

## PUBLIC HEALTH

**Rabies Menace Increases;  
Medical Men Urge Action**

**A** QUICKER and more positive test for rabies and a less cumbersome method of vaccination must be found, declares the *Journal of the American Medical Association* in its leading editorial of the week. (May 22)

Last year's alarming situation in regard to dog-bites and rabies appears even more menacing this year, the medical journal asserts.

More than 100 persons have been bitten by dogs daily in Chicago alone in recent warm days, a 50 per cent. increase over the number of bites during the similar period of 1936.

"Immediate and coordinated action is necessary," the Journal states. "Rabies is a disease in which individual efforts are relatively helpless unless aided by the full machinery of social organization."

"The press, public health officials, the police and physicians—in both their individual and their official capacities—should take steps to combat this threatening situation at once if a considerable number of unnecessary deaths is to be avoided.

"In the face of the now existing information as to the frequency and rapid spread of rabies among animals, it seems criminal to postpone action until the disease is identified in human beings.

"Because rabies is primarily a disease of dogs, it seems likely that this campaign will have the whole-hearted support of all the animal humane societies."

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## PUBLIC HEALTH

**TB More Prevalent Among  
College Men Than Co-Eds**

**T**UBERCULOSIS is more prevalent among college men than among college women.

It occurs more frequently among college students in the East and Far West than in the Middle West.

Dr. Esmond R. Long and Florence D. Seibert of the Henry Phipps Institute, University of Pennsylvania, report the results of the tuberculin test on 18,744 college freshmen in 1935-36, (*Journal, American Medical Association*, May 22).

Accurately completed tuberculin tests were given to new entrants at 20 colleges.

From 40 to 60 per cent. of students

showed tuberculous infection in the Eastern and Far Western colleges, and from 20 to 30 per cent. showed infection in the Central States.

Since the majority of students were residents of the general region of their college, Dr. Long and Miss Seibert believe they reflect the incidence of tuberculous infection in the population of these regions.

The high rates in New Mexico and Southern California colleges may be explained by the fact that these regions are noted as resorts for the tuberculous.

Denser populations in the East imposing more frequent contact and in the long run more exposure are thought to account for the high rate in the East.

In rural Idaho almost no students react to tuberculin, while in the mining districts of Southern Idaho there are many positive reactors.

Dr. Long states that the tuberculous death rate is higher among young women than among young men.

While the home contacts with tuberculosis of the two sexes are approximately the same, boys are less restricted in their contacts outside the home and this probably accounts for the greater incidence of the disease among college men.

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## GEOPHYSICS

**New Research Ship Will  
Continue Magnetic Survey**

**T**RIBUTE to the foresightedness of the British Admiralty in building a new non-magnetic ship with which world-wide measurements of the earth's magnetism can be undertaken, was paid by Dr. John A. Fleming, director of the Department of Terrestrial Magnetism of the Carnegie Institution of Washington.

He announced that the new vessel, to be known as the S. S. Research, will carry on the work performed for twenty years by the S. S. Carnegie of the American institution. The Carnegie was destroyed by an explosion in the South Seas in November, 1929, when it had nearly completed a 20-year research program of investigating the secular changes in magnetism which make possible the correction of mariners' charts for compass variations throughout the world. The Research, it is planned, will fill in the gaps left in the Carnegie's program.

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**IN SCIENCE**

## ORNITHOLOGY

**America's Largest Bird  
Not in Danger of Extinction**

**A**MERICA'S largest bird, the California condor, is not in as immediate danger of extinction as has been thought, in the opinion of Arthur Cleveland Bent, noted ornithologist of Taunton, Mass. Mr. Bent tells the life histories of this and other North American birds of prey in a new publication of the U. S. National Museum.

The California condor lives in mountain fastnesses so remote from the destructive influences of civilization that it may long continue to exist. There is no doubt, however, that its range, and therefore probably its numbers, have been considerably reduced. It used to be seen northward to the mouth of the Columbia river and eastward into Nevada and New Mexico. Now it is found only in southern California, with a slight eastern extension across the boundary, and in the northern part of Lower California.

The only effective enemy the California condor has ever had is man, states Mr. Bent. In gold-rush days, miners used to shoot them for their big, hollow quills, which were excellent containers for gold dust. Far larger numbers were killed for no reason at all except the "fun" of shooting something. Now, however, there is a state law protecting them, which seems to have the support of public opinion. They are occasionally still killed, however, when they eat poisoned carcasses that have been set out for coyotes or other predatory mammals.

From his own observations and the records of fellow-ornithologists Mr. Bent makes out a very good case for the California condors, considering the fact that they are carrion-eaters, being in fact giant vultures. They keep their nesting sites clean, and are very fond of bathing in running water.

Like many other birds and mammals, the condors are fond of play. Mated birds display much affection, and spend a good deal of time nibbling at each other and in other kinds of lovemaking.

