## EGG SUPPLY TREATENED BY INVISIBLE RAIDER

The wheels of government have turned rapidly here to protect America's fresh egg industry from the menace of an unseen foe. With numbers of chickens in New York tucking their heads under their wings and dying of the devastating European plague, Congress has voted $100,000 to provide inspection of poultry similar to that already given to other livestock. Department of Agriculture officials, alarmed at the threatening spread of the disease to other sections of the country, are taking steps to enforce the provisions of the bill as soon as it becomes law.

The European plague has practically wiped out poultry raising in certain sections of Austria, Hungary, and other old world countries. It attacks all kinds of poultry, but water fowl are less subject to it than chickens.

The combs and wattles of birds seized with this disease turn dark red to purple, the eyes close, the birds droop, stick their heads under their wings, and die in from five hours to three or four days. The symptoms are so similar to chicken cholera that it is often only upon expert examination of the blood that the two diseases can be distinguished. The case of chicken cholera is produced by a defini easily detected germ. The microscope, however, does not show the organism which causes the European pest or plague. It is what is known as a "filterable virus", the causative agent being so small that it can pass through a fine porcelain filter which strains out ordinary germs. When the filtrate is administered to chickens, however, it produces the characteristic symptoms of the disease.

Cases have been reported from New York City and the country immediately surrounding it. It has also been reported on one farm up-state in New York. Chickens only have been affected so far in this country and the younger chickens are probably the most susceptible although the disease is known to attack fowls regardless of age or sex.

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## SAYS INFECTION MAY LURK IN "HARMLESS" ORGANISMS

Micro-organisms, usually considered harmless, may under appropriate conditions attack the body of an animal, with which they have been associated, to the point of producing dangerous illness, Dr. Richard P. Strong, Harvard University, pointed out in his vice-presidential address before the medical sciences section of the American Association for the Advancement of Science.

"Micro-organisms living on dead tissue, are found in the noraml mouth or tonsils of many individuals, as well as in association with other parts of the body, he said. "Under certain circumstances in which the resistance of the individual is lowered, and the tissues bruised or burned, these organisms may change their character, and gradually develop pathogenic properties, producing extensive ulcerative and frequently gangrenous lesions," Dr. Strong stated.

"Such ulcerations may occur about the mouth and throat and in the lungs, and in the tropics large chronic ulcerations may be produced on the legs."

Dr. Strong cited examples of minute plant and animal forms commonly regarded as innocuous, and living on dead material, which have been known to change in character so that they simulate the organisms responsible for well-defined diseases, producing the symptoms of the malady in question and feeding on the body of the host animal. The evidence which he presented requires a change in viewpoint of conservative bacteriologists, many of whom consider the characteristics of a germ as definit

and have not previously admitted that they may be altered to this extent. It has been allowed that some such changes might take place during the course of many generations of individuals, but Dr. Strong's work forces the conclusion that it is quite possible to produce profound modification on short order.

Discussing corkscrew one-celled forms known as spirodhetes, which figure in prevalent disease, "the free living spirochetes in water have generally been considered harmless," he stated. "Recently there have been found in certain stagnant waters, and on the surface of filter beds, a number of spirochetes which correspond in form with their parasitic cousins, such as the causal organisms of syphilis, relapsing fever, seven-day fever and bleeding jaundice."

Experiments on the bacterium resembling the jaundice organism, isolated from water, proved that after being grown in nutritive solutions, this particular variety did actually acquire the power of causing the jaundice or Weil's disease, so that many of the animalsinoculated with the preparation died.

A similar experiment with a protozoan, a low animal form, resulted in the development of a species which sickened monkeys, although the animals were immune to the untreated germs.

In the case of some of the experiments, the change was so complete that parents, once free living but educated to the parasitic state of life, produced descendants which were also parasitic. In this case, free living forms were developed in addition, so that the growth of the germs was sure to take place, even though an obliging host animal should not be conveniently at Land. This observation is a second blow for the old ideas, as it was previously thought that a characteristic acquired within such a short space of time could not be hereditary.

The discovery may explain mysterious diseases of the digestive tract, accor ing to Dr. Strong. Spirochetal organisms are known to exist in the intestinal canal, but their exact relationship to intestinal disease is indefinite. "They may under the proper circumstances give rise to dysenteric symptoms, or to chronic gangrenous appendicitis," he suggested.

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## INSECT SOUNDS HAVE NO MEANING

The plaintive love-song of the cricket, the cheerful fiddling of the katydid, and all the other insect sounds that make summer nights in the country so romantic - and often so unbearable - may have no meaning at all to the insects themselves. Dr. Frank E. Lutz, curator of insects in the American Museum of Natural History, New York, speaking before a joint meeting of the Entomological Society of America and the Ecological Society of America, challenged the idea that every sound that an insect made had its meaning.

"Judged by human ears, the best insect-musicians of today belong to rather primitive orders," said Dr. Lutz. "The more advanced groups, such as ants, bees, flies, and butterflies, make no sounds that we can hear or else, at most, what seem to us to be nothing more than faint squeaks, buzzes, hums, or clicks. However, it is entirely probable - indeed, practically certain - that insect-sounds are not made for the purpose of being heard by human ears. Whether the insects themselves hear these sounds is the important question and one that has not been - possibly can not be - determined beyond all doubt.

"In this connection it should be remembered that, in man's affaris at least,