comprehension. The charge was left entirely to himself from midnight to the rising sun; and if all the shepherds in the forest had been there to have assisted him,

they could not have effected it with greater propriety. All that I can further say is, that I never felt so grateful to any creature under the sun as I did to my honest Sirrah that morning."

In another part of his work Mr. Hogg relates an anecdote of a dog belonging to a butcher, in the town of Peebles, of the name of Steel, which indicates a degree of fidelity and attachment to his master's interests, remarkable above anything I have seen elsewhere recorded, of this animal, exhibiting these qualities as even superior to bodily pain, and the most pressing calls of the strongest of the natural instincts. Mr. Steel was accustomed to commit droves which he purchased to the charge of this dog, which happened to be a female, and he had a pride in trusting to her prowess and sagacity in driving them unaided to his home. One day, he chanced to place a drove under the conduct of his dog at a place called Willenslee, which is five miles from Peebles, over wild hills where there is no regularly-defined path. The poor dog had a litter of pups on the road, and thus was detained some time later than was expected. Steel, on returning home in the evening, finding she had not made her appearance, was on the point of setting out in search of her and her charge, "but, on his going out to the street, there was she, coming with the drove, not one missing; and, marvellous to relate, she was carrying a pup in her mouth! How the poor beast had contrived to manage the drove in her state of suffering is beyond human calculation, for her road lay through sheep the whole way. Her master's heart smote him when he saw what she had suffered and effected, but she was nothing daunted, and having deposited her young one in a place of safety, she again set out full speed to the hills and brought another, and another, till she removed her whole litter, one by one, but the last one was dead. It would be endless to relate all the instances of extraordinary sagacity in the shepherd's dog which have been recorded. The following is an anecdote related by Captain Brown, which indicates a degree of reasoning and disinterested kindness, not certainly superior to what have already mentioned, yet of a different and not

less interesting kind: "A shepherd on the Grampian mountains, having left his child at the foot of a hill, was soon enveloped in mist, and, unable to return to the precise place, he could not discover the child. In vain he searched for it in the midst of the mist, not knowing whither he went; and when at length the moon shone clearly, he found himself at his cottage and far from the hill.

HE SEARCHED IN VAIN,

next day, with a band of shepherds. On returning to the cottage, he found that his dog, on receiving a piece of oat-cake, had instantly gone off. He renewed the search, in vain, next day, and again found, on his return, that the dog had disappeared during the interval, taking with it a piece of cake. Struck with this circumstance, he resolved to watch the motions of his dog, and, when it again came for its piece of cake, he followed it. The dog led the way to a cataract, at some distance from the place where the shepherd had left the child. The banks of the waterfall almost joined at the top, yet separated by an abyss of immense depth, presenting that abrupt appearance which so often astonishes and appals the traveler amidst the Grampian mountains. Down one of these rugged and almost perpendicular descents, the dog began, without hesitation, to make his way, and at last disappeared in a cave, the mouth of which was almost on a level with the torrent. The shepherd, with difficulty, followed; but, on entering the cave, what were his emotions, when

HE BEHELD HIS INFANT

eating with much satisfaction the cake which the dog had just brought him, while the faithful animal stood by, eyeing his young charge with the utmost complacence. From the situation in which the child was found, it appears that he had wandered to the brink of the precipice, and either fallen or scrambled down, till he reached the cave, which the dread of the torrent had afterwards prevented him from quitting. The dog, by means of his scent, had traced him to the spot, and afterwards

prevented him from starving, by giving up to him his own daily allowance. He appears never to have quitted the child, except when he went for its food, and then he was seen running at full speed to and from the cottage."

THE KINDNESS OF DOGS.

A lady friend of mine has a pug-dog, also a cat, of which the dog was always very jealous, chasing it about whenever it saw it. Not many weeks since the pug astonished its mistress by coming up to her, sitting up and begging, then barking, and running a little distance from her, till it became evident that it wished to persuade her to come with it. It continued to beg and to run on in the same manner till it led her out into the garden, to the foot of an apple tree, against which the dog raised itself on his hind legs and barked loudly. On looking up the lady saw the cat with a trap on its foot, evidently in great pain. She got it down and relieved it of the trap. The dog showed the greatest joy, and on the cat being placed on the ground, the dog, which before had never done anything but hunt and worry it, licked it all over and over, and ever since they have been the best of friends. Another dog had a kennel in the yard of a house which was overlooked from one of the windows. A lady saw this dog hiding some of its dinner in a corner behind the kennel, and this performance, she noticed, was repeated for a day or two. On the third day the dog was missing some little time from the yard, but before long it was seen to return, followed by a small

HALF-STARVED FRIEND,

which it took up to the store of hidden food, and stood by, wagging its tail with evident pleasure, while the strange dog consumed it.

CHAPTER LIII.

EDUCATING ANIMALS—MISSING LINKS—HORSE-TRAINING—ELEPHANTS, ETC.

I AM sure some of you boys and girls who read this must some time or another have tried or helped to educate a dog or lamb or canary, or even a cat. A younger brother of mine, now a grave and learned doctor, used to be a great expert in training animals, and I remember particularly of a preternaturally loquacious jackdaw he trained to follow him about like a dog wherever he went, its usual resting place being his shoulder. There are, of course, some animals, but very few, which *cannot* be tamed or educated. The great majority, however, are teachable, if only treated with kindness, and none, perhaps, more so than the elephant, horse, dog, and monkey. Perhaps, in view of the "learned pig," I ought to add Mr. Grumphy, and I have a vivid recollection of the wonder and delight afforded me when a child by the sight of

SOME PERFORMING FLEAS,

that drew a little carriage, and went through a variety of tricks. Unfortunately, these came to an untimely end. "*Drat them,*" cried an old woman from the country, who had evidently been bothered by members of the flea family. "I've got ye at last," and down came her heavy hand on them, crushing the life out of the poor little things.

Not long ago, a gentleman having a reputation as a scientist and observer expressed the opinion that animals are not so much below the human standard as is generally believed, and

FAST FRIENDS.

that it is only because of utter lack of education that they do not show greater advancement. Among his experiments were many that produced surprising results, such as

TEACHING VARIOUS ANIMALS TO COUNT,

to distinguish colors, and to utter certain sounds to express certain emotions or desires. The results were extremely satisfactory, and he claims that if a race of animals were not allowed to degenerate mentally, but were educated from father to son for years, as are human beings, they would make a much better showing than at present. In point of fact, this has been done, but there are few animals to-day that exhibit any remarkable human attributes. The education of animals is one of the oldest arts, if it can be so called, and from old records and manuscripts it is evident that, surprising as are some of the feats of trained animals of to-day, they do not surpass the animal performances of other days. Such education in early times was always most successful in England, the people being particularly fond of strange performances, a taste which Shakspeare has satirized in "The Tempest," where *Stephano*, finding *Caliban*, cries: "Were I in England now, as I once was, and had this fish painted, not a holiday fool there but would give me a piece of silver. There would this monster make a man; any strange beast there makes a man. When they will not give a doit to relieve a lame beggar, they will lay out ten to see a dead Indian."

MISSING LINKS.

In early times monkeys were often passed off upon the guileless public as human inhabitants of some strange land. In the *Spectator* of April 3, 1711, the following letter appears, addressed to a prominent gentleman of the day. The animal and the brother from Holland were afterwards exhibited as hairy men:

"HONORED SIR: Having heard that this nation is a great encourager of ingenuity, I have brought with me a rope-dancer that was caught in one of the woods belonging to the Great Mogul. He is by birth a monkey, but swings upon a rope, takes

a pipe of tobacco, and drinks a glass of ale like any reasonable creature. He gives great satisfaction to the quality; and if they will make a subscription for him, I will send for a brother of his out of Holland, that is a very good tumbler; and also for another of the same family whom I design for my Merryandrew, as being

AN EXCELLENT MIMIC,

and the greatest droll in the country where he now is. I hope to have this entertainment in readiness for the next winter, and doubt not but that it will please more than the opera or the puppet show. I will not say that a monkey is a better man than some of the opera heroes; but certainly he is a better representative of a man than any artificial composition of wood and wire." In ancient manuscripts especially, accounts are preserved of animals that imitated men in their various vocations. In one, of the tenth century, is an engraving showing a bear performing for the benefit of its master. In a book of prayers, in the collection of the Harleian Library, dated the thirteenth century, another bear is represented bound by a massive chain, and keeping time to the music of a curious drum held by the master. A second cut shows a large bear standing on its head, a feat certainly not seen nowadays, while few have the courage to attempt the education of the savage brute. Still another cut shows a bear harnessed and driven by

A MONKEY ASTRIDE ITS SHAGGY BACK.

The attractiveness of entertainments having as a feature trained animals in the olden time is shown by Thomas Cartwright in his admonition to Parliament against using the Common Prayer, dated 1572, in which he says: "If there be a bear or a bull to be baited in the afternoon, or a jackanapes to ride on horseback, the minister hurries the service over in a shameful manner, in order to be present at the show."

Nor were the French far behind in their love of the theatrical, as St. Foix writes in his history of Paris:

"Our kings, at their coronations, their marriages, and at

the baptism of their children, or at the creation of noblemen and knights, kept open court, and the palace was crowded on such occasions with cheats, buffoons, rope-dancers, tale-tellers, jugglers, and pantomimical performers. They call those jugglers who play upon the vielle, and teach apes and bears to dance." Monkeys, as now, always formed

AN IRRESISTIBLE ATTRACTION,

and in the Bodleian Library an engraving can be seen showing an ape standing upon its hands, its legs high in air, while the master with a whip is administering, let us trust, gentle persuasion to greater endeavor. Ben Jonson refers to the tricks of apes in the prologue of one of his comedies. In a miscellaneous collection in the Harleian Library there is an account of a hairy man (a monkey) who danced upon the tight rope "with a balance, true to the music"; he also "walked upon the slack rope" while it was swinging, and drank a glass of ale; he "pulled off his hat, and paid his respects to the company," and "smoked tobacco," according to the bill, "as well as any Christian." But all these facts were afterwards outdone by a brother monkey, mentioned before, who performed many wonderful tricks at the Haymarket Theater, London, both as a rope-dancer and an equilibrist.

EQUINE ACCOMPLISHMENTS.

At the present day horses have been taught to obey signs of their masters that are undetected by the audience, and thus to find articles concealed, to seemingly count, to waltz and dance to music, balance themselves upon the see-saw, and leap through hoops of fire; but we have yet to hear of the horse of to-day, like one of the thirteenth century, that was actually trained to walk a tight rope. The trained horses of Sybaris, a city of Calabria, were famous, and were taught to dance to music. It is said that the Crotomans, their enemies, finding this out, brought on to the field of battle a vast band of pipers, and the Sybarian horses, hearing familiar notes, commenced dancing, and in the confusion their riders were defeated with great loss. This account is

also mentioned by Aristotle, and finds a ludicrous parallel in the company of cavalrymen who once visited Washington, and were obliged to hire horses wherever they could get them. It happened when the parade commenced that the troop was made up mainly of horse-car animals that were off duty. This fact coming to the ears of the local gamins, they secured a number of bells, by the adroit use of which they created a continual halting and starting in the ranks, much to the chagrin of the warriors. In the thirteenth century horses were trained to carry small

OXEN UPON THEIR BACKS,

the latter holding each a trumpet to its mouth and appearing to blow it after the approved fashion of knights-errant. One very old manuscript shows a horse standing upon its hind legs after the fashion of the redoubtable Barnum's, only retaining the position and dancing about to the music of a pipe and tabor played by a dancing attendant. In a manuscript of the fourteenth century in the Bodleian Library is described a steed trained to engage in combat with a single warrior. The soldier advances with a staff and shield, which the horse strikes with his hoofs. In another, the horse stands upon his hind legs and plays upon a drum or tabor held by its master; while a third cut shows the same animal playing upon the same instrument with its hind legs. This latter, to say the least, is taking advantage of a very natural line of operations, which it is safe to say has not been willingly attempted by trainers of to-day. The drawings of these performances are

AT LEAST FOUR HUNDRED AND FIFTY YEARS OLD.

The dancing horses, so justly admired in the circus of the present day, are no novelty, if we may believe the old records; and as early as 1612, at a great festival, according to Menestrier, M. Phroniel, the riding master of Louis XIII., of France, with three gentlemen and six squires, went through a most complete ballet dance upon trained steeds; the animals dancing, however, only upon their hind feet. That the ordinary performances of

the trick-horse of the present were well known before our day is evident from the following show bill of the time of Queen Anne, copied from a paper in the Harleian Library:

"To be seen at the Ship upon Great Tower Hill, the finest taught horse in the world. He fetches and carries like a spaniel dog. If you hide a glove, a handkerchief, a door key, a pewter basin, or so small a thing as a silver two-pence, he will seek about the room until he has found it; and then he will bring it to his master. He will also tell the number of spots on a card, and leap through a hoop; with a variety of other curious performances."

The common bare-back performances, riding three, four, or even six horses, is a modern practice, introduced early in the present century by a man named Price.

THE ART OF THE HORSE TRAINER.

A writer in the *Sporting Magazine* of 1828 draws attention to James Sullivan, the Whisperer, a horse breaker at Cork, "an ignorant, awkward rustic of the lowest class." It was claimed for him that he possessed the art of controlling by some secret influence any horse that was notoriously vicious. He practiced in private and would not reveal his method. When employed to tame an outrageous animal, he directed the stable in which he and the object of the experiment were placed to be shut, with orders not to open the door until a certain signal was given. After a *tête-à-tête* between him and the horse for about half an hour, during which little or no bustle was heard, the signal was made, and upon opening the door the horse was seen lying down, and the man by his side playing familiarly with him, like a child with a puppy dog. From that time he was found perfectly willing to submit to any discipline, however repugnant to his nature before. Sullivan could not be persuaded to practice his art abroad.

