

MEDICINE

# Tests on College Girls Show Minute Virus Causes Colds

## Organisms are Passed Through Finest Filters Before Infecting Girls in Johns Hopkins Experiments

**N**INETEEN college girls are the latest heroines in medical science's attack on the common cold.

Through their temporary suffering from the colds with which they were experimentally infected by Drs. Perrin H. Long and James A. Doull of the Johns Hopkins University Medical School, these volunteers aided in the discovery of the important fact that the infecting agent of the common cold is a filterable virus, so minute that it passes through the finest of filters and so difficult to grow that it can not be cultured by ordinary methods.

These are important steps toward the conquest of this disease that is particularly prevalent in the fall and winter, but much more research will be necessary before a prophylactic can be offered the suffering public.

The college girl subjects of the experiments are known in the reports only by their initials, as is customary in medical reports. One of them volunteered to be the subject of experiment twice, the others were the subjects of only one experiment each.

### Confirm Early Views

The results of the experiments of Drs. Long and Doull extend and confirm the views of earlier investigators who showed that the common cold is an infectious disease transmitted from one person to another by something present in the nasal secretions of people ill with colds. But the Johns Hopkins investigators have narrowed down the search for the guilty organism to one that is in the same class, so far as size is concerned, with the causative agents of smallpox, hoof and mouth disease, and even more dreadful diseases.

They proved that the filterable virus of cold is present in liquid that had passed through the finest of filters, the Berkefeld W porcelain filter and the Seitz filter of asbestos. These strain out organisms that are passed by filters that heretofore have been considered extremely fine, and the filtrate is actually sterile from the standpoint of ordinary bacteriological technique. Yet

this filtrate passed on the colds to the college girl subjects.

As it has been impossible to cultivate the cold virus in the way that ordinary germs are grown, the next step planned in the attack on the cold is to attempt tissue culture growth of the virus. By introducing the submicroscopic cold germs to the presence of living cells kept alive in test tubes, it is hoped that the cold virus may be grown artificially. That may give the experimenters a chance to try to develop a protective vaccine.

Because colds are prevalent in the fall and winter and infrequent in the summer, the experimental work is done in the summer to minimize the chance of human test subjects picking up colds accidentally. The researches just reported in the *Proceedings of the Society for Experimental Biology and Medicine* were made last summer and now continuing research is being planned for next summer.

The John J. Abel Fund for Research on the Common Cold, supported by the Chemical Foundation, conducted the

researches. Dr. Long will continue the work next year while Dr. Doull this fall joined the faculty of the Western Reserve University.

*Science News Letter, November 15, 1930*

GENETICS

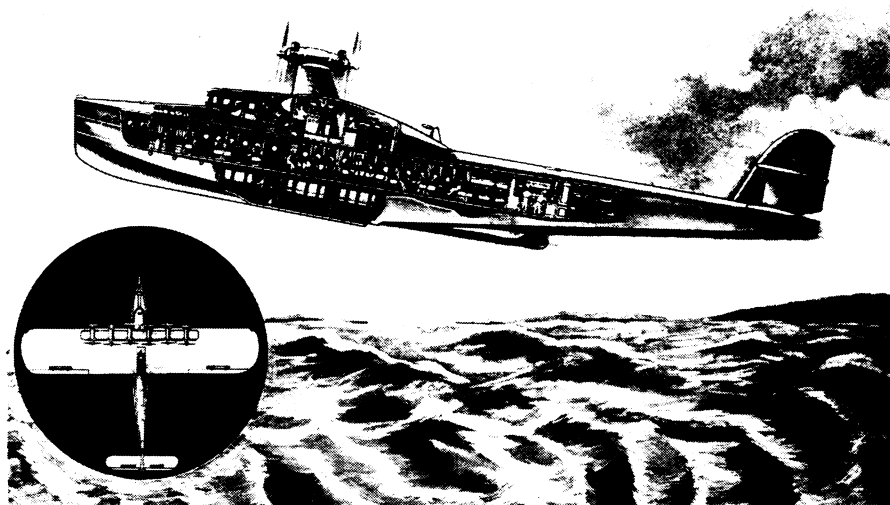
## Strange Goats Faint When Frightened

**A** FLOCK of goats having the very queer habit of falling over, stiff and unconscious, when they are frightened has just been reported to the American Genetic Association in Washington by Prof. Jay L. Lush of the Iowa State College.

The goats were observed by Professor Lush when he was in Texas connected with the Texas Agricultural Experiment Station. They were all bred from one stock which came from Tennessee. The strange behavior seems to run in this particular goat family.

The animals could be frightened in many ways, the principal element necessary being surprise. At a loud noise like the discharge of a gun or the sudden throwing down of an iron wash tub, the goats would become perfectly rigid.

