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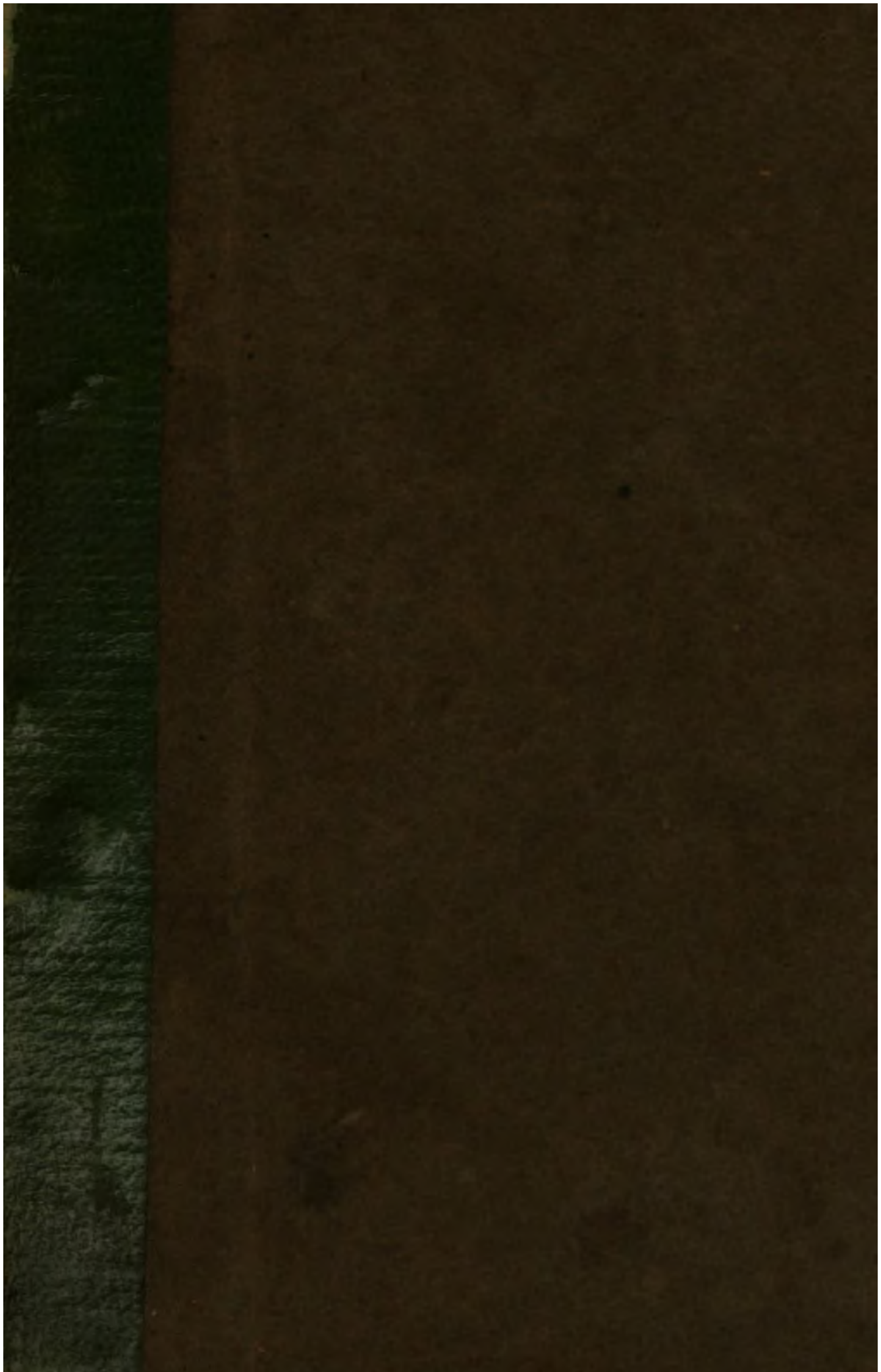
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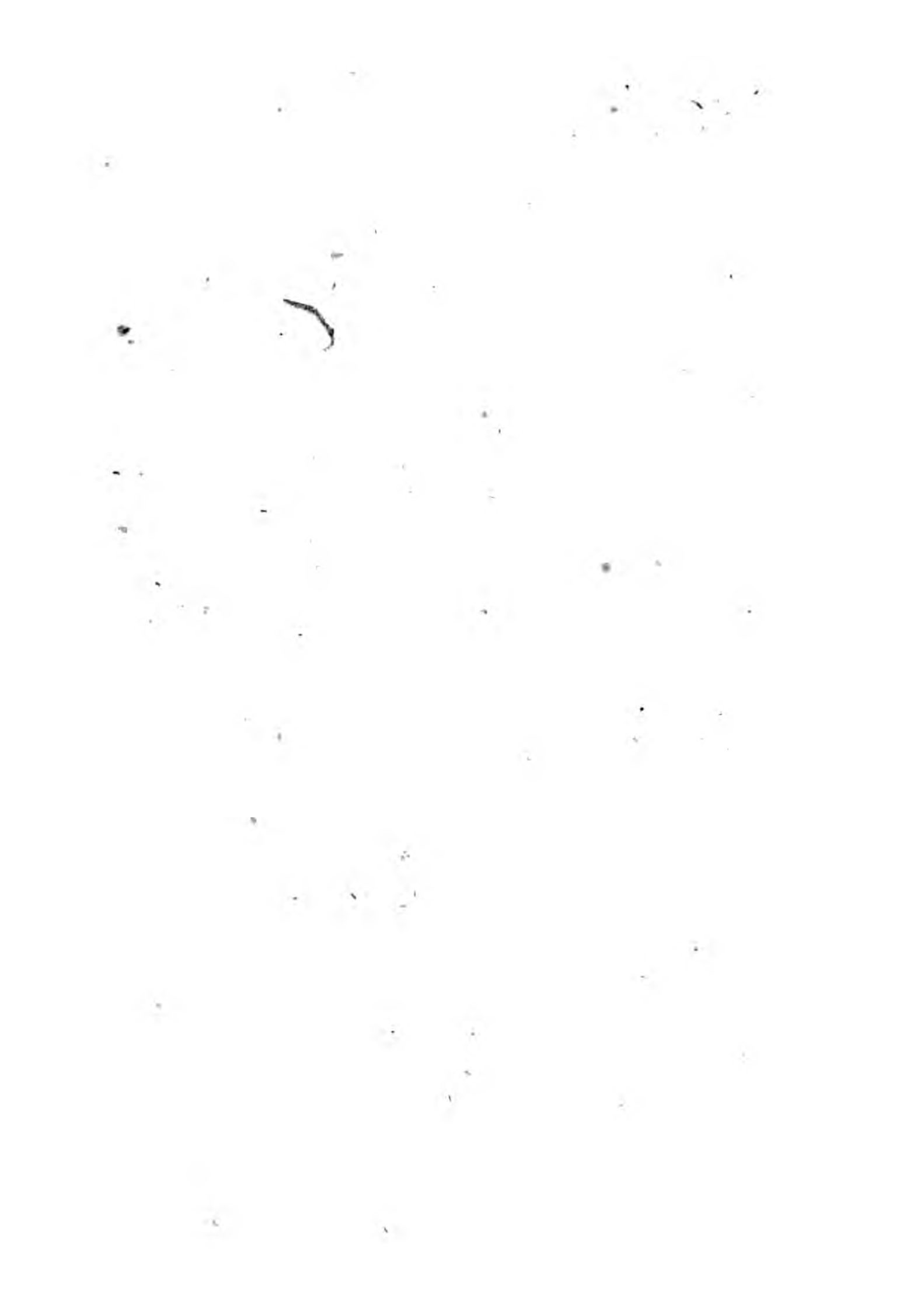


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THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 435

LECTURE 1

1.1

• Introduction to Quantum Mechanics

1.2

• The Schrodinger Equation

1.3

1.4

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EARLY LESSONS,

IN FOUR VOLUMES.

BY MARIA EDGEWORTH.

VOL. III.

Containing the Continuation of

FRANK,

And the Beginning of the Continuation of

ROSAMOND.

THE FOURTH EDITION.

“ Così all' egro fanciul porgiamo asperti
“ Di soave licor gli orli del vaso;
“ Succhi amari ingannato intanto ei beve
“ E dall' inganno suo vita riceve.”

LONDON:

PRINTED FOR R. HUNTER,
SUCCESSOR TO MR. JOHNSON, 72, ST. PAUL'S CHURCH-YARD ;
AND BALDWIN, CRADOCK, AND JOY,
PATERNOSTER ROW.

1821.

THE HISTORY OF THE

IN FOUR VOLUMES

BY MARY BISHOP

LONDON

Printed by C. Baldwin



**C. Baldwin, Printer,
New Bridge-Street, London.**

DEDICATION

TO

MY LITTLE BROTHER,

FRANCIS BEAUFORT EDGEWORTH.

SIXTEEN years ago, I dedicated a volume of Early Lessons "To my little brother William"—He has grown up to be a man. I now dedicate this Continuation of Early Lessons to you, my dear little brother Francis. You are now four years old; just the age your brother was, when Frank was written for him, and read to him. He could not then read; and you cannot now read. But the time will come, when you will be able to

read ; and then, I hope, you will receive pleasure from what I am at this instant writing ; and I am sure that you will feel pleasure in reading Harry and Lucy, because, in this book you will recollect all those little experiments, which your father tried for you, and which you then understood. And you will, I think, be glad to find, that you are able to comprehend the account, which he has written of them.

I hope, my dear little brother, that when you grow up, you will be such a man as your brother William now is ; and then you will give your father and mother as much pleasure as that brother William now gives them.

MARIA EDGEWORTH.

Dec. 8, 1813.

ADDRESS TO MOTHERS.



IN offering these little books to those kind mothers, who attend to the early instruction of their children, the authors beg leave to prefix a few observations, on early education, which have occurred to them, since the former parts of these books were published.

We found, to our high gratification, during a visit, which we lately paid to England, that the attention of parents, in every rank of society, was turned to the early education of their children.

Formerly, a child was left, during the first eight or ten years, to chance, in every part of it's education, except it's *book*, and keeping it's clothes clean—the mother or the nursery-maid attended to the latter, for their own sakes—the father, remembering the praises

that had been bestowed upon himself, when he was a child, was anxious, that his son should learn to read as soon as possible.

The object was to *cram* children with certain common-places of knowledge, to furnish them with answers to ready made questions, to prove that the teacher, whether parent, school-master, or private tutor, had kept the pupil's memory, at least, at hard work, and had confined his limbs and his mind, for many hours in the day, to *study*.

At present, the attention of parents is more extended; they endeavour to give their pupils reasonable motives for industry and application. They watch the tempers and dispositions of children; they endeavour to cultivate the general powers of the infant understanding, instead of labouring incessantly to make them reading, writing, and calculating machines.

To assist them in these views, parents have now a number of excellent elementary books. Such a variety of these have of late years been published, that, by a proper use of them, more general knowledge can be now acquired, by a

child, with two hours' daily application, than could have been acquired, fifty years ago, by the constant labour of ten hours in the four-and-twenty.

There are persons, who think, that the ease with which knowledge is thus obtained, and it's dispersion through the wide mass of society, is unfavourable to the advancement of science; that knowledge easily acquired is easily lost; that it makes scarcely any salutary impression upon the mind, impeding, instead of invigorating it's native force: they assert, that the principal use of early learning is to insure the young mind to application; and that the rugged path of scholastic discipline taught the foot of the learner to tread more firmly, and hardened him to bear the labour of climbing the more difficult ascents of literature and science.

Undoubtedly, the infant mind should be inured to labour; but it can scarcely be denied, that it is better to bestow that labour upon what is within the comprehension of a child, than to cram it's memory with what

must be unintelligible. A child is taught to walk upon smooth ground ; and no persons, in their senses, would put an infant on it's legs, for the first time, on rugged rocks.

It seems to be a very plain direction to a teacher, to proceed from what is known to the next step, which is not known ; but there are pedagogues, who choose the retrograde motion of going from what is little known to what is less known. Surely a child may be kept employed, and his faculties may be sufficiently exercised, by gradual instruction, on subjects suited to his capacity ; where every step advances ; and where the universal and rational incentive to application, *success*, is perceived by the learner

So far from thinking, that there is a royal road to any science, I believe, that the road must be long, but I do not think it need be rugged : I am convinced, that a love for learning may be early induced, by making it agreeable ; that the listless idleness of many an excellent scholar arises, not from aversion to application, but from having all the family

of pain associated with early instruction. By *pain*, I do not merely mean the pain of corporal correction, or of any species of direct punishment. Even where parents have not recourse to these, they often associate pain indissolubly with literature, by compelling children to read that which they cannot understand. One of the objects of this address to mothers is to deprecate this practice, and to prevent this evil in future. Let me most earnestly conjure the parents and teachers, into whose hands these little volumes may come, to lay any of them aside immediately, that is not easily understood ; a time will come, when that which is now rejected may be sought for with avidity. I am particularly anxious upon this subject, because we have found, from experience, that Early Lessons are not arranged in the order, in which, for the facility of the learner, they ought to be read. In fact, the order, in which they were first published was the order of time in which they were written, and not of the matter which they contained. The first part of Harry and Lucy was written

by me thirty-four years before Frank and Rosamond were written by my daughter. Frank is the easiest to be understood, and should, therefore, have come first; after Frank, the first part of Harry and Lucy; then Rosamond; and, lastly, the second part of Harry and Lucy, which was written long after the first part had been published. This latter part should not be put into the hands of pupils before they are eight years old. We have heard children say, "*We love little Frank, because it is easy; but we hate Harry and Lucy, because it is difficult.*" We defer implicitly to their opinion; well educated children are, in fact, best judges of what is fit for children.

Moliere's hackneyed old woman was not so good a critic of comedy, as a child of eight years old might be of books for infants.

Whenever, therefore, a child, who has in general a disposition for instruction, shows a dislike for any book, lay it aside at once, without saying any thing upon the subject; and put something before him, that is more to his taste. For instance, in the follow-

ing little books, different parts of them are suited to the tastes of different children, as well as to children of different ages. It is, therefore, strongly recommended to parents, to select what they find upon trial to be the best for their immediate purpose, and to lay aside the rest for another opportunity. We have repeatedly heard parents and teachers complain of the want of books for their pupils; can there be a better proof of the general improvement that has taken place of late years, in the modes of instruction, than this desire for early literature? When I was a child, I had no resource but Newberry's little books and Mrs. Teachum; and now, when every year produces something new, and something good, for the supply of juvenile libraries, there is still an increasing demand for children's books. In a selection of this sort, teachers of prudence and experience are cautious not to be deceived by a name, or by an alluring title page: they previously examine what they put into the hands of their scholars; they know, that want of information in a child is

preferable to confused and obscure instruction; that, for their pupils to know any one thing well, and to be able to convey to others, in appropriate language, the little knowledge which they may have acquired, is far preferable to a string of ready-made answers to specific questions, which have been merely committed to memory; that an example of proper conduct, of a noble sentiment, the glow of enthusiasm, raised by a simple recital of a generous action, have more influence, upon the tempers and understanding of children, than the most pompous harangues of studied eloquence.

In choosing books for young people, the enlightened parent will endeavour to collect such as tend to give general knowledge, and to strengthen the understanding. Books, which teach particular sciences, or distinct branches of knowledge, should be sparingly employed. In one word, the mind should be prepared for instruction; the terms of every art and every science should, in some degree, be familiar to the child, before any thing like a specific treatise on the subject should be read.

It is by no means our intention to lay down a course of early instruction, or to limit the number of books, that may, in succession, be safely put into the hands of the pupil. Mrs. Barbauld's "Lessons for Children, from three to four Years old," have obtained a prescriptive pre-eminence in the nursery. These are fit for a child's first attempts to read sentences; and they go on, in easy progression, to such little narratives as ought to follow. Her eloquent Hymns may next be read. They give an early taste for the sublime language and feelings of devotion. Scriptural stories have been selected in some little volumes; these may succeed to Mrs. Barbauld's Hymns. No narrative makes a greater impression upon the mind than that of Joseph and his brethren:—not the *story* of Joseph, expanded and adorned by what is falsely called fine writing; but the history of Joseph in the book of Genesis.

When children can read fluently, the difficulty is not to supply them with entertaining books, but to prevent them from reading too much, and indiscriminately. To give them

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only such as cultivate the moral feelings, and create a taste for knowledge, while they, at the same time, amuse and interest. A few, and *quite sufficient for this purpose*, may be named; for instance, "Fabulous Histories;" "Evenings at Home;" "Berquin's Children's Friend;" "Sandford and Merton;" "Little Jack;" "The Children's Miscellany;" "Bob the Terrier;" "Dick the Poney;" "The Book of Trades;" "The Looking-glass, or History of a young Artist;" "Robinson Crusoe;" "The Travels of Rolando;" a book which I mention with some *hesitation*, because, though it contains much knowledge, collected from various authors, yet it is too much mixed with fiction. "Mrs. Wakefield on Instinct" I name with more confidence, because the facts and the fiction are judiciously separated; so that the reader is in no danger of mistaking truth for falsehood. To this juvenile library, perhaps, may be added *parts* of "White's Natural History of Selbourne;" and *parts* of "Smellie's Philosophy of Natural History."

These books are not here named in the order

in which they should be read; that must vary according to the tastes and capacities of the pupils, and according to various accidental circumstances, which it is impossible to foresee or enumerate. But here it is necessary to observe, that scarcely any one of these books will probably be suited, in every part, to any child. Children should not be forced to read a book *through*, but suffered to pass over what they do not understand, and to select that which suits their tastes, which will generally be found to be what they perfectly comprehend. There is no danger that this permission should lead to a taste for desultory reading, if the pupils are confined to a certain collection of books. They will, at different ages, and as their knowledge enlarges, recur to those parts of the books, which they had rejected; and, the taste for reading increasing, they will, in time, become perfectly acquainted with every thing worth their attention in their juvenile library.

For instance, that excellent work, "Evenings at Home," contains lessons and narratives,

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suited to different capacities, from seven or eight, to twelve or thirteen years of age. It would be highly injurious to the work, and to the young readers, to insist, or even to permit, that the whole should be perused at an age, when the whole cannot be understood. The same may be said of "The Children's Friend," and of "Sandford and Merton," the last volume of which is suited to young men at college; while parts of the first two are fit for children of seven or eight, and other parts for ten or twelve years old. In these books, the selection may be safely trusted to the young readers; in others, the selection must be made by the parent or teacher; for instance, in "Smellies's Philosophy of Natural History," where there will be found many entertaining and instructive facts, suited to children from eight to ten years, mixed with a great deal, both of what they cannot understand, and of what they ought not to read.

The "Book of Trades" we have just mentioned as a most useful book, and it should always precede Joyce's "Scientific Dialogues."

Mr. Joyce has contributed much to the ease of scientific instruction; and parents should do the author the justice not to put his books too early into the hands of children.

But no book, on scientific subjects, that has yet fallen into our hands, exceeds Mrs. Marcet's "Chemical Dialogues." Some of the facts which it contains will undoubtedly be remembered; but it is not for the chemical facts, that this book is so highly valuable, as for the clear and easy reasoning, by which the reader is led from one proposition to another. I speak from experience: one of my children had early acquired such an eager taste for reading, as had filled her mind with a multitude of facts, and images, and words, which prevented her from patient investigation, and from those habits of thinking, and that logical induction, without which, no science, nor any series of truths, can be taught. The "Chemical Dialogues" succeeded in giving a turn to the thoughts of my pupil, which has produced the most salutary effects in her education. Romantic ideas, poetic images, and some dis-

tain of common occupations, seemed to clear away from her young mind ; and the chaos of her thoughts formed a new and rational arrangement. The child was ten years old at the time of which I speak, and from that period her general application has not been diminished ; but whatever she reads, poetry, history, belles lettres, or science, every thing seems to find it's proper place, and to improve whilst it fills her mind.

There is still wanting a series of little books, preparatory to Joyce's "Scientific Dialogues." No attempt, humble as it may appear, requires so much skill or patience, nor could any thing add more effectually to the general improvement of the infant understanding, than such a work. The elementary knowledge, which such books should endeavour to inculcate, must be thinly scattered in entertaining stories ; not with a view to teach in play, but with the hope of arresting, for a few moments, that volatile attention, which becomes tired with sober, isolated instruction.

Some years since, I wrote "Poetry explain-

ed for Children," and I have found it highly useful in my own family. It has not, however, been much called for. It is, therefore, reasonably to be supposed, that it has not been well executed.

Such a book is certainly wanting; and, if it became popular, it would be of more service in education, than parents are well aware of. Nothing is earlier taught to children than extracts from poetry; they are easily got by heart. If a child has a tolerable memory, a good ear, and a pleasing voice, the parents are satisfied, and the child is extolled for it's recitation. Nine times out of ten, the sense of what is thus got by rote is neglected or misunderstood, and the little actor acquires the pernicious habit of reading fluently and committing to memory what it does not comprehend. There is still something worse in this practice. The understanding is left dormant, while the memory is too much exercised; whereas the object most desirable is to strengthen the memory, *only* by

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storing it with useful and accurate knowledge.

Parents are usually anxious to teach history early. This should not be done at all, or should be done with great caution. There are certain well known volumes, of Mrs. Trimmer's, with prints of Grecian, Roman, and English history, which are useful to impress the principal facts in history, on the minds of children; and we have lately met with some *tiny* volumes, under the name of Alfred Miles,* "Pictures of English, and of Roman, and Grecian History." The miniature prints in these are far superior to what are usually met with in such books; and the language, and selection of the facts, in these minikin histories, are, in general, excellent. Abridgments of history, such as Cooper's short Histories of England and France, Goldsmith's of Greece and Rome, Lord Wood-

* There is an odd omission, which should be noticed, in Mr. Alfred Miles's *tiny* History of England—he omits the *life*, and records only the *death* of Charles the First.

houselee's excellent book, or any others, which merely give the events, without mixture of political reflections, may be read between the ages of eight and ten; but it is absurd to put Hume, Robertson, Macaulay, Gibbon, or any of our philosophical historians' works, into the hands of children. All that should, or can be done, effectually, is to give the young pupils a clear view of the outline of history, and to fix in their memories the leading facts in the proper order of time. For this purpose, there are several geneological and historical charts, that may be useful, even at the early age of nine or ten;—Le Sage's chart contains the fullest, and "*Stork's Stream of Time*" by far the clearest view of chronology and history. There are some careless omissions in these, which will probably be remedied in future editions. Priestley's Charts of History and of Biography, can never be obsolete.—To me, his Chart of History is not so clear, either as Le Sage or as the *Stream of Time*: but I hear from those whose judgment I respect, that it con-

veys to their minds a clear and comprehensive view of it's subject.

For the purpose of fixing, in the minds of children, a few of the leading facts of history, chronology, and geography, I think, the technical help of what is called artificial memory may be safely employed. The succession of Roman emperors, of English kings, the large geographical divisions of the world, the order of the principal inventions and discoveries—such as those of gunpowder, printing, and the mariner's compass; the discovery of America, and of the passage to India by the Cape of Good Hope. &c.; may be chronologically stored in the memory, without injury to the understanding. Without encumbering the recollective faculty, twenty or thirty of Gray's *memorial lines*, may, when selected, be easily committed to memory. They should be recited merely as jargon, till they are perfectly learned by rote; then the use of the letters, in the terminations of the words, which express the dates, should be explained, and the pupil should be practised

in the use of these: they should be frequently referred to, in conversation; the children should be called upon, and made ready in the use of their numerical symbols, and, at the same time, made sensible of the advantage of the knowledge they have thus acquired.

Any farther than this, I would avoid technical memory. Among the ancients, it might, in some degree, supply the want of printed books of reference; but, in our days, when knowledge of every sort, that has been hitherto acquired, may be immediately referred to, in every common library, or in the shop of every bookseller, it is needless to load the memories of children with answers to every possible question in geography and history, and with all such learning, as is to be found in *task books*.

Before I quit the subject, I may be permitted to suggest to those, who are composing, or who intend to compose elementary books for children, that what is purely didactic, and all general reflections, ought, as much as possible, to be avoided. Action should be introduced—Action! Action! Whether in morals or

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science, the thing to be taught should seem to arise from the circumstances, in which the little persons of the drama are placed; and on the proper manner, in which this is managed, will depend the excellence and success of initiatory books for children. Entertaining story, or natural dialogue, induces the pupil to read; but, on the other hand, unless some useful instruction be mixed with this entertainment, nothing but mere amusement will be acceptable, and it will be difficult to bring the attention to fix itself, without dislike, upon any serious subject.