HE WAS WEDDED TO LOCALITY,

and so his triumphs were witnessed by only a small circle. It is safe to affirm that he did not control horses by talking to them

in whispers and by a magnetic touch. His practice was different from his pretentions. When Rarey, a son of an innkeeper in central Ohio, went to England in 1858, he claimed to have psychological power over horses, and after he had brought Cruiser under control, his praises were sung by two continents. The truth of the matter is that Rarey, like those before him and those who came after him, obtained obedience through force. He practiced the leg-tying-up system which he had learned at Georgetown, Ky., from Denton Offutt. Make the vicious horse feel that you are his master, and then soothe him with soft caresses and gentle words, and you will accomplish all that Whisperer Sullivan accomplished. Mr. Magner, in his interesting book, gives the full history of the Cruiser case. The facts were furnished by Mr. Goodenough, who took Rarey to England. Cruiser was owned by Lord Dorchester, and had been vicious from a colt. He was stabled at Morrell Green, forty-one miles from London. A watering-bridle was kept on him continually. To it were attached two chains, each about twelve inches long, with a buckle at the end. The door of his stable divided in the center, and when it was desired to lead him out for use the lower half was opened and a bucket of water put in. When the horse

PLUNGED HIS NOSE IN THE WATER

to drink, a strap twenty feet long was quickly fastened to each bit of chain. In this way two men could lead the animal without getting in range of his teeth and feet. Cruiser never wore the big iron muzzle which Rarey exhibited with the horse. That was a little advertising trick. Cruiser was not subdued by ordinary methods. As a last resort, his fore legs were tied up, a collar put on and his hind legs drawn up and tied to it. In this utterly helpless condition he was left all night in a solitary stable. In the morning he was watered, caressed, fed and groomed. Then he was led behind a dog cart to London, and tied down again the following night. His spirit was broken, and after this Rarey could handle him with comparative ease. In London and New York, wondering crowds flocked to see the

vicious animal, which the magic touch of the horse tamer had made as gentle as a lamb. After Rarey's death Cruiser was treated inhumanly, and he again grew sullen and vicious. He was confined in a small paddock at Groveport, near Columbus, Ohio; his feet seldom trimmed, never carefully groomed, and his food pitched at him. He had no love for man, and the face of every prying intruder threw him into a rage. He was a horse of fine grain, with well proportioned head and rather wide between the eyes. The successful horse tamer must have firmness, excellent judgment and good control over his temper. Intuitively, and after much experience, he will learn to read the character of an animal, and know what steps to take to render him submissive. Mere lip and hand mummery is a waste of time.

A BULL AND HORSE RACE.

Some forty years ago the managers of a race-course, near Brownsville, on the Monongahela, published a notice of a race, one mile heats, on a particular day, for a purse of one hundred dollars, "free for anything with four legs and hair on." A man in the neighborhood, named Hays, had a bull that he was in the habit of riding to mill with his bag of corn, and he determined to enter him for the race. He said nothing about it to any one, but he rode him round the track a number of times on several moonlight nights, until the bull had the "hang" of the ground pretty well, and would keep the right course. He rode with spurs, which the bull considered disagreeable, so much so that he always bellowed when they were applied to his sides. The morning of the race Hays came upon the ground on horseback—on his bull; this being two bulls in one—a Yankee bull and an Irish one. Instead of a saddle he had dried an ox-hide, the head part of which, with the horns still on, he had placed on the bull's rump.

HE CARRIED A SHORT TIN HORN

in his hand. He rode to the judges' stand and offered to enter his bull for the race, but the owners of the horses that were entered objected. Hays appealed to the terms of the notice,

insisting that his bull had "four legs and hair on," and that, therefore, he had a right to enter him. After a good deal of debating, the judges declared themselves to be compelled to decide that the bull had the right to run, and he was entered accordingly.

When the time for starting arrived, the bull and the horses took their places. The horse racers were out of humor at being bothered with the bull, and at the burlesque which they supposed was intended, but thought it would be over as soon as the horses started. When the signal was given they did start. Hays gave a blast with his horn, and sank his spurs into the sides of the bull, who bounded on with a terrible bellow, at no trifling speed, the dried ox-hide flapping up and down and rattling at every jump, making a combination of noises that had never been heard on a race-course before. The horses all flew from the track, every one seeming to be seized with a sudden determination to take the shortest cut to get out of the Redstone country, and not one of them could be brought back in time to save their distance. The purse was given to Hays.

A general row ensued, but the fun of the thing put the crowd all on the side of the bull. The horsemen contended that they were swindled out of their purse, and that if it had not been for

HAYS' HORN AND OX-HIDE,

which he ought not to have been permitted to bring upon the ground, the thing would not have turned out as it did. Upon this, Hays told them that his bull could beat any of their horses anyhow, and if they would put up one hundred dollars against the purse he would take off the ox-hide and leave his tin horn and run a fair race with them. His offer was accepted and the money staked. They again took their places at the starting post, and the signal was given. Hays gave his bull another touch with his spur, and the bull gave a tremendous bellow. The horses remembered the dreadful sound, and thought all the rest was coming as before. Away they went again, in spite of all the

exertions of their riders, while Hays galloped his bull around the track and won the money.

TURKS AND THEIR HORSES.

The Turkish horse is the gentlest creature in the world, and also the most capable of attachment to its master or groom. These qualities are the results of the kind treatment they receive from the Turks during their early training. With what care do the peasants of Bithynia attend to the foals while they are still quite young and tender; how they pet them, how they bring them into their rooms and almost to their tables, and how they handle them and stroke them! They seem to regard them almost as their children. The grooms in whose care they are placed treat them with equal kindness, making them fond of them by continuously stroking them, and never beating them with a stick unless they are absolutely compelled to do so. Being thus used, they become extremely attached to men, and yet you will not find one which this treatment has made a kicker or a biter, or refractory. Such vices are seldom met with in Turkey. But how different our system is from theirs! According to our method, grooms generally think it essential to use the roughest words and loudest tones in talking to their horses, and to be forever thrashing them. The consequence is that the horses quiver all over with terror on their entering the stable, and regard them with hatred and fear. The Turks like to have them trained to kneel down at command, and so take up their rider, and to pick up from the ground in their teeth a stick, a mace, or a sword, and to give it to their master in the saddle. When they have learned to do these things, as an honor and a mark of their proficiency, they fit silver rings in their nostrils, to show that they have been thoroughly trained. I saw a horse who, when his master was thrown from the saddle, would stand by him without moving a step, and others who would go round their groom, as he stood at a distance, and halt at his bidding.

CHINESE TREATMENT OF ANIMALS.

The Chinese never punish their animals; hence a mule that in

the hands of a foreigner would be not only useless but dangerous to every one about it, becomes in the possession of a Chinaman as quiet as a lamb and as tractable as a dog. One never beholds a runaway, a jibbing or a vicious mule or pony in a Chinaman's employment; but always the same rattling, cheerful pace maintained over heavy or light roads, by means of a tur-r or cluck-k, the beast turning to the right or left and stopping with but a hint from the reins. This treatment is extended to all the animals they press into their service. Often have I admired the tact exhibited in getting a large drove of sheep through narrow, crowded streets and alleys, by merely having a little boy to lead one of the quietest of the flock in front; the others steadily followed, without the aid either of a yelping cur or a cruel goad. Cattle, pigs and birds are equally cared for.

EDUCATION OF THE ELEPHANT.

The most striking feature in the education of an elephant is the suddenness of his transition from a wild and lawless denizen of the forest to the quiet, plodding, good-tempered and cheerful beast of draught or burden. There takes place in the keddah or pen of capture a mighty struggle between the giant strength of the captive and the ingenuity of man, ably seconded by a few powerful, tame elephants. When he finds his strength utterly overcome by man's intelligence, he yields to the inevitable, and accepts the situation philosophically. Sanderson once had a narrow escape from death while on the back of a tame elephant inside a keddah, attempting to secure a wild female. She fought his elephant long and viciously, with the strength and courage of despair, but was finally overcome by superior numbers. Although her attack on Sanderson in the keddah was of the most murderous description, he states that her conduct after her defeat was most exemplary, and she never afterwards showed any sign of ill-temper. Mr. Sanderson and an elephant-driver once mounted a full-grown female elephant on the sixth day after her capture, without even the presence of a tame animal. Sir Emerson Tennent records an instance wherein

an elephant was fed from the hand on the first night of its capture, and in a very few days evinced pleasure at being patted on the head. Such instances as the above can be multiplied indefinitely. To what else shall they be attributed than philosophic

REASONING ON THE PART OF THE ELEPHANT?

The orang-outang, so often put forward as his intellectual superior, when captured alive at any other period of life than that of helpless infancy, is vicious, aggressive and intractable for weeks and months, if not during the remainder of its life. This animal captured adult, exhibits the most tiger-like ferocity, and is wholly intractable.

If dogs are naturally superior to elephants in general intellect, it should be as easy to tame and educate newly-caught wild dogs or wolves of mature age as newly-caught elephants. But, so far from this being the case, it is safe to assert that it would be *impossible* to train the most intelligent company of pointers, setters or collies ever got together to perform the feats accomplished with such promptness and accuracy by all regularly trained circus elephants. The successful training of all elephants up to the required working point is so fully conceded in India, that the market value of an animal depends wholly upon its age, sex, build, and the presence or absence of good tusks. The animal's education is either sufficient for the buyer, or, if not, he knows it can be made so.

CHAPTER LIV.

STORIES OF THE RAT, THE TIGER, THE BEAVER, THE REINDEER, THE ELEPHANT.

A GENTLEMAN traveling, some time ago, through Mechlenburgh, was witness to a very singular circumstance respecting one of these animals, in the post-house at New Hargarel. After dinner the landlord placed on the floor a large dish of soup, and gave a loud whistle. Immediately there came into the room a mastiff, an Angora cat, an old raven and a large rat with a bell about its neck. They all four went to the dish, and without disturbing one another, fed together; after which the dog, cat and rat lay before the fire, while the raven hopped about the room. The landlord, after accounting for the familiarity which existed between these animals, informed his guest that the rat was the most useful of the four, for that the noise he made had completely freed the house from the rats and mice with which it had been infested.

THE TIGER.

As every one knows, the tiger is a very formidable neighbor; so much so, that the natives of the countries which he inhabits not only hunt him for the excitement of the thing, but have recourse to various modes of killing him. In Persia a large and strong wooden cage is often fastened firmly down to the ground,

in the vicinity of the tiger's haunts, and in this a man, accompanied by a dog or goat, to warn him of the approach of the tiger, takes up his quarters at night. He is provided with a few strong spears, and when the tiger comes, and in endeavoring to reach the enclosed prey rears himself against the cage, the man takes the opportunity of stabbing him in some mortal part. In Oude, the peasants sometimes strew leaves smeared with birdlime

IN THE TIGER'S PATH,

in order that as the animal walks on them they may adhere to his feet. In his efforts to disengage himself from these encumbrances he usually smears his face and eyes with the sticky material, or rolls himself among the treacherous leaves, until finally, becoming blinded and very uncomfortable, he gives vent to his dissatisfaction in the most dismal howlings, which speedily bring his enemies about him; when, taking advantage of his helpless condition, they dispatch him without difficulty. The destruction of tigers is handsomely rewarded by the Indian government, and many of the people make a regular business of hunting them.

THE BEAVER.

The beaver is about the size of the badger; his head short, his ears round and small, his fore teeth long, sharp and strong, and well calculated for the part which nature has allotted him; the tail is of an oval form, and covered with a scaly skin. Beavers are natives of North America, and more particularly the north of Canada. A great many stories have long been believed respecting the beaver, on the authority of a French gentleman who resided a long time in North America; but it is now known that the greater part of them is false. The house of the beaver is not divided into rooms, but consists of one apartment only; and the animals do not use their tails as a trowel or a sledge, but only as an assistance in swimming. Some years ago a beaver was sent from this country to England, that had been completely tamed by the sailors, and was called "Bunny."

When he arrived in England, he was made quite a pet of, and used to lie on the hearth-rug in his master's library. One day he found out the housemaid's closet, and his building propensities began immediately to display themselves. He seized a large sweeping brush and dragged it along with his teeth to a room, the door of which he found open; afterwards seizing a warming-pan in the same manner; and having laid the handles across, he filled up the walls of the angle made by the brushes with the wall, with hand-brushes, baskets, boots, books, towels, and anything he could lay hold of. As his walls grew high, he would often sit

PROPPED UP BY HIS TAIL,

with which he supported himself admirably, to look at what he had done; and if the disposition of any of his building materials did not satisfy him, he would pull part of his work down and lay it again more evenly. It was astonishing how well he managed to arrange the incongruous materials he had chosen, and how cleverly he contrived to remove them, sometimes carrying them between his right fore paw and his chin; sometimes dragging them with his teeth, and sometimes pushing them along with his chin. When he had built his walls, he made himself a nest in the center, and sat up in it, combing his hair with the nails of his hind feet.

THE REINDEER.

Captain Franklin gives the following interesting account of the mode practiced by the Dog-rib Indians, to kill these animals. "The hunters go in pairs, the foremost man carrying in one hand the horns and part of the skin of the head of a deer, and in the other a small bundle of twigs, against which, from time to time, he rubs the horns, imitating the gestures peculiar to the animal. His comrade follows, treading exactly in his footsteps, and holding the guns of both in a horizontal position, so that the muzzles project under the arms of him who carries the head. Both hunters have a fillet of white skin round their foreheads,

THE BEAVER AT WORK.

and the foremost has a strip of the same round his wrists. They approach the herd by degrees, raising their legs very slowly, but setting them down somewhat suddenly, after the manner of a deer, and always taking care to lift their right or left feet simultaneously. If any of the herd leave off feeding to gaze on this extraordinary phenomenon, it instantly stops, and the head begins to play its part, by licking its shoulders, and performing other necessary movements. In this way the hunters contrive to reach the very center of the herd without exciting suspicion, and have leisure to single out the fattest. The hindmost man then pushes forward his comrade's gun, the head is dropped, and they both fire nearly at the same instant.

THE DEER SCAMPER OFF,

the hunters trot after them; in a short time the poor animals halt, to ascertain the cause of their terror; their foes stop at the same moment, and having loaded as they ran, greet the gazers with a second fatal discharge. The consternation of the deer increases; they run to and fro in the utmost confusion; and sometimes a great part of the herd is destroyed within the space of a few hundred yards."

THE ELEPHANT.

Of the elephant, only two species at present exist, the Asiatic and African; but the remains of several extinct species are met with in almost every part of the world, particularly in Asiatic Russia. Elephants hold undisputed sway in the mighty forests which they inhabit; their immense size, united strength and great swiftness enabling them to dislodge all intruders on their abode. The lion and tiger avoid such formidable assailants, and leave them in undisputed possession of their forest. Seemingly sensible of the large supply of food which they require, they will allow no animal, however peaceable, to browse in their territories, of which they hold exclusive possession; and they can exist only in those extensive woody ranges or immense plains where vegetation abounds in all its wild luxuri-

ance. The strength of the elephant, conjoined with its sagacity, renders it

A MOST EFFICIENT SERVANT,

where extraordinary animal force is required, as in dragging ships, heavy stores and ordnance. Captain Williamson observes, that many most arduous military operations have been greatly indebted for their success to the sagacity, patience and exertion of the elephant; and states, in particular, that "when cannon require to be extricated from sloughs, the elephant, placing his forehead on the muzzle, which, when limbered, is the rear of the piece, will urge it with an energy scarcely to be conceived, through a bog, from which hundreds of oxen or horses could not drag it. At other times, lapping his trunk round the cannon, he will lift while the cattle and men pull forwards."

