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? WHY THE WEATHER ? Mailed April 5, 1930.

By Charles Fitzhugh Talman,
Authority on Meteorology.

THE WATER OF A WATERSFOUT

Above a certain height the visible column of a waterspout is merely a cloud. It is no more a solid pillar of water than is the spout sent up by the "blowing" of a whale. In both cases invisible water vapor is condensed into liquid droplets by cooling. The whale's warm, moist breath is condensed by the chill of the atmosphere. The cloud of the waterspout marks the location of a swiftly revolving vortex, which, by flinging the air away around it, forms a partial vacuum. The rarefaction of the air causes "dynamic" cooling. Hence the condensation of moisture. Most ordinary clouds are formed by the dynamic cooling of air that expands in rising.

There is, however, a strong updraft of air in the core of the spout, and this is undoubtedly sufficient, in the case of a big spout, to suck up a considerable amount of sea water to a height of several hundred feet. In fact, this water, thrown from the spout by centrifugal force, may often be seen forming a lofty cataract around the base of the column.

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21st and B Sts.,
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