

in size from tiny toy affairs to some as large as fifteen inches in diameter; but there are also large and small water jars, and black, undecorated cooking pots, duck-shaped vessels, and the like.

The finds include, among others, the ceremonial paraphernalia of a medicine man, comprising his medicines; a turkey's egg containing the bones of the embryo and accompanied with a food bowl; several skeletons of eagles, turkeys, and dogs that had been ceremonially buried, and deposits of pottery that had been broken in sacrifice and deposited in the cemetery not as burial accompaniments. It was the custom of the Zunis of Hawikuh to "kill" all the vessels deposited with their dead by throwing them into the graves, and this was likewise the case with other household utensils such as metates and manos used in grinding corn. Some of the vessels escaped injury, while all of the fragments of the broken ones were carefully gathered and will be repaired.

The site of Hawikuh covers an area of about 750 by 850 feet, so that only a comparatively small part of the site was excavated during this season. The refuse was found to attain a depth of 14½ feet in the western slope and it will probably be found to reach a depth of at least 18 feet before the walls of the summit of the elevation are reached. An interesting discovery consists of the remains of many walls entirely beneath this great deposit of refuse, showing that the site was occupied in prehistoric times long before Hawikuh itself was built.

PROGRESS IN COMBATING HOOKWORM

THE recently published annual report of the Rockefeller Foundation records the results of intensive work on the study and control of hookworm and malaria. The report as quoted in the *Boston Medical and Surgical Journal* states that during the year 1916 the work of the International Health Board continued to be directed chiefly toward the relief and control of hookworm disease. In cooperation with the government, systematic efforts toward control have now been inaugu-

rated in eight of the Southern states and in fifteen foreign countries, located between degrees of latitude 36 north and 30 south in the tropical and sub-tropical belt, which is the native habitat of the hookworm. New fields of operations in 1916 were Salvador, Brazil, Ceylon, and Siam. Arrangements were also completed to start work early in 1917 in the Fiji Islands, in Papua, and in Queensland, Australia.

In British Honduras and the island of Barbados, preliminary infection surveys were made, and in the Yangtsekiang valley of Central China a preliminary survey was carried out with special reference to the problem of soil pollution in shallow mining operations.

The board conducted during the year a series of four experiments in malaria control. Three were finished. The fourth will be completed in 1917. The object of all four experiments was to determine the degree to which malaria could be controlled within the limits of reasonable expenditure and under conditions prevailing in typical farm communities of the South. Gratifying results have been obtained.

Two commissions were sent to South America. One, composed of six sanitarians, with Maj.-Gen. William C. Gorgas as chairman, visited the republics of Ecuador, Peru, Colombia, Venezuela and Brazil, to study yellow fever conditions. Two definite objects were sought: (1) to determine the status of doubtful endemic centers of infection; (2) to ascertain what measures were necessary and feasible to eradicate the disease from the localities responsible for its dissemination. The second commission investigated medical education and public health agencies in Brazil.

Active measures to control and prevent hookworm disease are now in operation in Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia; in Antigua, Grenada, St. Lucia, St. Vincent and Trinidad of the West Indies; in British Guiana and Dutch Guiana; in Costa Rica, Guatemala, Nicaragua, Panama and Salvador of Central America; in

Brazil, and in Ceylon and Siam of the Far East.

Four experiments in malaria control were carried out during 1916 at different points in the Lower Mississippi River Valley. In each a different line of investigation was pursued, the object being to discover a practical method of control which the average rural community could afford.

An experiment was conducted under the administration of the Mississippi Department of Health, with Dr. W. S. Leathers as administrative director and Dr. C. C. Bass of Tulane University as scientific director. The practicability of control through detecting the carriers and freeing them of the malaria parasites was tested. The experiment covered 225 square miles of territory, the size of the communities varying from nine to sixteen square miles, with an average population of 1,000. Adjoining communities were taken up, one after another, as facilities permitted, the work in each lasting about four weeks with subsequent visits to insure thoroughness. Blood tests were taken, quinine treatment was given to those found infected. The experiment will be continued in 1917.

THE BRITISH COMMITTEE FOR SCIENTIFIC AND INDUSTRIAL RESEARCH

THE second annual report of the Committee of the Privy Council for Scientific and Industrial Research for the year 1916-17 has been published. According to an article in *Nature* it consists of an introductory statement by Lord Curzon, as lord president of the privy council, the report of the Advisory Council, signed by Sir William McCormick and Sir Frank Heath, and appendices giving orders in council, terms of the imperial trust, documents relating to research associations, and names of members of committees attached to the department of scientific and industrial research. Lord Curzon points out in his introduction that the foundation of the department led to the creation of the imperial trust for the encouragement of scientific and industrial research.

The trust holds on behalf of the department the sum of one million sterling which

Parliament has voted for the purposes of the department. The negotiations of the advisory council with the leading manufacturers in the various industries showed that it would not be possible to develop systematic research on a large scale unless the government were in the position to assist financially over an agreed period of years. These considerations led the government to place a fund at the disposal of the privy council committee to be spent over a period of five or six years afforded the best means of dealing with the problem. During the past year negotiations have been concluded with the Royal Society for the transfer of the property of the National Physical Laboratory, together with the responsibility for its maintenance and development, to the department of scientific and industrial research. The scientific management of the laboratory will remain in the hands of the executive committee under the chairmanship of Lord Rayleigh, a member of the advisory council.

The committee reported last year that grants had been approved to a number of individual students and research workers for the year 1916-17 to an amount not exceeding 6000*l.* The amount actually expended under this head, however, was not more than 3550*l.* upon thirty-six workers. Throughout the work has suffered in amount owing to the war, and the committee was unable to expend more than 14,524*l.* out of the 40,000*l.* placed at its disposal by Parliament for the financial year 1916-17. During the current year a sum of 38,050*l.* was taken in the estimates, in addition to the fund of a million referred to already. The annual vote is intended to cover (a) the cost of those researches which will not be undertaken by the proposed research associations; (b) the grants to individual research workers, both students and others; and (c) the cost of administration.

The report says:

The one question of policy, to which throughout the year we have continuously devoted our attention, is the working out, with all the care and advice we have been able to command, of the policy of cooperative industrial research foreshadowed in our last report. Lord Crewe, who was at that