



ECLIPSE MAY 29

The moon will eclipse the sun May 29. But the path of totality streaks across a bleak section of the southern Atlantic Ocean, where there are few accessible islands and little hope of good weather. This diagram shows how an eclipse occurs: the moon comes between the sun and the earth. The path of totality is the moon's shadow or umbra on the earth. A belt (not shown) on each side the path of totality is partially darkened by partial blocking of the sun by the moon. This belt is known as the penumbra.

nor yet his own inspiration, Dr. Jaggard revealed. At first the proposal was to pack a lot of dynamite to the critical point on muleback, but a planter pointed out that bombing planes could not only find the lava tunnels much more easily in the dense forest but could attack them more effectively when found.

Neither was the bombing attack conducted against the moving front of the lava columns, the volcanologist said. That would not have stopped them. In true modern air-warfare style, the planes struck at the base of operations—the heads of the lava streams just as they emerged from the slope of Mauna Loa. With 600-pound bombs of TNT they blasted in the roofs of the tunnels. This permitted the escape of the gases that were the principal source of heat for the lava. With their power supply thus cut off the streams were stopped at their source.

Science News Letter, May 28, 1938

ANTHROPOLOGY

# New Fossils Add to Knowledge Of African Man-Like Ape

## Canine Tooth Unlike Chimpanzee's in Either Size or Shape; Teeth in Place in Jaw Are Spaced Human Style

By E. N. FALLAIZE

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**A** NEW connecting link between man and apes is forged by a fossil half-jaw discovered in South Africa. The new-found relic consists of the upper right jaw, with four teeth in place, and part of the bony palate, belonging to *Australopithecus*, the famous man-like ape of Taungs. The discovery is reported by Prof. Robert Broome of the Transvaal Museum. (*Nature*, May 7)

*Australopithecus* was first recognized and named by Prof. Raymond Dart in 1925, when a fossil skull of a new and primitive type, apparently half-way between chimpanzee and man, was found at the mining center of Taungs in the Transvaal. But this specimen was not full grown, representing a stage of growth of about five years of age. Most scientists, therefore, have since held that this skull did not stand in the human line of descent, but was to be regarded as an immature specimen of a new type of fossil chimpanzee, though in certain respects presenting human resemblances, possibly due to the fact that it was not full grown.

A few months ago Prof. Broome showed that this view was probably wrong, when he announced that he too had found further relics of *Australopithecus* in the form of a number of teeth, which while undoubtedly belonging to the fossil type identified by Dart, were slightly different from the teeth of that skull, approaching even more closely to human teeth.

Prof. Broome's present discovery is much more important than that. The lower canine is so much like the human that at first Prof. Broome hesitated to describe it as belonging to *Australopithecus*. Neither in shape nor size does it bear any close resemblance to the tooth of a chimpanzee.

The crucial discovery, however, is that of the part of the upper jaw. The teeth in position in the upper jaw are the second incisor, the canine, the first premolar and the first molar. The canine

is not much larger than in man, and is worn down to the same height as the second incisor and the first premolar. In the apes the canines are much larger in proportion to the other teeth and sometimes are almost like small tusks. But even more significant is the fact that the second incisor is situated close up to the canine. The importance of this lies in the fact that most students of the teeth of man and the ape are agreed that it is an infallible mark of a human character in dentition, when there is no gap between the front teeth and the canine teeth, as there invariably is in the teeth of the ape.

The preservation of part of the palate is also of the very (*Turn to Next Page*)

## A Symposium on Cancer

Addresses by

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These papers summarize the growing body of scientific knowledge about cancer as it bears on public health problems, the clinical practice of medicine, and experimental biology.

The contributors, representatives of leading laboratories in this country and abroad, are men whose experimental work and observation of cancer cases have contributed significantly to the changing concept of cancer.

Their conclusions are of first importance not only to medical workers in the field of cancerology but to all clinicians, persons interested in public health policies, biologists, biochemists, physiologists, and plant pathologists.

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