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PHLEBOTOMUS AND OROYA FEVER AND VERRUGA PERUANA

HISTORIANS of the early seventeenth century, writing of the conquest of the Incas, refer to the Peruvian Indians as suffering from numerous warts ("verrugas"), varying in size from small red prominences to masses as large as eggs, and covering the face and limbs. Many of Pizarro's soldiers developed the warty condition and died of the fever sometimes attending it. In their ignorance they attributed death not to the peculiar disease but to fish or water supposed to have been poisoned. In earlier times the disease seems to have occurred in regions now in Ecuador, but at present it is confined to the provinces of Lima, Ancachs and Libertad in Peru, lying in south latitude 9° to 13°.

The distribution of the disease is curious. The districts at sea-level and 25 to 35 miles inland are free from it, but as the mountainous parts are approached the disease makes its appearance, and foci or endemic centers are encountered at altitudes of 9,000 feet and over. In certain narrow clefts, called "quebradas," the disease has prevailed in a severe form from early periods, and strangely enough a given village may be severely ridden and a neighboring one a few miles distant may escape entirely.

In 1870, during the construction of the trans-Andean railway, an acute, febrile and fatal disease carried off many thousand laborers in the region between Lima and Oroya. One feature of this destructive malady was an anemia so profound as to have blanched the color of the natives or, in local language, to have changed "blacks" into "whites." Another curious circumstance noted at this time was that the workmen escaped the disease so long as they avoided certain localities at night. A single night passed in these danger zones might be followed by fever and death. Finally, the laborers were removed from them before sunset, and after this was done the disease abated.

This severe disease of the Andes was called Oroya fever, and while it might run its fatal course without other symptoms than fever and anemia, yet at times it was attended by the warty skin affection previously mentioned; or, when recovery occurred, the "verrugas" might appear. Conversely, sometimes the warty disease arose attended only with mild fever and anemia. Because of their frequent association in the same individual and their common geographical distribution, the

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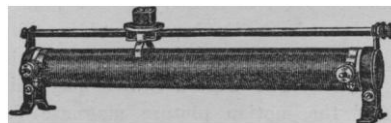
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FRANCIS HARPER, Secretary.

BOSTON SOCIETY OF NATURAL HISTORY, Boston, Mass., U. S. A.

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