

parts of the State where the disease is now prevalent, and I submit that the splendid results above given demand that a fair and extensive trial be made. In a large part of Indiana, namely, where there is natural gas, the experiment will cost but little either in money or trouble, and if it is efficacious as it seems to have been in this one case, to arrest the progress of the disease after it breaks out in the drove, it will very richly repay the expense and trouble in every part of the country. The question does not alone concern the farmer whose hogs die; it is the policy of many raisers to sell fattening hogs as soon as the disease breaks out, and there can be no question that much diseased meat is every year on the general market.

Prof. Noyes, of the Hygienic Laboratory of Ann Arbor, writes me, under date of December 20th, that he does not know of any experimentation on a large scale along this line. He has, I know, given much attention to the diseases, and would be likely to know of such experiments if they had been made. Both the general government and the governments of several of the States are spending large sums of money at experiment stations for the arrest of this disease. The results so far reached, interesting from a scientific standpoint, are useless in the field because of the skill and expense which the application of the remedies requires. The purpose of presenting this paper here is to secure, if possible, the co-operation of a hundred stock-raisers in different parts of the State, and differently surrounded, that a demonstrative test of this simple remedy may, in the next twelve months, be had. The animals experimented upon must be isolated from all sources from which they can obtain drink, and given only water to drink which has just been boiled; it should be served as hot as the hogs will drink it in clean troughs. Can we secure these experiments tried in this way. Six dips in Jordan and one in Parphar will be no experiment at all. It would be worth while for us to show, if we can, that on the White River, also, the simple is the sublime.

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THE "HOPKINS SEASIDE LABORATORY" AT PACIFIC GROVE, CAL. BY B. M. DAVIS.

[ABSTRACT.]

The great variety in fauna and flora, both in inland and marine forms, make the Pacific Slope and Coast, particularly that included in California, attractive to naturalists. As soon as Dr. Oliver P. Jenkins and Dr. Chas. H. Gilbert took their places in the Stanford faculty they recognized the resources of the coast from the standpoint of biologists. They immediately began to consider plans for establishing a biological station on the coast, and, after a careful survey of the whole coast, decided on Pacific Grove as the best location. The first substantial

aid was \$300 given by the town of Pacific Grove, and \$500 given by the Pacific Improvement Company. With this a temporary establishment was maintained.

This beginning was put on a firmer basis by the generosity of Mr. Timothy Hopkins, a resident of San Francisco, and the present laboratory, known as the "Hopkins' Seaside Laboratory," is the result.

Pacific Grove is on Monterey Bay, two miles from the old California capital of Monterey, and is reached by a branch of the Southern Pacific Railway and by the Pacific Steamship Line. The coast is irregular and rocky, yielding great variety of forms. Working material may be gotten from the Chinese and Portuguese fishermen, both of whom have villages there.

There are two buildings; the older one contains three general laboratories, a supply room and seven rooms for investigators; the other building has a general lecture room, library room, a general laboratory, ten rooms for investigators and a dark room for photographic work. The basement is designed for aquaria. The library and apparatus of Leland Stanford University is used. Each student is provided with a compound microscope, reagents and all accessory apparatus needful in his work. Salt and fresh water is in both buildings and so distributed that each student may preserve his collections. The investigators' rooms are similarly provided. The laboratory provides for three classes of students:

*First.* Investigators who are capable of carrying on independent researches in morphology or physiology.

*Second.* Students of Stanford University, who wish to pursue their work under more favorable circumstances and gain knowledge of practical methods of research.

*Third.* Students and teachers interested in biology, who wish to become acquainted with recent biological methods. For these courses of lectures are provided, supplemented by individual instruction at the work tables.

The spirit of the school is excellent. No hours are definitely appointed, but students may be found at work from early in the morning until late at night. Although the laboratory has been open practically only three years the advancement already made and the evidence of increasing interest assure its future prosperity and growth.

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#### INFECTION BY BREAD. BY KATHERINE E. GOLDEN.

In recent years, since the subject of bacteriology has made such headway, there have been numerous scares among the people; sometimes it is tuberculosis in milk and meat, then the development of ptomaines in fish, clams, canned goods, etc., the list going on indefinitely. Among these the dangers from bread baked