*Science News Letter, May 29, 1937*

# E FIELDS

## ANTHROPOLOGY

### Age of "Minnesota Girl" Is Mystery to Scientists

See Front Cover

**W**AS the comely maiden pictured on the cover of this week's SCIENCE NEWS LETTER the first Miss America?

Archaeologists are engaged in discussion over the age of this mysterious young lady known to scientists as "Minnesota Girl." She is 20,000 years old, says Prof. A. E. Jenks, of the University of Minnesota, under whose direction the portrayal of the cover illustration was constructed.

Some other anthropologists say her skeleton, found in an ancient Minnesota lake bed, is not different from those of the Sioux Indians who fought the white man. The shell do-dad was found with her skull.

*Science News Letter, May 29, 1937*

## PUBLIC HEALTH

### Warns Refrigeration Gas Is Still Health Hazard

**R**EPORT of two new cases of poisoning by a refrigeration gas (methyl chloride) shows that this cooling agent is still a health hazard.

Back in 1929 ten deaths resulting from leaks in the refrigeration system in Chicago apartment houses led to an investigation by a committee of the American Medical Association.

This committee criticized all commonly used refrigerants, recommended the speedy development of a nontoxic gas and urged the adoption of a national code of supervision for refrigeration plants.

That the ideal refrigerant has not been discovered is apparent, declares Dr. Albert Weinstein of Nashville, Tenn. It is he who reports the two new cases of methyl chloride poisoning in the *Journal of the American Medical Association*, (May 8).

These cases indicate that supervision of installation and operation of refrigerating plants is not universally practiced, Dr. Weinstein charges.

"There is nothing to indicate that

state or federal health agencies have attacked this important industrial and domestic health hazard," he declares.

Recently a nontoxic refrigerant, dichlorodifluoromethane, has been developed, but Dr. Weinstein has been unable to discover the extent of its use.

Certain manufacturers have added small amounts of irritating gases to refrigerants employed by them, so that those exposed are warned of danger. Such warning agents, however, are of little value in saving the lives of infants, invalids, the insane or the drunk.

The cases reported in the medical journal occurred in two men who were repairing an air conditioning plant in the basement of a business concern.

The older man's head began to ache and he felt dizzy so he quit work after two hours. The younger man continued for two hours before he was too ill.

The first man was ill for several days. The second man was desperately sick and screamed in pain. After eight days of treatment he could leave his bed.

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## ASTRONOMY

### Find 12 "Forbidden" Lines Of Iron Spectrum on Star

**A**N EVEN dozen new spectral lines of the element iron which have not yet been obtained in the scientific laboratories of the earthbound scientists have been discovered in the light from the variable star known as R. Hydrae, it is announced by Dr. Paul W. Merrill of Mt. Wilson Observatory of the Carnegie Institution of Washington. Dr. Merrill's report was presented at the Syracuse, N. Y., meeting of the American Association of Variable Star Observers.

The new spectral lines are known as "forbidden" lines to scientists. The positions of the observed lines can be calculated on the basis of the supposed structure of the iron atom. Asked how astronomers can accept the assurance that the lines really come from iron Dr. Merrill said:

"Suppose you discover lying in the street a pile of small boards of odd shapes. Taking them into a nearby house, you find that every one fits snugly into a hole in the floor, and that no holes are left over. You would conclude that you knew where the boards came from." In the same way the new found spectral lines fit into the positions predicted by the theory of the iron atom's structure.

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## CHEMISTRY

### Catalase, Mystery Stuff Of Cells, Is Crystallized

**C**ATALASE, a "mystery" stuff apparently present in all living cells yet whose use in life is not known, has been obtained in pure crystalline form for the first time by Drs. James B. Sumner and Alexander L. Dounce of Cornell University. Announcement of their achievement, which should make much easier future research on this difficult substance, is in *Science* (April 9).

Catalase belongs to the group of complex organic substances called enzymes. Enzymes promote certain specific chemical reactions within the body. Common enzymic reactions are the digestion of proteins by pepsin, the changing of starch to sugar by the enzyme amylase. But about all you will find in the books about catalase is that it breaks hydrogen peroxide apart into oxygen and water; and that hasn't any apparent connection with its job in living cells, where there isn't any hydrogen peroxide. It has been suggested that catalase has something to do with the use of oxygen in the life processes, but nobody knows just what.

Drs. Sumner and Dounce obtained their catalase crystals from chopped liver. After a train of extraction and purification processes, they had a small mass of platelike crystals of microscopic size. These formed very rapidly.

Little has been determined as yet about their physical and chemical properties. Spectroscopic tests show that they absorb light most at certain wavelengths in the red and green portions of sunlight.

Crystalline catalase coagulates upon heating and gives many of the usual protein reactions to appropriate chemical tests. A strong odor of burnt hair is produced when the crystals are burned; this also is a characteristic of proteins.

One interesting and possibly significant fact is that the crystals contain iron, in concentration approximately one-tenth of one per cent. The oxygen-carrying respiration enzyme of the blood discovered by the noted German chemist Prof. Otto Warburg about a decade ago is also believed to contain iron. Further research will disclose what relationship may exist between catalase and the respiration enzyme and catalase.

Dr. Sumner pioneered in the field of obtaining enzymes in pure crystalline form. The first enzyme so obtained, urease, was prepared by him in 1926.

*Science News Letter, May 29, 1937*