

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."

*Science News Letter, November 4, 1933*

#### PHYSIOLOGY

### Girls Sleep More Soundly Than Boys of Same Age

**G**IRLS 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

**D**ISCOVERY 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.

The new project of museum publication is the work of Mrs. Loring Dam of the Museum Staff and George B. Roberts, architect. The Museum expects the publication to be of interest not only to students and classes but also to architects. The estimated cost of the Roman house today would be about \$150,000, but features of the architectural plan could be adapted to less pretentious modern construction.

The modern idea of putting a house on a pivot and turning it toward the sunlight was anticipated by the Romans, in that they provided more than one dining room, so that one would always get sunshine. The Roman house was a self-contained unit, with the activities all inside the building's walls. The garden was in a court. The "office" of the master of the house was centrally located, so that he could keep an eye on his household. So little did the exterior count in the household activities that there were shops arranged at the front and rented to merchants.

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## EUGENICS

## Eugenicists Approve New German Law

**T**HE NEW German law providing for sterilization of hereditary degenerates meets with the approval of a group of eugenicists in this country, it is indicated by an editorial appearing in *Eugenical News*.

Like all laws, its use will depend upon its enforcement, it is pointed out, but the report adds, "It is difficult to see how the new German Sterilization Law could, as some have suggested, be deflected from its purely eugenical purpose, and be made an 'instrument of tyranny' for the sterilization of non-Nordic races."

"The new law is clean-cut, direct and 'model.' Its standards are social and genetical. Its application is entrusted to specialized courts and procedure. From a legal point of view nothing more could be desired.

"It is probable that the sterilization statutes of the several American states and the national sterilization statute of Germany will, in legal history, constitute a mile stone which marks the control by the most advanced nations of the world of a major aspect of controlling human reproduction, comparable in importance only with the state's legal control of marriage."

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## PSYCHOLOGY

# Weight Loss Found to Be Clue to Personality Type

## Escape of Water From Body in Vapor on Breath and Invisible Perspiration Faster for Some Temperaments

See Front Cover

as the average for the others.

**A** NEW link between the mind and the body has been described to psychologists in a report by Dr. W. R. Miles and his wife, Dr. Catharine C. Miles, of the Institute of Human Relations, Yale University.

The minute quantities of weight lost from your body when you are lying quietly at rest in a room of ordinary comfortable temperature have been found to serve as an index to the sort of person you are. Individuals who lose weight rapidly under such circumstances have, in general, some different personality traits from those who lose weight slowly.

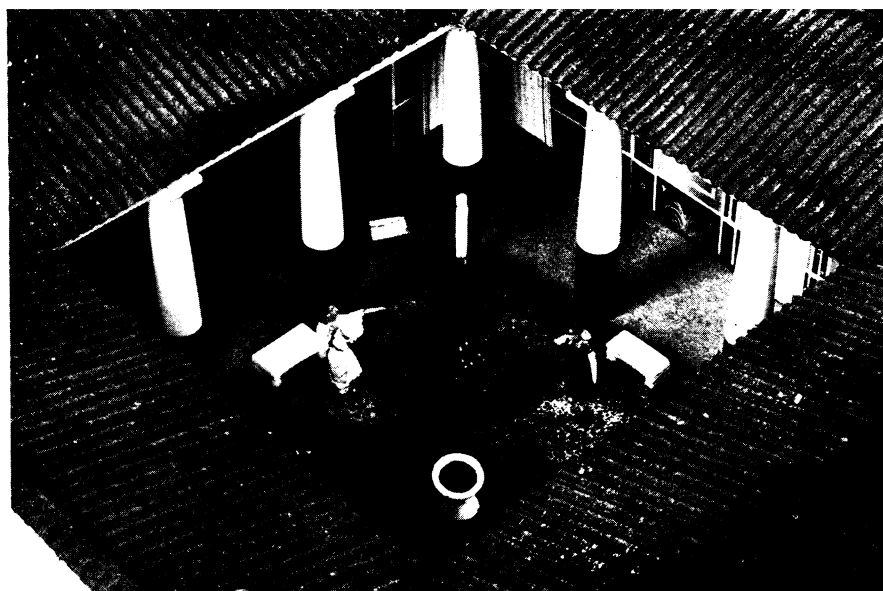
The weight loss is due to water loss from the body in vapor on the breath, which can be easily seen in cold weather but which is present at all times, and in the invisible perspiration which is constantly keeping the skin of hands and feet soft and slightly moist. The average rate of such weight loss is about an ounce and a half an hour. But one section of the experimental group of subjects lost at a rate almost twice as high

The ones losing weight slowly were taller and heavier than those in the high rate group, but the fast losers were quicker in reaction time tests. The slow losers were a little more intelligent than the fast losers but, in spite of that, the educational achievements of the fast losers was greater in terms of ability.

The following personality traits were found to be characteristic of the high-loss group. They let others do the entertaining, day-dream, are self-conscious before a crowd, prefer writing to talking, tend to obey, and tend to regard themselves as slightly below average intellectually. On the other hand the following traits were found in the low-loss group. They plan but do not day-dream, get acquainted easily, seldom blush, rarely forget, tend to be cautious themselves, and consider reasons before obeying.

The cover picture shows Dr. Miles weighing a subject.

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LOOKING DOWN ON A ROMAN HOME

*This unusual close-up view of the miniature Roman home model reveals the garden through an opening in the roof over the court.*