Exhibition of a Focometer and Spherometer

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II. *Exhibition of a Focometer and Spherometer.**By* Prof. STROUD.*

[Abstract.]

PROF. STROUD explained that in determining curvatures and focal lengths some telemetric method was necessary, and that, owing to want of parallelism of the beam and duplication of images, a short-focus telescope was always an inefficient telemeter. For the measurement of inaccessible lengths it was therefore better to use some simple form of "range-finder." Such an apparatus could be made with a set of small mirrors, arranged in such a manner as to direct two images of the distant object into an eyepiece, with a fixed prism in the path of one of the incident beams. By sliding this instrument along the optical bench, one position could always be found at which the two images, as seen through the eyepiece, were in coincidence. He also described a method for determining curvature by interposing a plate of plane glass between the curved mirror and a source of light.

III. *Experimental Exhibitions.* *By* Mr. ACKERMANN.*

[Abstract.]

MR. ACKERMANN exhibited two experiments:—(1) The blowing-out of a candle-flame by the air from a deflating soap-bubble. The bubble was blown at the mouth of an inverted beaker by breathing into a hole cut out at the top. This hole was then presented to the flame, and the flame was immediately quenched. But if the bubble was blown from ordinary air with bellows, the flame was merely deflected without being extinguished. (2) It was shown that a miniature boat, provided with a false stern, consisting of a linen diaphragm, could be propelled by filling the hollow stern-space with ether, or with some liquid similarly miscible with water. The motion is due to the continuous release of surface-tension behind the boat.

* October 29, 1897.