In fact, early instruction—I may trust my own experience, in the education of a large family—early instruction depends more upon oral communication, than upon the books, either *task* books or books of amusement, that can be found for them, or, perhaps, that can be written. Books should be used to recal, arrange, and imprint what is learnt by the senses; they will please the more, when they give back the images, that have been slightly impressed upon the memory.

I know that it is much easier to point out what is desirable, than to show distinctly the means of accomplishing our wishes. How to fill up, from day to day, the aching void, in the little breasts of children, is a question that cannot be easily solved. When I recommend teaching, as much as possible, by oral instruction, I have this grand difficulty full in my view ; but I hope to point out, that means may be found, by which, in some degree, it may be obviated. There is scarcely any object, which a child sees or touches, that may not become a subject for *conversation* and *instruction*.

For instance, is the mother dressing ?—the things on her dressing table are objects of curiosity to the child. The combs are of different sorts—horn, ivory, box, and tortoiseshell.—How can the horns of a cow be made flat so as to be cut into the shape of a comb ?—What is ivory ? and where is tortoiseshell to be had ? A cane bottom chair frequently catches the attention of a child—it may be made a first lesson in weaving.——At breakfast how many objects for instruction !

The water, in a basin, reflects the sun—it's image dances from place to place, as the water moves. A spoon reflects the face, distorted to a frightful length; if turned in another direction, the face becomes ridiculously short. The steam rises from the urn—the top is forced off the tea-urn—or the water bursts from the spout of a tea-kettle. The child observes, that the water rises in a lump of sugar that is dipped in the tea. The cream swims on the top of the tea—milk mixes with it more readily than cream— At dinner, the back bone, and fins, and gills of a fish, every bone and joint of a fowl or a hare, or of any joint of meat, afford subjects of remark; and all these things, though but very little should be said of them, at any one time, may, by degrees, be made subservient, not only to amusement, but to the acquisition of real knowledge.

It is by no means intended to recommend, that *lectures* should be spoken at every meal, or that the appetites of infants should be made to wait for an explanation of whatever they feed

upon—it is only suggested, that the commonest circumstance of life, and the commonest objects, that occur, may become the means of teaching useful facts, and, what is of more consequence, habits of observation and reasoning. It will be objected, that, although the subjects, which are here alluded to, are familiar and of daily occurrence in families of all ranks, parents themselves are frequently not sufficiently capable of giving the instruction which is required.

To this it may be answered, that scarcely any parents are so situate, that they may not without effort, acquire from time to time, the little knowledge, which they wish to communicate—at least so far as is requisite to excite and support the curiosity of their pupils.

All this may be easily effected by the higher classes of parents, who have leisure to attend to their children; and those parents, who have not time themselves to pursue this course of tuition, may find proper assistants, at no great expense. There are, in England, many persons who would be suited to such situations—wi-

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dows, and elderly, unmarried women, who are above the station of ordinary domestics, and yet are not sufficiently instructed, or *accomplished*, to become governesses. Such persons might be employed, to take the early care of children, while the lower offices of the nurserymaid might be performed by common, uneducated servants. No person should daily or hourly converse with children, or should have power over them, or any share in the management of their minds, who does not possess good temper, and a certain degree of good sense. Accomplishments, learning, or even much *information*, in the usual sense of the word, will be unnecessary for the kind of *assistants* here described; but the habit of speaking good language, and in a good accent, is indispensable. All the knowledge requisite for explaining common objects, to children from six to eight years old, may be gradually acquired, as occasion calls for it daily; and good sense, with a little practice, will soon teach *the teacher* how to manage instruction in conversation.

In families of less affluence, where this subordinate governess, or attendant, cannot be afforded, and where the mother cannot secure a friend to assist her, or has not an elder daughter to take a part in the care of the younger ones, the mother must give up more of her own time to her children, than is usual or agreeable, or else she must send them to school.

Here recurs the difficulty of finding schools where children can be rationally taught; that is to say, where distinct and useful knowledge may be clearly conveyed to their understandings, without unnecessary confinement, slavish habits, or corporal correction. To keep children poring over books, that they cannot understand, or casting up sums without making them acquainted with the reasons for the rules, which they mechanically follow, is all that can be expected from a common schoolmaster, or, to speak more properly, from a common school. Parents send young children to school, not only to learn what is professed to be taught, but also to keep their troublesome infants out

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of harm's way. Were the schoolmaster ever so much enlightened, or ever so well disposed, he must comply with the expectations of parents—he must keep his scholars apparently at work for a given number of hours—or he cannot satisfy his employers.

What is to be done?

The schoolmaster must appear to do as others do. The remedy does not lie with the school, or with the schoolmaster, but with the parents. Until parents are convinced of the inefficacy of the present system, things must remain as they are. When they are persuaded, that a reform is necessary, the next thing is to consider how it can be accomplished.

To encourage good elementary schools, more liberal emoluments must be allowed to schoolmasters and mistresses. To effect this purpose, without raising the present price of schooling, nothing more is necessary, than to shorten the present enormous duration of school hours.

Two hours' attention is more than sufficient for the acquirement of any thing, which a

young child ought to learn in a day : and even these two hours should be interrupted by a relaxation of at least one-third of that time. Thus four different sets, or classes, of scholars might be sent daily to the same school, and for each class the present prices should be paid ; so that the master might have his salary considerably increased, without giving up more of his time than he does at present.

The numerous schools for early education, that are establishing, or that are already established in the metropolis, and in all the large towns of England, will, if they be properly managed, leave little to be desired upon the subject of education, for children between the years of seven and twelve.

The active modes of instruction, which Bell and Lancaster have introduced, are fully advantageous, as the low price of schooling ; the children are prevented from *drowsing* over their lessons, and their little bodies are kept in some degree of motion. Certain petty *mousetankisms* will, by degrees, be laid aside ; and the good sense of the excellent persons, who

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give not only their money, but their time, to the superintendance of such establishments, will soon improve whatever requires emendation.

A good system for *infant management*, as it relates to the temper, the habits of truth, industry, cleanliness, neatness, and to the forming children to habits, of observation, reasoning, and good sense—objects of far greater consequence, than the mere teaching to read and write, or cast up accounts—remains still to be formed and executed. Such schools are wanting, both for the middling classes and for the lower classes of the people; and I apprehend, that they cannot well be formed any way so well, as by actual experiment.

Ladies, who have leisure, may, in the country, make trials of whatever occurs to them on this subject. The occupations and plays, liberty and restraint, rewards and punishments of children, in those little communities we call schools, may thus be examined, and their respective excellence and defects may be compared; and, in time, some general results will be established.

For such an inquiry, next to a steady desire to be of service, patient attention, from day to day, is what must be the most effectual.

These schools are what are commonly called *dame schools*.

A dame school, such as may prepare children for seminaries of a higher class, should, as much as possible, resemble a large private family, where the mistress may be considered as the mother. The children never should be out of the sight of their mistress, and their plays, as well as their tasks, should be equally an object of her care. And here, as in every other place of instruction, the hours, or, rather, the minutes of labour, should be short, with frequent intermission; so that the habit of attention may, by degrees, be induced, and may, by reiteration, be fortified.

Much of that useful enthusiasm, which animates all classes of people to encourage schools for young children, is owing to the female sex. They have more immediate opportunities of seeing the necessity, and of appreciating the merit of such schools; their lei-

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sure permits them to inspect, more minutely, establishments of this sort : and their acquaintance with the early propensities and habits of children enable them to direct, successfully, their instruction ; and it may be reasonably hoped, that, under their care dame schools, with mistresses judiciously chosen, may be established wherever they are wanting. Another generation will reap the advantages of what has been begun in this ; and teachers of both sexes, and of various degrees of information, will, hereafter, be procured with ease ; and elementary schools will be established in every part of the United Kingdom.

R. L. E.

FRANK.



FRANK was very fond of playing at battledore and shuttlecock; but he could not always play when he liked, or as long as he liked it, because he had no battledore or shuttlecock of his own. He determined to try to make a shuttlecock for himself; but he had no cork for the bottom of it, and he had only five feathers, which had once belonged to an old worn-out shuttlecock. They were ruffled and bent. His mother was very busy, so that he did not like to interrupt her, to ask for more feathers; and his father was out riding, so that Frank could not ask him for a cork. His brother Edward advised

him to put off trying to make his shuttlecock, till his mother was not busy, and till his father should return from riding; but Frank was so impatient, that he did not take this prudent advice. He set to work immediately, to make the bottom of his shuttlecock of one end of the handle of his pricker, which he sawed off, because he thought that it resembled the bottom of a shuttlecock in shape more than any other bit of wood which he possessed. When he tried to make holes in it for the feathers, he found that the wood was extremely hard; he tried and tried in vain; and, at last, snap went the end of the pricker. It broke in two; and Frank was so sorry, that he began to cry: but, recollecting that his tears would not mend his pricker, he dried his eyes, and resolved to bear the loss of it like a man. He ex-

examined the stump of the pricker, which he held in his hand, and he found that there was enough of the steel left, to be sharpened again. He began to file it, as well as he could ; and, after taking some pains, he sharpened it : but he did not attempt to make any more holes in the hard wood, lest he should break the pricker again. He said to himself—“ Edward gave me good advice, and I will now take it : I will wait till my father comes home, and till my mother is not busy ; and then I will ask them for what I want.”

The next day his father gave him a cork, and his mother gave him some feathers ; and, after several trials, he at last made a shuttlecock, which flew tolerably well. He was eager to try it, and he ran to his brother Edward, and showed it to him ; and Edward liked

the shuttlecock, but could not then play, because he was learning his Latin lesson.

“Well! I will have patience till to-morrow, if I can,” said Frank.

It happened this same evening, that Frank was present, when his brother Edward and three of his cousins were dressing to act a pantomime. They were in a great hurry. They had lost the burnt cork, with which they were to blacken their eyebrows. They looked every where that they could think of for it, but all in vain; and a messenger came to tell them, that every body was seated, and that they must begin to act the pantomime directly. They looked with still more eagerness for this cork, but it could not be found; and they did not know where to get another.

“ I have one ! I have one ! I have a cork ! you shall have it in a minute ! ” cried the good-natured little Frank. He ran up stairs directly, pulled all the feathers out of his dear shuttlecock, burnt the end of the cork in the candle, and gave it to his friends. They did not know, at this moment, that it was the cork of Frank’s shuttlecock ; but, when they afterwards found it out, they were very much obliged to him ; and when his father heard this instance of his good-nature, he was much pleased. He set Frank upon the table, before him, after dinner, when all his friends were present, and said to him—

“ My dear little son, I am glad to find, that you are of such a generous disposition. Believe me, such a disposition is of more value than all the battledores and shuttlecocks in the world ;

—you are welcome to as many corks and feathers as you please!—you who are so willing to help your friends, in their amusements, shall find that we are all ready and eager to assist you in yours.”

Close to the garden, which Frank's mother had given to him, there was a hut, in which garden tools and watering pots used formerly to be kept; but it had been found to be too small for this purpose, and a larger had been built in another part of the kitchen garden: nothing was now kept in that, which was near Frank's garden, but some old flower pots and pans. Frank used to like to go into this hut, to play with the flower pots; they were piled up higher than his head; and one day, when he was pulling out from the undermost part of the pile a large pan,

the whole pile of flower pots shook from bottom to top, and one of the uppermost flower pots fell down. If Frank had not run out of the way in an instant, it would have fallen on his head. As soon as he had a little recovered from his fright, he saw that the flower pot had been broken by the fall, and he took up the broken pieces, and went into the house, to his mother, to tell her what had happened. He found his father and mother sitting at the table, writing letters: they both looked up, when he came in, and said—

“What is the matter, Frank?—you look very pale.”

“Because, mamma, I have broken this flower pot.”

“Well, my dear, you do rightly to come and tell us, that you broke it.

It is an accident. There is no occasion to be frightened about it."

"No, mamma; it was not that, which frightened me so much. But it is well, that I did not break my own head and all the flower pots in the garden house."

Then he told his mother how he had attempted to pull out the undermost pan, and how "the great pile shook from top to bottom."

"It is well you did not hurt yourself, indeed, Frank!" said his mother.

His father asked, if there was a key to the door of the hut.

"Papa, there is an old, rusty lock, but no key."

"The gardener has the key—I will go for it directly," said his father, rising from his seat; "and I will lock

that door, lest the boy should do the same thing again."

"No, papa," said Frank; "I am not so silly, as to do again what I know might hurt me."

"But, my dear, without doing it on purpose, you might, by accident, when you are playing in that house, shake those pots, and pull them down upon yourself. Whenever there is any real danger, you know I always tell you of it. And it is much better to prevent any evil, than to be sorry for it afterwards. I will go this minute and look for the key, and lock the door," continued his father.

"Papa," said Frank, stopping him, "you need not go for the key, nor lock the door; for, if you desire me not to play in the old garden house, I will not play there; I will not go in,

I promise you ; I will never even open the door."

" Very well, Frank : I can trust to your promise. Therefore, I want no lock and key—Your word is enough."

" But only take care you do not forget, and run in by accident, Frank," said his mother ; " as you have such a habit of going in there, you might forget."

" Mamma, I will not forget my promise," said Frank.

A FEW days after this time, Frank's father and mother were walking in the garden, and they came to the old garden house, and they stopped and looked at the door, which was a little open. This door could not be blown open by the wind, because it stuck against the

ground at one corner, and could not be easily moved.

“I assure you, mamma, I did not forget—I did not open it—I did not go in, indeed, papa,” said Frank.

His father answered—“We did not suspect you of having opened the door, Frank.”

And his father and mother looked at one another and smiled.

His father called the gardener, and desired that he would not open the door of the old garden house; and he ordered, that none of the servants should go in there.

A week passed, and another week passed, and a third week passed, and again Frank's father and mother were walking in the garden; and his mother said—

“Let us go and look at the old garden house.”

His father and mother went together, and Frank ran after them, rejoicing, that he had kept his promise—he never had gone into that house though he had been often tempted to do so, because he had left there a little boat of which he was very fond. When his father and mother had looked at the door of the garden house, they again looked at each other, and smiled and said—

“We are glad to see, Frank, that you have kept your word, and that you have not opened this door.”

“I have not opened the door, papa,” answered Frank; “but how do you know that by only looking at it?”

“You may find out how we know it; and we had rather that you should find it out, than that we should tell it to you,” said his father.

Frank guessed, first, that they recol-

lected exactly how far open the door had been left, and that they saw it was now open exactly to the same place. But his father answered, that this was not the way; for that they could not be certain, by this means, that the door had not been opened wider, and then shut again to the same place.

“Papa, you might have seen the mark in the dust, which the door would have made in opening. Was that the way, papa?”

“No; that is a tolerably good way; but the trace of the opening of the door might have been *effaced*, that is, rubbed out, and the ground might have been smoothed again. There is another circumstance, Frank, which, if you observe carefully, you may discover.”

Frank took hold of the door, and was

going to move it; but his father stopped his hand.

“ You must not move the door—look at it without stirring it.”

Frank looked carefully, and then exclaimed—

“ I’ve found it out, papa! I’ve found it out!—I see a spider’s web, with all its fine thin rings and spokes, like a wheel, just at the top of the door, and it stretches from the top of the door to this post, against which the door shuts. Now, if the door had been shut or opened wider, this spider’s web would have been crushed or broken—the door could not have been shut or opened without breaking it.—May I try, papa?”

“ Yes, my dear.”

He tried to open the door, and the spider’s web broke, and that part of it,

which had been fastened to the door, fell down, and hung against the post.

“You have found it out now, Frank, you see,” said his father.

His mother was going to ask him, if he knew how a spider makes his web, but she stopped, and did not then ask him this question, because she saw, that he was thinking of his little boat.

“Yes, my dear Frank! you may go into the house now,” said his mother, “and take your little boat.”

Frank ran in, and seizing it, hugged it in his arms.

“My dear little boat, how glad I am to have you again!” cried he; “I wish I might go to the river side this evening, and swim it; there is a fine wind, and it would sail fast.”

Frank was never allowed to go to the river side, to swim his boat, with-

out his father or mother, or eldest brother, could go with him.

“Mamma, will you?” said he—“Can you be so good as to go with me this evening, to the river side, that I may swim my boat?”

His mother told him, that she had intended to walk another way; but that she would willingly do what he asked her, as he had done what she desired. His father said the same, and they went to the river side. His father walked on the banks, looking till he saw a place where he thought it would be safe for Frank to swim his boat. He found a place, where the river ran in between two narrow banks of land; such a place, Frank’s father told him, in large rivers, is called a *creek*.

The water, in this creek, was very shallow; so shallow, that you could

see the sand and many coloured pebbles at the bottom : yet it was deep enough for Frank's little boat to float upon it. Frank put his boat into the water—he launched it—and set the sail to the wind ; that is, turned it so that the wind blew against it, and drove the boat on.

It sailed swiftly over the smooth water, and Frank was happy looking at it and directing it various ways, by setting or turning the sail in different directions, and then watching which way it would go.

“ Mamma,” said he, after his mother had remained a good while, “ you are very good natured to stay with me so long ; but I am afraid you will not have time to come again to morrow ; and, if you cannot, I shall not have the pleasure of swimming my boat.—Papa, the

water is so very shallow here, and all the way along this creek, that, if I was to fall in, I could not drown myself; and the banks are so close, that I could walk to them, and get on dry land, directly. I wish, papa, you would let me come here whenever I please, without any body with me; then I should not be obliged to wait till mamma had time, or till my brother Edward had done his lesson; then I could swim my boat so happily, papa, whenever I pleased."

"But how can I be sure, that you will never go to any other part of the river, Frank?"

"You know, papa, I did not open the door, or go into that garden house, after you had desired me not, and after I had promised that I would not: and, if I promise that I will not go to any

other part of the river, you know you can believe me."

"Very true, Frank; and, therefore, I grant your request. I can trust to your doing what I desire you to do; and I can trust to your promise. You may come here whenever you please, and sail your boat in this creek, from the stump of this willow tree, as far in this way toward the land as you please."

Frank clapped his hands joyfully, and cried, "Thank you, papa! — thank you!—Mamma, do you hear that? Papa has given me leave to come to this place, whenever I please, to swim my boat; for he trusts to my promise, mamma."

"Yes, that is a just reward for you, Frank," said his mother. "The being believed another time, and the being

more and more trusted, is the just reward for having done as you said that you would do, and for having kept your promise."

"Oh! thank you, mamma—thank you, papa, for trusting to my promise!" said Frank.

"You need not thank me, my dear, for believing you," said his father; "for I cannot help believing you, because you speak truth. Being believed, is not only the reward, but the necessary consequence, of speaking truth."

NEXT morning, at breakfast, Frank's father told him, that, if all the flower pots were carried out of the old garden house, and if they were removed without being broken, he would give the empty hut to Frank for his own.

“For my own!” cried Frank, leaping from his chair with delight—“For my own, papa!—And do you mean, that I may new roof it and thatch it?”

“If you can,” said his father, smiling.

“You may do what you please with it, as soon as the flower pots are removed; but not till then: they must all be carried to the house at the other end of the garden, before I give you the hut. How will you get this done, Frank? for you are not tall enough to reach to the uppermost part of the pile yourself; if you begin at the bottom, you will pull them all down and hurt yourself, and you would break them, and I should not give you the house.”

“Papa, perhaps the gardener——”

“No, the gardener is busy.”

Frank looked round the breakfast table at his brother Edward and at his

three cousins, William, Charles, and Frederick—they all smiled, and immediately said, that they would undertake to carry the flower pots for him.

The moment they had eaten their breakfast, which they made haste to finish, they all ran out to the old garden house. Edward took a wooden stool, mounted upon it, and handed down, carefully, the uppermost of the garden pots to his cousins, who stood below, and they carried them to the new garden house.

As all these boys helped one another, and worked with good will, and in good order, the great pile was soon carried away—so soon, that Frank was quite surprised to see it was gone. Not one flower pot was broken. Frank ran to tell his father this; and his father went out, and saw that the garden pots had

been safely removed ; and then he gave the house to Frank, and put the key of it into his hand.

Frank turned to his brother Edward and his cousins, and said, “ Edward, how good you and my cousins were to help me ! ”

“ You deserved, that we should do this for you,” said Edward. “ We do not forget how good natured you were to us about the cork of your shuttlecock. When we were in distress, you helped us ; so, it was fair that we should help you, when you wanted it.”

“ Yes,” said his father, “ those, who are ready to help others, generally find others ready to help them.—This is the natural and just reward of good nature.”

“ *Reward!* papa,” said Frank: “ that word you used several times yesterday,

and again to day; and it always puts me in mind of the time, when you gave me my Bewick on Quadrupeds. You gave it to me, Do you remember? as a *reward* for having, as you wrote in the book, cured myself of a foolish habit. I recollect, that was the first time I ever exactly understood the meaning of the word *reward*."

"And what do you understand, Frank, by the word *reward*;" said his father.

"Oh, papa! I know very well; for mamma then told me, 'a reward is something we like, something we wish to have, something——' papa, I thought I could explain it better; I cannot explain it in words; but I know what it is.—Will you explain it to me again, papa?"

"Do you try first, if you understand

what it means; and if you will stand still, and have a little patience, you will perhaps be able to find words to express your thoughts. Try, and do not look back at the dear hut; the hut is there, and will not run away; you will have time enough, all the morning and all the evening, to play in it, and to do what you please with the roof of it. So, now stand still, and show me, that you can command your attention for a few minutes—What is a reward?

Frank, after he had considered for a few moments, answered:—

“ A reward is something, that is given to us for having done right; no, it is not always a thing, for though the first reward that was given to me was a *thing*—a book—yet I have had rewards, that were of a different sort. That was a reward to me yesterday about the

boat; and when you, papa, or when mamma praises me, that is a sort of reward."

"It is," said his father.

"Papa, I believe," continued Frank, "that a reward is any sort of pleasure, which is given to us, for doing right. Is it, papa?"

"It is, my dear. Now answer me one or two more questions, and then I will reward your patience, by letting you go to your hut."

"I am not thinking of that, now, papa; I will stay and answer as many questions as you please."

"Then what do you think," said his father, "is the use of rewards?"

"To make me—to make all people do right, I believe."

"True; and how do rewards make you, or make other people do right?"

“Why——” Frank paused, and considered a little while.

“Papa, you know I like, and all other people like to have rewards, because they are always pleasures; and when I know I am to have a reward, or, when I hope even, that I shall be rewarded for doing any right thing, I wish, and try to do it; and, if I have been rewarded once, I think I shall be rewarded again for doing the same sort of thing; and, therefore, I wish to do it. And even, if I have not had the reward myself, if I have seen another person rewarded for doing something well, I think, and hope, that, perhaps, I may have the same, if I do the same, and that makes me wish to do it. When you gave John, the gardener’s boy, a little watering pot, because he had made a net for the cherry trees, I remember

I wished to make a net too, because I hoped that you would give me a watering pot; and when mamma praised my brother Edward, and gave him a table, with a drawer in it, as a reward for keeping his room in order, I began to try to keep my room in better order—and you know, Edward, I have kept it in order, in better order, ever since. Papa, that is all I can think of, about the use of rewards—I cannot explain it better.”

“ You have explained it as well as I expected that you could, Frank.—Now run off to your hut, or your house, whichever you please to call it.”

FRANK found, that there were holes in the thatch of his house, and that,

when it rained, the rain came through these holes, and wetted him and spoiled the things, which he kept in his house—therefore, he wished to mend the thatch. He went to his father, and asked him, if he would be so good as to give him some straw.

His father said, that he would, if Frank would do something for him, which he wanted to have done.

“I will do any thing I can for you, papa,” said Frank.—“What is it?”

“Look at those laburnums, Frank,” said his father, “Do you see a number of blackish dry pods hanging from the branches?”

“Yes, papa, a great number.”

“Do you know what those pods contain?”

“Yes; little black shining seeds—the seeds of the laburnum tree.”

“ I want to have all those seeds, that I may sow them in the ground, and that I may have more laburnum trees. Now, Frank, if before the sun sets, this evening, you bring me all those seeds, I will give you straw enough to mend the thatch of your house.”

“ Thank you, papa.—I will work very hard, and gather them as fast as I can.”

Frank ran for his basket, and began to pluck the pods from the lower branches of one of the laburnums. Soon he had filled his basket with the pods, and then those, which he tried to cram in at the top of the basket, sprang up again, and fell over the sides; so he began to make a heap on the ground of the pods, which he afterwards pulled from the tree. When he had finished gathering all, that he could reach from

the lower branches of one tree, he went to the lower branches of the next, and made a heap under that tree ; and so on. There were nine laburnum trees ; and when he had got to the ninth tree, and was pulling the seeds from that, he heard a rustling noise behind him ; and, turning round, he saw Pompey, the little dog, dragging the laburnum seeds about in his mouth.

