## Miscellaneous.

## That Important Rodent, the Rat.

One scarcely realizes the role the rat plays in international sanitation until one studies the rodent in relation not only to plague infection, with which the scientific world is more or less familiar, but in reference to rat leprosy, to bacterial diseases other than plague, ectoparasites, of which fleas are not the most important, and internal parasites infesting the animal. Assuming, as a writer in the latest publication of the Public Health and Marine Hospital Service, "The Rat and Its Relation to the Public Health," does, that there are as many rats as there are human beings, the destruction these cause can scarcely be overestimated. It is therefore easy to see that their extermination is of prime importance, if the human race is to be saved from the dangers of epidemic diseases the most dreaded in history.

A notable advance in devising measures for rat extermination was taken by Denmark, when that country passed a law giving a bounty for every rat delivered to certain designated local authorities. Grants are made to associations for the extermination of rats, to enable them to purchase preparations for the extermination of rodents. Collecting depots are provided in the larger towns, and collecting carts for smaller towns and villages.

In England an incorporated society for the destruction of vermin has begun the publication of a journal to supply trust-worthy information upon the subject. "In London," the writer of the article before mentioned says, "the practice of destroying rats on the docks has been systematically carried out by the dock companies at their own expense and under the supervision of the port sanitary authority. In Liverpool and Southampton professional rateatchers are employed." The United States quarantine regulations, too extensive to quote here, made provisions, April 1, 1903, for the prevention of the spread of plague on ships through rodents.

The precautions against rats at Australian ports are systematically carried out with fairly satisfactory results. Poison baits are used to a great extent in the interior of the country.

South American and West Indian ports are carefully guarded. Panama, especially the canal zone, as might be expected