The quickness of comprehension displayed by this noble animal, has justly procured for him the appellation of the "half-reasoning elephant." "I have, myself," says an officer who served in India, "seen the wife of a *mohaut*, for the followers often take their families with them to the camp, give a babe in charge to an elephant, while she went on some business, and have been highly amused in observing the sagacity and care of the unwieldy nurse." In corroboration of this statement, I may notice the curious fact mentioned in the "Philosophical Transactions," of the attachment of an elephant to an infant. He was said never to have been happy except when the infant was near him. The nurse, therefore, frequently took the child in its cradle, and placed the latter between his feet. He at last refused his meat when the infant was absent. When it was asleep, he watched it with much solicitude, and drove off the flies with its trunk as they approached. If it awoke and cried,

HE WOULD ROCK THE CRADLE,

till it again fell asleep. A thousand well-authenticated accounts of the sagacity, the docility, the quick sense of injury, and the affectionate disposition of the elephant are stated, from which I shall only select one well-known example, that is at once char-

acteristic of almost all these qualities. "Some years ago, an elephant at Deccan, from a motive of revenge, killed its conductor. The wife of the unfortunate man was witness to the dreadful scene; and, in the frenzy of her mental agony, took her two children, and threw them at the feet of the elephant, saying, 'Take my life also, and that of my children!' The elephant, becoming instantly calm, seemed to relent; and, as if stung with remorse, took up the eldest boy with his trunk, placed him on his neck, adopted him for his *cornac*, and never afterwards allowed another to occupy that seat."

CHAPTER LV.

MORE STORIES OF ANIMALS—THE ELEPHANT DIDN'T SEE THE JOKE—MONKEYS IN INDIA.

IN India, where the monkeys live among men, and are the playmates of their children, the Hindoos have grown so fond of them that the four-handed folk participate in all their simple household rites. In the early morning, when the peasant goes out to yoke his plow, and the crow wakes up, and the dog stretches himself and shakes off the dust in which he has slept all night, the old monkey creeps down from the peepul tree, only half awake, and yawns and looks about him, puts a straw in his mouth, and scratches himself contemplatively. Then, one by one, the whole family come slipping down the tree trunk, and they all yawn and look about and scratch. But they are sleepy and peevish, and the youngsters get cuffed for nothing, and begin to think life dull. Yet the toilet has to be performed, and, whether they like it or not, the young ones are sternly pulled up one by one to their mother to undergo the process. The scene, though regularly repeated every morning, loses nothing of its delightful comicality, and the monkey brats never tire of the joke of "taking in mamma." But mamma was young herself not very long ago, and treats each ludicrous affectation of suffering with profoundest unconcern, and, as she dismisses the "cleaned" youngster with a cuff, stretches out her hand for the next one's tail or leg in the most business-like and serious manner possible.

The youngsters know their turns quite well, and as each one sees the moment arriving it throws itself on its stomach, as if overwhelmed with apprehension, the others meanwhile stifling their laughter at the capital way so-and-so is doing it, and the instant the maternal paw is extended to grasp its tail the subject of the next experiment utters a wail, and, throwing its arms forward in the dust, allows itself to be dragged along, a limp and helpless carcass, winking all the time, no doubt, at its brothers and sisters, at the way it is imposing on the old lady.

But the old lady will stand no nonsense, and, turning the child right side up, proceeds to put it to rights; takes the kinks out of its tail and the knots out of its fur; pokes its fingers into its ears, and looks at each of its toes, the brat all the time wearing on its face an absurd expression of hopeless and incurable grief. Those who have been already cleaned look on with delight at the screaming farce, while those who are waiting wear a becoming aspect of enormous gravity. The old lady, however, has her joke, too, which is to cuff every youngster before she lets it go; and, nimble as her offspring are, she generally, to her credit be it said, manages to give each of them a box on the ears before it is out of reach. The father, meanwhile, sits gravely with his back to all these domestic matters, waiting for breakfast. The monkeys, by this time, have come closer to the preparations for food, and sit solemnly, household by household, watching every movement. Hindoos do not hurry themselves in anything they do, but the monkey has lots of time to spare and plenty of patience, and in the end, after the crow has stolen a little, and the dog has had its morsel, and the children are all satisfied, the poor fragments of the meal are thrown out on the ground for the "bhunder-logue" (the monkey-people), and it is soon discovered, the mother feeding the baby before she eats herself.

THE ELEPHANT DID NOT SEE THE JOKE.

The Rev. Mr. Watson gives a very curious story in illustration of this animal's wonderfully long memory of a wrong suffered.

One of those pests of society, "a practical joker," visited a caravan in a west of England fair and tried his stupid tricks upon an elephant there. He first doled out to it, one by one, some gingerbread nuts, and when the grateful animal was thrown off its guard he suddenly proffered it a large parcel wrapped in paper. The unsuspicious creature accepted and swallowed the lump, but immediately began to exhibit signs of intense suffering, and snatching up a bucket handed it to the keeper for water. This being given to it, it eagerly swallowed quantities of the fluid. "Ha!" cried the delighted joker; "I guess those nuts were a trifle hot, old fellow." "You had better be off," exclaimed the keeper, "unless you wish the bucket at your head." The fool took the hint only just in time, for the enraged animal, having finished the sixth bucketful, hurled the bucket after its tormentor with such force that had he lingered a moment longer his life might have been forfeited. This, however, was by no means the last of it. The following year the show revisited the same town, and

THE FOOLISH JOKER,

like men of his genus, unable to profit by experience, thought to repeat his stupid trick on the elephant. He took two lots of nuts into the show with him—sweet nuts in one pocket and hot in the other. The elephant had not forgotten the jest played upon him, and therefore accepted the cakes very cautiously. At last the joker proffered a hot one, but no sooner had the injured creature discovered its pungency than it seized hold of its persecutor by the coat tails, hoisted him up by them, and held him until they gave way, when he fell to the ground. The elephant now inspected the severed coat tails which, after he had discovered and eaten all the sweet nuts, he tore to rags and flung after their discomfited owner.

A TOUCHING STORY.

We frequently read stories of animal devotion to their offspring, and also to their masters and mistresses, but the little incident published below is one of the most touching I have

read for some time. It is by no means new, but it will be interesting reading for generations yet to come:

The best little shepherd dogs are worth two hundred dollars, or even more. One herder, whom we met at Cold Spring ranch, showed us a very pretty one, that he said he would not sell for five hundred dollars. She had at that time four young puppies. The night we arrived we visited his camp, and were greatly interested in the little mother and her nursing babies. Amid those wild, vast mountains, this little nest of motherly devotion and baby trust was very beautiful. While we were examining them, the assistant herder came to say that there were more than twenty sheep missing. Two male dogs, both larger than the little mother, were standing about, doing nothing. But the herder said neither Tom nor Dick would find them; Flora must go. It was urged by the assistant that her foot was sore, she had been hard at work all day, was nearly worn out, and must suckle her puppies. The boss insisted that she must go. The sun was setting. There was no time to lose. Flora was called, and told to hunt for lost sheep, while her master pointed to a great forest, through the edge of which they had passed on their way up. She raised her head, but seemed very loth to leave her babies. The boss called sharply to her. She rose, looking tired and low-spirited, with head and tail down, and trotted wearily off toward the forest. I said: "This is too bad."

"Oh, she'll be right back. She's lightning on stray sheep."

The next morning I went over to learn whether Flora had found the strays. While we were speaking, the sheep were returning, driven by a little dog, who did not raise her head or wag her tail, even when spoken to, but crawled to her puppies and lay down by them, offering the little empty breasts. She had been out all night, and, while her hungry babies were tugging away, fell asleep. I have never seen anything so touching. So far as I was concerned, "there was not a dry eye in the house." How often that scene comes back to me—the vast, gloomy forest, and that little creature, with the sore foot and

her heart crying for her babies, limping and creeping about in the wild caverns and through the long, dark hours, finding and gathering in the lost sheep.

HORSE SENSE.

Some people believe that a horse has more than ordinary intelligence as compared with other members of the animal family. Frequent cases have been reported of horses, when sick, going to the veterinary surgeon's where they had previously been treated; but the following is the first authenticated case, having been reported by L. A. Grenier, veterinary surgeon, of Indianapolis, Indiana. The fact of the horse calling the second time, a year later, is worthy of note: "In October, 1881," he writes, "a black horse, owned by Ferdinand Winter, a baker, living on Washington street, in this city, subject to colic, was treated several times by me. He took colic about two o'clock one morning, and the fastening of the stable not being very secure, got out and came direct to my office, pawing on the sidewalk and trying to get in at my door. He woke me up out of my sleep, and on looking out I found it was the baker's horse. I took him in and gave him some medicine. Next morning, the horse being cured, I sent him home to the baker, who was very thankful for the cure, and paid the expense of the same. A short time afterwards the baker sold or traded the horse to some party who lived about one mile south of Indianapolis; of which sale I did not know. About November, 1881 (this being over a year since I saw the horse last), when I came to open my office in the morning I found a horse lying in the mill lot across from my office. He was covered all over with mud, and terribly swollen, body cool as ice, and unable to stand on his legs. I took pity on the poor brute, and as the police station is only a half square from my office, I went and inquired what should be done for the poor animal, when the officer on duty at the time, named Osborne, instructed me to take the horse in and cure him, and he would see that I got my pay for it. I got my boys, scraped the mud off the horse, applied some stimulating lini-

ment to his body and limbs, gave him a good drink, and soon had the horse on his feet again, and dragged him into my infirmary, where we worked at him till about three o'clock in the afternoon, when the horse was out of danger. As soon as the horse was cleaned I recognized the baker's horse.

ANIMAL REVENGE.

The active existence of a feeling like that of revenge, and the possession of powers of memory of considerable definiteness and endurance in animals, are well known, as the following anecdotes may show. Vixen and Viper were two dogs sent to hunt an otter. Only Vixen was able to attack the animal, and she was killed by him. Viper, who mourned for her intensely, went out in the night to hunt the otter; and the two were found next day clinched in death, with all the evidence of a desperate struggle around them.—A Newfoundland dog was enraged by a traveler who, passing on horseback through the village, struck at him with his whip. A year afterwards the traveler was passing through the same village, when the dog recognized him and bit him through the leg.—A friend of the owner of a dog, Tiger, set a stout bulldog on him, and Tiger got the worst of the fight. He remembered the event, and watched faithfully at the neighbor's door for his opportunity. It came; the dog seized the man and avenged his wrong. Afterwards he tried to make friends with him, and to restore the relations as they had been before the offense was given.—A servant maid was accustomed to throw water on a dog chained up during the hot weather, and for the best of motives—to cool him off. The dog, however, took the proceeding as an insult, and the first time he found himself loose he sprang upon the girl and killed her.—It was the duty of two dogs to take their turns at a turnspit. One of them shirked his task, slinked away and hid; the other, when called upon to take his companion's turn as well as his own, led the people to where the truant was hid and killed him on the spot.—A Newfoundland dog in Cork was annoyed by a cur. He took the animal, threw it over the dock, then plunged

in himself and saved its life.—Another Newfoundland dog was sent back by its master with a key which was needed at the house. On its way it was attacked by a butcher's dog, but went on about its business, paying no attention to the interruption. The key delivered, it stopped, on its way back to its master, till the dog came out, then attacked it and killed it.—The story has become an old one of the elephant that cracked a cocoa-nut on the head of a man who had cracked one on its skull, and killed him.—Of another elephant—and he was called "the fool"—it is said that a quartermaster threw a tent-pin at him. A few days later, the animal came upon the quartermaster, lifted him up on his trunk, and put him in a large tree, to get down as best he could.—The last story is of a monkey, which, having been caught stealing a friar's grapes, had to wear a weight on his tail. Afterwards, while the friar was performing mass at the church, the monkey climbed to the roof of his cell and with the weight on its tail broke all the tiles.

THE MIDGET SHEEP.

The very smallest of all kinds of sheep is the tiny Breton. It is too small to be very profitable to raise; for, of course, it cannot have much wool, and as for eating, why, a hungry man could almost eat a whole one at a meal. It is so small when full-grown that it can hide behind a good-sized bucket. It takes its name from the particular part of France where it is most raised. But if not a profitable sheep, it is a dear little creature for a pet, for it is very gentle and loving, and, because it is so small, is not such a nuisance about the house as was the celebrated lamb which belonged to a little girl named Mary. It would need to be a very large little girl—

A GIANT GIRL, INDEED—

who could take an ordinary sheep in her lap and cuddle it there; but any little girl could find room in her lap for a Breton sheep quite as easily as for one of those very ugly little dogs called by the name of pug. One of this little creature's peculiarities is its extreme sympathy with the feelings of its human friends,

DANIEL WEBSTER AND THE SQUIRREL.

when it has been brought up as a pet in the house, and has learned to distinguish between happiness and unhappiness. If any person whom it likes a great deal is very much pleased about anything, and shows it by laughing, the little sheep will frisk about with every sign of joy; but if, on the contrary, the person sheds tears, the sympathetic friend will evince its sorrow in an equally unmistakable way. A kind word and a loving caress will also fill it with happiness, while a cross word or harsh gesture will cause it evident distress.

DANIEL WEBSTER'S FIRST PLEA.

When Daniel Webster and his brother Ezekiel were boys on their father's farm in New Hampshire, they were greatly annoyed one year by the ravages of the squirrels, and traps were set to catch them. Ezekiel brought the first capture to the house in triumph, and was, boy-like, eager to kill him at once, as a punishment for his misdeeds, or to make him a prisoner for life in a cage; but Daniel would consent to neither sentence; he wanted to set the poor, frightened little creature free. The dispute waxed warm, and the boys appealed to their father. He proposed to hold court, and have the squirrel tried; Ezekiel appearing for the prosecution, Daniel for the defense. This was a grand idea; the court was organized in the family sitting-room, with the father on the bench. Ezekiel did his very best; he enlarged upon the iniquities of the squirrel, and the necessity for punishment, and supposed he had covered the whole ground. But Daniel rose, his young face lighted with enthusiasm, and his young heart full of pity for the helpless creature whose life he was to plead for; boy as he was, he poured out such a flood of eloquent speech on the beauty and worth of life, even to a squirrel; on the great wrong of imprisonment for an unconscious offense; and on the charm of freedom, that when he sat down his hearers wiped the tears from their eyes. The prosecutor was the first to deliver the bright-eyed little prisoner, and Daniel and Ezekiel set no more traps. Daniel, as all the world knows, became one of our leading American statesmen!