“ Oh, Pompey ! Pompey ! let those alone ! ” cried Frank.

But as fast as he drove him from one heap, Pompey ran to another, and scratched and scattered about the heaps with his feet, and snatched up the pods in his mouth, and scampered with them over the garden, while Frank ran after him ; till at last he caught the dog ; and, in spite of Pompey’s struggling, carried him out of the garden, and shut the door.

When he had put Pompey out, he collected all his pods together again ; and, just when he had done so, the gardener opened the garden door, and Pompey was squeezing in between the gardener's legs : but Frank called loud, to beg that the gardener would keep him out : and, every time any body opened the garden door, Frank was obliged to watch, and to call to them, making the same request. This was so troublesome, and interrupted him so often, that Frank thought it would be better to carry his heaps of pods into his garden house, and to lock the door, so that Pompey could not get in to pull them about. Frank carried the heaps, dropping many pods by the way, and going backwards and forwards so often, that this took up a great deal of time. He heard the clock strike three.

“Three o’clock already!” said Frank to himself, looking at the numbers of pods, which hung on the upper branches of the laburnums. “How much I have to do, and how little I have done! Oh, Pompey! Pompey! you don’t know the mischief you have done me,” said he, as the dog squeezed his way in, when the gardener again opened the garden door.

“Indeed, master,” said the gardener, “I cannot keep him out.”

“Well, Pompey, come in! you cannot do me any more harm. Now, you may run snuffing about the garden, as much as you please, for my seeds are safe locked up.”

But though the pods were safe, yet it wasted Frank’s time sadly, to lock and unlock the door every time he had a fresh basketful to throw into the

house ; and he was obliged to keep the basket hanging always upon his arm, lest Pompey should get at it. Frank lost time, also, in jumping up and down every five minutes from the stool, on which he was obliged to stand to reach the pods from the higher branches, and moving this stool from place to place took up time. Presently, he had gathered all that he could reach when standing upon the stool, even when he stood on tiptoe, and stretched as far as he could possibly reach. Then there was time lost in fixing a step ladder, which his father lent to him, upon condition, that he should never get upon it, till he had fixed it quite steadily, and had put in a certain prop, all which required some minutes to settle properly. The running up and down this ladder, with his basket, continually, as it was

filled, tired Frank, and delayed him so much, that he got on with his business very slowly, though he worked as hard as he could.

The morning passed, and the evening came; and, after dinner, Frank jumped from his chair as soon as the tablecloth was taken away, and said he must go to his work, for that he was afraid he should not be able to finish it before sunset. His brother Edward and his three cousins said, that they would help him, if his father had no objection. His father said, that he had no objection; that he should be glad that they should help Frank, because he had worked so hard, and had been so good humoured when the little dog had hindered him.

Frank ran to the laburnum trees, followed by his brother and cousins re-

joicing. As he went, he said—"Now we shall get on so quick!—as quickly as we did when you all helped me to move the flower pots."

"Yes," said Edward, "and for the same reason."

"Yes; because there are so many of us," said Frank.

"And for another reason," said Edward.

"What other reason?"

"Look, and you will see;" said his father.

Then Edward settled, that each person should do so, that they might each do what they could do best, and that they might help one another, and do what they wanted, as quickly as they could. Edward was to stand upon the ladder, because he was the tallest, and he could reach most easily to the up-

permost branches of the tree : he was not obliged to run up and down the ladder, to carry the seeds ; because Frank was appointed to collect and carry the pods off, as fast as Edward gathered, and threw them to the ground. Frederick and William sat on the grass at the door of the hut, where the great heap had been collected ; and it was Charles's business to supply them with pods, from which they shelled the seeds. As soon as Edward had finished pulling all the seeds from the trees, he joined Frederick and William, and helped to *shell the seeds*, that is, to pick them out of the pods ; and as soon as Frank had brought from underneath the trees all the pods, that had been thrown there, he was set to open the pods, ready for the pickers ; and Charles, who had, by this time, brought out all that

were in the hut, was now employed constantly in collecting and throwing into a heap the empty husks—because it was found that time had been lost in searching the empty husks, which had been often mistaken, at first sight, for full pods.

“Ay,” said Frank, “now I see the other reason, that you meant, Edward—I see why we go on so quickly and well; because each person does one thing, and the thing he can do best—so no time is lost.”

No time was lost. And they finished their work, had the laburnum seeds shelled and collected in a brown paper bag, and all the rubbish and husks cleared away, just as the sun was setting.

“Here are mamma and papa coming to see if we have done!” cried

Frank ; “and we have done. Come, papa ; come as quickly as you please ; here are the seeds, all ready !—But do you know, papa,” continued Frank, as he put the bag of seeds into his father’s hands, “it was as much as ever we could do, for I lost so much time this morning. It was all we could do, to make up for it this evening. And, though there were so many of us, and though we all went on as fast as we could, I am sure we should never have finished it in time, if we had not managed as we have done.”

His father asked him in what manner they had managed. Frank explained, and showed how they had divided the work among them, so as to save time. His father told him, that manufacturers and workmen, who are obliged to do a great deal of work in a short time,

always, if they are wise, help one another, and save time, in the same manner, that he and his brother and cousins had done. "And this," added he, turning to Edward, "this is what is called *the division of labour*."

"In making this pin," continued he, taking a pin from Frank's mother—
"In making a pin, eighteen different workmen are employed. In a manufactory for making pins, each workman does that part which he can do best. One man draws out the wire, of which the pins are made; another straightens it; a third cuts it; a fourth grinds it at the top, ready to receive the heads. To make the heads requires the different work of two or three men. Another man's business is to put on the heads; another's, to sharpen the points; and sticking the pins in the papers is a

business by itself. Now one workman, if he was to try to make a pin, without any assistance from others, could not, probably, make a single pin ; certainly he would not be able to make twenty in a day. But with even nine men to assist him, dividing the labour amongst them, as I have described to you, they could all together, make forty-eight thousand pins in a day ; so that each of the ten men might be reckoned to make four thousand eight hundred pins.”

“ Ten men make forty-eight thousand pins in a day ! ” cried Frank ; “ and one man four thousand eight hundred pins ! — O papa ! is this true ? ”

“ Yes, I believe it is true,” said his father. “ When we go in, your brother Edward shall read to us an account of

this, if he likes it, from the book in which I read it*.—But, Frank, look

* “I have seen a small manufactory of this kind” (*viz.* of pin making), “where ten men only were employed, and where some of them, consequently, performed two or three distinct operations. But, though they were very poor, and, therefore, but indifferently accommodated with the necessary machinery, they could, when they exerted themselves, make among them, about twelve pounds of pins in a day. There are, in a pound, upwards of four thousand pins, of a middle size. Those ten persons, therefore, could make upwards of forty-eight thousand pins in a day. Each person, therefore, making a tenth part of forty-eight thousand pins, might be considered as making four thousand eight hundred pins in a day. But, if they had all wrought separately and independently, and without any of them having been educated to this peculiar business, they certainly could not each of them have made twenty, perhaps not one pin in a day; that is, cer-

what comes here !” added his father, pointing to a labourer, who now came into the garden with a great bundle of straw—“Where would you like to have it put ?”

Frank chose to have it in his garden house ; and his father ordered, that it should be put there. Then Frank thanked his brother and cousins for helping him so kindly ; and he said, that he thought he should never forget the advantage of *the division of labour*.

SOME time ago, Frank had told his father that he would *persevere* in try-

tainly, not the two hundred and fortieth part of what they are at present capable of performing, in consequence of a proper division and combination of their different operations.”—*Smith's Wealth of Nations*, vol. i, page 6, quarto edition.

ing to learn to read, that he might be able to employ and to entertain himself. He did as he said that he would do. He *persevered*, till he had learned to read quite easily. Then he read, in books, which his mother lent him, accounts of the camel; of which, ever since he had seen the print of it, he had wished to know the history. He read also entertaining accounts of the elephant, and of many other animals. In the books, which were lent to him, he read only what he could understand ; when he came to any thing, that he did not understand, he asked his father or mother to explain it to him. If they had not time to attend to him, or to answer his questions, he went on to some other part of the book, which he could understand ; or he left off reading, and went to do something else.

Whenever he felt tired of reading, or whenever he wanted to hear or see something, that was going on in the room with him, and found that he could not attend to what he was reading, he always shut the book, and put it away—he never kept a book before him, when he was tired or sleepy, or when he was thinking of something else.

So Frank became very fond of reading. He could now employ himself happily on rainy days, when he could not run about out of doors, or when he had no one to talk to or to play with in the house. At night, when the candles came, and when all the rest of the family began to read, Frank also could read ; and he said—

“ Papa, now I am as happy as you are, when the candles come !—Thank

you, mamma, for teaching me to read."

His mother gave him a book, called "*The Book of Trades.*" When she gave it to him, she said to him—

"Frank, there are many parts of this book, which you cannot yet understand; but you will, I think, be entertained by looking over the prints of the men and women, at work at their different trades, and you will understand some of the descriptions of what they are doing."

Frank thanked his mother, and he looked over all the prints in the four volumes of this book. He looked at each print carefully, and examined every thing in it before he turned over the leaf, to look for another. He was pleased with the print of the chandler,

making candles ; and of the shoemaker, making shoes ; and of the turner, turning at his lathe ; and of the ropemaker, making ropes ; and of the weaver, working at his loom. After he had looked at these prints, he read some of the explanations and descriptions, in hopes that he should be better able to understand the prints. He began with the chandler, who, as his mother told him, is a person who makes candles : and Frank was curious to know how candles are made. But there were several words, in this account of candle-making, of which he did not know the meaning ; and there was one whole sentence, about *bales of cotton performing quarantine*, which puzzled him sadly. His mother explained to him several of the words, which he did not understand ; but she

told him, that she could not then explain to him what was meant by *performing quarantine*; and that he could understand how candles were made, without having this sentence explained to him.

“Mamma,” said Frank, “I do now know pretty well how they are made; but I think I should understand it all a great deal better, if I were to see it done—Mamma, I wish I could see somebody making candles.”

A few days afterwards, Frank’s mother called him to her, and told him, that the cook was going to make some candles—“Should you like to see them made, Frank?”

“Yes, very much indeed!” said Frank: “thank you, mamma, for calling me.”

Then his mother took him to the

room, where the cook was preparing to make mould candles. The first thing he saw was a large saucepan, which the cook had taken off the fire to cool. Frank asked what was in the saucepan. He was told, that it was full of melted mutton suet. Some suet, which had not been melted, was shown to him; he said, that it looked like cold fat; and he was told, that this suet was the fat of mutton.

The next thing, which Frank saw, was a wooden frame, or stand, about the height of a common table. In this stand were a number of round holes, through each of which hung a tube, or hollow pipe, of pewter, the size of a candle. These hollow pipes were taper; that is, narrower at one end than at the other, and growing narrower and narrower by degrees. The largest ends were uppermost, as the pipes hung in

the frame ; so that they looked like the shapes of candles, with the part that is usually lighted hanging downwards : at the narrow end, these pewter tubes were made in the shape of the top of a tallow candle, before it is lighted.

“ Mamma ! I know what this is ! ” cried Frank ; “ and I know what it is for. It is the same sort of thing, which I saw in the print of the tallow chandler, in the Book of Trades. These pipes are the moulds, in which the candles are to be made ; the melted stuff, the melted suet, is to be poured into this open mouth, and it runs all the way down, down—Then it is left to cool, and then it is pulled out, and the candle is made—this broadest end is the bottom of the candle, which is to go into the candlestick, and this narrow end the top—it is hanging upside

down now—You see I understand it all, mamma!”

“Stay, Frank; do not be in such a hurry; do not be too quick. You do not understand it all, yet. You have not observed or discovered some things, in these moulds, which are necessary to be known; and you have forgotten the most material part of a candle.”

“What can that be, mamma?—Tell me, pray.”

“I would rather that you should think, and find it out for yourself, Frank.”

Frank considered a little, and then answered—

“Mamma, I have thought of every thing, and I can think of nothing else. Here are the moulds, and the melted grease, which is to be poured into the

mould, to make the candle.—What can be wanting?”

“How would you light the candle?” said his mother.

“By the wick, to be sure!—Oh! the wick!—I forgot the wick!—Where is the wick?—What is the wick made of?”

“It is made of cotton—Look here, master!” said the cook, showing him a ball of coarse cotton.

“And how do you get this cotton into the middle of the candle?”

“That I will show you, sir,” said the cook.

She then took one of the candle moulds out of the wooden frame, in which it hung; and Frank looked at the narrow end, which had hung downwards, and he saw, at the bottom, a little hole; and he said—

“ Here is a little hole ; this must be stopped, or else all the melted tallow will run through it. Shall I stop it up with this bit of paper, mamma?—I will roll it up, and make a stopper, shall I ?”

“ No, thank you, master !” said the cook—“ You shall see how I will stop it up.”

Then she doubled the cotton, which she held in her hand ; and she cut off as much as would reach from one end of the candle mould to the other, and a little more. Then she put the cotton, just where she had doubled it, in at the broadest end of the mould, and she let it fall all down the pipe, to the small hole, at the narrow end ; and, by means of a wire, she drew the cotton through the hole, leaving a loop of cot-

ton, as long as that, which is commonly seen at the wick of a tallow candle, which has not been lighted. Then she stuck a peg of wood into the little hole; this peg, together with the cotton, which had been put through the hole, stopped it up completely, so that none of the melted tallow could run through, it. She next tied the other ends of the cotton together, and put a small bit of wood, like a skewer, through the loop, which she had made by tying the cotton together.—This skewer lay across the broad end of the mould, and fitted into two notches, in the outer rim of the mould, at opposite sides. The cotton was now tight in the mould, from top to bottom—Frank looked into the mould, and saw that it was so.

“ Cook, why are you so careful, to

make the cotton tight, and to put it just in the middle of the mould?" said Frank.

"That the wick of *my* candle may be in the middle," said the cook. "In good candles, the wick must always be in the middle."

When the cook had put cotton in the same manner into all the moulds, she was ready to pour the melted tallow into them. Frank was afraid, that the tallow had grown cold, because the saucepan, in which it was, had been taken off the fire some time. But the cook said, it was quite warm enough; that it would not make good candles, if it was very hot. As Frank now went close to the large saucepan, he saw, that there was a smaller saucepan, within side of it. The smaller saucepan held the melted tallow; and, between

the large and the smaller saucepan, the space was filled with water: both at the sides and at the bottom, between the small and the large saucepan, there was water. Frank asked the reason of this.

The cook answered—"Master, it is to hinder *my* tallow from burning, or being made too hot; which would spoil it, as I told you."

"But how does the water hinder the tallow from being made too hot; for the water is hot itself, is not it?"

"It is, master; but still it keeps the tallow from being *too* hot—I can't say how; but I know it is so, and I always do it so."

"But I ask the reason—I want to know the reason—mamma," said Frank.

"I will endeavour to explain the reason to you some other time, my

“dear,” said his mother ; “ but, first, let us look at what the cook is doing, that you may not miss seeing how candles are made.”

Frank looked, and he saw the cook replace all the pewter moulds, in the wooden frame, with the narrow ends downwards, and the broadest ends uppermost ; and into the open mouth of the broadest end, which was uppermost, she poured, carefully and slowly, the melted tallow, from the spout of the saucepan, into each of the candle moulds. She poured it not over the cotton, at the top, but on each side of it, so as to leave the cotton, and the skewer, that was put through it, standing above the grease, when the mould was filled nearly to the top. When this was done, the cook said, that they must leave the tallow to cool : and that

it would be some time before it could be cool.

Frank went away with his mother, and he asked her if she could now answer the question about the hot water. But just then his father called her, and she had not time to answer Frank.

She was busy all the rest of the morning, and Frank went to his garden, and worked in it; when he was tired of working, he trundled his hoop upon the walk, and kept it up till he was tired of running after it.—It began to rain, and then he went into the house, and learned, by heart, some of the multiplication table, which his mother had desired him to learn.

Some company dined, this day, with his father and mother; and his mother could not talk to him again, till after

the company had gone away, in the evening.—Frank was glad when the company was gone, and when his mother had again time to attend to him.

THE next day, Frank asked his mother to take him to look at the candles; he said, that he hoped the cook had not taken them out of the moulds, for he wished to see that done. The cook had not taken them out; for his mother had desired, that she should not do this till Frank should be present.—The first thing the cook did was to pull out the pegs, which she had stuck between the cotton of the wick into the little holes, at the smallest end of the moulds: then she took hold of the cotton loop, through which the bit of stick had been

put, at the larger end of the mould, and she drew it up gently ; and with the cotton came the tallow, out of the mould, in the shape of a candle ; and as it came out Frank exclaimed,

“ It is a real candle, indeed !——
Shall we light it, mamma ?”

“ Not yet, my dear. It is not hard enough. It must be hung up for two or three days, before it will be fit to be used.”

The cook drew all the candles out of the moulds, and she hung them up to harden.

“ Well, now, mamma, I have observed carefully all that has been done ; and I have not been too quick, have I ? I have learned something *accurately*, as you say. Now I know how to make candles !”

“ You have seen how candles are

made; that is, you have seen how mould candles are made. These are called *mould candles*, because they are made in a mould; but there are other ways of making candles."

"Yes, I remember the man in the Book of Trades says, that there are dipped candles, as well as mould candles."

"Yes, master," said the cook; "the dipped candles are made by dipping the wick into the tallow, then letting it dry, and then dipping it again in the tallow; and every time more and more sticks to the candle; and it is left to dry, between every dipping; till, at last, it is the size the candle should be.— Then, besides dipped candles, and mould candles, there are rushlights, master; such as the poor people use here, in their cottages, you know." |

"I do not know," said Frank—

“ Tell me, what are rushlights? Are they made of rushes?”

“ Yes, sir.”

“ Oh! tell me how they are made!”

“ If I can, I will take you this evening to the cottage of that good natured old woman, who showed you her spinning wheel,” said Frank’s mother; “ and I will ask her to show you how rushlights are made.”

“ Thank you, mamma—Are there any other sorts of candles?”

There is another sort, which you have seen, and that is not made of tallow.”

“ I recollect—wax candles, mamma.”

“ They may be made nearly in the same manner, that dipped tallow candles are made—only, that melted wax is poured over the wick, instead of the wick being dipped into the wax.—The wax candle is rolled upon a smooth

table, to make it smooth and round.—
There are other ways of making wax
candles ; but I will not tell you any
more, at present, lest you should not
be able to remember all, that you have
seen and heard.”

“ But, mamma, tell me one thing
more,” said Frank, as he followed his
mother up stairs. “ Wax, I know, is
made by bees, and wax candles are
made of wax ; but there is another
kind of wax candle, or of candle, that
looks like wax. It has a long, hard
name, which I cannot remember.”

“ Do you mean spermaceti ?”

“ Yes—spermaceti—What is that ?”

“ Spermaceti is a fatty substance
prepared from the brain of a species
of whale—You have seen the print of
a whale, and have read an account of
a whale ?”

“ Yes ;—the great fish—the largest of fishes — I remember. — I never should have guessed, that candles were made from any part of a fish.—Mamma, what a number of things we must know, before we can know well how any one thing is made or done.”

“ Very true, my dear little boy ; and I am glad to see, that you wish to acquire or get knowledge.”

His mother could not talk to him any more this morning, but, in the evening, she called him, and said—
“ Now, Frank, you may walk with your father and me to Mrs. Wheeler’s cottage.”

“ To the good natured old woman’s ? ”
“ O ! I am glad of that, mamma ! ” said Frank.

He ran for his hat, and he was ready in an instant ; for he was happy to go with his father and mother. It was a fine evening, and the walk was pleasant, through pretty paths, in green fields ; and there were several stiles, which Frank liked to get over. He showed his father how quickly he could get over them.

“ Look, papa, how well I can jump ! how I can *vault* over this stile ?—— You know, you said, that men ought to be active—Now, papa, am not I active ? ”

Frank ran on, without waiting for an answer ; and he ran till he came to a rivulet, or little river, or brook, which crossed the path. There he stopped, and stood still, for there was only a narrow plank, or board, across the stream ; and the hand rail, by which Frank used

to hold, when he walked over, had been broken, since he had last been at this place. The rail had fallen into the water, and there was nothing, by which Frank could hold.—His father and mother came up to him.

“ Frank,” said his father, “ what is the matter? You look very melancholy.”

“ Yes, papa; because I am afraid we must turn back.—We cannot go on.”

“ Why not, my dear?”

“ Look at this broken bridge, papa—”

“ Broken hand rail of a bridge, you mean, Frank. The bridge is not broken. This plank is as broad and as strong, as it was before; and you know you have walked over it safely—You see it will bear my weight; and I am much

heavier than you are," said his father, standing on the plank.

"Yes, papa ; so I see—"

"And you see," said his father, walking over the bridge, "you see, that I can walk over it, though there is no hand rail."

"Yes, papa, so I see," said Frank ; but he stood still, without attempting to follow his father.

"Come on, my boy," said his father ; "unless you mean to stand there all night."

"No, papa———Yes, papa———Mamma, will you go first?"

His mother went over the bridge ; still Frank felt afraid to follow ; but when his father said, "Men ought to be brave—Boys should conquer their fears"—Frank tried to conquer his fear ; and he put his foot upon the

bridge, and his father held out his hand to him, and he walked on, slowly at first and quicker afterwards, till he got quite across. Then he said,

“ Papa, I will go back again, and do it better.”

He went back again, and walked quite stoutly over the plank ; his father holding his hand. And then he said,

“ Papa, I will do it without holding your hand.”

So he did—And he went backwards and forwards two or three times, till he had quite conquered his fear—Then he felt glad, and pleased with himself, especially when his mother smiled upon him and said,

“ That is right, Frank, my dear—This puts me in mind of a little boy, who conquered his fear, as you have done.”

“ Who was that, mamma ? ”

“ A little boy, who was younger than you are.”

“ Was it a real boy, mamma ?—
And is it a true story ? ”

“ It is a true story, of a real boy—
He was about five years old.”

“ Much younger than I am ! ” cried Frank—“ Well, mamma ? ”

“ When this little boy was taken to the sea shore, to be bathed, for the first time, in the sea, he was afraid, when he saw the wave of the sea coming, and when he felt it going over him.”

“ So should I have been, I dare say, mamma.”

“ But he was ashamed of having been afraid, and he was determined to conquer his fear ; and he turned to the sea and said, ‘ Wave, do that again !—

Wave, come over me again!’—And the next time he showed no fear.”

“What was the name of the boy, mamma, and who were his father and mother?”

“I cannot tell you their names, my dear; but I can tell you that the boy is son to the greatest general, the greatest hero in England.”

“The greatest hero—Oh! then I know who he is, mamma.”

WHEN they came to Mrs. Wheeler’s cottage, Frank’s father went into a field, near the house, with the old woman’s son, to look at a fine crop of oats; and Frank’s mother took him into the house, where they found Mrs. Wheeler

getting ready her grandson's supper. She stopped doing what she was about, when she saw Frank and his mother. She looked glad to see them, and said—
“ You are welcome, madam—you're welcome, master; be pleased to sit down.” Then she set a chair for *madam*, and a little stool for *master*, and she swept the hearth quite clean; and she called to a little girl, of about six years old, who was in the room, and bid her run to the garden, and gather some strawberries, and bring them in for Frank. Frank thanked this good natured old woman; but he said—

“ I did not come to beg strawberries; and, though I love strawberries very much, I do not wish to have any of yours, because I believe you have but very few for yourself.—What I

want you to do for me is to show me how you make rush candles.”

“That I will, with pleasure, master,” said Mrs. Wheeler.

“But, Mrs. Wheeler, first finish what you were about, when we came in,” said Frank’s mother—“I believe you were getting ready your supper.”

“It is George’s, my grandson’s supper, madam.”

“Then it is not fair, that your George should lose his supper, because my Frank wants to see rushlights made,” said Frank’s mother, smiling.

“That is true,” said Frank. “And I dare say, that her George, mamma, will be very hungry when he comes in; for I saw him working hard in the fields—and I am always very hungry, when I have been working hard,—

Pray, Mrs. Wheeler, finish getting ready George's supper—I can wait, as long as you please; and I wish I could do something for you, as you are going to do something for me—Let me carry those sticks to the fire—I can do that—and you may go on with your cooking.”

