

Rhodes University College at Grahamstown, made a careful examination of the canoe, and definitely stated it was not of African origin. He advanced the opinion, confirmed later, that it came from the Mergui Archipelago, which consists of a group of small forest-covered islands in the Bay of Bengal to the north of Sumatra. I have consulted the book entitled "The Sea Gypsies of Malaya," by Mr. Walter Grainge White, which seems to prove that Prof. Schwarz is right. The relic appears to be the hull or base on which a superstructure was built. The so-called rowlocks are evidently for the purpose of receiving slats of wood to form ribs. Along these the sliced stems of palms are bound, and the joints caulked with a resinous gum obtained from the forest trees. On cross pieces of bamboo a deck of split bamboos is laid down, and also caulked. At one end (the stern) a small shelter with a mat cover is erected.

These boats are the floating homes of a primitive race of people known as the Mawken.

Presuming our canoe is of Mawken origin, how came it here, a distance of some 5000 miles from its original home? Was it carried by means of the Malabar ocean current which has its origin in the Bay of Bengal? It is, however, the only relic of its kind which has been recorded from South Africa. F. W. FITZSIMONS.

(Director.)

Port Elizabeth Museum,
South Africa.

A Mutant in Cotton.

ON the Government Farm at Dharwar, Bombay Presidency, India, I have for several years had under observation pure lines of cottons of several species and varieties. One of these was *Wagale*, a Burmese variety of *Gossypium neglectum* Tod. From 1919 this variety has been self-fertilised, and only the self-fertilised seed used for sowing in each generation, of which there has been one per annum. Like all the Indian cottons, this variety has normally had simple and stellate hairs on stem, petiole, and leaf. The variety bred true for this character of hairiness until 1925, in which season there appeared one plant which was entirely glabrous.

The normal plant has a ginning percentage of about 30, but the hairless plant had no lint at all although its seeds showed the shorter 'fuzz.' The petal length was also shorter than normal, averaging 17 mm. as against the normal 35 mm. This plant was self-fertilised and seeds were produced. In the season of 1926-27 these seeds were sown, giving 80 plants, all showing absolute hairlessness, lack of lint, and short petals. This new type appears to be a genuine mutant. Its behaviour in further generations and in crosses is being studied.

G. L. KOTTUR.
(Cotton Breeder.)

Bombay Agricultural Department,
Dharwar, India, Feb. 19.

The Microscopical Examination of Flint Surfaces.

I AM glad to see my friend Mr. Reid Moir is turning his attention to the surface-structures of fractured and fissured flints (*NATURE*, April 16, p. 560); and I am sure we shall know something more about them before he has done with them. For more than fifty years I have been pointing out some of these, and the differences in their subsequent disposition to metamorphoses. I used to liken them sometimes to bread cut and broken, both in appearance and in their action when we turn them into the soup. The transitional Fawkhamian implements are splendid examples of these: every man-fractured (or flaked) face is now porcellanised, while the 'natural' facets have been altering ever since.

The question, however, is not quite so simple as it might appear. There are eight factors that enter into the formation of the macro- and micro-surface-structures of free struck (fractured) and thermal fissured flints; these are: (1) the state and its variety to which the particular flint belongs; (2) the exact point the specimen has reached in the collo-crystallar evolution; (3) the degree and kind of metamorphoses the flint has attained; (4) the degree of molecular rearrangement associated with disruption it has reached and which of the various forms of these are present; (5) the support at the moment of fracture (resilient or rigid); (6) the shape of the striking-face; (7) the shape and nature of the striker (hammer); (8) the velocity of the blow.

In addition to these, in the case of thermal fissure, much will, of course, depend upon whether the heat be oxidising or reducing. W. J. LEWIS ABBOTT.

Fluorescence of Sea Anemones.

I NOTICED recently, upon the rocks in Torbay, a number of sea anemones the tentacles of which appeared to fluoresce in sunlight. The effect is limited to the tentacles, for they appear to have a pinkish-brown colour by transmitted light, which changes to vivid green when viewed by light reflected from their surface. The body of the anemone itself is yellowish-brown and does not appear to fluoresce: nor do the pink tips of the tentacles.

Wishing to confirm the effect, I brought two specimens to London, and on placing them in a beam of ultra-violet light from which the visible radiation was filtered, the brilliance of the green fluorescence was very striking. I would suggest, therefore, that a source of ultra-violet light might be a useful adjunct to marine biological laboratories.

CHARLES E. S. PHILLIPS.

Castle House,
Shooter's Hill, S.E.18.

The Modern 'Zoo.'

ON behalf of the Council of the Zoological Society of Scotland I should like to express to you our great appreciation of the excellent notice in *NATURE* of the Society's appeal for funds for the continued development of the Zoological Park here. The publicity given, through *NATURE*, to our aspirations and our necessities will aid very greatly the effort we are now making, and I thank you most cordially for it.

Perhaps you will permit me to add that if any of your readers would be interested to receive a copy of the illustrated appeal, which contains a fairly full description of the Park, I should be very pleased to send one to any address given me, and if any one should be generous enough to subscribe towards our development fund, I shall be most happy to receive and acknowledge subscriptions.

T. H. GILLESPIE.
(Director-Secretary.)

The Zoological Society of Scotland,
Murrayfield, Edinburgh, W.

The Law of Flame Speeds.

THE quotation by Mr. A. G. White in *NATURE* of May 7, p. 674, is misleading from the context, and we would refer readers to the preceding paragraph in the paper from which the quotation is made (*Jour. Chem. Soc.*, 1919, 115, 1455).

W. PAYMAN.

R. V. WHEELER.

Safety in Mines Research Board,
Sheffield, May 12.