

ances of Turkey, perhaps with the connivance of Russia, to seek its own welfare regardless of the general convenience of Europe.

EDWARD CHANNING.

THE LATEST SLIDES IN THE WHITE MOUNTAINS.

THE great slide of July 10, upon the north slope of Cherry mountain, has been described in *Science*, July 31. Since then others have been revealed at various localities, but particularly at Waterville. Upon August 13, the rainfall was excessive in that township. The fields and hillsides about Elliot's hotel were completely flooded and Mad River rose twenty or thirty feet. It transpired shortly afterwards that the famous slide upon the south side of Tripyramid had been renewed and enlarged, and that upon the north side of the same elevation its double had made its appearance. This last one is not visible from any of the White Mountain localities much visited, unless it be from the distant summit of Mount Washington. I had the pleasure of visiting both these slides September 10, in company with several gentlemen and ladies from the hotel. We walked up the northern slide first, ascended the north peak of Tripyramid, followed the ridge to the south peak and then descended the old slide to its base in 'Beckytown.'

Four slides converge into one at the upper end of the northern stream. Two of them are too precipitous to be travelled over with safety. Each of these tributaries may be about a half mile in length, while the united stream below is about a mile long. Its course lay entirely through the primitive forest, and it did not reach so far as Norway brook by a half mile. An immense pile of tree-stumps and roots marks its lower extremity. The ledges exposed are mostly of gabbro. From north Tripyramid one can see that the slides upon the westside of Mount Lowell—the old Brickhouse Mountain—have also been in motion the present season.

The old slide of Tripyramid started October 4, 1869, in that wonderful rainstorm which cost the state of New Hampshire between one and two millions of dollars for repairs. It has been fully described in the 'Geology of New Hampshire.' The first steep slope amounts to three-fourths of a mile, then the current bends at a right angle and flowed to Beckytown, a further distance of more than two miles, where the trees were deposited which marked the end. The new slide takes up nearly three times as much space at the beginning, but the flood was less abundant below the bend. During the sixteen years since the first catastrophe

bushes had grown over the base ground. Those were not quite all removed by the last floods, showing it to be less extensive.

The freshet which moved the boulder from the Flume in Lincoln (Franconia) three years since seems to have been more powerful than any of this season's slides.

C. H. HITCHCOCK.

AN HONOR TO AMERICAN OPTICIANS.

THROUGH the courtesy of Messrs. Alvan Clark & Sons, we are able to publish the following extract from a letter written to them by Dr. Otto Struve :

"I am asked by the government to inform you that, in acknowledgement of the excellent performances of the great object-glass, furnished for Pulkowa by your firm, his majesty, the Emperor, has been graciously pleased to confer upon you the golden honorary medal of the Empire. The value of this gift is enhanced by the circumstance that this medal is given very rarely and only for quite extraordinary merits. You and Repsold are the first who will receive it from the present Emperor, Alexander III.

"This circumstance produces some delay in the transmission, as the Emperor desires that the medal shall bear his portrait, and not that of his predecessors. Therefore the stamp must be newly engraved. When that be done, you will receive the medal through the Russian minister at Washington.

"When this letter reaches you I shall be on a journey through Germany and Switzerland. First I shall assist at the general meeting of the Astronomical association, at Geneva, and then must go for a cure to the well-known watering place, Carlsbad. Though my health is tolerably good at this moment, I feel still very tired, and from the illness of last winter there is left some affection that demands serious treatment.

"You will be pleased to hear that, with the 30-inch refractor in good nights all the most difficult double-stars, discovered by Burnham with the Washington refractor, can be easily measured. During the last weeks, Hermann has collected already some hundreds of measures on similar objects that were out of the reach of the old 15-inch refractor. . . . OTTO STRUVE."

Pulkowa, July 23.

WEST AFRICAN ISLANDS.