“God bless you! master,” said the old woman; “but, this is too great a load for your little arms.”

“Let me try,” said Frank.

“Yes, let him try,” said his mother: “he loves to be useful.”

“And I am useful too!” “cried Frank, carrying the great bundle of sticks to the fire.

His mother began to show him how to put them on the fire—

“But,” said she. - “some of these

are wet, and they will not burn readily."

"Ay," said the old woman, "I am afraid that is a wet bundle—I took it from the wrong place: yonder, in that corner, are all the dry faggots."

Frank had never heard the word *faggots* before, and he did not hear it quite plainly now; but he saw what the old woman meant, because she pointed to the place where the faggots lay. So he ran directly for another bundle of sticks, and he carried it toward the fire; and, throwing it down beside his mother, said—

"There, mamma, there's another *maggot*, and a dry *maggot* for you!"

"Faggot, not *maggot*," said his mother.

"Maggot!" cried the old woman,

laughing, with her arms akimbo, "Lord bless him ! don't he know the difference betwixt a maggot and a faggot?"

"What is the difference?" said Frank.

"Why, master!—a maggot!—Lord help us!"—the old woman began, as well as she could speak, while she was laughing.

"Mamma," said Frank, turning to his mother, "Mamma, I would rather you would tell me; because you will tell me without laughing at me."

The old woman, who saw that Frank did not like to be laughed at, but who could not stop herself, turned her back, that he might not see her; but he saw her sides shaking all the time his mother was explaining to him the difference between maggot and faggot.

“ A maggot is a small worm ; and a faggot is a bundle of sticks.”

“ Yes, mamma,” said Frank.

“ Well, Frank, now I have told you, can you tell me, what is a maggot and what is a faggot ? ”

“ A maggot, mamma, is——Mamma, I did not hear—I could not attend to what you said, because——”

The old woman walked out of the room, and stood laughing in the passage.

“ Mamma,” whispered Frank, “ I shall not call Mrs. Wheeler my good natured old woman any more, because she is laughing at me.”

“ Then, Frank, I am afraid I cannot call you my good humoured little boy any more.—What harm does her laughing do you, Frank ?—Let us see, has it broken any of your bones ? ”

“ No,” said Frank, smiling: “ but I don’t like to be laughed at much—especially for not knowing any thing.”

“ Then, to avoid being laughed at again for the same thing, had not you better learn that, which you did not know? ”

“ I had. — Now, mamma,” said Frank, turning his back to the door, so that he could no longer see Mrs. Wheeler—“ Now, if you will be so good to tell me again, I will attend, if I possibly can ; but I was so much ashamed, mamma——”

“ My dear,” said his mother, “ there is nothing shameful in not knowing the meaning of words, which you never heard before. When you have not done any thing wrong or foolish, never mind being laughed at—a man should

never mind being laughed at for a trifling mistake."

"Mamma, I will never mind—Tell me now, and I will show you I never mind."

His mother repeated to him the explanation of the two words; and as soon as he knew this, he ran to the door, and called out very loud—

"A maggot is a small worm, and a faggot is a bundle of sticks!—You need not laugh any more, Mrs. Wheeler?"

"Oh, master! I ask your pardon—I will not laugh any more—I was very rude—I ask your pardon—But I'm foolish, and could not help it—I hope you are not angry, master.—I hope," said Mrs. Wheeler, coming back into the kitchen, and curtsying "you are not angry, madam?"

“Mamma is not angry at all,” said Frank; “and I was only a little angry; and it is over now—Come in, come in,” said he, pulling her by the hand “and look how well the fire is burning, that I and mamma—that mamma and I made.”

“Bless your little soul! that forgives and forgets in a minute,” said the old woman—“I wonder Hannah is not in with the strawberries.”

“I don’t want the strawberries, yet,” said Frank; “you have not put the pot on the fire, to boil the supper for George—Won’t you put it on now?”

MRS. WHEELER put the pot on, and, while the supper was boiling for

George, she showed Frank how to make rushlights. First, she took down from a hook, on which they hung, a bundle of rushes—Frank had seen rushes growing, in a field near his father's house? and he had gathered some of them, and had peeled them; and he knew, that, in the inside of the rush, there is a white soft substance, called pith. But when he had attempted to peel rushes, he had always been a great while about it, and he had seldom been able to peel more than about the length of his finger of the rush without breaking the white pith. Mrs. Wheeler, in an instant, stripped the rush of its thick green outside, all except one narrow stripe, or rib of green, which she left to support the soft pith; and she peeled, without breaking it,

the whole length of the pith contained in the rush, which was almost as long as Frank's arm.

“ Can you guess, Frank, what part of a candle this rush is to be ? ” said his mother.

Frank thought for a little while, and then answered, that he supposed the rush would be made into the wick of the candle, and that it would serve instead of the cotton, which he had seen used by the cook in making mould candles.

“ Yes, master, you have guessed right,” said Mrs. Wheeler.

Then she brought from a corner near the fire a gresset, or small pan, in which there was melted grease. Frank gave the rush to her to dip into it ; but she said, that it would not make a good rush candle, because it had not been

left to dry for some days. She took another peeled rush from a bundle, which hung up in a press, by the fireside. This, which had hung there, as she said, for two or three days, was drier and less white, than that, which had been freshly peeled. She drew the rush through the melted grease, and she said—

“ It will be cool, and fit to burn, in about five minutes.”

In about five minutes it was cool, and the old woman lighted it, and it burned; but there was so much daylight in the room, as the setting sun was shining full upon the window, that the light of the small rush candle could scarcely be seen. Therefore Mrs. Wheeler took it into another room, at the opposite side of the house, where the sun did not shine at this time.

There, when she had shut the shutters, the flame of the rushlight was plainly seen. Frank observed, that this rush candle did not give nearly so much light, as a thick tallow candle did. Mrs. Wheeler said, that she could not afford to buy tallow candles often, and that these rushlights were enough for her. Frank perceived, that, after he had been a little while in this room, he could see the things in it better than he did when the shutters were first closed, and when his eyes had been dazzled by the sunshine. He was surprised to find, that he could make out the words at the bottom of a print, to which the old woman held the light.

“Mamma, I could scarcely see it before, and now I can see it quite plainly, and I will read it to you.”

He read aloud—

“ For want of a nail, the shoe was lost ;
For want of a shoe, the horse was lost.”

Just as Frank got to “ *the horse was lost,*” the rushlight was burnt out,

“ Oh!—Is the candle gone so soon ?” cried Frank. “ Mamma,” continued Frank, turning to his mother, whilst Mrs. Wheeler opened the shutters—“ Mamma, you know such a candle as that would last, at home, the whole night—several hours a rush candle lasts at home, mamma.”

“ Do you think, that the candles’ being *at home* makes any difference, as to their burning ?” said Frank’s mother smiling.

“ No, no, mamma,” said Frank, laughing : “ I know, that the rush candles, which we have at home, would

burn as long a time here, as they do at our house. But I mean, that ours burn longer, because there is more grease or tallow about them. Mamma, if there was no tallow about this rush, would it burn at all? or would it burn away a great deal sooner, than it does now?"

"Try, and you will see, my dear," said his mother.

Mrs. Wheeler gave Frank a peeled rush, and he lighted it at the fire, and it burned; but the flame was not bright, and it soon went out. Frank dipped it into the grease and it burned better. Mrs. Wheeler went to see, if George's supper was ready; and Frank continued talking to his mother—

"Mamma, I believe it is the melted grease, that burns, and makes the bright flame of the candle: but I do not know how. Mamma, what be-

comes of the grease, or the tallow, when the candle burns ?”

“ Do not you see the smoke, that rises from the top of the flame ?” said his mother.

“ Yes, mamma, I see the smoke; but what has that to do with what I asked you ? ”

“ Do not you know what that smoke is ?—Do not you remember your father’s showing you, one evening after tea, the difference between smoke and steam ?”

“ I remember, mamma, steam comes from water, when it is made hot; I remember papa showed me the steam, the vapour, rising from the hot water in the tea urn; and I recollect papa held a cold plate over it, and showed me, that the cold turned the vapour back again into water; I saw the drops of water *condensed*—I remember the

word. And I recollect he afterwards held a plate over the candle, and said, that what rose from the candle was smoke, not steam—I do not remember about the smoke—I recollect only, that the plate was blackened, which was held over the candle, and that the plate was not wet ; but I do not know exactly how it was.”

“ Did you never hear any thing more about smoke ?” said his mother.

O yes ! I recollect papa told me, that smoke, when cold, became soot, and fell down to the ground, or stuck to any cold thing, that was near it.”

“ Just so the smoke of the candle is the vapour of melted tallow, which, boils by the heat of the candle ; and when this vapour is *condensed* by cold it becomes soot, such as you see sticking to the ceilings, where many candles

are used : soot is frequently collected on purpose, upon plates held over lamps, and is then called lampblack."

"Mamma, once I saw, in the little, little barrel, at the time the painter was going to paint the black board, at the bottom of your room, some light black powder—Was that lampblack?"

"Yes, my dear, that was lampblack ; and it is used for paint, and for making blacking for shoes and boots."

Very well, mamma, I understand that ; but I want to go back to the candle—the melted tallow, the vapour of boiling tallow, makes the candle burn, and keeps the candle burning. Mamma, I do not know how, and why the candle burns—And what is the flame?"

"Frank, till you have more knowledge, I will not attempt to explain that to you," said his mother. "But, when-

ever you can understand it, you shall read all that is known about the burning of a candle. You will find it in that book, which your brother Edward was reading yesterday—"Conversations on Chemistry."

"Ay, that book, which he likes so much!—But, mamma, I do not like it. Edward said to me, 'Don't interrupt me, Frank—I am busy—I am very happy, reading this.' Mamma, I got up behind his chair, and began trying to read over his shoulder; but I did not like the book much."

"No, because you did not understand it at all."

"And I am afraid I shall never understand it," said Frank.

"Do you not understand parts of books, now, Frank, which you did not

understand when you began to learn to read?"

"Yes, parts of 'Evenings at Home,' and parts of 'Sandford and Merton,' which I did not understand, and did not like last year; and now I like them very much."

"Then you may hope, that the time will come, if you try to improve yourself, when you will understand and like 'Conversations on Chemistry,' as your brother now does—Even what you have seen and learned this evening will help you a little."

Just then, Frank looked out of the window, and he saw the little girl, who had been sent for strawberries, coming along the path, which led to the house. She brought a basket of fine strawberries. The old woman set a little deal

table in the porch, where the honeysuckles, which hung over the roof of the porch, smelled very sweet. The sun was setting, and it was cheerful and pleasant.

“Look, master Frank! I have strawberries for you and for myself, too!” said Mrs. Wheeler. “My George takes care of my garden, and I have plenty of fruit and flowers—these honeysuckles, that smell so sweet, are all his planting.”

Frank's father returned from the oat field, where he had been; and Frank, and his father and mother, sat in the porch, covered with honeysuckles, and eat strawberries and cream.

AFTER Frank had eaten as many strawberries as he liked, he and his fa-

ther and mother thanked the good natured old woman, and his mother put into the little girl's hand some money. The girl curtsied, and smiled, and looked happy.

Then Frank followed his father and mother out of the cottage, and his father said, that they would walk home by a new way, through the oat field, and afterwards through a neat farmyard, and round by a pretty lane, which would take them to the bridge. Frank did not hear what his father said ; and his father, turning his head back, saw Frank walking slowly behind him, and looking, as if he was thinking intently of something.

“ What are you thinking of, Frank ? ” said his father.

“ I am thinking, papa, about money.”

“What about money, Frank?”

“I am thinking how happy that little girl looked when mamma gave her some money, and how glad people always look when money is given to them. The reason, I know, is because they can buy things with money—bread and meat, or clothes, or balls and tops, and playthings, or houses, chaises, or any thing they wish for. But, papa, I wonder, that the people, who have bread and meat, and clothes and tops, and balls, and all sorts of pretty or useful things, are so foolish, as to give them for little bits of gold, or silver, or copper, which are of no use.”

“No use!—My dear, recollect, that you have just said, that they are of use to buy any thing people want or wish for. Suppose you had two tops, and

that you wanted to have a ball, instead of one of your tops, you might sell one of your tops, and with the money, that would be paid to you for your top, you might buy a ball."

"But, papa, why could not I change one of my tops for a ball, without buying or selling, or having any thing to do with money?"

"Your top is worth more than a ball; however, you might, if you liked it, exchange your top for a ball; but it is not so easy to make exchanges of heavy and large things, as of light and small things—you cannot carry large or heavy things, for instance, coals, or cows, about with you, to exchange; and yet one man may have more coals, and another more cows, than he wants; and, if they wish to exchange these,

then it is convenient to give money, which can readily be carried in the pocket."

Frank did not quite understand what his father meant : his father said, that it was too difficult for him to comprehend, and that he should only puzzle him, if he talked to him any more about it, yet.

"Papa," said Frank, looking a little mortified, "I am sorry, that there are so many things, that I cannot understand *yet*—What shall I do?"

"Attend to those things, which you can understand, my dear boy ; and then you will learn more and more, every day and every hour——Here are men reaping oats—Look at the sickle, with which they are cutting down the oats—Did you ever see a sickle before?"

"Yes."

Frank remembered having seen sickles last autumn, when his mother took him to see some men reaping corn ; and he said he recollected, that the bundles of the corn, which the men bound together, and set upright on their stalks, were called sheaves, and that the top of each separate stalk of corn is called the ear.

His father bid him run and gather an ear of barley, which was growing in the next field, on the left hand, and also an ear of wheat, which was growing in a field on the right hand ; and when Frank had gathered these, his father showed him the difference between oats, barley, and wheat. Frank knew, that wheat is made into bread, and that barley and oats are sometimes made into bread, and that oats are eaten by horses. But there is an-

other use of barley, which he did not know.

“Did you ever taste beer, Frank?”

“Yes, papa.”

“Do you know of what beer is made?”

“I think my brother Edward told me, that it is made of malt and hops; and he once, when the brewer was brewing, showed me some hops: he said, that hops give the bitter taste to beer—But, papa, I do not know what malt is.”

“Malt is corn, that has been made to begin to grow again, and that is not suffered to grow a long time. Corn, you know, is a name for many kinds of grain; as wheat, barley, bear, oats, and rye.”

“How do they make it *grow* a little?” said Frank.

“ By wetting the grain and heaping it up, which makes it hot ; then it swells, and the grain becomes soft ; and, if it is opened, it is found to contain a kind of flour—I think I once gave you some malt to taste—Do you remember the taste of it, Frank ? ”

“ Yes, papa, it has a sort of sweet taste. ”

“ Well ; when the malt has swelled and is ready to burst, they stop it's growth, by taking it out of the heap, and spreading it upon the ground, and at last by putting it into a place, that dries the corn, and prevents it from growing any more. ”

“ Papa, you showed me such a place, at Mr. Crawford's the malster's, and he called it a kiln. And what do they do next to the malt ? ”

“ They then brew it, and make beer of it.”

“ I know that—But how do they brew it, papa ? ”

“ I cannot explain that to you, now, my dear ; but the next time the brewer comes, I will take you into the brew-house, and you may then see part of what is done to make beer of malt.”

WHILST Frank's father had been talking about malt and beer, they had walked through two or three fields, and they came to a neat farm house. The man, to whom the house belonged, came out and said—

“ How do you do, landlord ?—Madam, you are welcome—Will you walk in my yard, sir, and look at my

new barn, which I am just now thatching?"

"Pray, papa, take me with you," said Frank; "for I want very much to know how to thatch the old garden house better."

His father took him to the yard. When they came there, Frank saw, lying on the ground, on one side of the yard, a great heap of straw, and on the other side he saw a bundle of hay, of which horses were eating. As he was passing between the heap of straw and the bundle of hay, Frank heard his mother tell his father, that she once knew a young lady, who had lived till she was fourteen years old in the country, and yet who did not, at that age, know the difference between straw and hay.

Frank laughed and said—"What a very ignorant young lady that must

be, mamma!—Mamma, I know the difference between straw and hay, perfectly : this on my right hand is straw, and this on my left hand is hay. Cows and horses eat hay, but they do not eat straw ; beds are sometimes made of straw ; and hats, and a great many things, are made of straw ; and houses are thatched with straw, and not with hay. You see, mamma, I know a great deal more, than that young lady, though she was fourteen—How very old !”

“ But all this time you have not told me, Frank, what hay is, and what straw is.”

“ Hay is grass dried ; and straw is the stalks of wheat.—You know mamma, last autumn, I saw the men thrashing.—I saw the corn that was thrashed out of the ears ; and what was

left, after the corn was beat out, you told me was called chaff; and the stalks, mamma, you told me were to be called straw."

"Well remembered, Frank," said his father. "Perhaps, if the poor ignorant young lady of fourteen, had at your age had as kind a mother as you have, and had been told and shown all the these things, she might have remembered them as you do.—But, Frank, the stalks of wheat are not the only stalks that are called straw—The stalks of wheat are called wheat straw; but there are other kinds of straw. The stalks of oats, and of barley, and of rye, are all called straw."

"Which kind of straw is the best for thatching houses, papa?"

"Wheat straw, I believe," said his father.



By this time, they had come to the barn, which the man was thatching.— Frank looked up attentively a little while, and then said—

“The man is so far above me, papa, that I cannot well see how he fastens on the straw—May I go up this ladder, papa?”

Frank pointed to a ladder, which stood beside that on which the thatcher was at work. Frank’s father made him no answer, till he had examined if the ladder was firmly fixed; and then he told Frank, that he might go up.

“I will follow you, Frank,” added he “to take care of you, when you get to the top.”

“No, papa, thank you, you need not; for I am not at all afraid, because I know so well how to go up and down a ladder.”

Frank ran to the ladder, and a maid

servant, who was milking a cow in the vard cried out—

“Master! master! dear young master! What are you about? Don’t go up the ladder, or you’ll break your pretty little legs.”

Frank laughed, and began to go up the ladder directly. He had been accustomed to go up and down a step ladder, which his father had in his library. Formerly, when he was a very little boy, he had not been allowed to go up that ladder; and he never had gone up it till his father gave him leave. And, now, he was proud of being permitted to mount a ladder. So he went up; and, when he was half way up, he turned back his head to look at the maid, who had hid her face with her hands. Frank laughed, more and more, at her fright.

“Take care, Frank; mind what you

are about ; hold fast by the sides of the ladder. You are in much more danger now than you were in crossing the plank over the brook ; for, if you miss a rung (a step) of the ladder, you will fall and hurt yourself very much.— There is no courage in being careless.”

Frank knew, that his father told him the truth about *danger*, as well as about every thing else, and he always attended to what his father advised ; therefore he left off laughing, and he took care to hold fast, and not to miss any rung of the ladder. He found, that this ladder was much higher than that, which he had been used to go up ; his father was behind him ; he reached the topmost rung safely, and his father put one of his arms round Frank, and held him, for his head grew a little giddy ; he had not been used to look down from such a height. In a few

minutes, when his attention was fixed on what the thatcher was doing, he forgot the disagreeable feeling; and he was entertained by seeing the manner in which the house was thatched.

“ Papa, I see, that he puts on the straw quite differently from what I did, when I was trying to thatch the house in my garden.”

“ Why, how did you put on the straw ? ”

“ I put it in bundles upon sticks, that made the roof.”

“ What do you mean by bundles ? ”

“ I took as much as I could grasp, or hold in my hand, and I put it on the wooden roof, not quite like steps, but one above another.”

“ And you found that the rain came in between every bundle, did not you ? ”

“ I did indeed—and I was very

sorry ; after all my pains, after I had thatched my house, the water came in, the first time there was a hard shower of rain.”

“ Yes ; because you put the bundles of straw the wrong way. You see the thatcher does not lay handfuls of straw in steps, one above the other, as you did ; but he begins at the eaves of the roof, near the wall, just at one end of the house, and he lays several bundles one beside the other.”

“ I understand you,” said Frank. “ I put them one above the other, like the steps of the ladder ; he puts them beside each other, like the sides of the ladder.”

“ He fastens them down with bent twigs, which he calls *scollops*,” said Frank’s father.—“ Or else, look, here is another way—he fastens the straw down with a rope made of straw, with

which he actually sews the thatch down to the roof, with this long iron rod, which you see he uses like a needle."

"But, papa, you said, that he begins at the *eaves* of the house—What is the *eaves*?"

"The *eaves* are that part of a roof, that is nearest the wall. They are the lowest part of the roof, and the thatch hangs over the wall, to carry off the rain without it's touching the wall. Here is a *scollop*. You see, it is sharpened at both ends, that it may stick in the roof. Observe the thatcher.—He is going to put on the second row of thatch, above the first."

"Yes; I see, that the lower part of the bundle, that he is now putting on, is put over the upper part of the bundles below it."

"Why does he do so?"

“ I do not know.”

“ Think a little, Frank.”

“ I do think, papa——but I cannot find it out.”

“ The rain would fall between the bottom of the row, which he is now putting on, and the first row, if the bottom of the second did not lap over the top of the first ; and the rain would run in at the holes made by the scollops, if they were not covered with the second row of thatch.”

WHEN Frank had seen and heard all that his father showed and told him about thatching, he went down the ladder, as carefully as he had gone up it. As he passed through the farm yard with his father and mother, he

stopped to look at some pretty hens and chickens, that were picking up oats. Whilst Frank was looking at them, a large turkey cock came strutting up to him, making a great noise, spreading its black wings, stretching out its blue and red throat, and looking ready to fly at him. Frank started back, and had a great wish to run away; but his father, putting a stick into his hand, said—

“Frank, stand steady, my boy; drive him away with this stick. — That’s right; drive him away.”

The turkey cock began to run away, turning back, from time to time, and making a terrible noise; but Frank pursued him, threatening him with the stick; and, as fast as Frank came up to him, the turkey cock gobbled and ran away.

“ Well done, Frank! you have fairly driven him away,” said his father, shaking hands with him. “ You see you can conquer him, and that he has not hurt you; now, the next time a turkey cock attacks you, if you have a stick in your hand, you need not be afraid.”

“ My dear Frank,” said his mother, “ I am glad to see you are become so much stouter than you were. When you were a very little boy, and not nearly so strong as you are now, I remember we had a turkey cock, in the yard, which one day frightened you; and your father ordered, that it should be sent away, that it might not frighten you again; for you were not then able to defend yourself.”

“ But I am now older, and am able to defend myself,” cried Frank; “ and willing, too, mamma.”

Frank marched on, in triumph, before his mother ; and passed by the door of the chicken yard, looking proudly at the turkey cock, who dared not come out. Frank amused himself, during a great part of the way home, in imitating the strut and noise of this animal ; and he frequently turned to his mother, asking her, if *this* was not very like ; and *this* still more like : and begging her to shut her eyes and listen, and tell whether she could know his *gobble* from that of the real turkey cock.

Frank was tired, at last, of doing this ; and his mother was tired of listening to him——

“ Now, mamma, I have done being a turkey cock.”

“ Very well, my dear, I am glad of it.—Let this woman, who seems to be

in a hurry, pass by you, Frank," said his mother.

Frank looked behind him, and he saw a woman, with a milk pail on her head, and another under her arm. He made way for her, and when she had passed, he said—

“Mamma, that is the very same woman, who was milking the cow in the farm yard, and who said to me, ‘Master! master! don’t go up the ladder, or you will break your pretty little legs.’—Mamma, was not she foolish, to be so much frightened? I wonder how any body can be afraid to go up a ladder. What a coward she must be, poor woman!”

As Frank was saying this, they came to the narrow bridge; and to Frank’s surprise, he saw this woman run, with-

out any appearance of fear, across the plank.

“With one pail on her head, and the other pail under her arm, too!” cried Frank, stopping short, and looking at her with astonishment.—

“Mamma, can that be the same woman?—Then she cannot be a coward!—Not a coward about going over narrow bridges, but she is a coward about going up a ladder, mamma.”

“She is accustomed to go over this bridge, and she finds, that she can do so without being hurt; and you, Frank, have been accustomed to go up a ladder without being hurt.”

“Yes, the ladder in papa’s study, I go up and down very often every day. The first time I went up it, I was a little afraid; and I remember clinging

fast, and going very slowly.—I see, mamma, that people learn not to be afraid of what they are accustomed to; and I believe people can teach themselves not to be afraid.”

As Frank finished speaking, he walked boldly over that bridge, on which, but a short time before, he had scarcely dared to put his foot—that bridge, which he had thought it impossible to cross.

FRANK'S father was very careful always to keep his promises. He remembered, that he had promised Frank that, whenever the brewer came, he would let Frank see how beer was brewed. The brewer was now going

to brew, and Frank's father called Frank, and took him into the brew-house.

