

Demonstration of Some Optical and Acoustical Experiments

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Demonstration of Some Optical and Acoustical Experiments.

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SHOWN AT THE MEETING OF JUNE 24TH, 1921.

1. The ballistic sonometer, an instrument which indicates the intensity of a noise by the extent of the movement of a spot of light.

2. Vibrations of stringed instruments. By means of a small optical lever in contact with the bridge of a 'cello and a revolving mirror the vibrations of the bridge under various conditions were shown on the screen. The effects of meeting and of playing the "wolf" note were demonstrated.

3. The modes of vibration of a Trevelyan rocker were exhibited in the same way.

4. Indian drums, 10 centuries old, in which the membrane is loaded in such a way as to produce harmonic overtones were exhibited, and their modes of vibration when struck in different ways exhibited by means of sand figures.

5. The polygonal form of an oscillating liquid drop was projected on the screen.

6. A robust ripple apparatus was described, and photographs shown illustrating the change of phase of waves on passing through a focus.

7. Various interference and diffraction effects shown when light is transmitted by heterogeneous media were exhibited.

8. A spectrum traversed by Talbot's bands was shown, to illustrate the sudden change of colour between the bands.