OCEANOGRAPHY

More Study of Sea

Science has made a good deal of headway in the conquest of the theoretical and practical problems presented by the land and its life, but though man has for centuries gone down to the sea in ships, as yet he knows but little about it. And the time has come when it is highly important that we learn something of the sea, according to Prof. W. E. Allen, of the Scripps Institution for Oceanography at La Jolla, Calif.

Knowledge to be gained by a study of the life of the sea will have a four-fold importance, Prof. Allen declared. Our information about marine biology, at present rudimentary, will benefit directly, and our sciences based on land life will be aided indirectly through having their data supplemented, confirmed or corrected. Inasmuch as the major changes in the earth's crust are immensely influenced by the deposition of marine sediments, sea-life studies may be expected to add to our understanding of geology. Finally economic problems in a thousand fields, from the fish market to the jeweler's shop, involving billions of dollars, await solutions that will become possible only when certain fundamental questions shall have been answered.

Science News-Letter, January 29, 1927

EDUCATION

Length of Teachers' Training

The public, taxed to support the public schools, is naturally anxious to have teachers of high quality. That lengthened professional training is necessary to produce teachers of this calibre is claimed by Dr. L. A. Pechstein, dean of the college of education of the University of Cincinnati. The two-year normal schools need to extend their program of training, he says. The graduate of a two-year normal school, or the teacher with even less training, is not prepared to give the grade of teaching desired by the public. She is apt to be too young, to come from a family weak in cultural influences and to be entering upon her profession solely because of the need to earn money. On the other hand, the extended college and university course produces teachers of greater maturity, drawn from families of higher social and economic groups, who enter upon their careers with a more intellectual outlook.

Science News-Letter, January 29, 1927

MEDICINE

Science Curbs Rabies

Sporadic epidemics of rabies still flare up from time to time in different parts of the country in spite of the advances science has made to protect both men and beast from this justly dreaded disease.

All people who have been bitten by a dog suspected of rabies should, under the advice of their physician, undergo the preventive treatment first developed about 40 years ago by the great French scientist, Louis Pasteur. A wire sent by the neighborhood pharmacist to one of the big drug firms will bring the preventive serum which is injected under the skin of the exposed individual. Several injections are necessary, the number depending on the particular type of serum used. The virus introduced by the bite of the rabid animal travels along the spinal cord slowly and produces the characteristic symptoms only after it reaches and accumulates in the central nervous system. The purpose of the successive injections of the serum is to render the central nervous system immune before the virus can reach this vital tissue.

According to Dr. J. S. Buckley of the Bureau of Animal Industry of the U. S. Department of Agriculture, governmental experiments are in progress, to determine the efficacy of the inoculation of dogs as a means of preventing epidemics among the canine population. Dog inoculation has been practiced in New England and some of the eastern states with varying success and has been done extensively in Japan where only one death in over 30,000 inoculated dogs was reported. Variation in results is due, experts believe, to differences in virulence or "strength" of the filtrable virus that causes the disease.

Rabies has been known since the earliest times and the pages of the history of medicine are crowded with accounts of extraordinary remedies used by people from ancient down to modern times to ward off the horrors of its final stages. As far back as the Roman era, however, cautery was recommended to remove the poison of the infective bite and cautery with nitric acid is even now a standard practice as an immediate prophylactic measure.

Befor the days of Pasteur, death almost inevitably resulted from rabies but reports from the health department of New York show that in a period of eleven years over five thousand cases treated by this method showed a mortality under one percent.

Science News-Letter, January 29, 1927

ASTRONOMY

Amateur Finds Comet

The first comet of 1927 was found by an amateur astronomer in South Africa named Blathwayt, on Thursday, January 13.

When located, the new visitor was in the constellation of Scorpio, which can be seen low in the southeastern sky just before sunrise at this time of year. Astronomically, its position at the time of discovery was 15 hours 44 minutes right ascension, and 29 degrees 46 minutes south declination. It was moving to the southeast, making it still lower in the sky for American observers, so probably no observers in northern countries will be able to see it at all. At Braamfontein, near Johannesburg, where the discoverer is located, however, it is almost directly overhead at sunrise, though it is of the ninth magnitude, and too faint to be seen except with a telescope.

Science News-Letter, January 29, 1927

MEDICINE

New TB Treatment Tried

Experiments in the Calmette method of tuberculosis immunization are now under way in the laboratories of the New York City Health Department. Reports from Paris give promise of better results than any other method so far tried, according to Dr. William H. Park, director of the Bureau of Laboratories.

This method has been developed by Calmette of the Pasteur Institute. It consists of the inoculation of infants with tuberculosis bacilli taken from cattle twenty years ago. These bacilli have been kept alive for the twenty years, but in an overheated, semi-starved condition, so that they have lost their potency as disease breeders. An animal inoculated with them will not develop tuberculosis. These germs, however, still produce sufficient of the peculiar poison of the bacillus to force the animal inoculated to build up a resistance to tuberculosis without being endangered by the disease, as would be the case if virulent bacilli were used for the inoculation.

In France, Calmette is using this method to immunize infants born of tuberculous mothers. It has been used for babies to a slight extent in Canada. The bacilli are fed to the infants during the first days of their life. Up to the present, Dr. Park states, the New York City Health Department has experimented only on monkeys and calves.

See Sience News-Letter, X, 295, Dec. 4, 1926: "Monkey Vaccine Cures Babies."

Science News-Letter, January 29, 1927