“What a very large vessel that is, papa!” said Frank, pointing to a vessel which he saw in the brewhouse.

“It is large, compared with that, which you have seen the cook use for boiling meat; but it is small, compared with the brewing pan, or boiler, used in a public brewery, where a great quantity of beer is brewed for numbers of people. We brew only the quantity, that we want to drink ourselves.”

“What is in the boiler, papa?”

“Water—Look at this large wooden vessel; this is called a vat. Into this the malt is put, and the water, that is boiled in the boiler, is poured into the vat, and mixed with the malt; and,

after some other management, it becomes a liquor called *wort*.—This is all you can see to day.”

The next day, his father called Frank again, and took him into the brewhouse, and showed him the *wort*, and bid him taste it : he tasted it, and found it sweet : but it had not the taste of beer, though it had something of the colour of muddy beer. His father told him, that hops must be mixed with the *wort*, before it could taste like beer. He showed Frank hops, and Frank tasted the hops, and found, that they had a bitter taste.

“ And is this all that is done to make beer, papa ? ”

“ Not all—the *wort*, after the hops have been boiled in it, must be set to *work* or *ferment* ; and after it has fer-

mented for some time, it becomes beer.”

“What is to ferment?” said Frank.

“I cannot explain it to you,” answered his father. “But you shall see this wort when it is fermenting.”

Then Frank’s father desired the brewer would send, and let him know, as soon as the beer should begin to ferment.—The brewer did so some time afterward; and Frank went to look at it. It was not now in the brewhouse.

“You see, Frank,” said his father, “that the liquor in these vessels is not like what you saw in the brewhouse. It is, however, the same liquor; but it is now in a state of fermentation.”

“It looks, indeed, quite different,” said Frank; “that liquor was of a dull brown colour, and quite smooth on the

surface ; this is all frothy, and of a muddy yellow and white colour. It is full of bubble ; some rising from below the surface, and others bursting.”

“That froth is called yeast, or barm ; and it is by means of this yeast, or barm, that bread is made spongy and light. Bread made without barm is heavy, like unbaked paste.”

“Papa, how is the beer made to work, or ferment, as it is called ?”

“Some yeast, that was got from other beer, that was fermenting, was put into this beer ; and that *set it a working*, as it is called.”

“How does it set it a working, papa ?”

“I do not know,” answered his father.

“How did they get yeast for the first beer, that was made to ferment ?”

“I do not know,” answered his father.

“Why, papa, I thought you knew every thing.”

“Indeed, my dear, I know very little: and I never pretend to know more than I do. The older people grow, and the wiser they become, the more they feel, that they are ignorant of a number of things. Then they become the more desirous to learn; and the more they learn, the more pleasure they feel in acquiring fresh knowledge.”

AFTER he had seen and heard all, that his father could show, or tell him, about the fermentation of beer, Frank went to read to his mother, as he usually did, at this hour, every morning.

“You have just been seeing how beer is made, Frank,” said she ; “now, should you like to know how cider is made ? ”

“Very much, mamma.”

“Here is a book, in which you can find an account of it.”

She put into his hand the first volume of Sandford and Merton, open at the place, which gives an account of Harry and Tommy’s visit to the farmhouse, where they saw a room full of apples, and where the farmer’s wife described the manner in which she made cider of apple juice.

Frank read all this to his mother, and it entertained him so much, that, when he had finished it, he asked his mother to let him read some more of that book.

His mother said, that she was afraid,

he was not yet able to understand all of it; and that she advised him to *keep the pleasure* of reading it, till he should be able quite to understand it.

“ O, mamma! here is a story of two dogs, Jowler and Keeper—Mamma! just let me look at that, and a story of *the good natured little boy and the ill natured boy*—I am sure I can understand that, mamma; and the story of the gentleman and the basket maker, and Androcles and the lion: I will begin at the beginning, mamma, if you please; and, if I find, that I do not understand it, I will put it up again in your book-case, and *keep the pleasure*, as you say, till I am able quite to understand it.”

Upon this condition, Frank's mother gave him leave to read Sandford and Merton. He sat down immediately on the carpet, and he read eagerly for

some time, till he came to a long dialogue, and then he yawned—His mother sent him out to work in his garden. She would not allow him to read much at a time, because she wished to prevent him from being tired of reading. He had the pleasure of reading a little of Sandford and Merton every day. He found, that he understood a great deal of it; and his mother told him, he might miss some parts; “You will read that book over again, I am sure, some time hence; and then you will be able to understand it all, and then you may read the parts, which you now miss.”

Frank was particularly delighted with the account of the house, which Harry and Tommy built. And as soon as Frank got over the difficulty of the hard name *Spitzbergen* he liked the ac-

count of "the extraordinary adventures of the four Russian sailors, who were cast away on the desert island of East Spitzbergen."

"Mamma, I like this, because it is true," said Frank—"Mamma, I like books, that tell me true things, and that teach me something."

ONE morning, when Frank was going to put on his shoes, he found, that there was a hole in the side of one of them; so he put on another pair, and he ran with the shoe, that had the hole in it, to his mother, and asked her to have it mended for him. She said, that she would send it to the shoemaker's.

"Mamma," continued Frank, "I should like to go to the shoemaker's; I

should like to see how he mends my shoe, and how he makes new shoes. I understand something about it, from having seen that print of the shoemaker, in the Book of Trades, and from having read the description; but I think I should understand it much better, if I was to see a real shoemaker at work."

"I think you would, my dear; and, when I have leisure, I will take you to see a shoemaker at work."

"Thank you, good mamma!—And I should like to see every thing done, that is shown in the prints of that book," continued Frank. He ran for the book, and, turning over the leaves, "I should like, mamma, to see the trunkmaker, the wheelwright, the turner, the ropemaker, the papermaker, the book-binder, the brazier, the buttonmaker,

the sadler, the glassblower, and—oh, mamma!—the printer, and——”

“Stop, stop, my dear Frank!—I cannot show you all these; but, if you are not troublesome, I will show you any, which you can understand, whenever I have an opportunity, and when I have time. You know, that I have a great many things to do, and cannot always attend to you, my little Frank.”

“I know that, mamma—But you have time, have not you, to take me to the shoemaker’s to-day?”

“Not to-day, my dear.”

“But, mamma, will you tell me how paper is made?”

“Not now, my dear.”

“Well, mamma, I will tell you how I intend to manage about my arbour.”

“Not at present, my dear. Do not

talk to me any more, now—I am going to write a letter.”

Frank went away, and employed himself, that he might not be troublesome, and that he might make himself happy.

The next day, his mother took him to the shoemaker's: he saw him at work—he saw the awl, with which the shoemaker makes holes in the sole of the shoe and in the leather, through which holes he puts the waxed thread, with which he sews them together—he saw, that, instead of using needles, the shoemaker used hogs' bristles, which he fastened to the waxed thread, with which he worked: so that the bristles served him as needles. He put the two ends of the thread in at opposite sides of the holes, and then drew the thread tight, by pulling each end at one and

the same time ; and in doing this, he pushed out his elbows, and made an odd jerking motion, which diverted Frank very much.

“ Now I know the reason,” said Frank, “ why, in the song, which papa sings, about the cobbler, it says, that he wanted elbow room—

“ ‘ There was a cobbler, who lived in the coomb,
And all that he wanted was *elbow room.*’ ”

Frank saw, in this shoemaker’s shop, large pieces of leather, of different colours, black, white, red, blue, green, and purple. He asked leave to look at these ; and one of the men in the shop, who was not busy, took out of a drawer some skins, as he called them, and spread them on the counter, before Frank, who touched, and smelt, and looked at them, for some minutes, and then said—

“ I know, that leather is the skin of animals—of horses, and dogs, and calves, and of some kinds of goats, and of——of——I forget the name——seals.”

“ Why master !” said the shoemaker, looking up from his work, “ many a little master, of your age, for whom I make shoes, does not know so much—you are a very clever little gentleman.”

Frank coloured, and was ashamed ; for he recollected the *flattering lady*, and he thought the shoemaker was flattering and laughing at him—He turned away, and said to the man, who had showed him the skins—

“ Tell me, will *you*, how the skins of horses, and dogs, and goats, are made to look like this *leather*, which I see before me ?—I know, pretty well, how

the hair of the horses, and dogs, and calves, is got off, because I read an account of that, in my Book of Trades—I know the currier, with a long knife, with two handles, scrapes it off—But I don't know, and I wish you would tell me, how you turn the skin into leather, and how you give it such beautiful colours.”

“ Master, I cannot tell you *that*—It is not our trade ; that is the business of the tanner and the leather dresser—I buy the leather from them just as you see it. Please to sit down, master, that I may measure you for a pair of shoes.”

Frank, finding that the shoemaker's man could not tell him any thing about tanning or dying, contented himself with observing the manner, in which this man took measure of his foot. Frank looked at the stick, or ruler which the shoemaker used. It was

made to fold up and open, something like a carpenter's common ruler; but there was hinged, at one end of it, a bit of brass, about two inches long; and this was hinged so, that it could be made to stand up, or shut down, as you please. This piece of brass the shoemaker turned up, and put behind Frank's heel, when he began to measure his foot, and he laid the ruler under the sole of Frank's foot. There was another piece of brass, hinged in the same manner, which could be slid backwards and forwards upon the ruler: the shoemaker pushed this up to the end of Frank's foot, and then looked at divisions, which were marked upon the ruler; and he saw the distance between the brass at the heel, and the brass at the toe; and he knew what *size* Frank's shoe ought to be, as to length. The

breadth he measured by *spanning* the foot ; that is by putting his fingers round it, in different places.

When the shoemaker had finished taking measure, he shut up his measuring stick. Frank asked leave to look at it once more, because he had not observed exactly how it was fastened when shut. The shoemaker put it again into his hands ; and he saw how one part of the brass notched into the other, so as to fasten both the parts of the ruler together, when shut.

The shoemaker then showed Frank some other things, which he wished to see, in his shop. He showed him a bootjack, for drawing boots off ; and a wooden leg, which is put into boots, to stretch them ; and he showed him the *lasts*, or moulds on which shoes are made.

Wherever Frank went, people were generally ready to answer his questions, and to show him what he wanted to see, because he took care not to be troublesome, and he did not ask foolish questions. He sometimes found, however, that people could not spare time to show him things; and he often found, that he could not understand their manner of explaining.

SOME days after Frank had been at the shoemaker's as he was walking out in the evening, with his father and mother, he heard a dog barking at a distance.

“How far off, mamma, do you think that dog is?” said Frank.

“About a quarter of a mile, I should

guess. I fancy it is White the tanner's dog."

"The tanner!—Mamma, I wish he had not that barking dog."

"That barking dog is very useful to the tanner, and he will not do you any harm. That dog is always chained up in the day time; he is let loose only at night, when he guards his master's property, and prevents any one from stealing the leather, which the tanner leaves in his tanpits."

"Then, mamma, if the dog is chained up, and cannot do me any harm, I wish you would be so good, as to take me to see the tanner and the tanpits—you know, the shoemaker told me, that the tanner tans leather. Mamma, will you go?—Papa, will you go to the tanner's?"

"Yes, Frank, we will go with you,"

said his father—"I am glad to see, that you are so desirous to acquire knowledge."

They walked across two or three fields, towards the tanner's house; and when they came near it, the barking of the dog was heard very loud. But at the same time, that Frank heard his loud barking, he also heard the rattling of the dog's chain; and he knew, therefore, that he was chained up, and could not do him any mischief. His father told Frank to take care, as he passed by this fierce dog, not to go within his reach—not to go within the length of his chain. Frank took care, and walked at a prudent distance. The tanner came out, and silenced his dog, and then Frank could hear and attend to what was said.

But, though he attended, he did not

understand all that the tanner said ; for the man spoke in a tone different from what Frank had been accustomed to hear.

“ Here *bees* my tanpits, master, if that *bees* what you’re *axing* for. And all that *is*, as I knows about it, you see, master, is this, that I *puts* the skins into one of these here pits, first-and-foremost, to cleanse it of the air, like ; and then I stretches it upon a *horse*, you see, and I scrapes off the hair.”

“ And does the horse stand still,” said Frank, “ while you are doing that ? ”

“ Oh, bless you ! master, it’s a wooden horse I be thinking of.”

“ Oh ! — I understand ! — But what is in this pit ? ”

“ First-and-foremost, I puts it into this pit,” said the tanner.

“First, he puts it into this pit,” said Frank’s father, observing, that Frank did not know what the man meant by first-and-foremost, which he pronounced very quickly, and like one word.

“Master, there is what we call lime-water; and then I puts it into stronger lime-water, to soak again; and then I takes it out, and hangs it to dry, and then again soaks it; and so on, till it is fit for the *tanpit*, here,” said the tanner, pointing to a pit.

“And what is in this pit?” said Frank.

“The bark, master—nothing in life, master, but the bark and water.”

“The bark,” said Frank; “what do you mean by the bark?”

“I means the bark, that is ground,

and thrown into this here pit with water."

Frank looked to his father for explanation; and his father told him, that the bark, of which the tanner spoke, was the bark of oak trees.

"This bark," continued his father, "contains something called *tannin*, which, after a length of time, gets into the pores, or openings, in the leather, and makes it hard. And after that, when the leather is dry, it does not let water easily pass through it; and then it is useful for making shoes and boots, and harness, and for covering trunks, and various other purposes."

"But what is that something called, *tannin*, papa?" said Frank.

"I do not know," said his father. "But I know, that it has a particular

taste, which is called *astringent*; and that it makes leather hard, and fit to keep out water. Dip your finger into that pit, where you see the bark and water, and taste the liquor, and then you will know what is meant by an astringent taste."

Frank dipped his finger into the tan-pit, and tasted the bark and water; and he understood what was meant by an astringent taste.

"Is this *all*, that you can tell me, papa?"

"All, that I can tell you at present, my dear. When you are able to understand it, you can read more on this subject in *Conversations on Chemistry* *."

"But I do not see here any of the

* Volume ii. page 186, the third edition.

red or green coloured smooth, shining leathers, which I saw at the shoemaker's."

No; they are not made at a common tanner's. They are coloured, and made smooth and shining, as you saw them, at the leather dresser's."

Frank's next wish was, to go to a leather dresser; and to learn how the leather was made of these beautiful colours. The tanner said, that he always sent his leather, as soon as it was tanned, to a leather dresser, who lived in a town at twenty miles' distance from him, and from the place where Frank's father and mother lived.

They could not take him to the leather dresser's conveniently. In a book, a sort of dictionary, which his father lent to him, Frank afterwards looked for an account of the manner

in which leather is dyed. He found, that he could not understand it, so he turned his attention to something else, which he could understand.

THE next day, he passed by a nailer's forge, and he asked his father to take him in, and to let him see how nails were made.—In the course of a few weeks afterwards he saw several other things, which entertained him.

Last year, when he had seen the sheepshearing, and had been told, that the wool cut from the back of the sheep could be made into cloth for a coat, such as that which he wore, he had been curious to know how this could be done. His mother showed him how the wool is spun into woollen

yarn ; and this year, when he was able to understand it, his father showed him a loom, and explained to him the parts of the machine ; and showed him how woollen yarn is woven into cloth, by means of a loom.

This summer, Frank saw several other things, about which he had been curious. His father showed him how books are printed, in a printing press. And, some time afterwards, he took Frank to a glasshouse, and let him see men making several things—bottles decanters, tumblers—he saw them pull the glass when it is hot and soft, into various shapes ; and blow air into it, and blow it out into any forms they pleased. This entertained him exceedingly.

But, whenever Frank saw any thing, that entertained him much, he always

wished, that he had his brother Edward, or his cousin William, or his cousin Frederick, or Charles, to tell it to. They were gone home, and his brother was gone to school ; and Frank wished, that he had some companion, of nearly his own age, to talk to and to play with.

FRANK had a little cousin Mary ; and about this time little Mary, who was between five and six years old, was brought to his mother's house. Mary was dressed all in black, when Frank first saw her ; and she looked very melancholy. Frank went to his father, who was standing in another part of the room ; and he whispered to his father, and asked, why Mary was dressed in black, and why she looked so melancholy. His father answered —

“ Because her mother is dead.”

“ Poor girl ! ” said Frank. “ If my mother was dead, how sorry I should be—Poor little Mary ! what will she do without a mother ! ”

“ Mary is to live with us,” said his father ; “ your mother and I will take care of her, and teach her, as well as we can ; and you will be kind to her, will you not, Frank ? ”

“ That I will, papa,” said Frank.

He ran directly for those of his playthings, which he thought would please her the most, and he spread them before her. She looked at them, and smiled a little ; but she soon put them down again, and did not seem to be amused by them. Frank took her to his garden, and gathered for her those of his flowers, which he liked the best ; but she did not seem to like them nearly as

much as he did, or as much as he had expected that she would. She said—

“Thank you; but mamma had nicer flowers than these, at home—I wish I was with mamma—I wish mamma could come back again to me.”

Frank knew, that her mamma could not come back again to her; but he did not say so, then, to Mary. He took her to look at the house, which he was building; and he showed her the sticks, which his papa had given him for the roof, and he explained to her how he intended to roof it, and how he intended, afterwards, to thatch it; he said, that they two could work at it together, and he asked her if she should like it.

She said, she believed, that she should like it “by and by, but not then.”

He asked her, what she meant by "*by and by.*"

She said, "To morrow, or some other day, but not to day."

To morrow came ; and little Mary, after she had slept all night, and after she had eaten some breakfast, and after she had become better acquainted with all the people in the house, who were strangers to her, began to look more cheerful ; and, by degrees, she talked a little more ; and presently, she began to run about, and to play with Frank. He played with her, at whatever she liked best ; he was her horse, for that was what she asked him to be ; and he put a bridle of packthread round his body, and let her drive him and he lent her his best whip, with which he let her whip him on as much as she pleased.

After Mary had been at Frank's home for a few days, she began to call it her home; and she called his mother "mamma," and she seemed happy again.—But Frank could not, at all times, play with her; he had several other things to do; and, when he did play with her, he did not choose always to play at the play, which she liked best. Sometimes, at night, she wanted him to make a cat's cradle, or a paper boat, for her, when Frank wished to read an entertaining book; and sometimes he wanted to work in his garden, or to go on roofing his house, when she wished him to be her horse, or to roll her in the wheelbarrow. Upon these occasions, Mary was sometimes a little cross; and Frank was sometimes a little impatient.

Frank had now finished roofing his

house, and he was beginning to thatch it, in the manner he saw the thatcher; he wanted Mary to help him: he told her, she must wait upon him, as he had seen the labourer wait upon the thatcher, who thatched the barn. He said she should be his *straw man*; and he showed her how to carry the straw; and he charged her always to be ready when he cried out—

“More straw! — more, man! — more!”

For a little while, Mary served him well; and had the straw ready when he called “More straw!” But she was soon tired, and Frank called.

“More straw! — more, man! — more!” several times before she was ready. Frank grew angry, and he said she was slow and awkward, and lazy; and she said, she was hot and tired,

and that she would not be his *straw man* any longer. Frank tried to convince her, that she was wrong; and, to prove it to her, repeated what his father had told him about the division of labour.

“You see,” said he, “I am forced to come down the ladder, every time I want straw; I loose my time, and I cannot get on nearly so quickly, as if you carried it to me. When I go on doing one thing, and you doing another, to be ready for me, you cannot think how well and quickly we get on—that is dividing the labour—the division of labour—you understand?”

Mary did not understand. She said, “I do not know any thing about that; but I don’t like to be your straw man any longer, and I will not.”

Frank pushed her away, telling her

she might go wherever she pleased.— She stood still, and began to cry. Then Frank was sorry he had been so angry with her; and she dried up her tears when he told her so, and she said, she would be his *straw man* again, if he would not call “More straw!—more, man!” so very fast; and if he would not call her stupid or lazy.

To this Frank agreed; and they went on again for some time, he thatching, and she carrying straw, and placing little bundles ready for him: and they were very happy, he working quickly, and she helping him nicely.

“How much happier is it not to quarrel!” said little Mary. “But now I am really quite tired—will you let me rest?”

“Yes, and welcome!” said Frank: “though I am not in the least tired.”

He came down the ladder, and he went and looked for some wood strawberries, and brought them to her, and they ate them together very happily.

“ I cut, and you choose—that is fair, is not it, Mary ? ” said Frank.

Whenever any pie or pudding, fruit, cake, or any thing, which they both liked to eat, was given to them, Frank was usually desired to divide it; and this he did with most accurate justice. When he had divided it, as well as he could, he always desired Mary to choose whichever piece she liked for herself; so that, if there was any advantage, she might have it.—This was being just; but, besides being just, Frank was generous. Every thing, that was given to him, to share with his little cousin, he always gave her a part, and often a larger or a better part, than that, which

he kept for himself. Nobody knew this but Mary and himself; for he did not want to be praised for it; the pleasure he felt in doing it, and the pleasure he saw that he gave her, was quite enough.

But though Frank was so good natured to his little cousin, yet he had faults. He was passionate; and, sometimes, when he was in a passion, he did what he was afterward very sorry for. Till little Mary came to his mother's, he had not been used to live with any one, who was younger and weaker than himself.

When he found that he was the strongest, he sometimes, in playing with little Mary, took advantage of his strength, to make her do what he commanded her; and, when he was impatient to get any thing from her, he now

and then snatched or forced it rudely from her hands. One day, she had a new ball, which she held between both her hands, and she would not let Frank look at it ; she was half in play, and, at first, Frank was playing with her also ; but when she persisted in refusing to let him see it, he grew angry, and he squeezed her hands, and twisted her wrist with violence, to make her open her hands. She, being in great pain, roared out so loudly, that Frank's father, who was in the room over that in which they were, came down, to inquire what was the matter. Mary stopped crying the moment he appeared ; Frank looked ashamed, but he went forward to his father directly, and said—

“ It was I, who hurt her, papa—I

squeezed her hands, to make her give me this ball."

"You have hurt her indeed!" said his father, looking at little Mary's wrist; which was very red, and was beginning to swell.—"Oh, Frank!" continued his father, "I thought you would use your strength to help, and not to hurt, those who are weaker than yourself."

"So I do, always, papa; except when she puts me in a passion."

"But the ball was my own ball," said Mary; "and you had no right to take it from me."

"I did not want to take it from you, Mary, I only wanted to look at it; and you began first to be cross—you were very cross."

"No, Frank; you were the *crosses*st."

"You are both cross now, I think,"

said Frank's father; "and since you cannot agree when you are together, you must be separated."

Then he sent them into different rooms, and they were not allowed to play together, during the remainder of that day.

The next morning, at breakfast, Frank's father asked them whether they had been as happy yesterday as they usually had been; and they both answered, no. Then he asked,

"Do you like better to be together, or to be separate?"

"We like a great deal better to be together," said Frank and Mary.

"Then, my dear children, take care and do not quarrel," said Frank's father; "for, whenever you quarrel, without asking any questions about who

was cross, or crosser, or crossest, or who *began first*, I shall end your dispute at once by separating you—You, Frank, understand the nature and use of punishment; you know——”

“ Yes, papa, I know,” interrupted Frank, “ that it is——it is pain—— Papa, will you explain it; for, though I know it, I cannot say it in good words.”

“ Try to explain it, in any words.”

“ When you punish me, papa, you give me pain, or you take something from me, which I like to have, or you hinder me from having something that I like, or from doing something that I like to do——”

“ Well, go on; when, and for what reason, do I give you pain, or prevent you from having pleasure?”

“When I have done something wrong and because I have done something wrong.”

“And do I give you this pain of punishment because I like to give you pain, or for what purpose?”

“Not because you like to give me pain, I am sure, papa; but to cure me of my faults—to hinder me from doing wrong again.”

“And how will punishment cure you of your faults, or prevent you from doing wrong again?”

“You know, papa, I should be afraid to have the same punishment again, if I were to do the same wrong thing; and the pain, and the shame of the punishment, make me remember—I remember them—a great while; and the punishment comes into my head, that is, I think of it again, whenever I think

of the wrong thing, for which I was punished; and if I was tempted to do that same thing again; just at the very time, I should recollect the punishment, and I should not do it. I believe——”

“Then according to your description of it just punishment is pain given to a person, who has done what is wrong, to prevent that person from doing wrong again.”

“Yes, papa; that is what I wanted to say.”

“And is there no other use in punishments, do you think, Frank?”

