

plosion must have occurred not far from Tribune, Greeley County, Kansas, since the interval between light and sound there was but a few seconds. The fall of stones, however, occurred at Modoc, about forty miles further east, the interval between light and sound there being between two and three minutes. It would appear, therefore, that after the explosion the stones traveled about forty miles before reaching the earth, at a velocity of about one third of a mile per second. Up to date thirteen fragments and individuals have been found, the heaviest having weighed eleven pounds. The other individuals and fragments found range in weight from seven pounds to a few ounces. The area over which they were scattered is one of about seven miles in length by two miles in width, extending nearly due east and west, the larger stones being found at the east end of the area. The principle that the smaller stones would fall first is thus corroborated. The stones appear to be of the type of white or gray chondrites and to have the usual composition of meteorites of this character. They are coated, for the most part, with a thick, black crust, although considerable breaking up took place in the atmosphere, so that some fragments have only a secondary crust or none at all. The total weight of individuals thus far collected is thirty-two pounds.

Six distinct meteorite localities are already known in western Kansas. Of these, one, Saline, Sheridan County, is an observed fall which took place at 9:30 P.M., November 15, 1898. That another fall should occur so soon within an area previously so favored seems to indicate some combination of forces relative to the area.

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CAPTURE OF THE WEST INDIAN SEAL (*MONACHUS TROPICALIS*) AT KEY WEST, FLORIDA.

On February 25, 1906, a party of fisherman killed a West Indian seal about five miles from Key West, where the specimen is now on exhibition.

It is a female, nine feet long and appar-

ently quite old. The teeth are worn flat, the canines being worn down to the same level as the other teeth.

When discovered the animal was promptly harpooned and then killed with a shotgun. No one in Key West had succeeded in identifying it, and the exhibitors called it a sea-lion, until my arrival. It is, I believe, about thirty years since *Monachus tropicalis* was last seen in the Florida region. Mr. H. L. Ward collected a few specimens on the Triangle Islands in the Bay of Campeachy just twenty years ago. It has practically disappeared from the West Indian region.

Two specimens have been exhibited alive at the New York Aquarium, one of them from 1897 to 1903. These were also captured at the Triangles.

The Key West specimen is for sale and although badly mounted, the skin is apparently in good condition for remounting. The skull is mounted in the skin.

The specimen is in the possession of Jonathan Cates, Jr., Virginia Avenue, near North Beach, Key West, Florida.

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ON THE ORIGIN OF THE SMALL MOUNDS OF THE LOWER MISSISSIPPI VALLEY AND TEXAS.

IN SCIENCE for January 5, Vol. XXIII, p. 35, Mr. A. C. Veatch, of the U. S. Geological Survey, takes up the question of the origin of the small mounds of the lower Mississippi and Texas, referring to an article of Mr. D. I. Bushnell in Vol. XXII, p. 712, followed by a lengthy quotation from Foster's 'Prehistoric Races of the United States,' citing from the manuscript notes of Professor Forshy: "There is a class of mounds west of the Mississippi Delta and extending to the Arkansas and above, and westward to the Colorado in Texas, that are to me, after thirty years of familiarity with them, entirely inexplicable." He also quotes from the report of Colonel S. H. Lockett's topographical survey of Louisiana and from De Nadaillac's 'Prehistoric America,' and gives the result of his own observations.

They are unaccountable to all of them. "They are not ant hills or animal burrows, and were not made by Indians."

I think the explanation is very simple and easily verified. The memories of the observers will confirm it. *They are the marks of up-rooted trees.* They appear in every part of our country where there are forests and where they have disappeared. They are more numerous in certain light soils and in swamps and sometimes in overflowed lands.

Trees blown down in gales turn up a large mass of earth, which as the tree and roots decay settle into low, generally oblong, 'knolls' or mounds. On the New England farm where I spent my boyhood was an old pasture that had many such mounds. It had been timbered with hemlock and some hard wood, which had been cut down and burned up to make 'a clearing.' A crop or two had been taken from it, but the soil was too thin and poor to pay for cultivating. It was given over to pasturage. I recognized their character from seeing them in process of formation in the adjoining woods. One autumn a tornado passed over the farm, cutting a swath through the forests. Every tree of any size in its path was either overturned or broken off. A few years ago I visited the old place. A new woods had grown up, but the track of the tornado could be traced by the little hillocks.

I lived at one time for some years in the pine woods of Mississippi, near the central part of the state, and there witnessed the formation of such mounds. It was more rapid than at the north. The annual fires in a year or two burned up the pitchy tree and roots and the mound was soon rounded up.

On the prairies of Iowa, where trees never grew, there are no such mounds. On the flood plains of the rivers that are usually timbered they occur, and in the valley of the Mississippi where I reside I have met with much larger ones than those of the uplands, large trees and a soft soil. I think, therefore, that this solution is very obvious and satisfactory.

P. J. FARNSWORTH.

CLINTON, IOWA.

SPECIAL ARTICLES.

THE FISH GENUS ALABES OR CHEILOBRANCHUS.

NEARLY a century ago (in 1817) a group of eel-like fishes was named 'les *Alabès*' by Cuvier in his 'Règne Animal' (II., 235). All the information given was that they, like the *Synbranchi*, had a single undivided branchial aperture under the throat, well-marked pectorals with a small concave disk between them, a small operculum, three branchiostegal rays, pointed teeth, and intestines like those of the *Synbranchi*. Only one small species from India ('la mer des Indes') was referred to, but left unnamed.

This species ever since has remained unnoticed and unnamed till recently. In March, 1906, the concluding part of an article ('Le genre *Alabès* de Cuvier') by Leon Vaillant, published in the *Nouvelles Archives du Museum d'Histoire Naturelle* (4), VII., 145-158, was received, which throws some light on the subject. Vaillant identifies the genus with *Cheilobranchus* of Richardson. The alleged disk is so superficial that only a trace exists in some individuals and not at all in others, the so-called pectorals are rayless and approximately in the place of ventrals of many jugular fishes, the dorsal and anal are rayless, and the caudal has eight or nine ('huit ou neuf') articulated rays and is inserted around the margin of a hypural plate; there are intermaxillaries with imbricating ascending posterior processes and behind them small supramaxillaries; the teeth are compressed and blunt.

Such a combination of characters indicates a very peculiar type certainly not closely related to *Synbranchus*; Vaillant fully recognizes this and suggests (p. 156) that the genus is most nearly related to the Blennioidea and especially the Blenniidae. The latter view is very questionable, but not enough has been made known to permit an authoritative opinion to be formed. Vaillant has overlooked a couple of references including important or original data.

Henri Cloquet ('H. C.') contributed to the 'Supplement' (p. 99) of the first volume of the 'Dictionnaire des Sciences Naturelles,' an article on 'ALABES, *Alabes* (*Ichtyol*)' defining