

these inscriptions which I show will give an idea of some of these unknown signs. They are three in number, and fair examples of hundreds to be seen in the localities referred to. One was copied by Barth at a place southwest of Fezzan; the second by Captain Bernard, near Laghouat; the third by Captain Boucher, near Figuig. While each presents letters identical with some in the Touareg alphabet, or in the Numidian mortuary inscriptions, the majority of the letters belong to neither class.

It is the opinion of some careful students, therefore, and it seems evident, that for a portion of the ancient Libyan alphabet we must look elsewhere than to a Semitic source. The question is a new one; but there can scarcely be more than one answer to it. We must look directly to Egypt, whence the Semitic alphabets themselves must finally trace their origin. Nor does such an answer present the least historic difficulty. Earlier than the twelfth century, B.C., there were direct and much-travelled caravan routes from the heart of the Berber country into Egypt. "I have not the slightest doubt," writes Barth, "that the Imoshagh (Touaregs) are represented in the ancient sculptures of Egypt as the Tamhu and the Mashawash." We are well aware that thousands of Berber soldiers were enlisted in the Egyptian armies in the Ramesside epoch. The high culture they possessed is attested by the catalogue of spoils in the inscription of Merenptah. Unquestionably they became familiar with the various methods of writing in vogue in Egypt at that period.

In his latest work, Mr. Flinders Petrie maintains that the letters of the Phœnician alphabet were derived directly from Egypt; it is quite likely that one or more of the earliest Berber alphabets were also derived directly from the same venerable seat of culture, adopting, in part, signs identical, in part, diverse from the multiform Phœnician alphabets of the earliest epochs. Inter-course with the Semitic traders and colonists led to a greater or less unification of the methods of writing, as has occurred in so many other instances; so that the Libyan alphabet of the third century, B.C., was easily enough mistaken for a daughter, instead of a sister, of that in use by the Carthaginians. But they never reached a complete identity, and as the farther we go back, the greater seems the diversity, the theory of an independent origin appears to be alone that which will satisfy the facts in the case; and this theory has in itself a high historic probability.

The principal works to be consulted, copies of all of which from my own library I lay before you, are the following:—

Faidherbe, "Collection Complète des Inscriptions Numidiques."

Hanoteau, "Essai de Grammaire Kabyle."

Hanoteau, "Essai de Grammaire de la Langue Tamachek."

Halévy, "Essai d'Épigraphie Libyque."

Bissuel, "Les Touaregs de l'Ouest."

Basset, "Notes de Lexicographie Berbère."

Rinn, "Les Origines Berbères."

Numerous articles on the rupestrian inscriptions are scattered through the *Revue d'Ethnographie*, *L'Anthropologie*, etc. As the subject is one, I believe, entirely new to American Orientalists, and as it may possibly prove of considerable significance in the history of the development of Mediterranean civilization, this brief presentation of it will, I trust, lead to further researches.

#### 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.

On request in advance, one hundred copies of the number containing his communication will be furnished free to any correspondent.

The editor will be glad to publish any queries consonant with the character of the journal.

#### The Trinomial Question in Nomenclature.

I WOULD like to say just a word in relation to the article by Mr. C. Michener of San Francisco, which appeared in the Oct. 28 number of *Science*.

Whatever may be the views of others on this point, I maintain that there is an ethical side in nomenclature. My article was written largely from that point of view, the matter of "convenience" is of secondary importance.

When an author names and gives a recognizable description of a species, the latter becomes in a certain measure his individual property. (I feel safe in saying that this view is held by many others beside myself.) A later author who attempts to claim this species violates a law of ethics.

Mr. Michener's whole article hinges on this one point: Is there an ethical side in nomenclature? I leave my critics to answer this question. If there is, then the question arises: Shall justice be sacrificed to convenience?

Considering the matter of convenience, there is no point gained, in pursuing the course supported in the above article, which is important enough to warrant this violation of rights. Of the two evils, inconvenience and injustice, we should choose the lesser. We should put up with the inconvenience, which is at best slight. Taking the example cited: If H. and A. have described five species by the name of *malachroides*, then look each one up. It is safe to say that the necessity for doing this will not occur once in ten times. Again, let him who desires to find the characters of *H. malachroides*, H. and A., look at some later work, Greene's for instance, or any other. He will probably find, with little trouble, the genus *Hesperalcea*. If it is contained in some recent paper and he cannot find it, he is not conversant with the literature on the subject; and the sooner he becomes conversant, the better for his work.

The amount of truth which a name conveys depends entirely upon our understanding of what it represents. It is accepted by the majority of the scientific public (I refer especially to zoölogists) that the third term of the trinomial represents the founder of the species. If it were understood to represent the reviser who placed the species in its present generic position, of course Mr. Michener's argument would be valid. I know that the view here opposed is the one more generally held among botanists. But I believe it is growing in disapprobation. The opposite view is almost universally adopted by zoölogists, and is, I believe, the rational and just one.

C. H. TYLER TOWNSEND.

Agricultural College, Las Cruces, N. M., Nov. 5.

#### Notes on the Fauna of the Dry Regions.

IN *Science* for Dec. 23, 1892, my friend, Mr. A. Stephens, records an instance of a captive pocket-mouse (*Perognathus*) living for over two years without water or any food from which any amount of moisture could have been obtained; and, from the fact of water having been offered, it is plain that its abstinence was entirely voluntary.

That many birds and mammals inhabiting the desert regions of the southwest live for many months without any other moisture than that obtained from the food they eat, is well known to those who have studied zoölogy in these regions. And the study of the various sources from which the fauna of the arid plains of New Mexico and Arizona draws its supply of moisture offers a very inviting field.

In the low deserts of these territories rain seldom falls after March or before September. Often nine or ten months pass by without rain in sufficient quantities to form pools or streams where water could be obtained by the birds or mammals of these sandy wastes.

During the summer of 1886 I made my headquarters at a mining camp near the southwestern corner of New Mexico, in the midst of the dry regions. Water could only be obtained from a small spring ten miles west of camp, and no rain fell after my arrival, on Feb. 28, until some time about the last of August.

Birds and mammals were quite plentiful about my camp, many of the former nesting and raising broods of young, which reached maturity and, in some cases, migrated before they made the acquaintance of a drop of water.

In the case of the insectivorous species some moisture was obtained from their food, which was more or less juicy. But the sparrows and seed-eating species must have thought it a "long time between drinks," as their food was of the driest possible kind.

During the fall, after the various species of cacti had ripened their fruits, I frequently found them torn open by mocking-birds