

No.648

A Science Service Feature

June 9

? WHY THE WEATHER ?

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STRONG WINDS

Almost everyone has felt his bed shake when a heavy gust of wind struck the house. The taller the building and the more flimsy its construction, the more likely it is to vibrate in the wind. A Japanese professor measured the rocking of a concrete chimney at Saganoseki, Japan. This chimney is 570 feet high and about 26 feet in diameter inside at the top. He found that when the wind blew 50 miles an hour the top of the chimney vibrated ~~at~~ half inch each way, but with a gale of 78 miles an hour the motion was three and one-half inches on each side. Curiously, the plane of motion was at right angles to the wind as in the case of stretched wires or strings. Some tests of the Woolworth Building in New York, which is 796 feet high, showed that it did not sway in a gale of 90 miles an hour. It was built to stand the pressure of 250 miles per hour wind.

In planning tall buildings, especially, architects must consider the highest wind velocity likely to be experienced. Owing to tropical hurricanes the seaports of the Gulf coast and southern Atlantic coast have experienced some of the highest wind velocities recorded in the United States, up to 120 miles an hour. If the wind gets states much stronger than this, the anemometer is likely to blow away! The plains also show high wind velocities. St. Louis has a record of 120. On the Pacific coast winds are more moderate ranging from 50 to 70 miles per hour at the most, except at exposed points, where velocities of over 120 miles per hour have been recorded.

(Tomorrow: Summer Weather Types)

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