reality of the asserted difference in pitch, because with these locustarians, at least to an untrained ear like mine, differences in distance and consequent sharpness of tone (which latter Dr. Gould specifically mentions) are accompanied by an apparent difference in pitch, which is lost on similar approximation. If Dr. Gould can find two choirs equally loud and distinct, or equally distant and free from intermediate obstructions, accompanied by a real difference in pitch, he should report his further investigations, and further determine precisely what insect is the source of the orchestration.

SAMUEL H. SCUDDER.

## A NATURALIST IN MEXICO.

THERE has recently appeared a small volume by Mr. F. C. Baker under the above title which purports to be an account of the expedition of Yucatan and southern Mexico sent out by the Academy of Natural Sciences of Philadelphia in 1890, under the leadership of Prof. Angelo Heilprin. It is based presumably upon the author's notes and recollections of the trip.

As a member of this expedition I consider it my duty to correct several inaccuracies in Mr. Baker's statements, and especially to call attention to the manner in which quotations have been made from the scientific reports of the expedition and other works without a word as to the source of the information, leaving the reader to infer that it is the work of the author. In the preface it is true we are referred to the Proceedings, Acad. Nat. Sci. Phila., 1890–95, 'for full accounts concerning the scientific portion of the expedition,' but the author does not acknowledge any assistance from this source in preparing his volume and makes direct quotations without the slightest comment. His historic account of Yucatan is drawn from Stephens' 'Incidents of Travels in Yucatan,' Vol. I., Chap. iii., as a comparison will at once show, many of the phrases being identical.

Turning to page 80 of 'A Naturalist in Mexico,' we find an account of previous measurements of Mt. Orizaba. The source of this can easily be ascertained by referring to Prof. Heilprin's paper on the subject Proc. Acad. Nat. Sci. Phila., 1890, p. 253–254, as the following quotations will show:

| BAKER. | HEILPRIN. |
|---|---|
| In 1796 Ferrer, by means of angle measurements taken from the Encero, determined the height to be 17,879 feet. Humboldt a few years later measured the mountain from a plain, near the town of Jalapa, and obtained 17,375 feet. He observed, however, that his angles of elevation were very small, and the base-line difficult to level, etc. | Ferrer in 1796, by means of angle measurements taken from the Encero, determined its height to be 17,879 feet. Humboldt a few years later measured the mountain from a plain near the town of Jalapa, and obtained only 17,375 feet, but he observes with characteristic caution that his "angles of elevation were very small, and the base-line difficult to level," etc. |

Professor Heilprin very properly places Humboldt's statement in quotation marks, and refers in a footnote to his source of information. Mr. Baker, however, takes Heilprin's statement bodily and Humboldt's with it and uses no quotation marks nor reference whatever! The rest of the account is similar to the above example, but Mr. Baker unfortunately credits Dr. Kaska with making his measurements with a 'thermometer' instead of a barometer as stated by Professor Heilprin.

Immediately following the consideration of the height of the mountain Mr. Baker gives us an account of the birds observed at San Andres. This he has taken directly from my paper Proc. A. N. S., Phila, 1890., p. 213, though it is presented without any acknowledgment or marks of quotation. The following example is sufficient:

| BAKER. | STONE. |
|---|---|
| The difference between the birds of San Andres and those of Orizaba 4,000 feet below, was marked. Only three species were common to both localities. Nearly all the species belonged to northern genera. In the town the only birds observed were the House Finch, Blue Grosbeak and Barn Swallow, etc. | The difference between the birds of this vicinity and of the town of Orizaba 4,000 feet below, was at once apparent. Only three species were seen at both places. * * * Nearly all the species belonged to more northern genera. * * * In the town itself the only birds observed were the House Finch, Barn Swallow and Blue Grosbeak, etc. |

While accompanying the expedition mainly as a conchologist, Mr. Baker did render valuable assistance in collecting birds. The scien-

tific names of the species, however, were at that time unknown to both of us, and the subsequent identification, after our return, was entirely my own work. Mr. Baker, however, has quoted my notes and identifications throughout his book as if they were his own. In many cases he has supplemented them by original notes which must have been drawn from memory—a very unreliable source after a lapse of five years. For instance, on p. 28, he says 'finches were quite abundant,' while they were in reality very scarce, and p. 32 he records 'thrushes' at Glenn's Camp, while we only saw one thrush in Yucatan, which was at another time and place.

