

high energy states of the neutral oxygen atom. This suggests that the lines are produced by combinations with a higher energy state. Calculation shows, the announcement states, that the oxygen atom should possess energy states of about this value. A theoretical extension of the data predicts that a line should be found at approximately the wavelength of a third prominent coronal line (wavelength 3987).

"The validity of assignment of these lines to neutral oxygen," Drs. Menzel and Boyce state, "is supported by the following facts:

"The similar appearance of the three lines on objective prism coronal spectrograms.

"The fundamental character of the states involved despite the highness of their energies.

"Their relation to the metastable states of ionized oxygen from which they may arise by electron capture.

"The production in the laboratories by Dr. Hopfield of line wavelength 6374 under conditions favorable to the excitation of oxygen metastable states.

"Opposed to the identification stands the failure of triplet lines to appear but this may possibly be attributed to the mechanism of excitation since high velocity electrons are more likely to be caught in single states."

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PHYSIOLOGY

Girls Sleep More Soundly Than Boys of Same Age

GIRLS are sounder sleepers than boys, Dr. Glenville Giddings, assistant professor of medicine at Emory University, Atlanta, has discovered. This observation was made in the course of studies to determine the effects of food and beverages on children's sleep. The girls in the group of 24 children between nine and fourteen years who were studied not only slept more quietly but went to sleep more quickly than the boys.

The results of the investigations bore out the theory that a drink of warm milk just at bedtime induces quieter sleep. This apparently is due to the facts that milk is an easily digested and assimilable food and that the temperature at which it was drunk was just about the same as the temperature of the body. The children were much more restless when they had eaten a heavy meal than when they had had a light supper.

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ANTHROPOLOGY

Pithecanthropus Had 'Modern' Contemporary, Briton Claims

DISCOVERY of a jaw belonging to an ancestor of the present-day human species was reported at a session of the Anthropological Institute in London by Dr. L. S. B. Leakey.

The discovery, if accepted according to Dr. Leakey's interpretation, would mean that human history and evolution are pushed back into a much more distant past than anthropologists have assigned to man.

Dr. Leakey, whose excavations in East Africa have been a subject of much scientific discussion, announced that the new-found jaw represents a new species, which he called *Homo kanamensis*, in honor of Kanam in East Africa where the jaw was unearthed. The evidence of a new species is based on radiological examination of the jaw. This X-ray test, it was said, showed distinguishing features in the roots of the teeth, marking an evolutionary trend towards *Homo sapiens*, the species to which all modern races of men belong.

The man represented by these skeletal remains lived in the Lower Pleistocene age, it was declared, which would give this early species an antiquity of about half a million years. He would thus be a contemporary of *Pithecanthropus erectus*, Dr. Leakey declared. *Pithecanthropus*, so-called ape-man of Java, is a far more primitive type, and has long been rated as the most venerable proto-man ever found on earth. The new discovery would imply that a much higher type of man, and a direct ancestor of the species of man that survived into modern times, lived on earth at an ancient date.

The jaw found at Kanam shows a development of chin and arrangement of teeth that are similar to *Homo sapiens*, it was reported.

Another skull from East Africa, the Kanjera skull, was declared by Dr. Leakey to be Middle Pleistocene in antiquity and to represent a generalized primitive type of *Homo sapiens*. The shape of the femur or thigh bone shows that this man walked erect, he said. Development of a culture using hand axes of stone can be traced in East Africa, Dr. Leakey said.

Commenting on the reported discov-

ery, Dr. Ales Hrdlicka, well-known anthropologist of the Smithsonian Institution, declared that such a conclusion cannot be reached without ample evidence.

"The whole matter involves problems so great and so numerous relating to human history and evolution that a very thorough independent corroboration of the finds is called for. No opinion as to the meaning of a discovery can take the place of scientific fact.

"There is a theory gaining popularity in Europe to provide *Homo sapiens* with a long antiquity. A young German anthropologist who excavated in East Africa has already written a book on the great antiquity of *Homo sapiens*. Man is apparently about to be rescued from a history which would show his upward climb. He is to be shown as springing fully developed in mind and body into an existence beginning a half million or more years ago. It is a dismal picture, for it means that the human species has made no progress in so long a time and hence has but little, if any, prospect of making any in the future.

"So far, however, the evidence that would convince critical science on these points can hardly be said to have been furnished."

Science News Letter, November 4, 1933

ARCHAEOLOGY

Museum Publishes Roman House Model

A NEW IDEA in educating the public has been evolved at the University of Pennsylvania Museum. A publication just issued consists of plans, materials, and directions for assembling and furnishing in miniature a complete Roman house such as the well-to-do Pompeians lived in before Vesuvius buried their lovely city. Instead of going to the museum to gaze at a model and wonder over the life of a Roman family, the individual can now put himself in the place of a Pompeian home maker, taking a personal hand in the building and decorating of the home.