CHAPTER LVI.

BIRDS—THEIR RELATIVE POSITION—THE BILL—STORIES OF BIRDS.

AS we descend in the scale of being, new wonders strike our view, which furnish us with additional illustrations of the Divine perfections. From quadrupeds, the transition to birds is a great and sudden step, and we are introduced at once into a new system, in which the contrasts are not less numerous and remarkable than the analogies, but in which the intention of all the differences is obvious, and the adaptation to new functions and conditions is beautiful and complete. When we examine the structure of birds, we find that it is less complicated than that of the animals we have already been contemplating, and that the mental powers with which they are endowed are intermediate between quadrupeds and reptiles; but, if we regard the functions they are destined to perform, we shall discover in that which is their distinctive property a superiority, not merely over the order of quadrupeds, but over man himself. The power of moving through the air is a very remarkable endowment, which, though it be shared with insects, may be considered, among vertebrated animals, as peculiar to birds. It is, indeed, true that there is scarcely any power, however peculiar, belonging to a great order of organized beings, to which we do not find approaches in species of another order; and this

holds true of flying—as witness, among the finny tribes, the flying-fish; among reptiles, the flying lizzard, and among quadrupeds, the bat and the vampire. Another instance of the approximation of two distinct and even distant orders to each other, is that of the humming-bird to the insect tribe. These interesting little creatures, while, like the bee, they emit that peculiar sound in flying, from which they take their name, flutter

FROM FLOWER TO FLOWER,

and suck nectar like the butterfly, for which, on a casual glance, they might easily be mistaken.

The bill of a bird, again, is very peculiar in its conformation, and has obviously been formed with reference to the structure and functions of the animal in other respects. It was intended to cleave the air in flying, and therefore it was of importance that it should be sharp and pointed, and should project from a small head; and it was designed to act as an instrument of defense, and as a hand by which to seize its food, and, in birds of prey, to tear it. Had a mechanic been called upon to construct a mouth for such an animal, he would certainly, with all his ingenuity, have failed to invent so perfect an instrument as a bill. But it is not merely in the general type; it is also in the variations for particular purposes that the skill of the Creator is exhibited. Take the bill of the domestic fowl as the general basis of the contrivance, and we have an instrument simply but admirably fitted to act at once as a mouth and a hand, having nothing to do but to pick up food, to arrange its nest and to plume its feathers, or to defend itself when attacked. If we compare it with the bills of other species of the tribe called *rasores*, to which the domestic fowl belongs, we shall find numerous variations even in this simplest form. But take other orders, and the variation becomes still more marked. There are tribes which feed on worms and larvæ residing deep in the earth, and requiring to be reached by an elongated instrument. Such an instrument has been bestowed on them. The lengthened bills of the curlew, the woodcock and the plover are of

this description. The mechanical contrivance is here simple and obvious. But more skill was required to form a forceps of horn capable of distinguishing a soft worm among the equally soft mud in which it was imbedded: in the woodcock, and feeders of this kind, the end of the bill is not horny, but is provided with nerves, so that it becomes a finger to feel, as well as a hand to hold, and a mouth to eat. "It is doubtful," says Dr. Macculloch, "if the most delicate human finger could feel the food of a woodcock where it lies. But there is even more of contrivance, if I mistake not, in this provision. The nerves are large beyond all apparent necessity; utterly disproportioned to a nerve of touch in any other animal body. It was necessary that the point of the bill should be tough and firm; and the magnitude of the nerves forms a compensation for this."

The duck and other flat-billed birds form another variety, whose instruments are intended for a purpose somewhat similar. They have to obtain their food in mud below the water. Here

THE TEETH FORM A STRAINER,

like the same engine in the whale, while a highly sensitive bill and tongue aid each other in separating what is wanted, and rejecting what is superfluous. The birds of prey exhibit a conformation adapted to their purpose, not less effectual than it is simple. It consists in giving to the upper mandible a crooked form, which affords the animal much power in holding and tearing the flesh of its prey. It would be easy to follow out this enumeration, by other cases of remarkable adaptation, such as that of the swallow and the night-hawk, which feed on insects while on the wing, and have therefore a wide mouth, into which their prey may be said to fly; the crossbill, whose instrument is so admirably adapted for opening the cones of the fir; and the spoonbill, which is literally furnished with

A PAIR OF TONGS,

for catching frogs.

Foremost among birds for daring and strength are the flesh-eaters—birds of prey. Some of these are great sanitary agents,

such as the vulture, which consumes putrid flesh, and, especially in tropical climates, often in this way prevents disease and plague. Then there are condors and falcons, the latter of which in olden times were used by the nobility for hunting other birds, and, noblest, strongest, most daring of all,

THE EAGLE.

Such is the strength of the eagle that it carries off fawns, lambs, pigs and even, in some rare cases, children. Martin, in his description of the Hebrides of Scotland, relates how, when an infant, one Neil was left by his mother in a field on the north side of Loch Portree, and was carried off by an eagle, and laid on the ground on the south side of the loch. Some shepherds, seeing the bird, and hearing the infant cry, ran to the rescue, and fortunately in good time. In Tartary the royal or imperial eagle is trained to catch foxes, antelopes and even wolves. In an eyrie, or eagle's nest in Germany, the skeletons of three hundred ducks, and forty hares were found; and these, be it remembered, were only those animals which could be carried to the nest, and not the larger kinds, which the eagles must prey upon where they are killed. I have spoken of the vulture as a great sanitarian; another bird, first found in South Africa and known as the secretary bird, is also a great blessing to man, as it destroys a vast quantity of noxious insects and reptiles. They were first called "secretaries" by the Dutch, because of the loose feathers, at the back of their head, which look like a pen stuck behind the ear. They have spurs on their wings, with which to strike their prey, which they then finish by splitting open the skull with their feet. Then there is

THE AMERICAN CONDOR.

These gigantic birds, which are in length between three and four feet, and from nine to ten in expanse of their wings, are by no means formidable; they are not ferocious, and their talons, not being intended to seize living prey, are too feeble to lacerate. The natives do not fear them, and are accustomed, with their children, to sleep near their resort, exposed to attack, were this

ever to be apprehended. Of the strength of the condor, and its tenacity of life, we have many authentic accounts. Captain Head relates an attempt of one of his Cornish miners to overcome one of these animals gorged with food, when, after a severe struggle of an hour, the man was obliged to leave his victory incomplete. Humboldt mentions the particulars of a cruel experiment made by some Indians in his presence, to show the strength of the condor's vital powers. It was hung by the neck on a tree for several minutes, and pulled forcibly by the feet, yet, when released, it rose and walked about as if nothing had occurred to affect it. It was then shot at with a pistol within four paces, and it was not till the fourth ball struck its thigh, that it was brought to the ground; nor did it die of its wounds till after an interval of half an hour. While sailing at ease in the air, the condor exhibits a noble spectacle of grace and majesty, which cannot be regarded without admiration. To see him, with expanded wings, wheeling round the topmost summits of the Andes, or sweeping down in a series of gyrations from the upper sky, each circle contracting as the earth is neared, is represented by travelers as a sublime and imposing sight.

THE VULTURE.

To the vulture I have already alluded. It is found in most parts of Europe, where it pursues its useful office of destroying dead carcasses; but it is chiefly numerous in the warmer regions of the earth, where decomposition goes on rapidly, and the noxious effluvia arising from decaying animal substances might, but for the interference of this bird, be both annoying and destructive. In Egypt, the vulture is of singular service. There are great flocks of them in the neighborhood of Grand Cairo, which no person is permitted to destroy. The service which they render the inhabitants, is, the devouring all the carrion and filth of that great city. "They are commonly seen," says Goldsmith, "in company with the wild dogs of the country, tearing a carcass very deliberately together. This odd association produces no quarrels; the birds and quadrupeds seem

to live amicably, and nothing but harmony subsists between them. The wonder is still the greater, as both are extremely rapacious, and both lean and bony to a very great degree; probably having no great plenty, even of the wretched food on which they subsist." For its office of scavenger the vulture is admirably fitted by nature. Its far-seeing eye, its powerful wing, its rapacious appetite, its decided preference for carrion, all mark it out, as appointed to this special office, which it fulfills with wonderful efficiency. Of one species,

THE GRIFFON,

which is widely diffused, it is said, by a celebrated naturalist, that "when once it has made a lodgment on its prey, it rarely quits the banquet while a morsel of flesh remains, so that it is not uncommon to see it perched upon a putrefying corpse for several successive days." Of another, which inhabits the south of Africa, Kolben says, "I have been often a spectator of the manner in which they have anatomized a dead body; I say anatomized, for no artist in the world could have done it more cleanly. They have a wonderful method of separating the flesh from the bones, and yet leaving the skin quite entire." Of all the different kinds, it may be said, in general, that nature has bestowed upon them a most voracious and almost insatiable desire to devour, under different habits suited to their respective localities.

And now we come to the eagle, the king of birds, as the lion is of beasts, and from this numerous and diversified class, suppose we select the

WHITE-HEADED EAGLE

of our own country, which is emblazoned on the national standard of the United States, and is spread over the whole northern division of the new world. Apart from patriotic reasons, I do this because, not only is it one of the most powerful of the eagle family, and furnishes, in itself, an example of a bird which feeds on prey, both from the land and waters, but because it affords an opportunity of introducing the graphic and spirited

description of it by one of the most eminent and eloquent of naturalists, who brings, as it were, before our very eyes, this tyrant and scourge of the inferior creation. Here is what the great Audubon says of the royal bird's manner of capturing

THE WILD SWAN.

To give you some idea of the nature of this bird, permit me to place you on the Mississippi, on which you may float gently along, while approaching winter brings millions of water-fowl, on whistling wings, from the countries of the north, to seek a milder climate in which to sojourn for a season. The eagle is seen, perched in an erect attitude, on the highest summit of the tallest tree, by the margin of the broad stream. His glistening, but stern eye, looks over the vast expanse; he listens attentively to every sound which comes to his quick ear from afar, glancing now and then on the earth beneath, lest even the light tread of the fawn may pass unheard. His mate is perched on the opposite side, and, should all be tranquil and silent, warns him by a cry to continue patient. At this well-known call, the male partly opens his broad wings, inclines his body a little downwards, and answers to her voice in tones not unlike the laugh of a maniac.

The next moment, he resumes his erect attitude, and again all around is silent. Ducks of many species, the teal, the widgeon, the mallard and others, are seen passing with great rapidity, and following the course of the current, but the eagle heeds them not. They are at that time beneath his attention. The next moment, however, the wild, trumpet-like sound of a yet distant, but approaching swan, is heard.

A SHRIEK FROM THE FEMALE EAGLE

comes across the stream; for, kind reader, she is fully as alert as her mate. The latter suddenly shakes the whole of his body, and with a few touches of his bill, aided by the action of his cuticular muscles, arranges his plumage in an instant. The snow-white bird is now in sight; her long neck is stretched forward; her eye is on the watch, vigilant as that of her enemy; her large wings seem with difficulty to support the weight of

THE EAGLE AND ITS PREY.

her body, although they flap incessantly. So irksome do her exertions seem, that her very legs are spread behind her tail to aid her flight. She approaches, however. The eagle has

MARKED HER FOR HIS PREY.

As the swan is passing the dreaded pair, the male bird starts from his perch, in full preparation for the chase, with an awful scream, that, to the swan's ear, brings more terror than the report of the large duck-gun. Now is the moment to witness the eagle's powers. He glides through the air like a falling star; and, like a flash of lightning, comes upon the timorous quarry, which now in agony and despair, seeks by various manœuvres, to elude the grasp of his cruel talons. She mounts, doubles, and willingly would plunge into the stream were she not prevented by the eagle, which, long possessed of the knowledge, that by such a stratagem the swan might escape him, forces her to remain in the air, by attempting to strike her with his talons from beneath. The hope of escape is soon given up by the swan. She has already become much weakened, and her strength fails at the sight of the courage and swiftness of her antagonist. Her last gasp is about to escape; when the ferocious eagle strikes with his talons the under side of her wing, and with resistless power, forces the bird to fall in a slanting direction upon the nearest shore. It is then, reader, that you may see the cruel spirit of this dreaded enemy of the feathered race, whilst exulting over his prey, he for the first time breathes at ease. He presses down his powerful feet, and drives his sharp claws deeper than ever into the heart of

THE DYING SWAN.

He shrieks with delight, as he feels the last convulsions of his prey, which has now sunk under his unceasing efforts to render death as painfully felt as it can possibly be. The female has watched every movement of her mate, and if she did not assist him in capturing the swan, it was not from want of will, but merely because she felt full assurance, that the power and courage of her lord were quite sufficient for the deed. She

now sails to the spot where he eagerly awaits her, and when she has arrived, they together turn the breast of the luckless swan upwards, and gorge themselves with gore.

STORY OF A ROBIN.

Of the little robin, or red-breast, one of the few birds that confide implicitly in the friendship of man, how many stories could I tell! But one must suffice. There was a gardener once who used to encourage a certain robin, and one day was greatly surprised to find that his little friend would insist on hovering round him, even perching on his shoulders; then going a short way off, and appearing to wait for him, returning when he did not follow. At last it struck him that

THE ROBIN WANTED ASSISTANCE,

and he walked in the direction apparently indicated by the bird. At last, the robin stopped at a flower-pot, in which it had built its nest, and uttered a cry. The gardener then perceived that a snake had coiled itself round the pot, though as yet it had not injured the young birds. He, of course, destroyed the intruder, and received the most grateful flutterings and song in return.

CHAPTER LVII.

MORE STORIES OF BIRDS—HOW TO STUFF A BIRD IN FIVE MINUTES—THE SPARROW AND THE MONKEYS.