“Oh yes, papa! —to prevent other people from doing wrong: because they see the person, who has done wrong, is punished; and if they are sure, that they shall have the same punishment, if they do the same thing, they take care not to do it. I heard John, the gardener’s

son, saying yesterday to his brother, that the boy, who robbed his garden last week, was taken, and had been whipped; and, that this would be a fine example for all the children in the village, and would hinder them from doing the same thing again."

"Then just punishment is pain given to those, who do wrong, to prevent them from doing that wrong again; and to prevent others from doing wrong."

"Yes, papa," said Frank; "but papa, why do you tell me all this? Why do you ask me these things?"

"Because, my dear son, now, that you are becoming a reasonable creature, and that you can understand me, I wish, as much as possible, to explain to you the reasons for all I do, in educating

you. Brutes, who have no sense, are governed by blows; but human creatures, who can think and reason, can be governed, and can govern themselves, by considering what is right, and what makes them happy. I do not treat you as a brute but as a reasonable creature; and, on every occasion, I endeavour to explain to you what is right and wrong, and what is just and unjust."

"Thank you, papa," said Frank—"I wish to be treated like a reasonable creature, Papa, may I say *one* thing?"

"As many things as you please, my dear."

"But, papa, this *one* thing is about you; and perhaps you will not like it.—Papa, I do not think it is just to sepa-

rate Mary and me, whenever we quarrel, without examining or inquiring which is in the wrong."

"When people quarrel, they generally are both in the wrong."

"But not always, papa; and one is often more in the wrong than the other; and it is not just, that the one who is least in the wrong, should be punished as much as the person, who did most wrong."

Here Frank paused, and the tears came into his eyes; and, after a little struggle with himself, he added—

"Now it is all over, papa, I must tell you, that I was most to blame—I was the most in the wrong, in that quarrel, which little Mary and I had yesterday. It was I hurt her, by squeezing her hand violently, and she

only cried out; and yet she was punished as much as I was.”

“ My dear, honest, just, generous boy !” said his father, putting his hand upon Frank’s head, “ act always, feel always, as you now do ; and when you have been wrong, always have candour and courage enough to acknowledge it.”

Little Mary, who had gone away to her playthings, whilst they had been talking of what she did not understand, left her playthings, and came back, and stood beside Frank, looking up in his face, and listening eagerly, when he said, that he had been most to blame in their quarrel. And when his father praised him, Mary smiled, and her eyes sparkled with pleasure. After his father had done speaking, she said—

“ Frank is very good, to tell that he was the most wrong ; but I was a little wrong ; I cried more than I should have done, and a great deal louder, because I was angry.”

“ There is a good girl !” said Frank’s father, stroking her head—“ Now that is all over, let us think of the future.— You say, Frank, that you do not think it just that you should be separated, when you quarrel, because that separation is the same punishment for both, when perhaps one only is to blame, or one much more to blame than the other. Do I understand you?—Do I state clearly what you mean ?”

“ Yes, papa — pretty well — not quite. I think the separating us is just enough, because, as you say, when we quarrel, we generally are both to blame. more or less : and besides, when

we are angry, we cannot have any pleasure, in being together—So I give up that. But I think, that before you separate us, you or mamma should always inquire, and find out, which of us is most to blame, and exactly how much; and then the person, who has been most wrong, will have the most *shame*; and that will make the punishment just as it should be.”

“ Well argued, my boy! — This would be strictly just, as far as you two are concerned; but you must consider, also, what is just for your mother and for me.”

“ What do you mean, papa?—I do not want to punish mamma or you—you do not quarrel,” said Frank laughing—“ I do not wish to separate you, or to punish mamma or you, papa—I do not understand you.”

“Listen to me, and perhaps I shall make you understand me.—You say, you do not want to punish me or your mother; and yet you would punish us both, whenever you quarrelled, if we were obliged to give up our time, and to leave whatever we were doing, that was agreeable to us, in order to settle which of you two were most to blame, in a dispute, perhaps, about a straw, or something of as little value.—Now suppose you two were to quarrel every hour—”

“O, sir!” interrupted little Mary, “quarrel every hour!—Oh!—Oh!—that is quite impossible.”

“But my father only says *suppose*—We can suppose any thing, you know,” said Frank, “Well, *suppose*, papa—”

“And suppose, Frank, that every hour it would require a quarter of an

hour of your mother's time or mine to listen to both, and settle which was most to blame——”

“ A quarter of an hour!—that is a great deal too much time to allow.”

“ We have been talking now, Frank, above a quarter of an hour, I think.”

“ Indeed!—I never should have guessed that!”

“ Should not you?—When people are much interested about any thing, they talk on a great while, without considering how time passes.”

“ That is true. Well, allow a quarter of an hour each quarrel, and one every hour,” said Frank.

“ And count twelve hours as a day—Then twelve quarters of an hour, Mary, how many whole hours will that make?”

Mary answered, after thinking a little while—"I don't know."

Frank answered—"Three hours."

"So three whole hours, Frank, your mother or I must, according to your plan, give up every day, to settling your quarrels."

"That would be too much, really!" said Frank. "But this is only arguing upon your *suppose*, papa."

"Well, state, that you quarrel only once a day; tell me, why your mother or I should be punished by taking up our time disagreeably in settling your little disputes, provided any other manner of settling them would succeed as well—Be just to us, Frank, as well as to yourself and to Mary."

"I will, papa—I will be just to you; I acknowledge we should not take up your time disagreeably, in settling our

disputes, *if* they could be settled as well any other way ; but all depends upon that *if*—You will acknowledge *that*, father ?”

“ I do acknowledge it son. This question can be decided, then, only by experience — by trying, whether the fact is so or not. Let us try my way, if you please, for one month ; and, afterwards, if mine does not succeed, I will try yours.”

ROSAMOND.



THE WAGER.

“ ROSAMOND, you did not water your geraniums last night,” said her mother.

“ Yes, mamma—no mamma, I mean ; because I could not find the rose of the little green watering pot.”

“ You did not look for it, I think, my dear—it was on the shelf, directly opposite to you, as you go into the greenhouse.”

“ That shelf is so high above my head, that it was impossible I could see what was upon it.”

“ But, though the shelf was so high above your head, you could have seen

what was upon it, if you had stood upon the stool, could not you?" said Godfrey.

"But the stool was not in the greenhouse."

"Could not you have gone for it?" said Godfrey.

"No, I could not," replied Rosamond; "because it was very hot; and mamma had just desired me not to run any more *then*, because I was too hot."

"Run!—But could not you have walked, Rosamond?"

"No, brother, I could not—I mean that if I had walked, it would have done no good, because one of the legs of the stool is loose, and I could not have carried it, because, you know, it would have dropped out, every instant; and, besides, it is very dangerous, to stand upon a stool, which has a loose leg.—"

Papa himself said so, Godfrey ; and he bid me, the other day, not to stand upon that stool. — Besides, after all, why should I have gone for the stool? — How could I guess, that the rose of the watering pot was upon that high shelf, when I did not see the least glimpse of it ? ”

“ Good excuses, Rosamond,” said Godfrey, smiling, “ and plenty of them.”

“ No, not good excuses, brother ! ” cried Rosamond — “ only the truth — Why do you smile ? ”

“ Well ? — not *good* excuses, I grant you,” said Godfrey.

“ Not excuses at all,” persisted Rosamond — “ I never make excuses.”

Upon hearing this Godfrey burst into a loud and uncontrolled laugh ; and Rosamond looked more ready to cry

than to laugh—She turned to her mother, and, appealing to her, said—

“Now mother, you shall be judge. Do I *ever*—I mean, do I *often*, make excuses?”

“Only seven, if I remember rightly, within the last five minutes,” answered her mother.

“Then, mamma, you call *reasons* excuses?”

“Pardon me, my dear, I did not hear you give one reason, one sufficient reason. Now, Rosamond, you shall be judge—I trust you will be an upright judge.”

“Upright! that is, honest—O, certainly, mamma!”

“Could not you have watered the geraniums without the rose of the little green watering pot?”

“Why, to be sure, ma'am, I could

have used the red watering pot, I own."

"Ah! ah!—Now the truth has come out, at last, Rosamond!" cried Godfrey, in a triumphant tone.

His mother checked Godfrey's tone of triumph, and said, that Rosamond was now candid, and that therefore this was not the time to blame or laugh at her.

"Mother," said Godfrey, "I should not have laughed at her so much this time, if she was not always making excuses; and you know——"

Their mother was called out of the room before Godfrey could finish what he was going to say—He had said enough to provoke Rosamond, who exclaimed—

"That is very unjust, indeed, Godfrey!—But, if ever I make a mistake,

or once do any thing the least foolish, or wrong, you always say, that I *always* do it."

"I *always* say so!—No, that I deny," cried Godfrey, laughing—"Whatever I may think, I do not always say you are foolish."

"You should not laugh at me, Godfrey, because I am candid—mamma said so—And I am not always making excuses."

Well, Rosamond, because I am candid, I will acknowledge, that you are not *always* making excuses; but I will lay you any wager you please, that no day passes, for a week to come without your making half a hundred, at least."

"Half a hundred!—O, Godfrey!—I am content!—What will you lay?"

“My head to a china orange,” said Godfrey.

“I would not give a china orange for your head,” said Rosamond; “besides, that is a vulgar expression. But I will lay you all my kings, Godfrey, against your world, that, far from making half a hundred, I do not make one single excuse a day, for a week to come.”

“I take you at your word,” cried Godfrey, eagerly stretching out his hand—“Your kings of England against my joining map of the world. But,” added he, “I advise you, Rosamond, not to lay such a rash wager; for you will be sure to loose, and your kings are worth more than my world, because I have lost some little bits of it.

“I know that; but I shall keep my

kings, and win all you have left of the world, you will see."

"Win my world!" cried Godfrey—
"No, no, Rosamond! listen to me—I will not take advantage of you—I will allow you ten excuses a day."

"No, thank you, brother," said Rosamond—"one a day is quite enough for me."

"You abide by your wager, then, Rosamond?"

"To be sure I do, Godfrey."

"Then we begin to morrow; for you know to day cannot be counted, because you made seven in five minutes."

"I know that," interrupted Rosamond—"To day goes for nothing; we begin to morrow, which is Monday."

Monday came; and so strict was the guard, which Rosamond kept over

herself, that she did not, as even Godfrey allowed, make one single excuse before breakfast time, though she was up an hour and a half. But, in the course of the morning, when her mother found some fault with her writing, and observed that she had not crossed her *tees*, Rosamond answered—

“Mamma, it was the fault of the pen, which *scratched* so, that I could not write with it.”

“An excuse!—an excuse!” cried Godfrey.

“Nay, try the pen yourself, Godfrey; and you will see how it scratches and sputters, too.”

“But let it scratch or sputter ever so much, how could it prevent you from crossing your *tees*?”

“It could: because, if I had crossed the *tees* with that pen, the whole page

would have been speckled and spoiled just like this line, where I did begin to cross them."

"Could not you take another pen, or mend this, or ask mamma to mend it?—Oh, Rosamond, you know this is an excuse!"

"Well, it is only one," said Rosamond—"And you know, that, if I do not make more than one in a day, I win the day."

"There's a great blot," said Godfrey.

"Because I had no blotting paper, brother," said Rosamond.

The moment she had uttered the words, she wished to recal them; for Godfrey exclaimed—

"You have lost the day, Rosamond!—there's another excuse; for it is plain you had blotting paper on your desk—Look, here it is!"

Rosamond was ashamed and vexed—
“For such a little, tiny excuse, to lose my day!” said she; “and when I really did not see the blotting paper. But, however, this is only Monday—I will take better care on Tuesday.”

Tuesday came, and had nearly passed in an irreproachable manner; but, at supper, it happened, that Rosamond threw down a jug, and, as she picked it up again, she said—

“Somebody put it so near the edge of the table, that I could not help throwing it down.”

This, Godfrey called an excuse; though Rosamond protested, that she did not mean it for one. She farther pleaded, that it would be hard, indeed, if she were to lose her day for only just making this *observation*, when it must be clear to every body, that it

could not be meant for an excuse, because the jug was not broken by the fall, and it was empty, too ; so not the least mischief was done to any thing or any creature ; and no one had even blamed her ; so that, as Rosamond said, she had not had the slightest temptation to make an excuse.

This was all true, but Godfrey would not allow it.

That she had no temptation to make an excuse, Godfrey was most willing to allow ; but he would not admit, that it was therefore certain she had made none. On the contrary, he maintained, that Rosamond was in the habit of vindicating herself, even when no one blamed her, and when there was no apparent cause for making any apology. To support this assertion, Godfrey recollected and recalled several instances, in

which Rosamond, days, weeks, and months before this time, had done that, of which she was now accused.

“ Well,” said Rosamond, “ it is only Tuesday ; I will give it up to you, brother, rather than dispute about it any more.”

“ That is right, Rosamond,” said her mother.

Wednesday came. Rosamond determined, that, whenever she was found fault with, she would not say any thing in her own defence ; she kept this resolution heroically. When her mother said to her—

“ Rosamond, you have left your bonnet on the ground, in the hall—”

Godfrey listened to Rosamond’s reply, in the full expectation that she would, according to their usual custom, have answered—

“Because I had not time to put it by, mamma” —or, “Because papa called me” —or, “Because somebody threw it down, after I had hung it up.”

But, to his surprise, Rosamond made none of these her habitual excuses : she answered—

“Yes, mamma, I forgot to put it in its place—I will go and put it by this minute.”

Godfrey attended carefully to every word Rosamond said this day; and the more she saw that he watched her, the more cautious she became. At last, however, when Godfrey was not in the room, and when Rosamond was less on her guard, she made three excuses, one after another, about a hole in her gown, which she had neglected to mend—

“Mamma, it is not my fault; I believe it was torn at the wash.”

But it was proved, by the fresh edges of the rent, that it must have been torn since it had been ironed.

Rosamond next said, she had not seen the hole, till after she had put the gown on; *and then*, she could not mend it, because it *was so far behind*.

Could not she have taken the gown off again, her mother asked.

“Yes, ma’am; but I had not any thread fine enough.”

“But you had cotton, that was fine enough, Rosamond.—Three excuses!”

“O, mamma!—Have I made three excuses?” cried Rosamond—“This day, too, when I took such pains!—”

Godfrey came back, and seeing his sister look sorrowful, he asked what was the matter. She hesitated; and,

seeming very unwilling to speak, at last said—

“You will be glad of what I am sorry for!”

“Ha!—Then I guess what it is—You have lost the day again, and I have won it!”

Godfrey clapped his hands in triumph, and capered about the room.

“My world is safe! safe!—I really thought Rosamond would have had it to-day, mamma!”

Rosamond could hardly repress her tears; but Godfrey was so full of his own joy, that he did not attend to her feelings.

“After all, it is only Wednesday, brother, remember *that!*” cried Rosamond. “I have Thursday, Friday, Saturday, and Sunday to come—I may

win the day, and win the world, yet."

"Not you!" said Godfrey, scornfully—"you will go on the same to-morrow as to-day. You see you have so much the habit of making excuses, that you cannot help it, you cannot cure yourself—at least not in a week. So I am safe."

"So that is all you think of, brother; and you don't care whether I cure myself of my faults or not," said Rosamond, while the tears trickled down her cheeks. "You wish, indeed, that I should not cure myself—Oh, brother, is this right? is this good-natured? is this like you?"

Godfrey changed countenance; and, after standing still, and thinking for a moment, he said—

"It is not like me—it is not good-

natured—and I am not sure that it is right. But, my dear Rosamond! I do care about you, and I do wish you should cure yourself of your faults; only this week I wish—in short, I cannot help wishing to win my wager.”

“That is very natural, to be sure,” said Rosamond; “but I am sorry for it; for we used to be so happy together, and now, you are always glad when I am sorry, and sorry when I am glad; and when I do most wrong, you are most glad—And all for the sake of keeping your paltry world, and winning my poor kings!”

“No, indeed!” exclaimed Godfrey, “it is not for the sake of the world, or the kings; for you know I would give you my world, or any thing I have upon earth, Rosamond.”

“Yes,” said Rosamond, wiping away her tears; “I remember, you offered me your world the first day you had it; but I would not take it, and I don’t want it now—I would even give up my kings to you, if it was not for my wager—You know I cannot give up my wager.”

“Nor I neither!” cried Godfrey—
“The wager is what I cannot give up; I must prove, that I am right.”

“And that I am wrong!—Ay, there’s the thing!—you want to triumph over me, brother.”

“And if I do, this does you a great deal of good, because, you know, you do not like to be triumphed over—therefore, you take care not to be found in the wrong. Do not you see, that, since I laid this wager, you have taken more pains, than ever you did in your life before, not to make excuses?”

“ True!—It may do me good in that way, but it does not do me good altogether; because it makes me angry with you, and would make me, I do believe, dislike you, if it went on long.”

“ *Went on long*—I do not know what that means.”

“ If you went on laying wagers with me, that I should do wrong: I do not think such wagers are good things. Now I will ask mamma—Mamma has not said one word, though I am sure she has heard all we have been saying, because I saw her look up from her work several times at us both—Well, mamma, what do you think?”

“ I think, my dear Rosamond, that you have reasoned better than you usually do, and that there is much truth and good sense in what you have said about this wager.”

Rosamond looked happy. Godfrey,

without seeming pleased, as he usually did, when he heard his sister praised, said—

“Mamma, do you really disapprove of wagers?”

“I do not say, that I disapprove of all wagers,” replied his mother; “that is another question, which I will not now discuss; but I disapprove of this particular wager, nearly for the reasons, which Rosamond has given.”

“But, mamma, do not you think, that it did her good, to try to cure herself of making excuses, and that my wager made her take great care?—And, you know, if she were to dislike me, because she was in the wrong, at last, or because she was to lose her wager, that would still be her fault—the fault of her temper.”

“Let us, for the present, leave out of

the question, whose fault it would be ; and tell me, my dear Godfrey, do you wish to make your sister dislike you ?”

“ Oh no, mamma !—you know I do not.”

“ Should you like a person, who was glad when you are sorry, and sorry when you are glad ?—Should you like a person, who rejoiced when you committed any fault, who did not wish you to cure yourself of your faults ?—Should you like a person, who told you, that you could not cure yourself of your faults, especially when you were trying to improve yourself as much as you were able ? ”

“ No—I should not like a person, who did all this. I understand you, mamma—I was wrong,” said Godfrey.

“ It was my eagerness about that foolish wager, that made me ill-natured to

Rosamond—I will give up the wager, though I really think I should win it— But I will give it up, if mamma advises us to give it up,”

“ I really think I should win,” said Rosamond ; “ but I will give it up, if mamma advises us to give it up.”

“ I do advise you to give up this wager, my dear children,” said their mother.

“ So we will, and so we do,” said both Rosamond and Godfrey, running up to one another, and shaking hands.

“ And I assure you, brother,” said Rosamond, “ I will take as much pains to cure myself of making excuses, as if the wager was going on ; and my wager shall be with myself, that I will make not a single excuse to-morrow, or the next, or the next day, and that every day I shall be better than I was

the day before—And you will be glad of that, Godfrey, shall you not?”

“Yes, glad with all my heart,” said Godfrey.

“And that will be a good sort of wager, will it not, mamma?—a good sort of trial with myself, mamma?”

“Yes, my dear child?” answered her mother. “It is better and wiser, to endeavour to triumph over ourselves, than over any body else. But now let me see, that you do what you say you will do; for many people resolve to cure themselves of their faults, but few really have resolution enough, to do even what they say and know to be right.”

Rosamond did as she said she would do. She took every day pains to cure herself of her bad habit of making excuses, and her brother kindly assisted

her, and rejoiced with her, when, at the end of the day, she could say, with truth—

“ I have not made one single excuse to day.”

Godfrey, some time afterwards, asked his mother what her objections were to laying wagers in general. She answered—

“ I am afraid, that you cannot yet quite understand my reasons, but I will tell them to you, and, some time or other, you will recollect and understand them : I think, that the love of laying wagers is likely to lead to the love of gaming, if the wagers are about matters of chance ; or to the love of victory, instead of the love of truth, if the wagers relate to matters of opinion.”

THE
PARTY OF PLEASURE.

“ A PARTY of pleasure ! Oh, mamma ! let us go,” said Rosamond. “ We shall be so happy, I am sure.”

“ What ! because it is a party of pleasure my dear ? ” said her mother, smiling.

“ Do you know, mamma,” continued Rosamond, without listening to what her mother said, “ Do you know, mamma, that they are to go in the boat on the river ; and there are to be streamers flying, and music playing, all the time. And Mrs. Blisset, and miss Blisset, and the master Blissets, will be here in a few minutes. Will you go, mamma ? ”

and may Godfrey and I go with you, mamma?"

"Yes, my dears."

Scarcely had her mother uttered the word, "yes," than Rosamond made a loud exclamation of joy; and then ran to tell her brother Godfrey, and returned repeating, as she capered about the room,

"Oh! we shall be so happy! so happy!"

"Moderate your transports, my dear Rosamond," said her mother. "If you expect so much happiness beforehand, I am afraid you will be disappointed."

"Disappointed, mamma! ——— I thought people were always happy on parties of pleasure—Miss Blisset told me so."

"My dear, you had better judge for

yourself, than trust, without knowing any thing of the matter, to what miss Blisset tells you."

"But, mamma, if I know nothing of the matter, how can I judge; and how can I possibly help trusting to what miss Blisset tells me?"

"Is it impossible to wait till you know more, my dear Rosamond?"

"But I never was on a party of pleasure in my life, mamma; therefore I cannot judge beforehand."

"True my dear; that is the very thing I am endeavouring to point out to you."

"But, mamma, you said, do not raise your expectations so high. Mamma, is not it better to think I shall be happy beforehand? You know, the hope makes me so happy, at this pre-

sent minute. And, if I thought I should be unhappy, I should be unhappy now."

"I do not wish you to think you shall be unhappy, my dear. I wish you to have as much of the pleasant feeling of hope, at this minute, as you can have, without it's being followed by the pain of disappointment. And, above all, I wish you to attend to your own feelings, that you may find out what makes you happy, and what makes you unhappy. Now, you are going on a party of pleasure, my dear Rosamond, and I beg that you will observe whether you are happy or not ; and observe what it is that pleases you, or entertains you ; for you know, that it is not merely the name of a party of pleasure, that can make it agreeable to us."

“No, not merely the name, to be sure,” said Rosamond. “I am not so foolish, as to think *that* ; yet the name sounds very pretty.”

Here the conversation was interrupted. A carriage came to the door, and Rosamond exclaimed—

“Here they are, mamma ! Here are Mrs. Blisset, and miss Blisset, and her two brothers. I see their heads in the coach ; I will run and put on my hat.”

“I assure you, mamma,” continued Rosamond, as she was tying the strings of her hat, “I will remember to tell you whether I have been happy or not. I think I know beforehand what I shall say.”

Rosamond went with her mother, and Mrs. Blisset, and miss Blisset, and the two master Blissets, on this party of

pleasure; and the next morning, when Rosamond went into her mother's room, her mother reminded her of her promise.

“ You promised to tell me, my dear, whether you were as happy yesterday as you expected to be.”

“ I did, mamma.—You must know, then, that I was not at all happy yesterday; that is to say, I was not nearly so happy as I thought I should have been. I should have liked going in the boat, and seeing the streamers flying, and hearing the music, and looking at the prospect, and walking in the pretty island, and dining out of doors under the large shady trees, if it had not been for other things, which were so disagreeable, that they spoiled all our pleasure.”

“ What were those disagreeable things ? ”

“ Mamma, they were *little* things ; yet they were very disagreeable. Little disputes ; little quarrels, mamma, between miss Blisset and her brothers, about every thing that was to be done. First, when we got into the boat, the youngest boy wanted us to sit on one side, and miss Blisset wanted us to sit on the other side : now, mamma, you know, we could not do both ; but they went on, disputing about this, for half an hour ; and Godfrey and I were so ashamed, and so sorry, that we could not have any pleasure in listening to the music, or in looking at the prospect. You were at the other end of the boat, mamma ; and you did not see or hear all this. Then we came to the island,

and then I thought we should be happy ; but one of the boys said, ‘ Come this way, or you will see nothing ;’ and the other boy roared out, ‘ No, they *must* come *my* way ;’ and miss Blisset insisted upon our going her way. And all the time we were walking, they went on disputing about which of their ways was the best. Then they looked so discontented, and so angry with one another ! I am sure, they were not happy ten minutes together, all day long ; and I said to myself, ‘ Is this a party of pleasure ? How much happier Godfrey and I are every day, even without going to this pretty island ; and without hearing this music, or seeing these fine prospects ! Much happier ; because we do not quarrel with one another about every trifle !’ ”

“ My dear,” said her mother, “ I am glad you have had an opportunity of seeing all this.”

