

## PHYSIOLOGY

**Women With Heart Disease Are Likely to be Fat**

**W**OMEN with heart disease average broader and heavier than women who do not have heart trouble, Dr. Antonio Ciocco of the Johns Hopkins University told the American Association of Physical Anthropologists. All their transverse dimensions are relatively greater, particularly the abdominal circumference.

Dr. Ciocco's statement was based on measurements of a series of patients at the Johns Hopkins Hospital. He emphasized that he does not at present see any cause-and-effect relation between fatness and heart disease. He merely found a group of women suffering from heart disease, and selected a group of others to compare with them. The measurements showed a marked correlation, but not necessarily a cause.

He made especially clear the point that the fatness was not due to the heart disease. It came simply from over-eating, so far as he could see, he said.

Dr. Ciocco's results parallel closely a similar set of measurements on men with heart disease, made some time ago under the direction of Dr. Raymond Pearl.

*Science News Letter, May 11, 1935*

## CHEMISTRY

**Rich Untapped Discoveries Await Chemists of Future**

**P**REDICTION of untapped and rich progress for chemistry compared with which present achievements are only a faint scratching of the surface was made by Prof. Hugh Scott Taylor, chairman of Princeton University's department of chemistry, before the American Chemical Society.

Prof. Taylor's prediction set the keynote of confident hopefulness for the convention of 10,000 chemists gathered to discuss current progress in their respective fields.

Pioneer work in chemistry comparable to the boom days of gold mining, when any man might pick up nuggets, is past, Dr. Taylor indicated. The future progress will succeed through research which might be likened, by the same gold mining picture, to the intensive and highly specialized technique required for gold mining after the first feverish boom rush is past. It is during this second intensified period that the greatest values are obtained.

The vast body of academic and experimental knowledge obtained by physical chemistry in the last decade, Dr. Taylor said, will yield for the coming generations highly valuable technical applications.

The work of the physical chemist is that of the blazer of new trails which others would subsequently follow, Prof. Taylor said. The experiments and deductions of present-day physical chemists "can already be charted on a contour map from which the easiest path to reaction can be deduced with the facility with which the aviator can choose his airway through a mountain range, with the more familiar geographical charts and maps of the regions which he traverses."

*Science News Letter, May 11, 1935*

## PSYCHOLOGY

**Controlled Sound in Drama Sways Emotion of Audience**

**H**OW changing the pitch of sound can produce tenseness and excitement in an audience and bring some members of it to the verge of hysteria was described by Harold Burriss-Meyer, of Stevens Institute of Technology, New York City, before the meetings of the Acoustical Society of America.

Speaking on the use of controlled sound in the drama, the Hoboken scientist told how experiments had disclosed that all sounds in the theater could be directed from a single switchboard just as lighting effects are now varied.

The softest whispers can be made audible to all people in the theater without anyone suspecting that he is not hearing the normal tone of the actor. Opera singers, for example, will no longer have to develop the lung capacities of heavy-weight prizefighters to sing above the accompaniment of a too-ambitious thirty-piece orchestra. The new system permits a singer to be heard from any part of the stage and without the artificiality which comes when the tenor has to step to the footlights—while the stage action stops—to deliver his aria.

While there is no direct connection between the emotions, and a sound cannot engender love, hate or fear, Mr. Burriss-Meyer cautioned, it is possible for sounds to suggest indirectly something which will stimulate these emotions. Thus the audience can share more completely the motivation of the actor. "Soft lights and sweet music" are something more than the name of a song: they indirectly build up a feeling of romance in an audience watching a love scene.

*Science News Letter, May 11, 1935*

**IN SCIENCE**

## SURGERY

**Surgery Cuts Death Rate For "Upside-Down Stomachs"**

**T**UMORS of the lung and other tumors in the chest ruptures of the diaphragm which have become popularly but mistakenly known as cases of "upside-down" stomach, and adhesions around the heart which interfere with that organ's function may today be successfully treated by surgical operation, although they were not long ago considered inoperable, Dr. Richard H. Meade, of Philadelphia, told the American College of Physicians.

Whereas ten years ago forty out of every hundred patients died after operation for removal of part of the lung in cases of lung tumor, today only about eighteen out of every hundred such patients are lost. Removal of the entire lung has been successfully accomplished twenty times since first performed in 1931.

Discussing the advances in surgery of the chest, Dr. Meade said that these technical advances had made possible the real eradication of inflammatory lesions of the lungs and bronchi and a radical attack on cancer of these structures.

*Science News Letter, May 11, 1935*

## ANTHROPOLOGY

**American Negroes Are Mixed Race; Not Africans**

**N**EGROES in America are hardly entitled to call themselves "Africans"; they have too much Caucasian and Indian blood in them. This idea, long popularly held in a rather vague fashion, has received scientific support in studies on American Negro anatomy carried on by Dr. Robert J. Terry at Washington University in St. Louis. Speaking before the meeting of the American Association of Physical Anthropologists, he said:

"The type is unstable and in transition. It offers therefore opportunity for studies in race mixture. American laboratories of anatomy and physical anthropology can perform an important service by fostering research in the physical constitution of the type as it now presents itself."

*Science News Letter, May 11, 1935*

# E FIELDS

## BIOLOGY

## Freshwater Shrimp Eats Mosquito "Wigglers"

**F**RESHWATER shrimp would seem to be the most inoffensive creatures in the world, yet a certain fierceness has been discovered in them—and the trait appears to be beneficial to man.