OF all the hanging nests the most curious is made by the little baya sparrow of India. I dare say you wonder why any birds build hanging nests; you may be quite sure that they have a reason, and this reason is, I believe, that they think them the safest. In the country where the baya sparrow lives there are snakes and opossums and troops of monkeys, all of whom delight to regale themselves on birds' eggs. Now the monkeys are more to be feared than all the other egg-eaters, because they can climb so well. From an ordinary nest, open at the top, a monkey can easily take the eggs with his long slender fingers. The baya sparrow knows this, so she takes care to hang her nest on the very tips of light branches that will not bear a monkey's weight, and to inclose it on all sides, and to enter it from underneath through a long neck—longer than the monkey's fingers. When the monkeys found that

SHE HAD THUS OUTWITTED THEM,

they laid their heads together. Eggs they liked, and eggs they must have, and those of the baya sparrow were especially tempting. At last they thought of a novel plan how to get them. One monkey climbed to a high, strong branch above that from

which the nest was hung, and let himself down from it, holding on with both hands; then another monkey crawled down, holding on by the heels of the first, and another below him, and so on until they could reach the nest of the poor little sparrow, which they plundered. This was too bad. Nevertheless, the sparrow did not sit down and cry because the monkeys were so clever, and all her eggs were gone. She knew there is nothing a monkey hates so much as to get his sleek coat wet; he would rather go without eggs than do this. So she hung her nest on the extremity of a branch stretching over the water, and so low that the entrance of the nest was close to the surface. The monkey thieves did not dare to make a chain of themselves long enough to touch that nest, for fear the bough should bend and let the lowest monkey go souse into the water. Clever little sparrow!

THE GRATEFUL ROBINS.

The following interesting details are vouched for by Mr. John Barwick, of Blue Island, Cook county, Illinois, and can be relied upon as strictly truthful: "In the early springtime of this year, 1883, a robin with his mate built a nest in the corner of the lath fence of our chicken yard. It seemed strange they should select this frequented spot for their little home; and they commenced just a few days before the fearful rain which delayed us in our garden and almost washed out our crop of carrots, peas, onions, beets, beans and other vegetables which we had planted. Willie had been very industrious over his little garden, and so had Minnie and Johnnie and Edith; but the rushing waters made a bad wreck of almost the entire garden.

OUR LITTLE FRIENDS,

the robins, also suffered, and they at that time nearly lost their nest also, as they had built it of clay and hay mixed together with some string and other things they picked up round the yard. As soon as the storm was over they went to work to repair the nest. Early to work and most industrious, they

soon had things in shape. Mrs. Robin laid three pretty eggs, and then commenced her days of setting. At first she was nervous, as the children and all the family passed the corner many times a day, but she soon became accustomed to this, and quietly looked out with her little black eyes as much as to say, "You won't hurt me, will you?" A few days and the nest contained three little birds all naked and red—no feathers, and always hungry. How they worked to feed their little ones! Then came the cold, bad weather; it was a northwest wind and some snow fell, but they took turns in keeping the little ones warm with their wings and feathers.

ONE NIGHT—IT WAS LATE—

I went to the garden, and Mr. Robin came down where he saw me poking round with a stick. I thought the little fellow wanted some worms that cold evening, and so I just went to work and dug some worms and took them up to the old bird. She was so glad to get them, and came and took them as I handed them to her, just like a sensible person. I was delighted to find I could help them in their trying time. She took the worms from my hand. Our five little children were delighted to help the birds, and one and all volunteered to dig worms and feed their little bird friends. So they went on with their care of them; the young birds grew so fast, plenty to eat, and the old ones so pleased with their little friends. Minnie, our oldest, was particularly attentive to the little ones, and the old hen bird came one day and sat on her hand while she fed worms to the little ones. They have now flown off to

THEIR WOODS, GLENS AND FIELDS,

and the nest remains where they built it, but forsaken and empty. I am a man of forty-five years, but in all my experience I never witnessed anything more touching than this confidence shown by these little wild birds in us who had tried to help them in their day of want and trial. God, the great "I am," cares for all His creatures, and doubtless used us to be His servants in this matter. It has been a blessed lesson, and

will always be sweet to memory with us all—my wife, my dear children and myself."

And now I wish to tell you how to skin,

STUFF AND MOUNT A BIRD

in five minutes. The process which I am about to describe briefly is a rough-and-ready one, to preserve and display to advantage the full plumage of the bird, and may be practiced by those who have not the time or the materials—or, shall I suggest, the patience?—necessary for the more artistic operation. I have found it very useful in tropical countries to retain a souvenir of brilliant-hued pets that came to an untimely end, in a climate where the bodies went too rapidly to decay to permit of skinning properly with a view to subsequent setting up. Many birds, also, which are considered too commonplace for regular mounting, well repay the small amount of trouble necessary to display them in this manner. You need not go and shoot or trap them for the purpose. Let your subject be some pet or other bird that has died a natural death. Again, you will find that, unfortunately, the dealers in live birds have always a number of

THEIR POOR LITTLE BODIES

to sell for next to nothing or to throw away. The apparatus required is simple in the extreme. A pair of lady's sharp-pointed scissors, a little cotton-wool, which may be just flavored with a drop of spirits of camphor, turpentine, carbolic acid, or a light sprinkling of pepper to discourage any possible insects, and a few ordinary pins; nothing more. And the whole operation may be performed, with a little practice, on a small bird, in the short space of time above mentioned. Trace the tail feathers down to their root, under the short feathers of the back. You will find that the tail works on a hinge or joint, and can be detached clean and entire by a snip of the scissors severing this joint. A small bit of bone comes away with it. Lay the tail aside. Carefully dividing the body feathers, cut the skin around, commencing *in front* of the legs below, but sloping a

little backwards above, and proceed skinning forward, turning it inside out as you go. Very little cutting is necessary. The skin separates readily, only requiring a fibre to be clipped here and there. When you arrive at the wings, peel the skin off down to the first joint (still turning the whole inside out), and there nip it through with the scissors, thus leaving the first bone of the wing, covered with thick flesh, attached to the body. At the neck a little more caution and delicacy of treatment will be called for, as the skin is thin here, and may be torn by rough handling or dragging. The windpipe, gullet and slender bone do not give firm ground to work upon either, but shift about and require to be "rubbed loose" from their covering with the finger and thumb. Peel away until you have exposed the back of

THE WHITE GLISTENING SKULL

as far as the top of the head, or the broadest part, where cut it through. The scissors will divide it like thin card-board. Scoop out the brains, break through the little plates of bone which partition off the eye-balls, and withdraw them from the inside, and cleanse and dry the cavity of the skull with a small piece of wool. Remove the tongue from the mouth in front, and cram in some cotton-wool in its place, but not enough to prevent the beak from closing.

Now stuff the inside of the head and the neck firmly, bringing back the skin to its proper position by degrees as you fill it, and fastening it with the pins. Use small pinches of wool, and take care that the neck is evenly but not unduly distended. The pouches at the wings will be filled in the same way. When it is completely full, lay it in position on a board and

RUN A PIN THROUGH AT THE BACK

of the neck, which will cause the head to stand up and display the breast in a very elegant manner. The wings must now be distended, the two or four pins required for that purpose not piercing them, but so inserted into the board as to prevent their shutting up again. The feathers are plumed out and straight-

ened, another pin or two put in, if need be, at any part which seems imperfectly fixed, and the job is done. It will be dry in a few days. I have found it the least trouble and safest to pin the birds against a wall or inside a cupboard door, twisting a cone of paper over each to keep off the dust. When it is dry and set, the pins are withdrawn, and the edge of the skin is fastened with a little gum to whatever the bird is destined to adorn, the tail being placed in position behind, with its bony knob concealed under the feathers of the body. Thus it gives by no means a bad idea of a bird in full flight. The different ways in which the birds may be disposed of are of course innumerable. I have seen one sewn on as

A CROWNING DECORATION

to a highly ornamental pen-wiper, another placed in a lady's hat, others very prettily arranged in the center of plates to hang against the wall, with scenery painted around them, so that they appeared to be flying amidst palm-trees or over rivers. A young friend of mine, being of a mechanical turn, has fixed one to the middle of a wooden disk, which he has got his sister to paint for him. A strong wire is inserted securely into the wood, passing through the body and coming out at the beak. When he has set up another in like manner he is going to present them to his uncle, to hang one on each side of the chimney-piece, supporting a pair of light wire letter racks. If you think of making a similar contrivance I should advise you to pass the wire through as soon as the bird is skinned, and stuff around it, as the compressed wool is very hard to pierce. It would look better, too, to mask the wire issuing from the beak with a berry or twig, and it might be arranged so as to carry a paper-balance, taper-stand, pen-rest, or even a candle.

INTELLIGENCE IN BIRDS.

The central prison at Agra is the roosting place of great numbers of the common blue pigeon; they fly out to the neighboring country for food every morning, and return in the evening, when they drink at a tank just outside the prison walls. In

this tank are a great number of freshwater turtles, which lie in wait for the pigeons, just under the surface of the water, and at the edge of it. Any bird alighting to drink near one of these turtles has a good chance of having

ITS HEAD BITTEN OFF

and eaten; and the headless bodies of pigeons have been picked up near the water, showing the fate which has sometimes befallen the birds. The pigeons, however, are aware of the danger, and have hit on the following plan to escape it. A pigeon comes in from its long flight, and, as it nears the tank, instead of flying down at once to the water's edge, will cross the tank at about twenty feet above its surface, and then fly back to the side from which it came, apparently selecting for alighting a safe spot, which it had remarked as it flew over the bank; but even when such a spot has been selected, the bird will not alight at the edge of the water, but on the bank, about a yard from the water, and will then run down quickly to the water, take two or three hurried gulps of it, and then fly off to repeat the same process at another part of the tank, till its thirst is satisfied. I had often watched the birds doing this, and could not account for their strange mode of drinking, till told by my friend, the superintendent of the prison, of the turtles which lay in ambush for the pigeons.

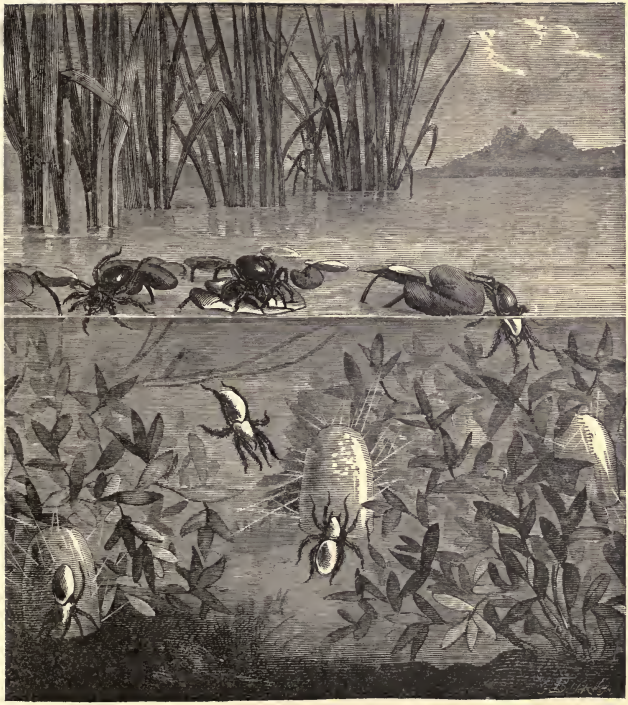
CHAPTER LVIII.

INSECTS—THE BUILDING SPIDER—THE WATER-SPIDER.

LASTLY, in the scale of animal creation we come to insects, about which, particularly the bee, I should like to tell you a great deal, but my space is rapidly becoming very limited, and I have so much yet to treat of before we complete our "Golden Cycle," that I shall have to be very brief. Besides, every one knows something about bees, but not every one knows much about the subject of this chapter. So I shall confine myself to this one species of insect,

THE TRAP-DOOR,

or building spider, it being quite the most interesting of all the spider tribe. Some species of this insect are gifted with a particular talent for building. They hollow out dens; they bore galleries; they elevate vaults; they build, as it were, subterranean bridges; they construct, also, entrances to their habitations, and adapt doors to them, which want nothing but bolts; for, without any exaggeration, they work upon a hinge, and are fitted to a frame. The interior of their habitation, too, is extremely neat and water-tight, while the walls are covered with tapestry of silk, lustrous as satin and dazzlingly white. These habitations are usually found in a clayey kind of red earth, in which they bore tubes about three inches in depth, and ten lines in width. The walls of these tubes are not left



THE WATER SPIDER.

just as they are bored, but they are covered with a kind of mortar, sufficiently solid to be easily separated from the mass which surrounds it. If the tube is divided longitudinally, besides this rough-cast, it appears to be covered with a coat of fine mortar, which is as smooth and regular as if a trowel had been passed over it. This coat is very thin, and soft to the touch. But, before the adroit laborer lays it, she covers the coarser earthy plaster-work with some coarse web, upon which she glues

HER SILKEN TAPESTRY.

But the door that closes her apartment is still more remarkable in its structure. If her well were always left open, she would be subject to the intrusion of guests, that would not, at all times, be welcome or safe. Providence, therefore, has instructed her to fabricate a very secure trap-door, which closes the mouth of it. To judge of this door by its outward appearance, we should think it was formed of a mass of earth coarsely worked, and covered internally by a solid web, which would appear sufficiently wonderful for an animal that seems to have no special organ for constructing it; but, if it is divided vertically, it will be found to be a much more complicated fabric than its outward aspect indicates, for it is formed of more than thirty layers of earth and web, emboxed, as it were, in each other, like a set of weights for small scales. If these layers of web are examined, it will be seen that they all terminate in the hinge, so that the greater the volume of the door, the more powerful is the hinge. The frame in which the tube terminates above, and to which the door is adapted, is thick, and its thickness arises from the number of layers of which it consists, and which seem to correspond with those of the door; hence the formation of the door, the hinge and the frame, seems to be a simultaneous operation, except that, in fabricating the first, the animal has to knead the earth, as well as to spin the layers of web. By this admirable arrangement these parts always correspond to each other, and the strength of the hinge, and the

thickness of the frame, will always be proportioned to the weight of the door.

The more carefully we study the arrangement of these parts, the more perfect does the work appear. If we examine the circular margin of the door, we shall find that it slopes inwards, so that it is not a transverse section of a cylinder, but of a cone; and on the other side, that the frame slopes outwards, so that the door exactly applies to it. By this structure, when the door is closed, the tube is not distinguishable from the rest of the soil, and it is doubtless for the purpose of effecting this concealment that the door is formed of earth. Besides, by this structure, also, the animal can more readily open and shut the door. By its conical shape, it is much lighter than it would have been if cylindrical, and so more easily opened; and, by its external inequalities and mixture of web, the spider can more easily lay hold of it with its claws. Whether she enter her tube, or go out,

THE DOOR WILL SHUT OF ITSELF.

