A Science Service Feature

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? WHY THE WEATHER ?

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RESISTANCE OF BUILDINGS TO TORNADOES

The architect who would design buildings to withstand the destructive effects of tornadoes should consult the Inspection Department of the Associated Factory Mutual Fire Insurance Companies, whose office is in Boston. This concern has made a careful study of the damage done to factories and other large buildings in the more notable recent tornadoes, including the Missouri-Illinois-Indiana storm of March 18, 1925, and this year's disaster in St.Louis. Some of the published conclusions are as follows:

Main parts of reinforced concrete structures are little damaged.

Skeleton steel-frame buildings with walls mostly of glass withstand tornadoes well.

Brick walls should be thick,well bonded and built with Portland cement mortar.

Reinforced concrete roofs resist better than other types and add to the resistance of brick walls. Flat roofs are much better than steeply pitched ones and stiffen the walls to better advantage.

Anchorage of roofs is important.

Parapets are advantageous. Overhanging cornices are a menace. Pilasters stiffen walls.

Stucco or diagonal sheathing is of assistance to light wooden-frame buildings.

Concrete block,or unreinforced concrete,unless very massive,is no better than brick.

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