

Dr. d'Herelle may be over-sanguine in thinking that he has seized the whole secret of epidemics, but his discoveries are in line with the modern methods of medical practice, which is to enlist the aid of bacteria in our defense against bacteria and to promote civil war in the Kingdom of the Protozoa. We have already in our midst an army of defenders in the form of white corpuscles of the blood and these may be multiplied and encouraged to greater exertions by medical means. We may counteract a toxin with an antitoxin. We may, as Metchinkoff advised, colonize the colon with the benign bacteria that produce lactic acid, in place of those that produce poisons. We may infest parasites with minor parasites. We may set the ultramicrobe to catch the microbe.

In this way we may hope to stave off the day when we shall fall victim to the innumerable hosts of invisible foes that continually beset us, though so far they have in the end come out conquerors in every case. "A bacillus less than one five-thousandths of an inch in length, multiplies, under normal conditions, at a rate that would cause the offspring of a single individual to fill the ocean to the depth of a mile in five days." The cholera bacillus doubles in numbers every twenty minutes. How can a clumsy creature like man, who requires twenty years to grow up, ever hope to compete with such a rapid multiplier? Yet somehow he does manage to overcome the cholera and keep it under control. He even begins to believe that he may in the course of time completely exterminate those disease germs which must live on and in man, for once every patient were cured or secluded these would vanish from the earth, never to reappear. So man by the aid of science may in time vanquish the earth-born myriads of his arch enemy, Beelzebub, God of Flies and Vermin.

READING REFERENCE - Kendall, Arthur I. Civilization and the Microbe.
Boston and New York, Houghton Mifflin Company, 1923.

OCEAN CONFERENCE PLANS SURVEY OF UNKNOWN SEAS

Plans for the most complete survey of the ocean from top to bottom ever attempted, have been inaugurated by a conference at Washington, representing scientific branches of the government and allied institutions under the auspices of the Hydrographic Office of the U. S. Navy.

Definite routes and areas have not yet been chosen, but the preliminary discussion indicates that instead of a globe-girdling expedition, a comparatively small section of the seas will be selected for intensive study. The Aleutian Islands region of Bering Sea and the Caribbean Sea are under consideration as offering unusual opportunities for scientific investigation, with the latter most favored.

One or more ships will probably be fitted out with a complete laboratory and equipped with the latest scientific apparatus for the first cruise. The sea bottom will not only be mapped, but the composition of the water, its density, temperature and currents which affect the distribution of marine plant and animal life will be studied at all depths.

Beside the investigation of the water and the life in it, specialists in various sciences will probably be landed on oceanic islands within the area covered by the ship.

In emphasizing the importance of this investigation, it was pointed out that five-sevenths of the surface of our globe is covered by the waters of the seas. The water area can produce far more food than all the land can ever be made to yield, and one of the purposes of the expedition will probably be to take an inventory of such food possibilities which will be needed if our population continues to increase. Fish, mollusks, and marine animals are dependent upon the microscopic plants that grow in the sea as far down as the sunlight penetrates. The floating mass of minute forms of vegetable and animal life, collectively called "plankton", varies greatly with slight changes in the temperature and composition of the sea water, according to laws not yet discovered but which the proposed expedition may aid in understanding.

The exploring ship will map the ocean bottom by means of the new sonic finder which determines depths by measuring the lapsed time between sending down a sound and getting back the echo from the bottom. By this instrument, soundings can be made by a ship in motion and much more easily and quickly than by the old way of heaving the lead.

The geologists of the conference expressed the hope that a study of the sediment being deposited on the ocean bed would lead to greater knowledge as to the age of the earth, the origin of oil and shale deposits, and the balance of oceanic and continental areas which is responsible for earthquakes.

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New York, The Macmillan Company, 1923.

GREEKS USED SLOPING ROOF 3000 YEARS AGO

Crown Prince Gustaf Adolf, heading the Swedish archaeological expedition which is excavating the ancient city of Asine, Greece, has unearthed evidence that the so-called saddle-roof was known in Greece more than 3,000 years ago. The architecture of that Mycenaean, or pre-Hellenic, period, is partly illustrated by fragments and ruins found at Mycenae. It has long been a question whether these houses had flat or sloping roofs, but word has just come from Greece that the Swedes at Asine have discovered and explored a tomb, which no one has entered or disturbed for 3,000 years, and have found that this tomb is in the shape of a house about 24 feet square cut into the rock, with the top cut into the exact form of a saddle-roof, with two sloping sides, and gables at the ends.

The Crown Prince's expedition, which has now been at work a number of years, has just completed the spring term of excavation, and is returning to Sweden in order to make a scientific study of the treasures found. Up to date, more than 500,000 important treasures and fragments have been found, which are being classified and studied at Lund University by special permission of the Greek government, to which the bulk of the finds must eventually be returned. The finds include decorated vases, funeral urns, gold ornaments, silver and copper coins, etc, which illustrate the civilization and art during thousands of years of history in Asine. This city, situated on the Greek Peloponessus, flourished and fell a