“ Mamma, instead of it's being a party of pleasure, it was a party of pain ! Oh, mamma ! I shall never wish to go on another party of pleasure ! I have done with parties of pleasure, for ever,” concluded Rosamond.

“ You know, my dear Rosamond, I warned you not to raise your expectations too high, lest you should be disappointed. You have found, that unless people are good-tempered and obliging, and ready to yield to one another, they make pain, as you say, even out of pleasure ; therefore, avoid quarrelsome people as much as you can, and never imitate them ; but do

not declare against all parties of pleasure, and decide, that you have done with them for ever, because one happened not to be as delightful as you had expected that it would be."



THE

BLACKBONNET.



ROSAMOND, at this time, was with her mother, in London. One morning, an elderly lady came to pay her mother a visit. This lady was an old friend of her mother's; but she had been, for some years, absent from England, so that Rosamond had never before seen her. When the lady had left the room Rosamond exclaimed—

“Mamma! I do not like that old woman at all. I am sorry, ma'am, that you promised to go to see her in the country, and to take me with you; for I dislike that woman, mamma.”

“I will not take you with me to her

house, if you wish not to go there, Rosamond; but why you should dislike that lady, I cannot even guess: you never saw her before this morning, and you know nothing about her."

"That is true, mamma; but I really do dislike her—I disliked her, from the first minute she came into the room."

"For what reason?"

"Reason, mamma!—I do not know—I have no particular reason."

"Well, particular or not, give me some reason."

"I cannot give you a reason, mamma, for I do not know why I did not like the woman; but you know, that, very often—or, at least, sometimes—without any reason—without knowing why—we like or dislike people."

"*We!*"—Speak for yourself, Rosa-

mond ; for my part, I always have some reason for liking or disliking people.”

“ Mamma, I dare say, I have some reason too, if I could find it out ; but I never thought about it.”

“ I advise you to think about it, and find it out. Silly people, sometimes like, or *take a fancy*, as they call it, at first sight, to persons who do not deserve to be liked ; who have bad tempers, bad characters, bad qualities. Sometimes, silly people take a dislike, or, as they call it, an *antipathy*, to those, who have good qualities, good characters, and good tempers.”

“ That would be unlucky——unfortunate,” said Rosamond, beginning to look grave.

“ Yes ; unlucky, unfortunate, for the silly people ; because they might,

if they had their choice, choose to live with the bad instead of with the good; choose to live with those, who would make them unhappy, instead of with those, who would make them happy.”

“That would be a sad thing indeed, mamma—very sad. Perhaps, that woman to whom I took a dislike, or—what do you call it?—an *antipathy*, may be a good woman, mamma.”

“It is possible, Rosamond.”

“Mamma, I will not be one of the silly people—I will not have an *antipathy*—What is an *antipathy*, mamma?”

“A feeling of dislike, for which we can give no reason.”

Rosamond stood still and silent for some moments, considering deeply, and then suddenly bursting out laughing, she laughed for some time, with-

out being able to speak. At last, she said—

“Mamma, I am laughing at the very odd, silly reason I was going to give you for disliking that lady— Only because she had an ugly, crooked sort of pinch in the front of her black bonnet.”

“Perhaps, that was a sufficient reason for disliking the black bonnet,” said Rosamond’s mother; “but not quite sufficient for disliking the person who wore it.”

“No, mamma; because she does not always wear it, I suppose. She does not sleep in it, I dare say; and, if I were to see her without it, I might like her.”

“Possibly.”

“But, mamma, there is another reason why I disliked her; and this,

perhaps, is a bad and unjust reason ; but still I cannot help disliking the thing, and this thing she cannot take off or put on as she pleases ; I can never see her without it, mamma : and this is a thing I must always dislike ; and my knowing, that this is the reason that I dislike her, does not make me dislike her the least the less.”

“ ‘ The least the less ! ’ ” repeated Rosamond’s mother : “ by the accuracy of your language, Rosamond, I perceive how accurately you think, at present.”

“ Oh, mamma, but this does not depend on thinking, mamma ; this depends on feeling—Mamma, I wonder—I have a great curiosity to know—whether you took notice of that shocking thing ? ”

“ When you have told me, what this

shocking thing is, I shall be able to satisfy your curiosity."

"Mamma, if you do not know it, it did not shock you, that is clear."

"Not perfectly clear."

"Then, mamma, you did see it, did you? And how could you help being shocked by it?"

"Will you tell me what you mean, Rosamond?"

"Then, mamma, you did not see it."

"*It,* what?"

"When her glove was off, mamma, did not you see it—the shocking finger, mamma; the stump of a finger, and the great scar all over the back of her hand? Mamma, I am glad she did not offer to shake hands with me, for I think I could not have touched her hand; I should have drawn back mine."

“There is no danger, that she should ever offer to shake hands with you, Rosamond, with that hand; she knows, that it is disagreeable—If you observe, she gave me her other hand.”

“That was well done. So she knows it is disagreeable. Poor woman! how sorry, and ashamed of it, she must be.”

“She has no reason to be ashamed, she has more reason to be proud of it.”

“Proud of it! Why, mamma?—Then you know something more about it—Will you tell me all you know, mamma?”

“I know, that she burnt that hand in saving her little granddaughter from being burnt to death. The child, going too near the fire, when she was in a room by herself, set fire to her frock; the muslin was in flames instantly; as she could not put out the flame, she

ran screaming to the door : the servants came—some were afraid, and some did not know what to do—Her grandmother heard the child's screams—ran up stairs—saw all her clothes and her hair on fire. She instantly rolled her up in a rug, that was on the hearth. The kind grandmother did not, however, escape unhurt, though she did not at the time know, or feel, how much. But when the surgeon had dressed the child's burns, then she showed him her own hand. It was so terribly burnt, that it was found necessary to cut off one joint of the finger. The scar, which you saw, is the mark of the burn."

"Dear, good, courageous woman!—And what a kind, kind grandmother!" cried Rosamond. "Oh, mamma, if I had known all this!—Now I do know all this, how differently I feel—

How unjust, how foolish, to dislike her!—And for a pinch in a black bonnet!—And for that very scar!—that very hand!——Mamma, I would not draw back my hand, if she was to offer to shake hands with me now——Mamma, I wish to go to see her now—Will you take me with you to her house in the country?”

“I will, my dear.”



T H E
I N D I A C A B I N E T.

It will be a great while before we come to the India cabinet. First, there are arrangements for several journeys to be made. Whoever has a clear head for these things, and who can understand, at first hearing it told, how various people intend to go and to come, and to meet upon the road, may, if they please, read the following page—Others had better skip it, because they certainly will not understand it.

Rosamond's father was at this time absent. He was gone to place Orlando at a public school; he had taken Godfrey with him, that he might have the

pleasure of the journey with his brother : but Godfrey was not to be left at the school, as he was not yet sufficiently prepared for it. He was to return with his father ; and his father, on his way home, was to call at the house of his sister, to bring back Laura : she had been for some time with her aunt, who had not been well.

Rosamond's mother, in the meantime, determined to go to Egerton Grove, to see the *lady of the black bonnet* ; and Rosamond was now eager to accompany her mother.

Mrs. Egerton, for that was the name of the lady of the black bonnet, had also invited Rosamond's father and sister to Egerton Grove, and they were to meet Rosamond and her mother there, on their way home.

Rosamond, with her mother, arrived

at Mrs. Egerton's. With feelings very different from those, with which she had seen Mrs. Egerton the first time, Rosamond now saw this lady; and, quite forgetting whether her bonnet was black or white, Rosamond was struck with the old lady's benevolent countenance, and good-natured smile. Mrs. Egerton introduced her to her granddaughter, Helen, the little girl, who had been so much burnt. Rosamond, as soon as she had an opportunity, began to talk to Helen about that accident; and Helen told her the whole history of it over again, adding many little circumstances of her grandmother's kindness and patience, which increased Rosamond's present disposition to admire and love her. Not a day, and scarcely an hour passed, but Rosamond liked her better and better; and with good reason, for

not a day or hour passed without Rosamond's hearing something instructive or entertaining, from this old lady, who was particularly fond of children; and who knew how to please and amuse, without flattering or spoiling them.

One morning, Mrs. Egerton took Rosamond into her dressing room, where there was a large India cabinet. She opened the doors of this cabinet, and told Rosamond, that she might look at all that was contained in the twelve drawers of this cabinet. The first drawer, which Rosamond opened, was full of shells; and the first shell, which caught Rosamond's attention, was one which looked, as she said, like a monstrously large snail shell, about eight inches across, or as wide as the breadth of a sheet of paper; as she laid it down upon a sheet of letter paper, which was

on the table, it nearly covered the whole breadth of it. The shell looked as if it was made of thin, transparent, white paper. It was a little broken, so that she could see the inside, which was divided into a number of partitions, or distinct cells; she counted about forty, and through each of these there was a hole large enough, as Rosamond thought, to admit a pencil or a pen.

Mrs. Egerton told her, that this was the shell of the nautilus.

“Ha!” cried Rosamond, “how glad I am to see the nautilus!

‘Learn of the little nautilus to sail,
Spread the thin oar, and catch the driving gale.’

But, ma’am, how does the nautilus sail? Where is the thin oar? I do not see any thing here like oars, or sails.”

Mrs. Egerton told her, that what

the poet calls the sails and the oars, belong to the fish itself, and not to the shell. "You can read an account of the nautilus, my dear, in several books, which, I dare say, your father has; and I believe I can show how——"

"Thank you, ma'am," interrupted Rosamond; "but will you tell me just a little about it now, and I will look for the rest afterwards."

Mrs. Egerton then told her, that the nautilus has eight arms or legs, whichever they should be called; and its feet or hands are webbed, like a duck's foot. When the nautilus wants to sail, it sets up some of these arms above the water and above the top of the shell, and it spreads out its wide webbed hands, which serve for sails. Sometimes it sets up and spreads six of these sails at once, while two of its arms, which are

longer than the others, serve for oars; and with these it rows itself on, in the water."

"I wish I could see it!" cried Rosamond—"I wish I could see it rowing, and with all its sails up, sailing away!—Ma'am, are these fish often seen sailing, and where are they seen?"

"In fine weather, they are often seen sailing on the Mediterranean sea; but when they fear a storm, or when they are in danger from any of their enemies, they instantly furl their sails; that is, draw them down, pull their oars into their shell, turn their whole shell upside down, and sink themselves below the surface of the water by a curious method."

"How very convenient!" said Rosamond—"But what is the curious method?"

“ When he wants to sink, the nautilus lets water into some of those divisions, or cells, which you see ; and he lets in water, till he, and his shell, and the water in it, become altogether so heavy, that they can no longer float on the sea. Then he sinks——”

“ ‘ Then he sinks, ’ ” repeated Rosamond—“ that I understand ; but how does he rise again ? for how can he get the water out of his shell when there is water all round him ? ”

“ It is said, ” replied Mrs. Egerton, “ that he has the power of pressing his body, in such a manner, into the cells, that he can expel, or push out, the water from them at pleasure ; and the air, in these cells, being lighter than the water, he rises again, and comes to the surface of the sea. And, in the same way, by letting water into the cells, or

filling them with air, he can make one side or the other, or one end or the other, of his shell heavier, so as to set it in any direction, with either side or end uppermost, just as he pleases; by these means, he can *trim*, or balance, his boat with the greatest nicety."

"How very happy he must be!" said Rosamond. "I wish men could learn, from the little nautilus, to make such a boat, as well as learn from him to sail. But, ma'am, what is this other shell, which has this tuft, or tassel, of fine silk sticking to it?"

Mrs. Egerton told her, that this, which looked like silk, is called the *beard* of the fish, that formerly lived in the shell. Of this silky substance, when it has been collected from a number of this kind of fish, fine and remarkably warm gloves and stockings

have been made. " 'This animal," said Mrs. Egerton, " has been called the *silkworm of the sea*. Its name is the pinna."

On the slip of paper, on which this name was written, Rosamond saw two lines of poetry, which she read ; and of which she asked an explanation.

" Firm to his rock, *the silver cords suspend*
The anchor'd pinna, and his cancer friend."*

Mrs. Egerton told her, " that this fish fastens itself, by these silky threads, to the rocks, twenty or thirty feet beneath the surface of the sea ; and it fastens itself so firmly that fishermen, to pull it up, are obliged to use strong iron hooks, at the end of long poles, with which they tear it from the rocks. It is called by the poet, ' the *anchored*

* Botanic Garden, canto iii, line 67 ; and note xxvii, page 72.

pinna ;' because it is fastened, or anchored, by these silken threads, to the rocks, as a ship is fastened by ropes to the anchor."

" But what is meant by his '*cancer friend*?' " asked Rosamond.

" It is said," replied Mrs. Egerton, " that a sort of little crab fish, called cancer, who has no shell of his own, lives in the shell of the pinna ; and is very useful to him in procuring him food, and in giving him notice when his enemy, the eight-footed polypus, is coming near. The cancer goes out of the shell to search for food : he has, I am told, remarkably quick eyes ; and when he sees the polypus coming he returns immediately into the shell of his friend pinna, warns him of the danger, and instantly the pinna shuts his shell, and they are both safe ; for the polypus can-

not get at them when their shell is shut. I am told, also, that the cancer divides with his friend pinna all the booty, or food, which he brings home to his shell."

"How curious!" cried Rosamond. "I did not think that fishes could be such good friends—But, ma'am, is this really true? Are you certain of it? For I observe you said, 'I am told,' or 'It is said.'"

"As I have not seen the cancer and pinna myself," said Mrs. Egerton, "I cannot be certain; I can only tell you what I have read and heard asserted by persons, whose truth I have no reason to doubt. When the poet speaks of friendship, you cannot suppose, that there is really friendship between these fish; but there is some mutual interest,

which makes them perform services for each other.”

Rosamond found so many other curious shells, and so many questions to ask about them, that she had scarcely time this morning to look through the drawer of shells, before it was time to go out to walk.

“ Oh, ma'am, you are looking at your watch! I am afraid you are going,” said Rosamond. “ And here is mamma coming to ask you to walk.”

“ Yes, I must go now,” said Mrs. Egerton; “ but I shall be able, to morrow morning, I hope, to answer any other questions you may wish to ask.”

Rosamond thanked her; but was very sorry that she was going. “ I have looked over but one drawer yet, and I

long to see some more ; but then, if I look at them by myself, I shall not have half so much pleasure ; all the pleasure of talking, and hearing, I shall lose. I shall forget, to-morrow, to ask the questions I may want to ask ; and then I shall lose, perhaps, a great many such entertaining facts, mamma, as Mrs. Egerton has told me to day—I wish she was not going out to walk ; but perhaps, if she stayed, she would be tired of telling me these things.”

“ Most probably, you would be sooner tired,” said Mrs. Egerton, “ of listening to them.”

“ Oh no, ma’am,” said Rosamond—
“ And yet,” added she, “ I know that listening to the most entertaining things, for a very long time together, does tire at last. I recollect being once tired of

hearing Godfrey read the fairy Paribanon, in the Arabian Tales; and yet *that*, all the time, entertained me excessively."

"Suppose then," said Rosamond's mother, "that you were to divide your entertainment, and make the pleasure last longer."

"Mamma, I know you are going to advise me to shut this cabinet, and keep the pleasure of seeing the other drawers till to-morrow; but then I am so very curious, and I want so much to see what is in them."

"But, if you put off the pleasure, it will be greater," said her mother—
"Mrs. Egerton will be with you, and will tell you all you want to know, and you say *that* increases the pleasure; I think you said you should not have half the pleasure without her."

“Half!—No, not a quarter, I am sure,” said Rosamond.

“Then, Rosamond, the question is,” said her mother, “whether you choose a little pleasure now, or a great pleasure to morrow.”

Rosamond took hold of one of the doors of the black cabinet, as her mother spoke, as if she was going to shut it.

“Four times the pleasure, if you put it off till to morrow, Rosamond.”

Rosamond shut one door; but paused, and hesitated, and held the other open.

“Mamma, in that drawer, that is not quite shut, I see some beautiful little branches of red sealing wax: might I open that one drawer *now*?”

“No, no; you must make your choice, and be content.”

“But, perhaps,” said Rosamond—

“Finish your sentence, my dear; or shall I finish it for you?—perhaps to-morrow will never come.”

“No, no, mamma; I am not so foolish.”

“Perhaps, then, you mean to say, that you cannot look forward so far as till to-morrow.”

“Mamma, you know so long ago as two summers, I learned to look forward about the blowing of my rosebud: and last year, I looked forward a whole twelvemonth about my hyacinths—
Oh, mamma!”

“You were very prudent about the hyacinths; and were you not rewarded for it, by having more pleasure than you would have had, if you had not been prudent and patient?”

“Yes, mamma; but that was worth

while; but, I think, it is not worth while to be prudent and patient, or to make such wise judgments and choices, about every little trifle, mamma.”

“I think, on the contrary, that it is very well worth while to be patient and prudent, and to make wise judgments and choices—even about trifles—because then we shall probably acquire the habit of being patient and prudent, and when we come to judge and choose about matters of consequence, *we* shall judge and choose well.

Rosamond shut the other door of the cabinet, and, turning the key in the lock slowly, repeated—“‘Four times as much pleasure to morrow.’ It is worth while, certainly; but, mamma, though I see, that it is worth while, you know it requires some resolution to do it.”

“That is true, my dear Rosamond—
And the having or the not having resolution to submit to self denials, and to do what is known to be best, makes the chief difference between foolish and wise people; and not only between the foolish and the wise, but between the bad and the good.”

“‘Between the bad and the good;’
mamma!—How can that be?”

“Yes, my dear. It is seldom for want of knowing what is right, but for want of having resolution to do it, that people become bad—for want of being able to resist some little present temptation—for want of being able steadily to prefer a great future to a little present pleasure.”

Rosamond turned the key decidedly—“I shall always have resolution

enough, I hope," said she, "to prefer a great future to a little present pleasure."

"Do so in trifles, my dear daughter," said her mother, kissing her, "and you will do so in matters of consequence, and you will become wise and good; and you will be the joy and pride of your mother's heart."

"And of my father's, mamma."

Well pleased with herself, Rosamond presented the key of the India cabinet to Mrs. Egerton, who desired her to keep it herself.

The next morning, at the appointed time, Mrs. Egerton was in her dressing room, and Rosamond's mother was there also; and Rosamond opened the India cabinet, and fully enjoyed all the pleasure she had expected, and all the

advantage of Mrs. Egerton's instruction.

The first drawer she opened was that in which she had seen a glimpse of what she called *little trees of red sealing wax*. They were each about a foot high, and had really somewhat the shape of branches of trees, without leaves; and the appearance and colour resembled red sealing wax. When Rosamond took up one of these branches, she was surprised to feel its weight; for it was much heavier than sealing wax, or than a wooden branch of the same size would have been.

“Is it a vegetable? is it a stone? or is it made by men? and what is it made of?” said she; “or where does it come from? and what is it called, ma'am?”

Mrs. Egerton could not answer all

these questions at once, but she began with the easiest, and answered, that it was called *coral*. Rosamond immediately recollected *the coral*, which she had seen hanging round the neck of one of her little cousins, who was an infant—Then she repeated—“But what is it? or how is it made?”

Mrs. Egerton told her, that people are not yet quite certain what it is—that it is found under the sea, generally fastened to rocks—that for many hundred years people believed it was a vegetable, but that within this last hundred years they believe it to be an animal substance—a substance made by little animals: it has been discovered, that there are innumerable small cells in coral, which are inhabited by these animals; and it is supposed, that the animals make these cells.”

“It is supposed!” repeated Rosamond—“only *supposed*.”

Rosamond was rather impatient of the doubtful manner, in which Mrs. Egerton spoke—she wondered, that people had been so many years *believing* wrong, and wished that somebody would decide. Rosamond, as she spoke, looked from Mrs Egerton to her mother, and from her mother to Mrs. Egerton. But neither of them would decide. Mrs. Egerton said, that she did not know facts sufficient; and Rosamond’s mother said, that, if people would avoid being in the wrong, they must often have patience to wait, till they know more facts, before they attempt to decide.

Rosamond thought this disagreeable; but she said that, rather than be in the wrong, which was still more disagree-

ble, she would try to have patience. Rosamond shut the drawer of corals, and opened another drawer. This contained a set of Chinese toys, men and women rowing boats, or seeming to draw water in buckets from a well; or tumblers, tumbling head over heels down stairs, and performing various feats of activity. These toys were set in motion by touching or winding up some machinery withinside, which was concealed from view. For sometime, Rosamond was amused so much by seeing their motions, that she could think of nothing else; but, after she had seen the boatmen row the boat ten times round the table, and after she had seen the watermen pull up and let down their empty buckets twenty times, and the tumblers tumble down stairs fifty times, she exclaimed—

“ I wish I knew how all this was done! —Oh, if papa was here!—How I wish, that my father and Godfrey were with us! Godfrey would delight in them, and I should so like to see his surprise!—And my father would perhaps explain to me how they are all moved——And Laura!—Oh! if Laura was here, how I should like to show her these strange drawings on these Chinese skreens?” continued Rosamond, taking one of them in her hand, and laughing—“ Very different from the nice tables and chairs, in perspective, which Laura draws! Look at those men and women, sitting and standing up in the air, as nobody ever could sit or stand! and the cups and saucers, and teapot, all sliding off that ridiculous table!—Laura, my dear Laura! I wish you were here!——

Mamma, I have not nearly so much pleasure, in seeing all these entertaining things, as I should have, if Laura, and Godfrey, and papa, were looking at them with me!—Mamma, when will they come?”

“They will be here next Monday, I hope, my dear.”

“Three whole long days, till Monday!” said Rosamond, considering seriously.—“Mamma, do you know I am going to have a great deal of resolution—I shall put off seeing the rest of these things for three days, because I know I shall have so much more pleasure, if I do; and, mamma, I show you now, and always, whenever I have an opportunity, I will prove to you, that I have resolution enough to choose—as you say Laura does—the great future pleasure, instead of the present

little pleasure : I am very curious about some things in those other drawers, but I will conquer my impatience; and now, I shut the doors of the India cabinet till Monday."

Rosamond courageously closed the doors, and locked the cabinet.

"Mamma, there is a sort of pleasure in commanding oneself, which is better, after all, than seeing Chinese tumblers or any thing else,"

"I am glad you feel that pleasure, my dear, and I hope you will often feel it; that is always in your power; and this is more than can be said of most other pleasures."

Rosamond occupied herself in several different employments, during the three following days; and they did not appear to be *long days*. Monday came; her father, and Laura, and

Godfrey, arrived ; and she was very happy to see them, and they were all glad to see her. Several times, while they were talking of other things, and telling what had happened, and what they had seen during their absence, she was going to begin a sentence, about the India cabinet ; but her mother smiled and whispered—

“ Not a good time yet, my dear.”

So she waited with heroic patience, till the happy moment came, when all had finished what they wished to say, and when they seemed, as if they had nothing, that they were particularly anxious to do.

“ Now mamma, is it a good time ?”

“ Very good.”

Rosamond then asked them, if they would come with her ; for she had

something to show them. She led the way to the India cabinet—unlocked it—displayed to Godfrey's wondering eyes the treasures it contained, made the boatmen row, and the watermen work with their buckets, and the tumblers tumble—showed Laura the bad perspective, and told her the history of pinna and his cancer friend—asked her if she knew whether coral was a vegetable, animal, or mineral substance. Rosamond spoke and moved all the time with a rapidity, that is indescribable; but not inconceivable to those, who are used to lively children. Her mother and Mrs. Egerton, with some difficulty, found time to state, what Rosamond had forgotten to explain—that she had deferred looking at the remaining nine drawers of this cabinet,

that she might have the pleasure of looking at them along with Laura, Godfrey, and her father.

They were quite as much pleased, and as much obliged to her, as she had expected that they would be, and she was fully rewarded for her self denial and patience. With Mrs. Egerton's permission, her father opened the Chinese boat, so as to show the inside; and he explained to her and Laura, and to Godfrey, who was remarkably fond of mechanics, how it was made to move. It was moved by a common piece of clock work, as a chamber clock is kept in motion by a spring, not by a weight. The tumblers were very ingeniously constructed. They held between them a little chair, supported by poles, like those of a sedan chair. At first, they stood at the top

of a flight of steps, and when the hindmost, or second figure, was once lifted up, he was instantly carried over the first or foremost figure, as if he jumped over his companion's head, between the chair poles, to a step lower, than that on which he stood. Without any farther assistance, the first figure, which now became the hindmost, jumped in his turn over his fellow chairman's head, the poles turning, and the chair remaining steady ; and so on, to the bottom of the steps.

