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A Science Service Feature

? WHY THE WEATHER ?

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THE SECOND BIGGEST RAIN-GAUGE

The summit of Mount Waialeale, in the Hawaiian Islands, is known as "Uncle Sam's dampest corner" on account of the enormous rainfall that occurs there, surpassing that of any other known place under the American flag, and possibly any other place in the world. As this mountaintop is difficult of access, measurements of the rainfall are made here only about once a year, the rain-gauge employed for the purpose being designed to hold an entire year's rainfall.

The first gauge installed on the mountain, by the U.S. Geological Survey, proved to be too small. In 1920 a larger one was installed by the U.S. Weather Bureau. This gauge, which is probably the second largest in the world, being surpassed in size only by the gauge of one-thousandth acre area at Rothamsted, England, has one interesting peculiarity besides its size. In an ordinary rain-gauge, designed for daily readings, the rain falls into a funnel-shaped receiver by which it is conducted into a narrow tube. By this plan the depth of the water is magnified, in some definite proportion, in order to facilitate reading. In designing the Hawaiian gauge the opposite plan was followed. The receiver was made of much smaller area than the gauge proper, the proportions being such that the depth of water collected in the gauge was only one-tenth of the actual rainfall.

The capacity of the gauge is 900 inches of actual rainfall, which is about twice as much as occurs at this place in an average year.

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