

—Dr. M. J. Roberts of New York, after drilling holes in bone to investigate the existence of diseased conditions, introduces a small incandescent lamp of half-candle power into the opening, and by this means illuminates the cavity.

LETTERS TO THE EDITOR.

**Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.*

The source of the Mississippi.

THE recent discussion, in your columns and elsewhere, of the sources of the Mississippi River, must have suggested to many of your readers the thought that this is an especially fitting time to supplement and complete the work of the early explorers and the government surveyors by a careful examination of the Itasca basin in the light of all previous explorations. There are certain elements in the region that are permanent, and certain others that are temporary and will soon undergo the changes which accompany the settlement and subjection of the wilderness. The Lake Itasca of Schoolcraft and Nicollet, in the main, survives to the present day. A few years more will see many of its features changed past recognition.

If such an exploration is worth the making, it should not be long delayed; and that it is well worth making, the interest of the public already enlisted in this discussion clearly proves. Further, the fact that a mere adventurer and charlatan has been able to lead astray and befog the press and the scientific bodies of almost the entire country, east and west, is no small proof that it is desirable to settle, once for all, the questions at issue.

We have taken this view of the case ever since Captain Glazier's friends first presented his claims for our consideration. The matter was fully investigated by the head of our editorial department, and we became satisfied that nothing short of a thorough exploration of the region in question would satisfy us as educational publishers or justify us in making any changes in our geographical publications. We believe that we, as publishers of geographies and atlases which are widely used and approved, owe this much of service to the public. We therefore some weeks ago arranged to dispatch a competent exploring party to Lake Itasca, fully equipped with instruments for the complete survey and delineation of the region which supplies the feeders of the lake.

The first letters from this expedition are at hand, and consist of a general statement of the character of the work accomplished. The detailed report we expect will be forwarded to us in the course of a week or two, when we shall be glad to place them at the service of your readers as soon as the proper maps can be drawn and engraved. The following extracts from a letter before us shows the nature of the work accomplished:—

"Every stream flowing into Lake Itasca and Elk Lake was followed to its source and located. The area drained by each stream was found, as well as the volume of water discharged. The heights of land were located and elevations taken, as well as the elevation of the sources of all the streams flowing into both lakes."

We have also received by express specimens of the water from both lakes, and a number of small evergreen trees taken from Schoolcraft Island and from various points on the shores of Itasca.

Our instructions were that the exploration be

made so thorough as to satisfy every inquiry, and we believe that it has so been made.

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New York, Nov. 3.

On the figures illustrating zoological literature.

IN the course of some remarks on the figures illustrating zoological literature in *Science* for Oct. 29, Dr. R. W. Shufeldt justly pleads that proper credit be given to original authors of zoological illustrations; but in the course of his remarks he occupies considerable space in accusing me of carelessness in such matters, in the case of my 'Zoölogy' and 'First lessons in zoölogy.' I am charged with making 'a very shiftless acknowledgment of some of the authorities for the illustrations.' I am surprised at this reckless statement, as I intended to, and think I did, make full, proper, and circumstantial acknowledgment of the authorities and works from which most of the cuts were borrowed. Over two-thirds of a page of the preface is devoted to such acknowledgment, and a paragraph is given to the names of standard authors and their works. I regret to learn that two sketches drawn by Dr. Shufeldt himself were not credited. The mistake can easily be corrected in a second edition. I have prided myself on giving proper credit, on this and other occasions, to other naturalists and authors, and to those who have in other ways been of assistance.

Now, let us see if Dr. Shufeldt has been as careful, exact, and guarded as a critic should be. He lectures me for not, in my larger 'Zoölogy,' giving credit to the original artist as well as the author of the book who borrowed the figure. If Dr. Shufeldt had carefully looked through the larger 'Zoölogy,' he would have found that I had done so in the case of twenty figures (figs. 63, 75, 109, 141, 232, 279, 280, 284, 386, 387, 394, 434, 437, 457, 460, 461, 491, 500, 515, 516). Now, is this fair, candid criticism? Do not Dr. Shufeldt's sweeping statements, like those of another critic of the 'First lessons,' mislead the reader? Is such carelessness just to the author of the book?

Again: Dr. Shufeldt states that at least fourteen of the cuts from either Audubon or Wilson are accredited to Coues's 'Key.' This statement is based on an inspection of the first edition of the 'Zoölogy:' in the third and later editions, thirteen of these figures are credited to Tenney's 'Zoölogy.' Our critic should refer to the latest edition of the work with which he finds fault. It has certainly, however, been my wish to credit the figures borrowed to the original artist. It is not always easy to do so in copying from foreign works: in the case of Audubon and Wilson it could have been done, and may be in a later edition.

Coming to the 'First lessons in zoölogy,' Dr. Shufeldt charges me with ignoring the artists in a large number of figures. In the preface I say, "Of the 265 woodcuts, 111 have not appeared in the author's other books." Subtracting 111 from 265, leaves 154 figures. The sources of these are acknowledged in my two larger books; i.e., the 'Zoölogy,' and the 'Briefer zoölogy.' It seemed to me unnecessary to make the acknowledgment again in a smaller book designed for younger pupils. If this was an error, it was not from an intention to mislead. Leaving out the 154 figures previously acknowledged, then taking into account over 100 fully acknowledged, it would be easy for the critical reader to detect the eight figures