

## Louis Agassiz.

(Hope Daring in 'Michigan Christian Advocate.')

This man was one of the most distinguished of modern naturalists. He was animated by a lofty purpose, believing his work to have been given him by God. Of it he says: 'The study of nature is a mental struggle for the mastery of the external world. It is truly a struggle of man for an intellectual assimilation of the thought of God.'

Agassiz was of Swiss parentage. He was born in the Canton de Vaud, Switzerland, in 1807. The baptismal name given him was Louis Jean Rudolph.

Of the great naturalist's school days little is known. Very early in life he was interested in natural history. After completing the course of study in the common school, he studied at Zurich, Heidelberg and Munich. It was while he was a student at this last place that he became interested in ichthyology.

For several years he gave himself to this study. A few valuable books were published by him. He visited various parts of continental Europe and made a number of trips to England.

Agassiz lived simply. He had a hearty dislike of ostentation. The many titles bestowed upon him by universities and learned societies were never used. The title pages of his great books bore only the inscription, 'Louis Agassiz.'

He was still a young man when two important events changed the outward course of his life. One of these was the publication of his two books, 'Glaciers,' and 'The System of Glaciers.' The second was his removal to the United States. He accepted a professorship at Harvard college.

The publication of these books had been preceded by years of preparation. A great book is not produced without great effort. A full explanation of Agassiz's theory would occupy too much space. To state it briefly, he differed with nearly all geologists in his belief concerning the formation and distribution of glaciers.

Agassiz started out to prove his position. How? Not by reading books and accepting theories at second hand. He studied glaciers and their surroundings. For nine summers he spent his vacation time in the Alps. One season for seventy-one consecutive nights he slept upon the ice with only the stars above him. He was studying nature.

It is interesting to note how carefully he sought for verification of his belief. Burroughs says a student of nature must be able 'to take a hint.' Agassiz would do that. Would you or I have noticed this? In establishing the point that the pebbles under consideration were brought to their present position by ice rather than by water, he says: 'Ice acts like a plane; water wears into ruts. When ice moves over a surface it will be rolled, rubbed, polished. Scratches will be made by ice but not by water. These pebbles are not only polished but also scratched.'

It was not easy to convince the scientists who held different views. Indeed the controversy was so spirited that for a time there was a coldness between Agassiz and his valued friend, Leopold von Buch, the geologist. Gradually, however, all students came to see the reasonableness of the author's claims, and the honor due him was given in abundance.

Agassiz was much esteemed in our country. He continued to publish scientific works. As a teacher his methods were in advance of the age. He had no patience with recitation by rote from text-books. In studying natural history he discouraged the use of books as much as possible. His leading purpose was

to secure and stimulate personal observation. His own words are: 'Not by a superficial familiarity with many things, but a thorough knowledge of a few things does anyone grow in mental strength and vigor.'

Two personal traits of the great man are worthy of special mention. These are his sincere religious nature and his unselfishness. When urged to use his vast store of knowledge to enrich himself, Agassiz replied, 'I cannot afford to waste my time in making money.'

The remainder of his life was spent in this country. For several years he was a lecturer at Cornell. In 1871 he took charge of the dredging operations undertaken by the government for the investigations of the gulf stream. His death occurred two years later at the age of sixty-six. The volumes he left are valuable additions to the world's knowledge.

## Lester's Upside-down Pocket

(Julia Darrow Cowles, in the 'S.S. Times.')

'Now, Lester, don't forget that you are to take the rhubarb to Mrs. Smith,' said mamma, 'and then go to the post-office with the letters. After that you may go to Bert's, and play until five o'clock.'

'All right,' answered Lester, and off he went whistling merrily.

Lester never meant to be disobedient, but he was continually thinking that some other way was just as well, or would make no difference; and now, as he reached the corner of the street, he decided that he would go to the post-office first, then past Tommie's, and get him to walk over to Mrs. Smith's with him, and go to Bert's, where they three would have a nice game of duck-on-the-rock.

He mailed the letters, but found that Tommie could not go away, and as Tommie teased him to stay there, he concluded it wouldn't make any difference to mamma whether he played at Tommie's or Bert's, and he could leave the rhubarb with Mr. Smith on his way home.

