

A Science Service Feature

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? WHY THE WEATHER ? Mailed October 28, 1926

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BUILDINGS AND WIND

The damage to structures by the several hurricanes in the past few months should give engineers another opportunity to emphasize the safety of well constructed buildings. The push of winds of high velocity can scarcely be imagined. A wind of 120 miles an hour has 16 times the push of one we consider a very strong wind, 30 miles an hour. One of 200 miles an hour, the estimated velocity of some tornado winds, has a push nearly 50 times as great as a wind of 30 miles an hour. The enormous wind pressures developed in a hurricane are quite adequate for razing most buildings save those of most substantial construction.

Even a casual reading of the reports of storm damage at Nassau, Miami, and Cuba during the past four months is adequate to emphasize the hopeless situation of the packing-box and tincan dwellings of poor Bahamans, the weakness of Cuban adobe hovels, and the vulnerability of even the best looking American frame dwellings that have not been anchored. It is significant that the better class of dwellings in Havana, more massive and better founded, and that the buildings of steel framework in Florida were able to stand the brunt of a hurricane. Where great winds blow not infrequently, as on some mountain peaks, due provision is made for them by securely anchoring the buildings, commonly with massive chains slung over the gables and bolted to the rocks on either side. In regions affected by hurricanes or by northern gales it should become the usual practice to anchor houses to their foundations and roofs to the houses. Yes, this would cost something more for construction, but the windstorm insurance would be less and the risk of death reduced.

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