

# THE SCIENCE NEWS-LETTER

*A Weekly Summary of Current Science*

EDITED BY WATSON DAVIS

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EDWIN E. SLOSSON, Director  
WATSON DAVIS, Managing Editor



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## SUPPOSED "MISSING LINK" SAID TO BE SIMIAN

The "missing link" is still missing, and the skull recently discovered in South Africa by Prof. Raymond Dart, of Witwatersrand University, is definitely that of an ape, such as live today, says Sir Arthur Keith, of the Royal College of Surgeons in London, and a recognized authority on prehistoric man, in a letter to "Nature". In expressing this opinion, after seeing casts of the skull, Sir Arthur differs with Prof. Dart, who described it as representing "an extinct race of apes, intermediate between living anthropoids and man".

"This claim is preposterous," says Sir Arthur. "The skull is that of a young anthropoid ape, and showing so many points of affinity with the two living African anthropoids, the gorilla and the chimpanzee, that there cannot be a moment's hesitation in placing the fossil form in this living group. It is true that it shows in the development of its jaws and face a refinement which is not met with in young gorillas and chimpanzees at a corresponding age. In these respects it does show human-like traits. It is true that it is markedly narrow headed while the other African anthropoids are broad-headed, but we find the same kind of difference in human beings of closely allied races. Prof. Dart claimed that the brain showed certain definite human traits. This depends on whether or not he correctly identified the position of a certain fissure of the brain. When we examine the brain cast at the supposed site of the fissure we find only a broken surface where identification becomes a matter of guess-work".

Sir Arthur believes, however, that the skull is prehistoric, and that its owner lived in the Pleistocene period, a million years ago, and that it throws light on the history of the anthropoid apes, but not of man. "Java man (Pithecanthropus)," he concludes, "still remains the only known link between man and ape, and this extinct type lies on the human side of the gap."

## FARMERS OPPOSE TUBERCULIN TEST

Cows as well as monkeys are doing their share in bringing science into the courtroom. The forcible ejection of Dr. Clark H. Hays, chief of the Nebraska state bureau of animal industry, from a farm at Elkhorn, Nebraska, on June 30, has resulted in contributions from farmers in different parts of the state toward a fund to test their rights under the Nebraska law for the eradication of tuberculosis in livestock. The objecting farmer, according to Dr. Hays, refused to allow his stock to be subjected to the tuberculosis test in accordance with the state law.

This test consists of injecting an extract of dead tubercle bacilli under the skin of the cow. Fever, swelling, and inflammation at the point of injection constitute a positive test. Cattle with a positive test are condemned and killed.

The slaughter of thousands of cattle each year under the Nebraska law and similar laws in other states seems to be the basis of the farmers' rebellion. Their complaints that many of the cows which are slaughtered following a positive reaction to the test are found to be without traces of tuberculosis are in line with a series of investigations by Prof. E. G. Hastings and Dr. B. A. Beach, professors of bacteriology and veterinary science at the University of Wisconsin. They reported to the Society of American Bacteriologists at their December, 1924, meeting that in twenty Wisconsin counties in three years, 387, 180 cattle were tested, and 5,888 of these gave a positive reaction. Yet, on post mortem examination no evidence of tuberculosis could be found in 1279 of the positive cases. In some of these latter they found a germ very similar to the one which causes tuberculosis, except that it was apparently harmless. Prof. Hastings and Dr. Beach believe that this germ causes cattle to react positively, and is the reason for many of them being needlessly slaughtered.

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#### TUBERCULIN TEST DEFENDED BY GOVERNMENT EXPERT

"Without the aid of tuberculin it would be absolutely impossible to attempt to control tuberculosis in livestock," said Dr. J.A. Kiernan, chief of the tuberculosis eradication division of the U.S. Bureau of Animal Industry, when he was asked whether the accuracy of this method of testing is in doubt. "Before use of tuberculin became general," Dr. Kiernan stated, "physical examination of cattle was depended upon, but it proved futile in freeing herds of the disease.

"The same percentage of accuracy is shown by tests now as was found more than 30 years ago when tuberculin was first used for the purpose of diagnosing tuberculosis in cattle," he continued. "Of more than 20,000 animals that reacted to the tuberculin test during June, 1925, 92 per cent. showed positive lesions of tuberculosis on the ordinary post mortem examination. Many more of those animals would have shown lesions had a more thorough search been made. Furthermore, laboratory examinations of the tissues of the animals that showed no lesions would reveal at least one-fifth of them to be tuberculous. In some of the states where thousands of reacting animals are slaughtered, cases showing no lesions are less than three per cent., thus indicating a very high degree of accuracy for the test.

Dr. Kiernan pointed out that the campaign for eradication of tuberculosis in livestock is going on in every state, and that it is purely voluntary work, carried on under state laws and regulations. No owner is required to submit his herd to the test except in areas where at least 75 per cent. of the other cattle owners have their herds tested.

During the fiscal year 1925, 7,000,000 cattle were tuberculin tested in the United States.

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Egypt has bought 131,436 pounds of shoe polish from the United States this year.

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