So he stayed, and he and Tommie had so much fun that the first thing he knew it was half-past five. My, how he did run then! He thought that Mrs. Smith looked rather annoyed when he gave her the rhubarb, but he hurried off again as fast as his legs could go.

Just before supper a neighbor called to see if she could buy some rhubarb.

'I saw Lester have some just now,' she said, 'and he told me he was going to take it to Mrs. Smith.'

That evening Lester brought his coat to his mamma.

'I do wish I could have an inside pocket put in it,' he said, 'to carry the little note-book that papa gave me.'

Mamma knew how much Lester prized his nice note-book, and how well he enjoyed making a note of this and that in it, as he had seen papa do in his. So she took his coat, and said thoughtfully, 'Yes, I will put a pocket in it for you.'

Lester went off to bed feeling very happy over his note-book pocket, but wondering that mamma had said nothing to him about coming home so late.

In the morning Lester was busy with the small tasks which he was expected to perform each day before starting for school, and at the last moment he slipped on his coat, threw it open, and discovered the pocket neatly in place, then picked up his cherished note-book, and ran out of the house. As he ran he tried to slip the note-book into the pocket, but he could not get it in. After several unsuccessful attempts he stopped, opened his coat, and, taking both hands, started to put the book in,

when he made a queer discovery,—the pocket was on upside-down, with the opening at the bottom. At first he was vexed. 'Dear me!' he said to himself, 'now I can't use it, after all.' Then in another moment he burst out laughing. 'I've got a good joke on mamma. Won't I tease her when I get home!' And he ran on to school.

At noon he came to mamma the first thing with a very quizzical look upon his face. 'Mamma,' he said, 'you sewed my pocket on wrong side up!'

Mrs. Johnson did not look at all surprised. She merely said, 'Yes, I know. I sewed it that way on purpose.'

It was Lester's turn to look surprised.

'Isn't it "just as well" that way?' she added.

'Just as well!' he exclaimed too much astonished to be polite. 'You don't think I can keep a book in that way,—do you?'

'Well,' replied his mother, 'it's a pocket, and I sewed it on three sides. What difference does it make which three?'

Lester's face was a study. He really seemed to think that his mother had in some way lost her reason.

'I did it, Lester,' she went on, 'just as you do things for me. I tell you what I want you to do for me, and the way I want it done. You do it, but you do it in just the opposite way from what I tell you to; in other words, you turn it upside-down.'

Lester still looked surprised, but he began to be interested too.

'Yesterday,' his mamma went on, 'I told you to go to Mrs. Smith's first, then to the post-office, then to Bert's to play till five o'clock. Instead of that you went to the post-office first, then to Tommie's to play, and last of all to Mrs. Smith's. Now you did not see, probably, what difference it would make, but Mrs. Smith was in a special hurry for the rhubarb, as she wanted to get her sauce made in time to take a dishful to Mrs. Foster, who is sick, and who wanted some very badly. You got there so late that the sauce could not be made that day at all. Tommie could not leave home because his sister has measles, but he did not tell you that, and now you are likely to have them too.'

Lester began to look sober enough as his mamma went on.

'Last Saturday I sent you with two pails of milk, but you did not think it important to notice what I told you, and you took the sour milk to Mrs. Foster, who wanted milk for baby, and sweet milk to Aunt Laura, who wanted to make Johnnie cake and needed the sour milk.'

Lester kept his eyes on the floor. He was beginning to feel very much ashamed of what he had before called simply 'mistakes.'

'Now,' said mamma, 'all these things are just as annoying to me as it was to you to find your pocket was put on up-side-down; besides which, they are actually wrong, and are causing you to form a very bad habit.'

'I'm really sorry, mamma,' Lester exclaimed.

'Then as soon as you are ready to agree to try to do all that I tell you in just the way that I tell you, and not in some other way that you think will do just as well, I will agree to rip off the pocket and put it on right side up.'

'I will, mamma, I'll promise now,' said Lester soberly and earnestly.

When he went to school in the afternoon his pocket held the little note-book safely, and underneath the pocket was hidden away a lasting resolve to do things as mamma told him to, and not to think some other way was just as well, and so turn them up-side-down.