

A Science Service Feature

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? WHY THE WEATHER ?

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MEASURING HAIL

The hail-gauge is one of the rarest of meteorological instruments; much rarer, even, than the dew-gauge, of which there are several types and examples, whereas only two instruments for measuring hail have been described in the scientific literature of recent time. One of these was constructed in 1910 according to the design of Dr. Carl Kassner, of the Prussian Meteorological Institute, but failed to give satisfactory results and was relegated to the museum of the Institute, where it now is. The other was devised by the late Father Julius Fenyi, S.J., director of the Haynald Observatory, at Kalocsa, Hungary, about 1900, and appears to have been used for many years.

In both of these gauges the hail falls into a vessel, like a rain gauge, and is separated from the rain that usually falls in conjunction with hail by means of a sloping wire sieve of fine mesh. The rain goes through the holes in the sieve while the hail runs down the sloping surface into a receptacle at one side. In Fenyi's instrument the falling hail compresses a sloping sheet of metal so arranged that it will, if desired, close an electric circuit and bring into play a registering device to show when the hail begins and ends. This feature of the gauge has not, however, been used.

The horizontal area of the gauge being known, the hail that collects in the receptacle can be weighed and recorded in terms of weight per unit area, or it can be melted/<sup>and measured</sup> in units of depth, just as snowfall is frequently measured.

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