This was proved by experiment; for though resistance, more or less, was experienced when it was opened, when left to itself it always fell down, and closed the aperture. The advantage of this structure to the spider is evident; for whether it darts out upon its prey, or retreats from an enemy, it is not delayed by having to shut its door. The principal instruments by which this little animal performs her various operations, are her mandibles and her spinners. The former, besides the two rows of tubercles, between which, when unemployed, her claw or sting is folded, has, at the apex, or their inner side, a number of strong spines.

And now would you like to know how the spider manufactures his net or web? Well, I'll tell you. Immediately below the end of the body, planted in a roundish, depressed state, are six jointed teat-like organs. Four of these are pierced with holes, so numerous and fine, that in some species there are over one thousand in each of the divisions, a space itself not

bigger than a pin's head. From every one of these holes, a thread proceeds, so that the very finest part of the web, which we can scarcely see, is not a single thread, but a cord, composed of no fewer than four thousand strands—to use the technical language of the ropemaker. The line spun by the smallest spider, itself no bigger than a grain of sand, is so fine, that

FOUR MILLIONS OF THEM,

put together, would not exceed the thickness of a human hair. Only think of that!

Now, there is an obvious intention in the extreme minuteness of the original strands. Not only is the viscous matter, of which the web is composed, by being exposed to the air in these exceedingly fine filaments, instantly dried, which seems necessary to its tenacity, but the line takes firmer hold at the places where it is attached to some solid object, when its

THOUSANDS OF ENDS

are pressed upon it, than if this were done with a single end; and, what seems to be the chief intention, the line is much stronger in proportion to its thickness, by being formed of so many separate threads. There are various ways, in which the spider applies to her own use the threads she spins, some of them exceedingly artificial. One species employs them to enable it to mount into the air, another to cross streams, and another still, as we have seen, to form itself a comfortable home; but the principal use to which this curious art is applied, is, for the capture of their prey. There is great variety in the manner in which the snares are constructed. That of the *geometrician* is the most beautiful and symmetrical, being formed of lines diverging from a common center, and crossed at minute intervals by other lines, drawn in spiral circumvolutions. This spider frequents shrubs and hedges, where she spreads her net. The house-spider, on the other hand, weaves her web like a piece of gauze or fine muslin, with threads attached to the edges of the web, joining and crossing in various directions, and carried up often to the height of several

feet. These lines intercept the insects flying across them, by which they become entangled, and, in struggling to get free, generally fall into the bosom of the net, spread beneath to receive them. That she may keep quite out of sight, and not frighten away her victims, the spider often adds a little silken apartment below, or at one side of the web; and in order to know when any one is caught, she spins several threads from the edge of the net to that of her hole. These, by moving, give notice of what has happened, and serve as a bridge, by which she may run in a moment to any quarter where her prey is entangled.

Among all the remarkable instincts of this tribe, there is, perhaps, none so extraordinary as that of the species which build their nests under water. This creature is called

THE WATER SPIDER.

She spins some loose threads, which she fastens to the leaves of water plants growing in a still pool. Among these threads she weaves for herself a cocoon, rendered impervious to water by being covered with the gummy substance contained in her body. This apartment is about half the size of a pigeon's egg, and is formed with an opening below. Having covered her own body partly over with this gum, thus, in some mysterious manner, forming for herself an air-bag, she comes to the surface of the water, and draws in as much air as the bag will hold, which she conveys to her cell. This operation she repeats many times, till the cell is filled and expanded with air, the water being expelled; and during the operation, she usually swims upon her back, the air-bag, which is fixed to her abdomen appearing like

A BUBBLE OF QUICKSILVER.

In this diving bell the spider lives, keeping herself quite dry, and having sufficient means of respiration, although under water. Thither, too, she carries the prey which she captures, diving below the water, and entering her habitation by the aperture underneath.

The whole operations of these insects are exceedingly curious, and there is yet one other circumstance which I have to mention. They are gifted with the faculty of walking, in opposition to gravity, even upon the glass, with their bodies inverted. According to the observations of Mr. Blackwall, this is not effected by producing atmospheric pressure by the adhesion of suckers, as is the case with flies, and some other creatures, but by a brush, formed of "slender bristles, fringed on each side with exceedingly fine hairs, gradually diminishing in length as they approach its extremity, where they occur in such profusion as to form a thick brush on its superior surface." These brushes he first discovered on a living specimen of the largest species of this insect, called

THE BIRD SPIDER;

and the same structure, as far as his researches were carried, he found in those species which can walk in counteraction of gravity upon glass. Solomon mentions the spider among "the things that are little upon the earth, yet exceeding wise;" and one proof which he gives of her wisdom is that "she taketh hold with her hands."

CHAPTER LIX.

REPRODUCTION OF INSECTS—THE MOTH—THE BURYING BEETLE—THE ANT.

IN this chapter I propose to give a detailed account of some other instances of peculiar instincts among the insect tribes, relating to the continuance of the species. Among the many enemies, besides man, that prey on bees, there is none more formidable than certain species of moth. Night is the time when the latter fly about, and, as bees do not see distinctly except in a strong light, the moths frequently elude their vigilance, gliding in between the guards stationed at the mouth of the hive, which these creatures take special care not to disturb. If, however, the approach of the enemy is discovered, the daring attempt proves fatal; for the watchers immediately utter

A LOUD HUM OF ALARM,

which brings many to their assistance, armed with their deadly stings, and the intruder is dispatched, without mercy. When, however, the wily moth succeeds in gaining admittance, she then, by the rapidity of her motions, generally escapes her pursuers, even when some of the watching bees become aware of her intrusion. Having accomplished this, and ensconced herself in a secure corner of the hive, she lays her eggs, which was the only object that induced her to incur the danger; for neither

the bees, nor any part of their stores, can afford the means of subsistence to herself, although the wax is the proper food of the young grubs, which are to proceed from the eggs. As soon as they are hatched, each grub forms a winding tube in the wax, sometimes eighteen inches long. These tubes are lined with silk, which the bees are unable to pierce, and thus the grubs remain secure amidst the poisoned weapons of their enemies. They bore through the wax in every direction,—no part is safe from their ravages, and the bees are frequently compelled to yield all the fruits of their industry to these formidable spoilers, and to leave them in entire possession of the hive.

And now a word as to the extraordinary habits of another insect, the burying-beetle. It may seem strange, to those who reflect on the mortality which takes place among all the races of animated nature, that so few dead bodies meet our sight in our rural walks, and so few of those nauseous and pestilential smells, which arise from animal substances in a state of decay, assail

OUR OLFACTORY NERVES.

One obvious and very extensive cause of this is, doubtless, that natural law by which one animal is made to prey upon the dead carcass of another, or to seize and devour it while yet alive; but there are also some species of insects, and of animals, both of a higher and lower grade than insects, which have been appropriately called nature's *scavengers*. Of these, one very remarkable family is that whose habits we are now to consider. The burying-beetle

LAYS ITS EGGS IN THE PUTRESCENT FLESH

of reptiles, birds, or beasts; and, when the larvæ are developed in the form of maggots, they find this appropriate food provided for them by the instinctive foresight of their parents. But were the carcasses, so used, to remain above ground, exposed to the free action of the atmosphere, their decomposition would be carried on too hastily, or they might be devoured by those animals which feed on carrion, or many other accidents might

befall them. The instinct of these beetles leads them, therefore, to serve a double purpose, by burying the bodies underground; thus preparing a fit receptacle for their eggs, and, at the same time, removing a common nuisance. The manner in which they accomplish this useful office, is sufficiently curious, as the following experiment will show. It had been observed that dead moles, when laid upon the ground, generally disappeared in two or three days, and sometimes within twelve hours. In order to discover how this happened, a mole was laid in the garden, and the placed marked. At the end of three days it was gone; and upon

DIGGING WHERE IT HAD BEEN PLACED,

it was found buried three inches deep, and under it were four beetles. To be quite sure that these creatures were the cause of its disappearance, four of the same kind were put into a large glass vessel, half filled with earth, and covered over, so that they could not get out. Two dead frogs were laid on the surface of this earth; and two of the beetles immediately commenced their labors on one of these bodies, with such vigor, that, in the course of twelve hours, it was completely buried. The other two were idle during this operation; but

AT LAST, THEIR TURN CAME,

and the remaining frog was buried. A dead linnet was then put in. They began by pushing out the earth from under it, so as to form a hole for its reception, and then dragged at its feathers from below, to pull it into the grave. One of them at length seemed to quarrel with the other, and driving it off, carried on the work alone for five hours. He lifted up the bird, changed its place, turned it about, and, from time to time, coming out of the hole, climbed upon it, making apparently an effort to tread it down; and, when he had effected everything that could be accomplished in this way, he again commenced his work beneath the surface. Being at last exhausted with so many hours of hard and incessant labor, he came out of his hole, and lay down on the ground, without moving, for more

than an hour. Again he commenced his work; and, next morning, the linnet was found to be sunk an inch and a half under the surface, with a trench all round it. In the evening, it had sunk an inch lower; and, in another day, it was quite covered up. Other small dead animals were afterwards put into the glass case, until, in fifty days, those four little beetles had buried no fewer than twelve bodies.

The last insect, whose operations in propagating and rearing its offspring, I shall notice, is the ant, that little creature whose instincts bear, in some respects, a strong resemblance to those of the honey-bee, and, in some other respects, appear to be even still more remarkable. The

ANT-HILLS ARE WONDERFUL STRUCTURES,

raised with great skill, out of crude and unpromising materials, being composed of earth, moistened with rain or dew, kneaded with their teeth, and beat with their feet. So far as my subject leads me at present to describe them, I have to observe, that there is a central apartment, or royal cell, to which all the streets and lanes of their city converge, and in which are confined, for life, as in a state prison, their king and queen, two very portly personages, whose size, superior to that of all their subjects, prevents them from escaping by the door through which the other

DENIZENS OF THE COMMUNITY

find easy ingress and egress. There are various kinds of this insect, each of them remarkable for some peculiarities, but I speak at present of the white ant, one of the most active and singular of the species. Round the royal apartment are erected a number of nurseries for the young, as well as storehouses for the provisions. The storehouses are built, like the greater part of the nest, of earth, but the nurseries are formed of small grains of wood glued together. A pathway, half an inch wide, is often made, winding gradually upwards, within this high building, that it may be easier to climb, with their loads, from one part to another; and even a staircase, or kind of bridge,

resting on one vast arch, is sometimes carried, for the same purpose, from the top to the bottom of this wonderful dwelling.

TUNNELS ARE BORED BY THESE LITTLE CREATURES

all round their nest, to the distance sometimes of several hundred feet, and of enormous size, compared with that of the building, measuring occasionally nearly a foot across. Here, as among bees, the important function of producing the future progeny devolves entirely upon the solitary queen, who is said to lay the enormous quantity of twenty thousand eggs, in the course of twenty-four hours. Like the queen bee, too, she is exempted, as well she may be, from all the cares of nursing. These duties devolve on a particular class of the community, who show the utmost tenderness for their precious charge, and extreme solicitude for their welfare, carrying them from place to place in their mouths, as occasion requires, and even, where their nest is laid open, exhibiting much more anxiety to place the larvæ out of danger than to attend to their own personal safety. Among some species of ants,

THE NURSING DEPARTMENT IS VERY LABORIOUS.

As soon as the sun's first rays begin to shine upon the nest, the ants that are at the top go down in great haste to wake their companions; and all the young brood are then carried and laid in the sun for a quarter of an hour. After this, they require to be placed in other apartments, where they may be warm without being scorched; and every evening, an hour before sunset, they must all be carried down into the lower cells, to be safe from the cold. They are to be hatched, in short, and kept warm by the genial heat of the sun, and the nursing ants must constantly attend to the state of the weather, and regulate their motions accordingly. In all these instances, how astonishing is the power of instinct, which is accommodated, with such admirable discrimination, to the circumstances of each tribe, and is so full of new and most unexpected resources!

CHAPTER LX.

FISH—SOME "QUEER" FISH—HUNTING-FISH—SHOOTING-FISH, ETC.

PROBABLY there is no group of animals—certainly no group of vertebrates—that exhibits more strange and even monstrous forms than fishes. The typical fish, we may well believe, is some such form as the salmon, or the cod, or the bass, or an average of these and their numerous allies. In a word, the ordinary fishes of the ocean, lakes and streams, give us essentially the true idea of the typical fish. But what remarkable departures from these ordinary forms do we find when we take a survey of the whole vast group of animals that are called fishes! If we look at the *rays*, we see "fishes" whose width is so great in proportion to their length, that in giving their dimensions it would seem to be quite the natural thing to put down

THE WIDTH AS THE PROMINENT MEASUREMENT

instead of the length, as is the custom in the case of ordinary fishes. And I may here remark that the great relative breadth of these animals is connected with the kind of movements which they exhibit in progression. Instead of ordinary swimming, these animals effect locomotion by a sort of flight through the waters, and hence are often called "sea-eagles," "sea-vampires," etc. They all belong to the sea. Some of the *rays* are of wonderful dimensions, although the ordinary kinds are only about two or three feet wide. One was taken near Messina

which weighed half a ton; one near Barbadoes, so large it required seven yoke of oxen to draw it. Levaillant tells us of one which was thirty feet wide, and twenty-five long; and Dekay states that one of these monsters has been known to seize the cable of a small vessel at anchor, and draw it several miles with great speed.

A still more extraordinary form of ray is that known as the torpedo, being so constructed as to form a powerful galvanic battery. These have the space between the pectoral fins, the head, and the gills, on each side, filled with membranous tubes which are divided by horizontal partitions into small cells filled with a sort of mucus and traversed by nerves; and by means of this apparatus

THEY GIVE VIOLENT SHOCKS

to animals with which they come in contact. Hardly less strange than the rays are those animal structures which remind us somewhat of the rays on the one hand, and of the sharks on the other, but which differ from both in several important respects, but especially in having a very long, depressed and bony snout, armed on each side with spines implanted like teeth, the whole constituting a most formidable weapon. These are the sawfishes, which attain a length of fifteen feet or more.