G. Robert Lunz, Jr., of the Charleston Museum reports (*Science*, May 3) that a number of freshwater shrimp which he has had in his aquarium for about a year have shown a lively appetite for the larvae, or "wigglers" of mosquitoes. They chase them through the water-plants, catch them with their pincers, and chew them up alive.

"This does not present proof that in its natural environment this species eats the larvae of the mosquito," Mr. Lunz adds, with proper scientific caution. "However, since it positively occurs in an aquarium, it seems probable that such is the case in the natural habitat of these shrimp. Such feeding habits make this species very valuable economically."

The freshwater shrimp used by Mr. Lunz in his feeding experiments belongs to the species known to zoologists as *Palaemonetes exilipes*.

*Science News Letter*, May 11, 1935

## GENETICS

## Dogs Show What Happens In Unbalanced Matings

**D**OGS illustrate some of the things that can happen to human beings, in cross-breedings of stocks already unbalanced in their heredity. Dr. C. R. Stockard, of Cornell University Medical College, New York City, told the National Academy of Sciences. But what is true of dogs is true to a lesser degree of human beings.

Dr. Stockard, in his present breeding experiments, crossed the English bull with the heavy-bodied, wrinkle-hided basset hound. The recombinations of gland-controlled characters in the second-generation hybrids produced animals with heads and bodies that combined in all imaginable ways the characters of

both parents, and also others that had very much exaggerated bull or basset characters, or even apparently quite new features.

The fantastic results, Dr. Stockard explained, were due to the effects of certain hereditary characters on the ductless glands, which in turn control the growth and proportions of bony skeleton and other parts.

*Science News Letter*, May 11, 1935

## SEISMOLOGY

## Armenian Earthquake May Be Due to Volcano

**C**ONJECTURES that the destructive earthquake in the Mt. Ararat region in Armenia were due to volcanic activity receive support from the absence of any record of it on the tracings of seismographs in this country and other places remote from the disturbed area. Volcanic earthquakes though frequently very destructive, are practically never "earth-shakers," that is, they do not send tremors through the solid crust of the earth for thousands of miles, as do the quakes caused by faults slips, or sudden movements along natural split-lines in the crustal rocks.

Although the great volcanic peak of Mt. Ararat has never erupted during all recorded history (and history is old in its neighborhood), volcanic action is not unknown in Armenia and adjacent regions. Dr. Karl Sapper, noted German volcanologist, states that during the Middle Ages, in 1441, there was an eruption of Nimrud volcano, on the western shore of Lake Van. Another volcano, Sipah Dagh, north of the lake, smokes all the time, it is stated and a third mountain, named variously Tanturek and Tanturlu, was in a fiery state during the middle of the last century.

Almost a century ago, in 1840, the Ararat tragedy of the past few days had a precursor, in a series of severe earthquakes releasing avalanches and mud floods.

Ararat is not the only "holy mountain" of Hebrew, Christian and Mohammedan tradition that is credited with being an extinct volcano. Mt. Sinai, where Moses received the Tables of the Law, is volcanic, and some biblical scholars are convinced that the awesome phenomena recorded in the nineteenth chapter of the Book of Exodus were really an eruption. It has also been suggested that the destruction of Sodom and Gomorrah were caused by a volcanic explosion.

*Science News Letter*, May 11, 1935

## PHYSIOLOGY—PSYCHOLOGY

## Inheritance, Not Glands, Determines Personality

**P**ERSONALITY is not so much a matter of glands as of inheritance, Dr. Walter Freeman, of George Washington University, said at the meeting of the American College of Physicians.

The endocrine glands can bring out personality and enhance it by increasing the energy of the individual, but they cannot change the direction in which the energy will be expended, nor the type of personality an individual has. That is determined by genetic factors operating before he is born. In other words, you cannot make an extrovert out of an introvert by feeding him gland extracts. The effect of glands on personality is a matter of quantity, not quality.

Dr. Freeman's statements were based on studies of 1400 cases of disease of the endocrine glands. Harmonious functioning of the glands is necessary for stability of temperament. Dr. Freeman pointed out. Irritability, or sensitivity of the nervous system, which would be reflected in the personality, may be caused by lack of balance between the endocrine glands by an excess of thyroid hormone or a deficiency of parathyroid hormone, for example.

*Science News Letter*, May 11, 1935

## BOTANY

## Para Rubber Trees Grown From American-Grown Seed

**R**UBBER-growing possibilities in Florida are re-opened to discussion by a report from Dr. O. F. Cook, rubber specialist of the U. S. Department of Agriculture, (*Science*, May 3). Dr. Cook states that true Hevea or Para rubber trees have been grown in Florida from American-grown seed. This first generation of "native-bon" Heveas is more than a year old.

It was necessary to provide special conditions for the young trees. Dr. Cook states, because the Hevea tree is specially adapted for growth in the still, moist air of the tropical jungle, and the thin leaves had to be protected against the strong trade winds of the Florida coast. The roots also had to be assured of an unflinching supply of moisture. But with these conditions met, the young Heveas thrived well and did not seem to mind the occasional chill nights as much as did other tropical rubber plants from regions less near the equator.

*Science News Letter*, May 11, 1935