Strangest of all, however, is his account of the Trogon. The bird was shot in the cactus thicket, under the circumstances which he describes, was a Motmot and not a Trogon, as my notebook shows, and the only Trogon that we did collect—in fact, the only one we saw—had not a 'rose-colored breast,' but was the *yellow* breasted *T. caligatus*.

In describing the effects of the rarefied air during our ascent of Orizaba, Mr. Baker says: "I was seized with most violent symptoms. My head swam, my eyes became bloodshot. * * * * Another of my companions was affected in the same manner." As Mr. Baker and I were together when we desisted in the ascent I must be the one to whom he alludes, and I can only say that for my part the account is grossly exaggerated, nor did I see such signs of distress in my companion. Indeed, Mr. Baker's recollections of the trip seem in many respects very dim, as the opening paragraph of his book shows that he has forgotten the name of the vessel upon which we sailed from New York.

On page 97 Mr. Baker takes occasion to ridicule the naming of the mollusks in the Mexican National Museum, referring to one instance as a 'most ludicrous error.' There is an old saying that "people who live in glass houses should not throw stones," and it seems equally 'ludicrous' to find on page 123 of Mr. Baker's book a figure of our eastern kingbird (*Tyrannus tyrannus*) labelled *T. vociferus;* the white tail-band, which is characteristic of the eastern bird and absent in the other, being brought out prominently in the cut; and yet this figure was drawn by the author especially for this work.

It may seem scarcely worth while to call attention to Mr. Baker's plagiarism as I have done, but unfortunately this is not his first offense, as can be seen on comparing his article on the Round-tailed Muskrat, Proc. Acad. Nat. Sci. Phila., 1889, p. 271, with Mr. F. M. Chapman's earlier paper on the same subject, Bull. Amer. Mus. Nat. Hist., Vol. II., p. 119, and it seems only right that such practice should be exposed.

WITMER STONE.
ACADEMY NAT. SCIENCES PHILA.

## SHELLS AS IMPLEMENTS.

PROFESSOR OTIS T. MASON calls attention, in SCIENCE, October 11, 1895, to an illustration of a perforated shell, said to have been used as a scraper, given in von den Steinen's work on 'The Natives of Central Brazil,' and resembling those figured by Holmes in his 'Art in Shell,' Pls. xxvi., fig. 3: xxvii., fig. 1. In shell heaps on the shores of Frenchman's Bay, Mt. Desert Island, I have found numerous valves of the *Mya arenaria* similarly perforated. The greater part seem to have been so pierced by the hard beaks of the common crow, like those found now on beaches. Others, however, show such a rounded perforation as can only have been made by man, and have the edge artificially smoothed. I have always supposed that such smoothing was caused either by the lashing to it, or the insertion, of a wooden handle, and that the object was used as a spoon or ladle. This seems to be corroborated by the circumstance that the inside of one of these shells is covered by a hard incrustation resembling what is often found upon fragments of pottery vessels that have been used as cooking utensils. The edges of the shells show no indication that they have been used as scrapers.

HENRY W. HAYNES.
BOSTON, October 16, 1895.

## *SCIENTIFIC LITERATURE.*

*Canyons of the Colorado.* By J. W. POWELL, PH. D., LL. D., formerly Director of the United States Geological Survey, member of the National Academy of Sciences, etc., etc. Meadville, Pa., Flood & Vincent, The Chautauqua-Century Press. 1895.

This is a sumptuous volume of 400 quarto