Then, there is the chimæra, most appropriately so named, or king of the herring, whose general appearance, it is true, is a little shark-like, but which, if possible, is more strange and monstrous than any of the sharks or rays.

THIS CURIOUS ARCTIC FISH,

which attains the length of four feet, is not only remarkable for its general appearance, but very specially remarkable in its structure, having no upper jaw; the four upper teeth being supported on the front of the skull; having only two teeth in the lower jaw, and having no backbone, this important part being represented by the most rudimentary structure only, such as exists in the ordinary embryonic vertebrate.

And what shall we say of the "sea horses" or hippocamps,

with a head just like a horse's? And of the pipe-fish, whose body is nearly all length, and whose mouth is at the very extremity of a long snout; and which has this strange habit, that the males receive the eggs into a pouch, in which they carry them till they are hatched? Other "queer fishes" are the spine-covered puffers, who inflate themselves by swallowing air; the sun-fish, all head and no tail; the trunk-fish, with an inflexible shield of bony plates, so that the mouth, tail and fins are the only movable parts;

THE FISHING-FROG, OR ANGLER,

whose enormous mouth enables it to swallow animals nearly as large as itself, and whose anterior dorsal rays bear fleshy filaments, which it uses as a bait to decoy other fishes; not to talk of the toad-fish, the sea-wolf or wolf-fish, the lump-fish, the sword-fish, the sea-raven, the sea-robin, the sea-swallow, the star-gazer and the remora.

But this by no means so much as begins to exhaust our list of "queer fish." What do you say to fishes that prefer dirty mud to the limpid water of the lake or brook? Yet of these mud-loving species there are at least nine to be found in the Delaware and its tributaries, at and near Trenton, New Jersey. They are the spotted sun-fish, the mud sun-fish, the mud minnow, mud pike, mullet, black sucker, mud cat-fish, the eel and the lamprey. The spotted sun-fish, in particular, is so fond of mud that they are often to be found in water so shallow, that in swimming they mark the mud with their pectoral fins. All these mud-lovers are nocturnal in their habits;

PARTICULARLY THE BLACK SUCKER,

which comes to the surface about sunset, and raising its nostril above the water, makes a low, sibilant sound. When attacked, as they often are by the turtle, they grunt, just as the chub does when drawn from the water.

I have mentioned sword-fish, and dare say you are all familiar with it, but I am pretty sure not many of you have ever heard of the shooting-fish. The Macoushee Indian shoots with his

blow-tube, puffing small arrows and balls through it with unerring aim; and just so does the chotodon, a native of eastern seas from Ceylon to Japan. His nose is really a kind of "beak," through which he has the power of propelling a small drop of water with some force and accuracy of aim; and this reminds me of the fishing-frog, to which I have already referred, but not in detail. The beast is sometimes five or six feet long, with an enormous head in proportion to the rest of the body, and with huge sacks like bag-nets attached to its gill-covers, in which it stows its victims; and what a cavernous mouth! Surely, you say, a fish so repulsive, and with a capacity so vast, and apparently omniverous, would frighten all other fish from its neighborhood, and would, if its speed were in proportion to its size, be the terror of the seas to smaller fish? But Providence knows how to temper its gifts, and the fishing-frog is but an indifferent swimmer, and is too clumsy to support a thieving existence by the fleetness of its motions. How, then, is this huge capacity satisfied?

MARK THESE TWO ELONGATED TENTACLES

which spring from the creature's nose, and how they taper away like veritable fishing-rods. To the end of them is attached by a line, or a slender thread, a small, glittering morsel of membrane. This is the bait. The hooks are set in the mouth of the fisherman down below. But how is the animal to induce the fish to venture within reach of those formidable hooks? Now mark this perfect feat of angling. Knowing that in clear water the fish will detect the trick, what does he do but stir up the mud with his fins and tail! This serves not only to hide him, but to attract the fish. Then he plies his rod, and the glittering bait waves to and fro like a living insect glancing through the turbid water. The foolish little fish rush towards it. "Beware! beware!" But when did foolish little fish attend to warning yet? Suddenly, up rises the cavernous Nemesis from the cloud below, and snap! the victims are entombed in the bag-net, thence to be transferred to the monster's stomach,

A SEA MONSTER.

when there are enough of them collected to form a satisfactory mouthful.

But we have still other sportsmen fish; we have fish that hunt their prey singly, or in pairs, or even in packs, like hounds. Of this last kind quite the fiercest, most savage, and resolute is the piräi, of South America. So savage are these little pirates, when their size and apparent capability are taken into consideration, that their feats of destructiveness are little short of the marvelous. Although called the "Black, Saw-bellied Salmon," it does not resemble that kingly fish in any way. It is, indeed, somewhat aldermanic, and like the bream in figure, with a fighting-looking kind of nose, and a wondrously expressive eye; cold, cruel and insatiable, and like that of an old Jew bill-discounter, when scrutinizing doubtful paper. There is

SEVENTY OR EIGHTY "PER SHENT"

in that eye at the very least, and ruin to widows and orphans unnumbered if they come in its way. If it were a human eye, the owner would be bound sooner or later to figure at execution dock. The jaw is square, powerful and locked into the head, which is very large for the size of the fish; and that is a fat, plump head, too, but radiated over with strong bone and gristle. The teeth, ah! they would condemn him anywhere, for here is a fish sixteen inches long, with the teeth almost of a shark. He is found in all the rivers in Guiana, and is dreaded by every inhabitant or visitant of the river.

HIS JAWS ARE SO STRONG

that they are able to bite off a man's finger or toe. He attacks fish ten times his own weight, and devours all but the head. Indeed, there is scarcely any animal he will not attack, man not excepted. Large alligators which have been wounded on the tail afford a fair chance of satisfying his hunger, and even the toes of this formidable animal are not safe from his attacks. The feet of ducks and geese, where ducks and geese are kept, are almost invariably cut off, and young ones devoured altogether.

CHAPTER LXI.

A CHAMBER OF MARVELS—A REMARKABLE HIGHLANDER—KNOTTED-TAIL CATS—TAME FISH, ETC.

I HAVE now all but exhausted the limits assigned to this book, and before completing the round of the cycle there are a great many odds and ends I should like to find a place for, and which cannot very well be classified under any one head or species. This chapter, therefore, I propose devoting to some things marvelous and quaint. In Madame Tussaud's world-famous collection of wax-work figures there is a room devoted to great criminals, murderers, etc., which is called "The Chamber of Horrors." Well, I am going to make this chapter a "Chamber of Marvels," and the first marvel to which I would introduce you is a remarkable Highlander.

Long, long ago—in August, 1827—John Macdonald died in his son's house, in Edinburgh, at the great age of one hundred and seven years. He was born in Glen Tinisdale, in the Isle of Skye, an island unsurpassed for variety of scenery, from the most awe-inspiring and terrible to the most gentle and pleasing, and of which the late Alexander Smith, the Edinburgh poet, writes so charmingly. There, too, I spent some of the happiest days of my life, in one of the happiest and most hospitable families, whose kindly faces have mingled pleasantly in any happy dreams I have had since. Like other natives of the place, Mac-

donald was bred to farm labor. Subsequently he turned joiner, and bore a conspicuous part in the building of the first Protestant church which was erected in the island of North Uist. He went to Edinburgh twenty-three years before his death, and continued to work at his trade till he was ninety-seven years old. During his entire one hundred and seven years of life, he had never spent a penny on a doctor, or had one hour's sickness; one chief reason of which being undoubtedly the fact that he was a temperate, upright, regular-living man. Regularly, every New Year's day, he used to dance to the bagpipe with some Highland friends, and on New Year's day, 1825, danced a Highland reel with the father, the son, the grandson and great-grandson, and was in more than his usual spirits. His hearing was not impaired, and up to within three weeks of his death he could thread the finest needle with ease, and without glasses.

And now I wish to tell you about

CATS WITH KNOTTED TAILS.

The following I extract from the narrative of a voyager in the Indian Ocean, because it contains an account of a rarity in natural history with which few, I believe, are acquainted. "The steward is again pillowed on his beloved salt fish, and our only companion is a Malacca cat, who has also an attachment for the steward's pillow. Puss is a tame little thing, and comes rubbing herself mildly against our shoes, looking up into our faces and mewing her thoughts. Doubtless she is surprised you have been so long looking at her without taking notice of her very peculiar tail, which so much and so oddly distinguishes her from the rest of the feline race in other quarters of the globe. Take her up in your lap, and judge for yourself. Did ever mortal man see such a singular knot; so regular, too, in its formation? Some cruel monster must have tied it in a knot whilst poor pussie was yet a kitten, and she has outlived both the pain and the inconvenience. But, see! here comes one of her kittens, full of gambol and fun, and, wonder of wonders! her tail is knotted too. So, then, this is a remarkable feature

among the whole race of Malayan cats, but for which no one we met with, could give a satisfactory explanation. Like Topsy, it, the knot, simply 'growed.'"

In a former chapter I have told you of several "queer fish," but did you ever hear of

TAME FISH?

And yet Captain Yule, in sailing down the river Irawadi, near Amarapoora, the capital of Burmah, fell in with some, which he describes as follows:

"Having gone over the little island, I returned to my boat, where a sight awaited me, that I confess astonished me more than anything I had ever seen before. On nearing the island as we descended the river, the headman in the boat had commenced crying out *tet-tet! tet-tet!* as hard as he could, and on my asking him what he was doing, he said he was calling the fish. My knowledge of Burmese did not allow me to ask him further particulars, and my interpreter was in the other boat unwell. But, on my coming down to the boat again, I found it surrounded on both sides with large fish, some three or four feet long; a kind of blunt-nosed, broad-mouthed dog-fish. Of these there were, I suppose, some fifty. In one group, which I studied more than the others, there were ten. These were at one side of the boat; half their bodies, or nearly half, protruding vertically from the water, their mouths all gaping wide. The men had some of the rice prepared for their own dinners, and with this they were feeding them, taking little pellets of rice and throwing these down the throats of the fish. Each fish, as he got something to eat, sank, and having swallowed his portion, came back to the boatside for more. The men continued occasionally their cry of *tet-tet-tet!* and, putting their hands over the gunnel of the boat, stroked the fish on the back, precisely as they would stroke a dog. This I kept up for nearly half an hour, moving the boat slightly about, and

INVARIABLY THE FISH CAME AT CALL,

and were fed as before. The only effect which the stroking

CLIMBI G FISH.

down or patting on the back of the fish seemed to have, was to cause them to gape still wider for their food. During March, I am told, there is a great festival here, and it is a very common trick for the people to get some of the fish into the boat, and even to gild their backs by attaching some gold leaf, as they do in the ordinary way to pagodas, etc. On one of these fish remains of the gilding were visible. I never was so amused or astonished. I wished to have one of the fish to take away as a specimen, but the people seemed to think it would be a kind of sacrilege, so I said nothing more on the point. The Phoongyis are in the habit of feeding them daily, I was informed. Their place of abode is the deep pool formed at the back of the island by the two currents meeting round its sides. And it is, it appears, quite a sight, which the people from great distances come to see, as well as to visit the pagoda, which is said to be very ancient and much venerated."

Talking of fish, reminds me of an account I once read somewhere of the

OLDEST PIKE IN THE WORLD.

In the year 1497, so ran the narrative, a giant "Jack Killer," was captured in the vicinity of Mannheim, with the following announcement in Greek appended to his muzzle: *"I am the first fish that was put into this pond, by the hands of the Emperor Frederic the Second, on this 3d day of October, 1262."* The age of the informant, therefore, if his muzzle spoke truth,—and the enormous dimensions of his body left little doubt on that point,—was more than two hundred and thirty-five years. The body weighed three hundred and fifty pounds, measuring nineteen feet in length, and a life size picture of the monster is hung up in the old castle of Lautern.

What do you say to the following bill of fare furnished by the Archbishop of York, to celebrate his installation, in the reign of Edward IV.? Here it is—the entrès, entremets, vegetables, etc., being omitted: 300 quarters of wheat, 300 tuns of ale, 100 tuns of wine, 1,000 sheep, 104 oxen, 304 calves, 304

swine, 2,000 geese, 1,000 capons, 2,000 pigs, 400 swans (!), 104 peacocks (!), 1,500 hot venison pasties, 4,000 cold, and 5,000 hot, custards!

So big a dinner would have been rendered nearly complete by the addition of the pie, which was described as follows in the *Newcastle Chronicle* (England), of January 6th, 1770: "Monday last was brought from Howick to Berwick, to be shipped for London, for Sir Henry Grey, bart., a pie, the contents whereof are these: 2 bushels of flour, 20 pounds of butter,

4 GEESE, 2 TURKEYS, 22 RABBITS,

4 wild ducks, 2 woodcocks, 6 snipes, 4 partridges, 2 neat's tongues, 2 curlews, 7 blackbirds and 6 pigeons. It is supposed a very great curiosity, and was made by Mrs. Dorothy Patterson. It was near nine feet in circumference at bottom, weighs about twelve stones, will take two men to present it at table; it is neatly fitted with a case, and four small wheels to facilitate its use to every guest that inclines to partake of its contents at table."

CHAPTER LXII.

MORE MARVELS—EFFECT OF A NEW NOSE—AGES, AMUSEMENTS, FAMILIES AND ANTIPATHIES OF CELEBRATED MEN, ETC.

VAN HELMONT tells a story of a person who applied to Taliacotius to have his nose restored. This person, having a dread of an incision being made in his own arm, for the purpose of removing enough skin therefrom for a nose, got a laborer, who, for a remuneration, suffered the skin for the nose to be taken from his arm. About thirteen months after, the adscititious nose suddenly became cold, and after a few days dropped off in a state of putrefaction. The cause of this unexpected occurrence having been investigated, it was discovered that, at the same moment in which the nose grew cold, the laborer at Bologna expired. And now I wish to give you the

AGES OF SOME CELEBRATED MEN.

Hippocrates, the greatest physician the world has ever seen, died at the age of one hundred and nine, in the island of Cos, his native country. Galen, the most illustrious of his successors, reached the age of one hundred and four. The three sages of Greece—Solon, Thales, and Pittacus, lived for a century. The gay Democritus outlived them by two years. Zeno wanted only two years of a century when he died; Diogenes ten years more; and Plato died at the age of ninety-four, when

the eagle of Jupiter is said to have borne his soul to heaven. Xenophon, the illustrious warrior and historian, lived ninety years. Polemon and Epicharmus, ninety-seven; Lycurgus, eighty-five; Sophocles, more than a hundred. Gorgias entered his hundred and eighth year; and Asclepiades, the physician, lived a century and a half. Juvenal lived a hundred years; Pacuvius and Varro, but one year less. Carneades died at ninety; Galileo at sixty-eight; Cassini at ninety-eight; and Newton at eighty-five. In the last century, Fontenelle expired in his ninety-ninth year; Buffon in his eighty-first; Voltaire in his eighty-fourth. In the present century, Prince Talleyrand, Gœthe, Rogers, and Niemcewicz are remarkable instances. The Cardinal du Belloy lived nearly a century; and Marshal Moncey terminated a glorious career at nearly eighty-six.

