

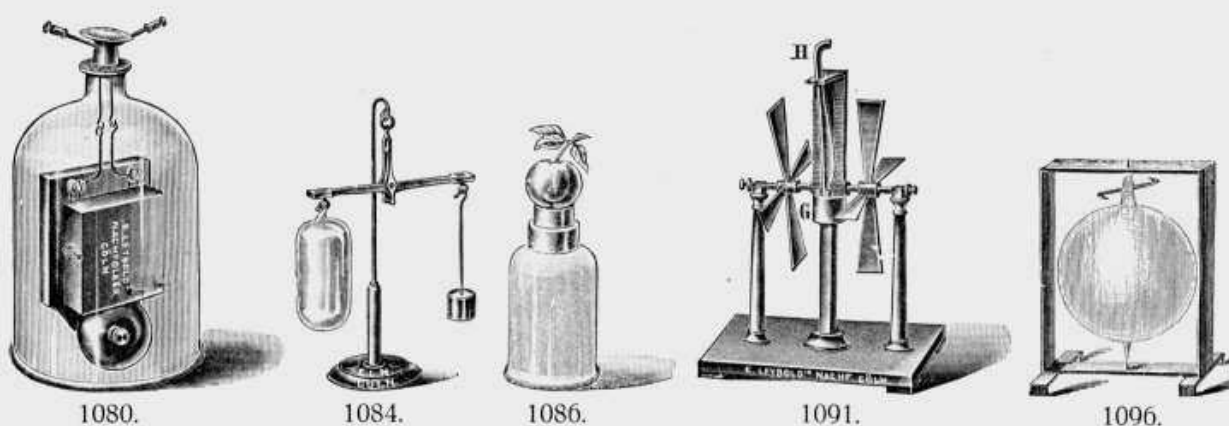
- The funnel *A* is carried by the support *B*. The tube *D* is fused on to the funnel and at *C* is covered over by a piece of stretched wash-leather. On pouring the mercury into *A* the latter falls in a fine rain through the leather and collects in the reservoir free from all mechanical impurities.
1034. **Filtering apparatus** superior quality, the base with edge 65 mm high \$ 3,00

Accessories for Air Pumps.

American screw clamps to fasten air-pumps, electrical machines and other apparatus to the table (W. D. Fig. 45, p. 42)

No.	1067.	1068.	1069.	1070.
Width	7	10	15	20 cm
\$	0,50	0,65	0,90	1,15

1071. **Barometer and Manometer apparatus** see No. 929, p. 48 \$ 1,75
1072. **Stand barometer** with tall glass receiver to show successive diminutions in pressure. (W. D. Fig 167, p. 207.) [Fig. 1/10 nat. size.] \$ 5,00
- The height of the barometer is read after each stroke of the piston; in the first few strokes the heights are found to form a geometrical progression; later, on account of moisture and the failing of the vacuum, they become more and more equal to unity.
1074. **Manometer.** Simple with polished wood scale and metal foot. [Fig. 1/4 nat. size.] . . \$ 1,50
1076. **Glass sphere** with two stopcocks, to show weight of air and gases. (W. D. Fig. 168, p. 208.) [Fig. 1/6 nat. size.] \$ 3,00



The apparatus is first weighed by suspending it to the arm of the balance; as only differences of weight are dealt with one can dispense with the balance pan on this side. The globe is then evacuated and again weighed. Water is now poured into the funnel and when completely filled the bulb is again weighed; the water used for filling the bulb should previously be well boiled and then cooled. The difference between weighings 1 and 2 gives the weight of the air filling the bulb and the difference between 2 and 3 the weight of an equal volume of water. To find the relative density of any other gas, preferably coal gas, the vessel is exhausted and weighed, and then by fitting a rubber tube over the upper cock, filled with the gas under examination. After detaching the rubber tube the bulb is again weighed. Finally both taps are opened and air sucked through the vessel the latter being again weighed. By dividing the difference between the first and second weighings by the difference between the first and 3rd the density of the gas referred to air is obtained.

1078. **Apparatus to show weight of air**, also fitted to show non-transmission of sound in a vacuum. [Fig. $\frac{1}{8}$ nat. size, p. 56.] § 3,25
- The glass sphere is fitted with a stopcock and has in its interior a small bell; it is first attached to the hook as shown and suspended in place of the balance pan to the balance No. 306 so as to ascertain its weight when filled with air. On removing the hook and shaking the vessel the sound of the bell is plainly heard. By fitting the sphere to the air pump and opening the cock as shown in the figure the vessel may be exhausted. On unscrewing from the pump and shaking the globe the sound of the bell is no longer audible; by attaching it to the balance a loss of weight is indicated corresponding with the air removed during exhaustion.
1080. — electric bell in large receiver with ground-in stopper. [Fig. $\frac{1}{7}$ nat. size.] » 3,00
1081. **Magdeburg hemispheres**, of glass » 1,50
1082. — of very strong brass, with tap and handles. 85 mm diam. One handle can be screwed off and the thread fitted to our air pump. After exhaustion the handle is again attached. [Fig. $\frac{1}{6}$ nat. size, p. 56.] » 4,00
1083. — in another highly finished, convenient form, very strong, with side exhaust and tap, 115 mm diam. The side exhaust obviates removal of the handle. [Fig. $\frac{1}{6}$ nat. size, p. 56.] » 8,00
1084. **Baroscope**. [Fig. $\frac{1}{4}$ nat. size.] » 2,25

This consists of a stand carrying a balance beam on one side of which is supported a closed glass bulb, the other end carrying a small weight which in ordinary air just counterpoises the bulb. As every body which is immersed in a fluid or in atmospheric air is