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THE ANEMOMETER EXHIBITION.

OUR last number was printed on the day of the opening of the exhibition of anemometers, and therefore we were merely able to announce it, and to add that it contained a remarkably fine series of instruments, of drawings, and of photographs both of apparatus and of damage by whirlwinds. Such a collection has never previously been formed; and having been held at a time when two or more historical instruments were temporarily dismounted, and therefore available, it is certain that many years must elapse before an equally fine one can be formed.

The address of the President of the Meteorological Society, Mr. Laughton, was extremely able and exhaustive, and will, we trust, in due time be published in the Society's Quarterly Journal, and in the *interim* an abstract of it will be found on page 40.

There is, however, we think, still room, and indeed a necessity for placing before our readers, who unfortunately are not all Fellows of the Society, a running commentary upon the various exhibits.

Before commencing, we think it right to mention that, by the kind permission of the Institution of Civil Engineers, in whose library the Exhibition was held, two large photographs of the collection were taken, and that copies can be obtained for a few shillings from the Assistant-Secretary, Meteorological Society, 30, Great George-street, Westminster. As all the instruments bore numbered tickets, these photographs, in which the numbers are very legible, will form a useful adjunct to the following notes, which adopt the sequence and numbering of the catalogue :—

ANEMOMETERS.

1. **Osler's Self-recording Pressure Anemometer.**—*A. F. Osler, F.R.S.*

Very fortunately for the Exhibition, the Osler anemometer belonging to the Midland Institute, Birmingham, has recently been taken down during the rebuilding of the Institute, and had not been re-erected. Mr. Osler was good enough to send it up to London, and on several occasions to attend and personally explain it. An

by a cone instead of by a flat plate; and (2) an arrangement of steam engine governors attached to the lower part of the shaft coming from the cups.

24. **Wind Indicator, constructed by Beckley for use at Telegraph Reporting Stations.** The first instrument in which chain connection was used in lieu of shafting.—*Kew Committee.*

25. **Galton's Torsion Spring Anemometer** (rough model).—*Kew Committee.*

Small-sized Robinson's cups so fitted that they could only rotate through a very small segment of a circle, and with gradually increasing resistance. Virtually the arrangement seems to amount to Robinson's cups used as a pressure anemometer.

26. **Hagemann's Anemometer** (pattern No. 1).—*Meteorological Council.*

27. **Hagemann's Anemometer** (pattern No. 2).—*Cowl Committee of Sanitary Institute.*

28. **Hagemann's Anemometer** (pattern No. 2) in pieces, showing working parts.—*Cowl Committee of Sanitary Institute.*

No. 26 may be briefly dismissed as closely resembling in general principle the reverse of Lind's (No. 9), for whereas in Lind's the water level is displaced by the wind blowing into one leg, in Hagemann (No. 26) the displacement is produced by the wind passing over an orifice, and so producing a diminution of pressure. In Nos. 27 and 28 the same principle is applied to an arrangement much resembling a gasometer (*not* a gas meter be it observed), and the force of the wind by producing diminished pressure causes a hand to revolve over a dial about 4 in. in diameter.—For further details see *Quar. Jour. Met. Soc.*, vol. V., p. 203.

29. **6 in. Air Meter,** special construction.—*Cowl Committee of Sanitary Institute.*

Following, as we are doing, the order of the catalogue, which depended to a considerable extent upon what may be classed as accidental circumstances, we are suddenly brought to an instrument differing widely, both in its construction and application, from all that we have hitherto described.

All the instruments previously described (except No. 7) have been intended for recording the motion of the wind. This air meter would of course be capable of registering the horizontal motion of the air, but it is intended only for use in determining slight currents of air, chiefly artificial ones in questions of ventilation, &c. Nearly all these air meters, current meters, &c., have for their motive power the impingement of the current on very light fans attached obliquely to the radii of a wheel—in fact, very small windmill governors. The special feature of No. 29 is that, instead of the registering dials being in the centre of the rotating fans (and thus creating an obstacle in