“ How was all this performed ! ”

Each of the children guessed. Godfrey, as usual, decided immediately, and said, it was done by a spring.

Rosamond said, she was sure, that the figures were not alive, and that the chairmen were neither magicians nor fairies ; but this was all, of which she

was certain. Laura acknowledged that she could not imagine how it was done.

Their father then told them, that the *power*, or *force*, which set the figures in motion, was, he believed, a little quick-silver, or a grain of shot, which ran down the chair poles, which were hollow. But how it continued to move the figures, after the first tumble, would be more, he thought, than he could make them understand, till they were better mechanics. Rosamond was for the present quite satisfied.

The only thing, this happy day, which a little vexed Rosamond, was Godfrey's saying, that, though these Chinese toys were very ingenious, he did not think, that they were of any great use ; that his father had shown him some machines, large *real* ma-

chines, which were much more useful, and which therefore he liked better.

“ Well?—Let us go on, Godfrey, to the other nine drawers,” said Rosamond.

* * * * *

* The history of the other nine drawers of the India Cabinet has not yet been found.

THE
SILVER CUP.



WHEN Rosamond, Laura, and Godfrey, were travelling home with their father and mother, they began to talk of the different people they had lately seen ; to describe them, and to tell which of them they liked or disliked.

“ Godfrey, pray what sort of a man is Orlando’s schoolmaster ? ” said Rosamond.

“ I do not know well,” said Godfrey, “ for I only just saw him for a minute ; papa stayed talking with him a great while, but I went off to the playground, because I wanted to see the boys playing at ball.”

“ I am sorry you did not see some-

thing of Orlando's schoolmaster," said Laura, "for I wished to know how you liked him."

"That I can tell you at once," said Godfrey—"To save trouble, I don't like him at all."

"I do not see how that will save trouble," said Laura.

"It does save trouble," replied Godfrey; "it saves the trouble of long explanations—You, Laura, always ask WHY one likes, and WHY one does not like a person!"

"So much the better! Laura is very right—Now is not she, mother?" cried Rosamond, starting forward from the corner where she sat.

"You need not disturb my mother about it," said Godfrey; "do not you see, that she is busy reading her letters?"

“I’ll ask my father, then,” said Rosamond, springing up and stepping across to where her father was sitting reading the newspaper; but a sudden motion of the carriage threw her forward, and she fell with her nose upon her father’s knee. Her father, putting aside his newspaper, helped her up, and advised her never to stand in a carriage, without holding by something. Then he went on reading the newspaper; and Rosamond, not liking to interrupt him more, retired back to her corner, whilst Godfrey laughed, and said—

“Rosamond, you have not gained much by that motion.”

But Rosamond, knowing that she was, as she said, “for once, in the right;” and perceiving by Laura’s countenance, that Laura was of the same opinion; would not be laughed out of

her reason. She brought the example of her own past folly, in support of her present wisdom ; and gave Godfrey an account of her “ foolish *antipathy*, that is, *dislike at first sight*, without reason, to poor, dear, good Mrs. Egerton ;” and repeated, pretty correctly, all that her mother had said to her upon that occasion.

“ And now Godfrey,” concluded she, “ only do consider how much I was mistaken ; and how much I should have lost—what a quantity of pleasure—if I had not gone with mamma to see Mrs. Egerton. At first, do you know, I wished very much not to go, and begged mamma would not take me with her ; but when mamma advised me to try to find out WHY I disliked her——”

“ *Her!*” interrupted Godfrey. “ Did you dislike mamma ?”

“No, no; but Mrs. Egerton, you know very well—And when I could find no reason but the pinch in the black bonnet, and the poor scarred hand—and when I saw the one reason was so foolish—and when I heard the story about the fire—my opinion changed, and how well it was for me that it did!”

“Well for you, indeed,” said Godfrey; “but you were excessively foolish at first, my dear Rosamond. You don’t think that I could be so foolish to dislike any body for a pinch in a black bonnet? In the first place, I don’t know what you mean by a *pinch in a bonnet*.”

“May be not,” said Rosamond; “but I dare say you might dislike a person yourself for no better reason.”

“My dear Rosamond! Impossible!”

Impossible! Quite impossible!" repeated Godfrey, rolling backwards and forwards with laughter, at the bare idea. "I dislike a person for a pinch in a black bonnet!"

"Well, what is your reason, this minute, for disliking Dr.— what is his name?—Orlando's schoolmaster."

Godfrey repeated, in his own defence, four lines, which he had learned from the schoolboys, with whom he had been playing at ball—four lines, which, changing the name, most schoolboys think applicable to every schoolmaster:

"I do not like you, Doctor Fell;
The reason why I cannot tell;
But this I know full well,
I do not like you, Doctor Fell."

Rosamond delayed to pursue her reasons, while she got by rote these rhymes, which were new to her. Lau-

ra, however, thought the lines not worth getting by heart ; and, before this point had been settled, the attention of all the disputants was turned to another object—They came within sight of a large town, through which they were to pass ; and their father said to their mother—

“ We stop here ; and while the horses are feeding, I think, we can have time, my dear, to go to the cotton manufactory ; and, if we have, I shall like to show it to the young people.”

“ Oh, thank you, papa ! ”

“ Pray do, papa ! ”

“ I am sure you will have time ! ” exclaimed Laura, Godfrey, and Rosamond. Their father and mother determined to stay an hour longer, than they had intended, on purpose to give their

children the pleasure and advantage of seeing what they could not see so well any where else, and what they might not again, for some time, have so good an opportunity of seeing.

“Now, Rosamond,” said Godfrey, “you will see some really useful machinery—much more useful, than those Chinese toys; but you must not expect to understand all about them; for, do you know, that I do not understand half, nor a quarter of the things I saw in one of the cotton manufactories; and though papa explained a great deal to me, he told me still there was a great deal, that I could not possibly understand yet, and a great deal, that he does not understand himself. And at first when you go in, you will hear such a noise of whirling and whirring—*whirr — whirr — whirr —* and you

will see so many wheels spinning round, round, and round, without knowing what moves them; then such numbers of pale-faced men, women, and children! such numbers, every where, so busy, none of them thinking of, or caring for you! and there will be such a dust! and such disagreeable smells! and want of fresh air! and, Rosamond! you will not be able to hear a word that is said, nor to make any body hear what you say, without bawling, as loud as I do now."

Rosamond looked much alarmed, especially at this last danger, and she said—

"I am afraid to go, and I am sure I shall not understand any thing—I know nothing of machines, you know brother."

“Afraid! Oh, don't be afraid—I will take care of you—There's no danger, if you keep out of the way of the wheels, and don't touch anything about the machines, but hold fast by my arm,” said Godfrey, drawing Rosamond's arm within his; “and I will take care of you, my dear Rosamond, and you shall understand every thing, for I will explain all to you—I mean every thing, that I understand myself.”

His father smiled, and told Godfrey, that was a good correction of his first assertion.

“After all, my dear,” said he, turning to his wife, “I think Rosamond is too young, and knows too little of these things, for her to be amused or instructed by going with us to the cotton

manufactory—When I spoke of showing it to the young people, I thought only of Laura and Godfrey.”

Rosamond's countenance changed, and she looked mortified and disappointed.

“Papa, do, pray, take Rosamond!” cried Godfrey—“She will understand something; and I will take such care of her, and it will be such a pleasure to me, papa,”

“And to me, too,” added Laura—“and, papa, Rosamond, last summer saw cotton wool in it's pod, or husk, on the cotton tree, in the hot house; and she wanted to know how it was spun into cotton thread, such as we use.”

Rosamond's eyes were fixed upon her mother, and she waited anxiously to hear what her mother would say—

Her mother said, that she thought, as Godfrey did, that Rosamond would be able to understand something, though perhaps very little, of what she might see; but that, however little she might be able to understand, at first, yet it would be useful to Rosamond, to see real things, that might entertain her; because she was rather too fond of imaginary things, such as fairy tales, and stories of giants and enchanters; and it would be advantageous to give her a taste for truth and realities.

These reasons determined Rosamond's father, and he took her with them to the cotton manufactory.

At first, going into one of the large rooms, where the machines were, and where the people were at work, she felt nearly as Godfrey had foretold that she would—almost deafened by the noise,

and dizzy from the sight of a multitude of wheels spinning round. The disagreeable smells, and dirt, and want of fresh air, which Godfrey had described, Rosamond did not perceive in this manufactory; on the contrary, there was plenty of fresh air, and but little dust: nor were the faces of the men, women, or children, who were at work, pale or miserable; on the contrary, they had a healthy colour, and their looks were lively and cheerful. This manufactory was managed by a very sensible, humane man, who did not think only of how he could get so much work done for himself; but he also considered how he could preserve the health of the people, who worked for him, and how he could make them as comfortable and happy as possible.

This gentleman, who was a friend

of Rosamond's father, went to them, as soon as he was informed of their arrival; and he kindly offered to take the trouble of showing them the whole of his manufactory.

While this gentleman was speaking, Godfrey had carried Rosamond to the farthest end of the long room, to show her some part of the machinery. His father went after him, and brought them back; and as soon as they went out of this room, and away from the noise of the wheels, Godfrey said, "I have shown Rosamond a great many things already, papa;" but he answered—

"I advise you, Godfrey, not to drag your sister about, to show her a variety of things, so quickly; for if you do, she will have no clear idea of any one thing—I recommend it to you, to

come with us, and to keep as close as you can to this gentleman—to look at each thing, as he shows it to you—to look at but one thing at a time—and to listen to every word he says.”

“I will listen, but I am afraid I shall not be able to hear him,” said Rosamond; “for though I tried to hear Godfrey, and though he roared in my ear, I could not make out half of what he said; I thought he said *hand*, when he said *band*, and I could not see any hand, so I could not understand at all.”

Rosamond found, however, that she could hear better after she had been a little accustomed to the noise; and that she could understand a little better when but one thing at a time was shown to her, and when she went on in regular order, from the beginning—

from that which was easy, to that which was more difficult.

But presently they came to some part of the machinery, which Rosamond could not comprehend; though she looked, or tried to look at but one thing at a time; and though she stuck close to the master of the manufactory, and listened to every word he said. Her father, who had been so intent on what he was about, that he had forgotten Rosamond, chanced, however, to see her looking up, and listening, and frowning, with the pain of attention—He touched her shoulder, and she started.

“My dear little girl,” said he, speaking so loud, that she could hear, “I was wrong, to bid you listen to *all* this gentleman says—Don’t listen to this; you cannot understand it—Rest;

and I will touch you again, when there is any thing to be heard or seen, that you can understand.”

Rosamond was right glad to rest her eyes, ears, and understanding.

From this time forward she looked and listened only when her father touched her shoulder, though Godfrey gave her many a twitch, and many a push by the elbow, to force her admiration of things, which were beyond her comprehension. At last, when they had gone through the manufactory, Godfrey said—

“Now, Rosamond, you have missed seeing a great deal, I assure you ; you had better just run back with me, and I will show you all that you have missed.”

But to this her father objected ; and she was glad of it, and quite of his opi-

nion, that she had seen and heard enough already.

The hospitable gentleman, who had shown them his manufactory, now invited them to rest themselves, and to eat some fruit, which he had prepared for them. Cherries, ripe cherries, strawberries and cream, soon refreshed them; and, when Godfrey had finished eating his fruit, he turned to Rosamond, and said—

“Rosamond, my dear, you have eaten your cherries, have not you? and you are quite rested; now, I want to know whether you remember all you have seen and heard—Now tell us.”

“Impossible, Godfrey!” interposed her father—“you expect impossibilities from your sister; you forget what you were when you were her age.”

“It is so long ago, sir,” said Godfrey. “But, at any rate, I wish Rosamond would tell us all she remembers.”

Rosamond blushed, and hesitated, and said she remembered very little; but her father encouraged her, by assuring her, that he did not expect that she should remember much; that, if she remembered any thing distinctly, it would satisfy him, because it would be a proof, that she had paid attention; and that was all, he said, that he expected from her. As he spoke, he drew her to him, and, seating her upon his knee, bid her begin, and tell any thing, that she could clearly recollect.

The first thing, which Rosamond clearly recollected seeing, she said, was a large quantity of cotton-wool, which was not nearly so fine, or so white, or

so soft, or so light, as some, which she afterwards saw, which had been cleaned. This had not been cleaned; there was a number of little seeds in it, and a great deal of dust; and the gentleman told them, that the first thing to be done was to clean the cotton, and take out of it all these seeds and dust. This, he said, used formerly to be done by old women and children, who picked it as clean as they could; but they were a great while about it; and he had at last invented a way of doing it—of cleaning it, by a machine.

Here Rosamond paused, and Godfrey began with—“Don’t you remember, Rosamond?—”

But his father stopped him—“Give her time to recollect, and she will remember.”

“There was a great noise and a great

wind, papa, just at that time; and I do not recollect exactly how it was.”

“ What cleaned the cotton, or how was it cleaned, my dear ? ”

“ I don't know, papa; because I could not see the inside of the machine, and there was something about a door, a valve, and moving first in one direction and then in another *direction*—I never rightly understood about the direction.”

“ The word *direction* seems to have puzzled you; but let that alone, for the present, and tell us simply what you saw.”

“ I saw a great sort of box, larger than this table, with an iron grating, like the grating of a fender; all over the top of it; and when I looked through this grating, I saw bits of cotton wool, which looked like flakes of snow driven about by a high wind; first blown up

against the grating, in one part, and then falling down at another part of the box."

"Was there any dust?"

"A great deal of dust blown through the grating."

"Where did that dust come from, or what made it, do you think?"

"The dust came from the cotton wool, I believe; and I believe it was blown out by the wind; but I don't know about the rising and falling—I do not know about the valve, or the door."

While Rosamond spoke, Godfrey had pressed closer and closer, and bit his lip with impatience, and at last said—"Papa, do let me just ask her one question; it will not put her out; indeed, it will put her in."

"Well, ask it, Godfrey, lest you should burst in ignorance," said his father.

“ Did you never see a machine like it, Rosamond ? ” cried Godfrey—“ I do not mean quite like it, because it is very different, in some respects, but like it in general ? ”

“ No,” said Rosamond.

“ Recollect, my dear Rosamond !—at home, last autumn, in the barn.”

“ Oh ! now I recollect, for you have told me almost, you mean the winnowing machine; yes, I thought of that once; but I was puzzled about the door.”

“ Let that alone, my dear,” said her father.—“ Now you have told us all, that you understand, or can recollect of that machine, have you ?—Do you remember what is done next to the cotton ? ”

“ Yes, it is combed out, and made smooth, and thin, and flaky—*carded*—but not, as I have seen a woman

card wool, with little flat boards, with pins stuck upon them, but with great large rollers, with pins stuck upon them ; and the pins, like the teeth of a comb, comb the cotton, that is drawn over them ; but I do not exactly know how—Then comes the spinning.”

“ Take breath—you shall have time—do not hurry yourself.”

“ I cannot recollect any more, papa ; after this all is confusion. There were such a number of little wheels spinning, and large wheels underneath, and bands round them.”

“ My dear, it is impossible, that you should understand the motions and uses of the motions of all those wheels ; but, I dare say, you know the general purpose, or use, of the whole.”

“ Yes, to make the cotton wool into cotton thread—to spin it.”

“And do you recollect the name of the spinning machine?”

“I remember that perfectly—*spinning Jennies*.”

“Why was that name given to them—can you tell?”

“Because *Jenny* is a woman's name, you know; and *Jenny*, I suppose, spun; and when these machines were made to spin, instead of women, they were called *spinning Jennies*.”

“Then cotton was formerly spun by women, and with spinning wheels?” said her father.

“Yes, papa; so the gentleman said.”

“And why, Rosamond, do they not continue to spin in the same manner?”

“Because the spinning Jennies spin much more quickly; a woman moved with her foot and hands only one spinning wheel, but these machines

do the work of a hundred spinning wheels at once in the same time—I saw them all in rows working, pulling the cotton out, and twisting it, just like so many spinning wheels, only better and faster—How they were moved——there is the thing I don't know, papa!—I could not understand how it was done—And I am tired now of trying to recollect.”

“ You have understood and recollected more than I expected that you could, my dear,” said her father, “ especially, as you have not been used to such things. I am glad you have attended so carefully. It may not be necessary for you ever to understand perfectly these or any other machines; but it is always useful, and will often be necessary, for you, to command your attention, and to

turn it to observe real things. Some other time, I will bring you here again, if this gentleman will give me leave, and if you wish it yourself."

The gentleman kindly said, that he should be glad to see Rosamond again, and that he would then try to explain to her any thing she might wish to know.

Rosamond thanked this good gentleman, and was glad, that her father was pleased with her. She said, that, some other time, she should like to see the way, in which the pretty little balls of cotton are wound—

"That was what Godfrey was showing me," papa, "when you called us away."

"I am glad I did call you away, my dear; because you could not have understood it, and Godfrey would only have puzzled you."

“ Look, look, papa ! look, mamma ! out of this window ! ” cried Godfrey—“ All the people are going from work ; look, what numbers of children are passing through this great yard ! ”

The children passed close by the window, at which Godfrey and Rosamond had stationed themselves ; among the little children, came some tall girls ; and, among these, there was one, a girl about twelve years old, whose countenance particularly pleased them—several of the younger ones were crowding round her.

“ Laura ! Laura ! look at this girl ! what a good countenance she has ! ” said Rosamond, “ and how fond the little children seem of her ! ”

“ That is Ellen—She is an excellent girl, ” said the master of the manufac-

tory ; “ and those little children have good reason to be fond of her.”

Rosamond and Godfrey asked “ Why ? ” and the gentleman answered—

“ It is a long story ; perhaps you would be tired of hearing it.”

But they begged he would tell it ; and he complied.

“ Some time ago,” said he, “ we had a benevolent clergyman here, who gave up several hours of his time, every week, to instruct the children in this manufactory : he taught them to read and write, and he taught them arithmetic ; he taught them much more, for he taught them the difference between right and wrong, and explained to them the use of doing right, and it’s good consequences—the happiness, that follows from it ; and the evil and

unhappiness, that follow from doing wrong. He was so kind and gentle, in his manner of teaching, that these children all liked him very much. At last, news came that this good clergyman was to leave the place—he was appointed master of a large school, and a living was given to him, in another county, at a considerable distance. All the children in the manufactory were sorry, that he was going away; and they wished to do something, that should prove to him their respect and gratitude. They considered and consulted among one another. They had no money—nothing of their own to give, but their labour; and they agreed, that they would work a certain number of hours, beyond their usual time, to earn money, to buy a silver cup, which they might present to him

the day before that appointed for his departure. They were obliged to sit up great part of the night to work, to earn their shares. Several of the little children were not able to bear the fatigue and the want of sleep. For this they were very sorry; and when Ellen saw how sorry they were, she pitied them—and she did more than pity them. After she had earned her own share of the money, to be subscribed for buying the silver cup, she sat up every night a certain time to work, to earn the shares of all these little children. Ellen never said any thing of her intentions; but went on steadily, working, till she had accomplished her purpose. I used to see her, night after night, and used to fear she would hurt her health, and often begged her not to labour so hard; but she still said—‘It

does me good, sir.' When she had completed her work, the wages were paid to her ; and all the wages were paid to those, who had worked extra hours — that is, hours beyond their usual hours of working. A clerk was sitting at a table, to receive the subscriptions for the silver cup; and those, who had earned their contribution, went up proudly, one by one, and laid down the money on the table, saying, ' Write down my name sir, if you please ; there is my subscription.'

“ The poor little children, who had nothing to give, were sadly mortified, and stood behind, ready to cry. Ellen went to them, and took them out of the room with her, and without letting any body see her but themselves, she put into the hands of each their share of the subscription money, that they

might have the pleasure of subscribing for themselves.”

Every body was pleased with this anecdote of Ellen, and were glad that they had seen her. Rosamond said, in a low voice, to her mother, that, if Laura had been a poor girl, in the same situation, she would have done just as Ellen did.

Rosamond was going to have said more, but her attention was now drawn to another subject. The master of the manufactory opened a desk, and produced the copy of the inscription, which had been engraved upon the silver cup. Godfrey, into whose hand it happened first to be put, began to read it; but, the moment he saw the clergyman's name, he laid down the paper, and exclaimed—

“ To Doctor Bathurst——that is the

name of Orlando's schoolmaster!
Can it be the same Doctor Bathurst?"

Godfrey asked for a description of Doctor Bathurst—he found it exactly agreed with that of the schoolmaster; and it was proved, that the good clergyman and the schoolmaster, to whom Godfrey had taken a dislike, were one and the same person.

Rosamond and Laura looked at one another, and smiled; and Rosamond could not forbear whispering,

“I do not like you, Doctor Fell;

The reason why, I cannot tell——”

But Rosamond stopped; for she saw that Godfrey looked so much ashamed of himself, that she would not then laugh at him.

The carriage came to the door; and, after thanking the gentleman, who had received them so hospitably, and who

had given up so much time to show them his manufactory, they took leave of him, and they got into their carriage, and pursued their journey. As they drove on, they began to talk of what they had seen and heard ; and, first, about Doctor Bathurst and the silver cup. In general, Godfrey was apt to think himself in the right ; but when he was clearly convinced, that he had been mistaken, he always acknowledged it candidly. He now confessed, that he had been quite mistaken, in his opinion of Doctor Bathurst ; and that his disliking him merely because he was a schoolmaster, and because some school-boys had repeated four nonsensical lines, was almost as foolish as Rosamond's dislike to Mrs. Egerton for *the pinch* in her black bonnet. Then Godfrey and Rosamond began to talk over their

causes for liking or disliking every person they knew; and presently grew vehement in maintaining the justice of these causes, and the excellence of their several reasons.

“I like Mrs. Allen, because she is always cheerful,” said Rosamond.

“I like Mr. Ormond, because he is so honest,” cried Godfrey.

“I love Mrs. Ellis, because she is so good natured,” said Rosamond.

“I like Mr. Brooke, because he is always entertaining,” said Godfrey.

Being cheerful, honest, good natured, and entertaining, Laura, who was appealed to as a judge, allowed to be good reasons for liking people; but when it came to the degrees of liking, and to the question, which ought to be most liked and esteemed, the case became more difficult; and Laura pre-

sently began to make a catalogue of all the virtues, and as well as the motion of the carriage would allow, she wrote them down in the order, in which she thought they deserved to be placed; "and then," said she, "we can try all your favourites by our list." But the list was not soon arranged. It was easy enough, to settle the names of the virtues; but it was difficult to put them into their proper order. Truth and honesty Godfrey and Rosamond readily allowed to come first; but there was great debating about cheerfulness and neatness; and, "as for a person's being entertaining," Rosamond said, "that was no *virtue*," though she acknowledged she liked people for being entertaining. After talking long and loud, till at last they did not understand one another or themselves, they appealed to their fa-

ther and asked him if he could help them to settle their debate. Their father said, that they had, without knowing it, got deep into a very difficult question — “ I am afraid, that I cannot answer you, without going deeper still.”

“ Do then, papa, if you please,” said Godfrey ; “ and I will follow you — I love to argue with Laura, because she will go deep ; but Rosamond never will.”

“ I do not know what you mean by going deep,” said Rosamond.

“ Consider how young she is,” said Laura.

“ Well ! let us hear what my father was going to say — Which virtue should stand highest in our list, papa ? which next ? and so on.”

“ The most useful, I think, should come first,” replied his father : “ and

you might, I believe, arrange them all by their degrees of usefulness, or utility."

"Useful! papa," cried Godfrey; "but are there not many virtues, which are not at all useful?"

"Which are they?"

"Generosity for instance," said Godfrey.

"If it be useless generosity, I think, it is no virtue," replied his father.

Godfrey thought again, but he could not name any virtue, that was not useful.

"But, papa," said Laura, "it will still be very difficult to settle, which is the most useful virtue—how shall we ever do that?"

"Deeper and deeper, indeed, Laura, we must go, to determine that," said her father; "deeper than you can go, or I either; for we must know, what

contributes most to the happiness of the greatest number of people, and for the greatest length of time—of this, my children, you cannot judge, till you have a great deal more experience and more knowledge.”

“I am glad that is settled,” said Rosamond ; for they had long got beyond her depth, and she had been obliged to have recourse to looking out of the window for amusement.

“Now, mamma, will you tell me something very entertaining, which I heard the gentleman, at the manufactory, telling you, while I was eating my fruit—something about a girl’s mistaking a bee for a cow?”

END OF VOL. I.