Bingley gives a singular anecdote of the

EFFECT OF MUSIC ON A PIGEON,

as related by John Lockman in some reflections concerning operas, prefixed to his musical drama of "Rosalinda." He was staying at a friend's house, whose daughter was a fine performer on the harpsichord, and observed a pigeon, which, whenever the young lady played the song of "Speri-si" in Handel's opera of "Admetus" (and this only), would descend from an adjacent dove-house to the room-window where she sat, and listen to it apparently with the most pleasing emotions; and when the song was finished it always returned immediately to the dove-house.

The Hon. Emory Storrs once defined a political opponent of his as a "man to whom a clean shirt was a pleasure of hope rather than of memory." If that opponent of the prickly-tongued Chicago lawyer had lived in South America, he might have fared better. "We saw on the slope of the magnificent Cerra Dnida," says M. Humboldt, "shirt trees, fifty feet high. The Indians cut off cylindrical pieces two feet in diameter, from which they peel the red and fibrous bark, without making any longitudinal incision. This bark affords them a sort of garment which

resembles a sack of a very coarse texture, and without a seam. The upper opening serves for the head, and two lateral holes are cut to admit the arms. The natives wear these shirts of Marina in the rainy season; they have the form of the ponchos and manos of cotton which are so common in New Grenada, at Quito, and in Peru. As in this climate the riches and beneficence of nature are regarded as the primary causes of the indolence of the inhabitants, the missionaries do not fail to say, in showing the shirts of Marina, 'in the forests of Oroonoko, garments are found ready made upon the trees.'"

A FEMALE SAMSON.

September 4th, 1818, was shown at Bartholomew Fair, "The strongest woman in Europe, the celebrated French female Hercules, Madame Gobert, who lifted with her teeth a table five feet long and three feet wide, with several persons seated upon it. She also carried thirty-six weights, fifty-six pounds each, equal to two thousand and sixteen pounds, and disengaged herself from them without any assistance. She carried a barrel containing three hundred and forty bottles; also an anvil, four hundred pounds weight, on which they forged with four hammers at the time she supported it on her stomach. She also lifted with her hair the same anvil, swung it from the ground, and suspended it in that position, to the astonishment of every beholder. She took up a chair by the hind stave with her teeth, and threw it over her head, ten feet from her body. Her traveling caravan, weighing two tons, on its road from Harwich to Leominster, owing to the neglect of the driver and badness of the road, sank in the mud, nearly up to the box of the wheels. The two horses being unable to extricate it, she descended, and, with apparent ease, disengaged the caravan from its situation, without any assistance whatever." Less extraordinary, perhaps, than a female Samson, or at least she might be considered so by the foolish people who say women talk so much more than men, is a female ventriloquist.

A female ventriloquist, named Barbara Jacobi, narrowly

escaped being burnt at the stake in 1685, at Haarlem, where she was an inmate of the public hospital. The curious daily resorted thither to hear her hold a dialogue with an imaginary personage, with whom she conversed as if concealed behind the curtains of her bed. This individual, whom she called Joachim, and to whom she addressed a thousand ludicrous questions, which he answered in the same familiar strain, was for some time supposed to be a confederate. But when the bystanders attempted to search for him behind the curtains, his voice instantly reproached them with their curiosity from the opposite corner of the room. As Barbara Jacobi had contrived to make herself familiar with all the gossip of the city of Haarlem, the revelations of the pretended familiar were such as to cause considerable embarrassment to those who beset her with impertinent questions.

In a former chapter I spoke at some length about precocious children, and since then other examples have occurred to me. Baillet mentions one hundred and sixty-three children endowed with extraordinary talents, very few of whom arrived at an advanced age. The two sons of Quintilian, so vaunted by their father, did not reach their tenth year. Hermogenes, who, at the age of fifteen, taught rhetoric to

MARCUS AURELIUS, WHO TRIUMPHED

over the celebrated rhetoricians of Greece, did not die early, but at twenty-four lost his faculties, and forgot all he had previously acquired. Pica di Mirandola died at thirty-two; Johannes Secundus at twenty-five, having at the age of fifteen composed admirable Greek and Latin verses, and become profoundly versed in jurisprudence and letters. Pascal, whose genius developed itself at ten years old, did not attain the third of a century.

In 1791 a child was born at Lubeck, named Henri Heinekem, whose precocity was miraculous. At ten months of age he spoke distinctly; at twelve, learnt the Pentateuch by rote, and at fourteen months was perfectly acquainted with the Old and New

Testaments. At two years of age he was as familiar with ancient history as the most erudite authors of antiquity. Sanson and Danville alone could compete with him in geographical knowledge. Cicero would have thought him an "alter ego," on hearing him converse in Latin, and in modern languages he was equally proficient. This wonderful child was unfortunately carried off in his fourth year. According to a popular proverb, "the sword wore out the sheath."

One of the first stanzas I ever learned was the famous:

> "I do not like thee, Doctor Fell;
> The reason why, I cannot tell;
> But *this* I know, and know full well,
> I do NOT like thee, Doctor Fell."

And just so there are a great number of

UNACCOUNTABLE ANTIPATHIES.

The following are a few of the more striking manifestations of that unaccountable feeling of antipathy to certain objects, to which so many persons are subject, and with instances of which—in a modified form, perhaps—most people are acquainted. Erasmus, though a native of Rotterdam, had such an aversion from fish that the smell of it threw him into a fever. Ambrose Parè mentions a gentleman who never could see an eel without fainting. There is an account of another gentleman who would fall into convulsions at the sight of a carp. A lady, a native of France, always fainted on seeing boiled lobsters. Other persons from the same country experienced the same inconvenience from the smell of roses, though they were particularly partial to the odor of jonquils or tuberoses. Joseph Scaliger and Peter Abono never could drink milk. Cardan was particularly disgusted at the sight of eggs. Uladislaus, King of Poland, could not bear to see apples. If an apple were shown to Chesne, secretary to Francis I., he bled at the nose. A gentleman in the court of the Emperor Ferdinand would bleed at the nose on hearing the mewing of a cat, at however great distance it might be from him. Henry III. of France could never sit in a room

with a cat. The Duke of Schomberg had the same aversion. M. de Lancre gives an account of a very sensible man who was so terrified at seeing a hedgehog that for two years he

IMAGINED HIS BOWELS WERE BEING GNAWED

by such an animal. The same author was intimate with a very brave officer who was so terrified at the sight of a mouse that he never dared to look at one unless he had his sword in his hand. M. Vangheim, a great huntsman in Hanover, would faint, or, if he had sufficient time, would run away at the sight of a roasted pig. John Rol, a gentleman in Alcantara, would swoon on hearing the word *lana* (wool) pronounced, although his cloak was woolen. The philosophical Boyle could not conquer a strong aversion from the sound of water running through a pipe. La Mothe le Vayer could not endure the sound of musical instruments, though he experienced a lively pleasure whenever it thundered. The author of the "Turkish Spy" tells us that he would rather encounter a lion in the deserts of Arabia, provided he had but a sword in his hand, than feel a spider crawling on him in the dark. He observes that there is no reason to be given for these secret dislikes, humorously attributing them to the doctrine of the transmigration of the soul; and as regarded himself, he supposed he had been a fly, before he came into his body, and that, having been frequently persecuted with spiders, he still retained the dread of his old enemy. Certain antipathies appear to depend upon a peculiarity of the senses. The horror inspired by the odor of certain flowers may be referred to this cause. Amatus Lusitanus relates the case of a monk who fainted when he beheld a rose, and never quitted his cell when that flower was blooming. Scaliger mentions one of his relations who experienced a similar horror when seeing a lily. In these instances it is not the agreeableness or the offensive nature of the aroma that inspires the repugnance; and Montaigne remarked on this subject that there were men who dreaded an apple more than a musket-ball. Zimmerman tells

us of a lady who could not endure the feeling of silk and satin, and shuddered when touching the velvety skin of a peach.

Boyle records the case of a man who felt a natural abhorrence to honey. Without his knowledge, some honey was introduced in a plaster applied to his foot, and the consequences that resulted compelled his attendants to withdraw it. A young man was known to faint whenever he heard the servant sweeping. Hippocrates mentions one Nicanor who swooned whenever he heard a flute; Shakspeare has alluded to the effects of the bagpipe. Julia, daughter of Frederick, king of Naples, could not taste meat without serious consequences. Scaliger turned pale at the sight of water-cresses; the Duke d'Epernon swooned on beholding a leveret, although a hare did not produce the same effect. Tycho Brahe fainted at the sight of a fox, and Marshal d'Albert at a pig. The horror which whole families entertain of cheese is generally known. Many individuals cannot digest, or even retain certain substances, such as rice, wine, various fruits and vegetables, and I have actually met a person who went into convulsions as often as he heard the sound of a Scottish bagpipe.

THE GREAT BELL OF BURMAH.

At a temple in the environs of Amarapoora, the capital of Burmah, there is an enormous bell, which is thus described by Captain Yule: "North of the temple, on a low circular terrace, stands the biggest bell in Burmah—the biggest in the world, probably, Russia apart. It is slung on a triple beam of great size, cased and hooped with metal; this beam resting on two piers of brickwork, enclosing massive frames of teak. The bell does not swing free. The supports were so much shaken by the earthquake, that it was found necessary to put props under the bell, consisting of blocks of wood carved into grotesque figures. Of course no tone can now be got out of it. But at any time it must have required a battering-ram to elicit its music.

SMALL INGOTS OF SILVER

(and some say pieces of gold) may still be traced, unmelted, in

the mass, and from the inside one sees the curious way in which the makers tried to strengthen the parts which suspend it by dropping into the upper part of the mold iron chains, round which the metal was run. The Burmese report the bell to contain 555,555 viss of metal (about 900 tons). Its principal dimensions are as follows: External diameter at the lip, 16 feet 3 inches; external diameter 4 feet 8 inches above the lip, 10 feet; interior height, 11 feet 6 inches; exterior ditto, 12 feet; interior diameter at top, 8 feet 6 inches; weighs 900 tons, being fourteen times as heavy as the great bell of St. Paul's, London, England, but only one-third of that of Moscow."

CHAPTER LXIII.

L'ENVOI.

L'ENVOI! Finis! The end! It must come at last! Life, indeed, is made up of good-byes, of which the last and final ought to be the happiest, as it is often the briefest. I remember when the *Cornhill Magazine*, a monthly journal published in London, was in the height of the great popularity into which the genius of William Makepeace Thackeray had raised it—I remember, I say, reading one of his Round-about Papers, entitled either "Finis" or "De Finibus." It is not one of his best, and yet it impressed me in a very strange—in a very pathetic way. All day, and for days afterwards, its mingled humor and sadness, kindliness and cynicism, wisdom and tone of half contemptuous indifference, haunted me. Somehow the paper seemed to give a better insight into its author's inmost nature than any other of his writings. A few days later I, with two college chums, was lying on my back on a velvety slope of grass and brachen under Castle Feanachurn, in the heart of the land of Lorne, and by the waters of the serpentine and magnificently sceneried Loch Awe. We had been fishing, and the wind having died away, had taken advantage of the lull to go on shore and lunch. "Seen the paper, Jack?" called out one of my friends. "No," I replied, as I lazily drank in the beauties of the scenery from under the down-tilted brim of an old straw hat; adding ungraciously, "and I don't

want to." "Well, of course, it's two days old, but there may be something in it; so here goes." With which he opened the sheet—a *Glasgow Herald*—and almost immediately cried, "Why—what's this! Thackeray dead!" And so it was. The great writer had encountered *his* finis in this world, and had gone to rest. Only the night before I had been reading to my friends his chapter "De Finibus," and they, too, had been strangely impressed by it, just as I had been. And now the news, so sudden and unexpected,

FELL UPON US LIKE A THUNDERCLAP

from out a cloudless sky. Somehow it seemed to catch a deeper, awfuler impressiveness from the peculiar character of the place in which we were,—so remote from all bustle and noise; from the roar and excitement of cities; locked in by the eternal hills; faced by the quiet waters of the mighty lake; with not a sound, save the murmurous hum of innumerable insects, or the whirr of a startled grouse, to break the deathless silence; all so still, so impassive, so grand. In the midst of rushing crowds; amid the tattle of the club; the *frou-frou* of the drawing-room—the announcement of the great man's death would have lost half its force. But here it came upon us like the sudden sight of a colossal apparition on a starless night, clothed in the awful grandeur of midnight and stillness, and ghostly recollections of the mighty dead. And so "De Finibus" once more rang in our ears, and so, my dear boys and girls, I trust it may never cease to ring in yours.

NOT LOUDLY NOR APPALLINGLY,

but in a sweet, low tone, the music of which will harmonize with the music of your lives, and with its plaintive but hopeful melody suggest that this life is not the "Finis," and there is something infinitely nobler, and grander, and purer beyond, if we only so shape our conduct as to deserve it.

In starting out to make the circuit of the "Golden Cycle," you may remember, we proposed to hold up to you lofty ideals in literature and in life; to show you how to build up your

physical, mental and moral natures; to introduce you to happy homes, bright, and clean, and cheerful; to tell you of the animal creation, with stories illustrative of the characteristics of horse and dog, of elephant and tiger, of insect and fish and bird; and generally to prove that a book to be interesting need not be viciously sensational, and that

THERE ARE HIGHER OBJECTS OF AMBITION

than the mere accumulation of wealth. Whether we have succeeded or not, it is not for the writer to say; but he would fall far short of his duty if he did not in closing try to impress upon his readers what, after all, is the gist, or what the wise king calls the "conclusion of the whole matter." And it is simply this: "Remember *now* thy Creator in the days of thy youth, while the evil days come not, nor the years draw nigh, when thou shalt say, 'I have no pleasure in them;'" with which parting advice, my dear boys and girls, I bid you good-bye, and write, what sooner or later must be written of all of us, and of all things terrestrial,

Finis.