MAJOR ELLIS, known as the author of 'West African sketches' and other works, accumulated the notes from which this volume was prepared,

during some fifteen voyages along the south and west coast of Africa. This book would be supposed from its full title to be a geographical or statistical work from a military point of view. It does indeed present facts of this character, but also much more. Written in an easy and unassuming style, the author has skilfully combined with an account of the chief geographical and economic features of the islands, a description of their attractions, their peculiarities, their odd or extraordinary inhabitants, and a great variety of extremely amusing anecdotes. We believe those of our readers who may be led by this notice to peruse it will find themselves abundantly repaid.

St. Helena is first described, rather briefly, as already much written about; then follow Ascension, Fernando Po, the Isles de Los, St. Vincent, San Antonio, Goree, Grand Canary, Teneriffe and Madeira. Some information of a strictly veracious character will also be found in regard to the miraculous island of St. Brandan.

One of the most singular spots is the Island of Ascension, which belongs to the British Admiralty, and is enrolled in the list of ships in commission under the title of 'the tender to H. M. S. Flora.' This originated in the fact that a vessel of that name was once anchored off the island as a store-ship, and part of the stores were kept on shore. Naval discipline is maintained, but a few ladies, wives of the officers exiled to this barren spot, are allowed to remain here, submitting to naval routine, which includes all lights out by 10 P. M. There is no water except intermittent collection of rain or dew, insufficient for the needs of the inhabitants. Nothing can be cultivated, though a few green things grow on the peak of one of the higher hills and in some narrow ravines which concentrate the scanty dews and showers. Sea turtles and terns, locally known as 'wide-awakes,' are the sole edible productions. Cows are brought there, and at first supply a small quantity of milk, which is reserved for the hospital. Should there be a surplus it is sold, a bell being rung to announce the event, but nobody is allowed to buy more than one gill. After a time the milk dries up and the cow is turned into beef to save her from starving to death.

An American returning to England on the same steamer with Major Ellis, went ashore to look at the island, and came near running against an officer with flaxen whiskers, who suddenly issued from a building. The officer raised his eye-glass, looked at the stranger with astonishment, and before the latter could apologize, called out: "Simmons!" A bearded seaman responding, "Ay, ay,

sir," appeared upon the scene. The officer continued: "Simmons, do you know what this person wants, or who he is?" "No, sir; I can't say, I'm sure, sir." The American began to explain: "Sir, I am a citizen of the United—" when the naval man interrupted him and said: "Simmons, do you think he is a stowaway?" "Can't say, sir, I'm sure," replied the imperturbable Simmons. "Is there a merchant steamer at anchor there?" "Yes, sir, Cape mail, sir." "Well, Simmons, just go to the officer of the watch, and ask if he has given permission to any person to board us. And, er—, see what this person wants." The American, now very angry, began again: "Sir, I am—" when he was again interrupted by the officer: "Simmons, I am engaged now. I cannot see this person. Perhaps you had better take him to the officer of the watch." And he went off before all the terrors of the United States could be launched upon his head; while the seaman, grinning respectfully, when his superior's back was turned, conducted the irate Yankee to the officer at the landing place, with whom he had but just come ashore. Sociable fellows, our British cousins, even on a desert island!

EDWARDS'S BUTTERFLIES OF NORTH AMERICA.

THE perseverance with which Mr. W. H. Edwards has continued his study of the butterflies of this country, and the liberality with which he has illustrated their various forms, ever since he first began the task, are worthy of all praise. The completion of his second series furnishes occasion to draw attention to its excellence. When Mr. Edwards first advertised, in 1868, that he would attempt a complete work, with ample illustrations, on the butterflies of North America, he probably little understood the nature of the task before him, or foresaw into what fields his work would carry him. Notwithstanding all he has accomplished, the horizon, broadening with his work is as distant as at the start. At first his iconography was almost exclusively given up to the mere description of species, with no attempt to illustrate anything but the perfect insect. Indeed, the work proceeded for nearly three years before the first illustration was given of the earlier stages of a single butterfly. Since that time but a single number has appeared which did not contain one

West African Islands. By Major A. B. ELLIS. London, Chapman & Hall, 1885. 8+352 p., 8°.

The butterflies of North America. By WILLIAM H. EDWARDS. Second series. Boston, Houghton, Mifflin & Co., 1874-1884. [445 p., 51 pl.] 4°.