"While in this condition," Dr. Lush said, "they can be pushed or turned over as if they were carved out of a single piece of wood. This spell or 'fit' usually lasts only a short time—about ten to twenty seconds. They recover the use of their muscles in the front end of the body first. Often one will see these goats, on recovering from fright, re-



THE SIZE OF THE HUGE DORNIER DO-X

Which has begun a flight from Germany to America where it will spend the winter, is well illustrated by this cut-away view of the craft in flight. This is the largest airplane ever built. It can rise with a 60-ton load, including fuel, but its fuel consumption is so great that the pay load decreases rapidly as the length of flight is increased. The plane has lifted as many as 169 people for a short flight.

gain control of their forelegs enough to start running away, but the two hind legs will drag or move very stiffly as if the goat were still quite stiff from the loin back although fully in control of the muscles of its front legs, head and neck.

"After having been thus frightened a goat cannot usually be frightened again no matter how great the excitement may

be, until it has had at least twenty or thirty minutes to rest."

Not all the goats fall over when frightened. Dr. Lush believes that it may be only those who have started to run and are caught off balance who topple over. Some become rooted to the spot in a standing position and remain "utterly motionless" for many seconds.

*Science News Letter, November 15, 1930*

PSYCHOLOGY

## It's a Happy World, Think 88 Per Cent of the People

People Happy in One Activity Tend to be Happy in All, Studies Made by Prominent Psychologists Show

**I**T'S A HAPPY world, on the whole. Not many people want to be dramatic figures of tragedy in the eyes of their fellows. On the contrary, most of us humans like to rate ourselves as being happier than average.

This light on human nature has been cast by a new psychological study of happiness made by Dr. Randolph Sailer, of Yenching University in China. Dr. Sailer worked under the direction of Dr. Goodwin Watson of Teachers College, Columbia University, who has been analyzing happiness and happy people for several years.

In a questionnaire on their own happiness or lack of it, just 60 workers out of 500 said that the world is more bad than good, or that they were less happy than the average mortal. Not one of the 500 was a complete pessimist or a perfect optimist.

Poor health is definitely linked with unhappiness, according to this survey. It is not yet clear, however, whether illness and physical handicaps cause unhappiness, or whether the situation is sometimes reversed, with unhappiness and worry bringing on physical troubles.

Do you worry about the future? That is a trait that goes with unhappiness, it was found. Few happy people worry about what is going to happen next. Still, the happy person is not happy-go-lucky. Nearly all of the happiest group declared that life should be lived with a serious purpose.

"The happy worry less about the future, about money, sex, jobs, appearance, education or the lack of it," Dr. Watson explained. "They have less fear of failure, less restlessness, fewer fears.

Those who are happy in one field, let's say with their friends, tend also to be happy in health, in relation to parents, religion, love, vocation, and schooling. If a man appeared to believe that he was not well treated on the job, it was interesting to note that he believed that life had been unkind to him in many other ways."

Among other findings from the happiness survey are:

The state of a man's finances is no reliable gauge of his happiness. Some of the happiest and some of the most miserable men were found among the low-salaried group.

The "only child" is no more happy or unhappy than the child in a large family.

HEREDITY

## Given Airplane, Ancestors of Lindbergh Would Have Flown

**L**INDBERGH'S ancestors probably had his capacity for aviation, but they had no opportunity to make use of it because the airplane had not been developed. The ability to fly depends on several factors, some of which are inherited and some the result of surroundings.

This interesting statement was made by Dr. Albert F. Blakeslee, of the Department of Genetics, Carnegie Institution of Washington, in a radio talk presented over the Columbia Broadcasting

System under the auspices of Science Service.

"This last summer," Dr. Blakeslee said, "a newspaper reporter asked me to predict the future of the Lindbergh baby from the standpoint of its inheritance. The reporter seemed to think a student of heredity ought to be able to tell what a child will amount to if he knows what its parents have accomplished. I declined, however, to be a fortune teller and give a detailed horoscope of the infant. No doubt I was

Smokers as a group are no more or less happy than non-smokers.

Religion plays a role in maintaining happiness.

An even temperament is likely to be a happy one.

And married men are happier than bachelors.

*Science News Letter, November 15, 1930*

PALEONTOLOGY

## Seek to Prove That Americans Came From Asia

**A** FIVE-YEAR search for definite evidence of the first American immigrants, who are thought by anthropologists to have come to this continent in prehistoric times from Asia, was described in a report to the American Philosophical Society by Dr. Ales Hrdlicka, curator of the division of physical anthropology of the U. S. National Museum.

Under Dr. Hrdlicka's direction, the National Museum has been carrying on intensive anthropological and archaeological work in Alaska since 1926. The remaining fullblood Alaskan people, both Eskimo and the rapidly vanishing Indian, have been studied, and old sites have been examined for traces of their prehistoric predecessors.

In these latter investigations lay a surprise for the archaeologists; for there was discovered a wholly unexpected rich and highly artistic Eskimo culture, represented mainly in implements of walrus ivory which have since become fossilized. This culture antedates the well known recent Eskimo culture.

*Science News Letter, November 15, 1930*