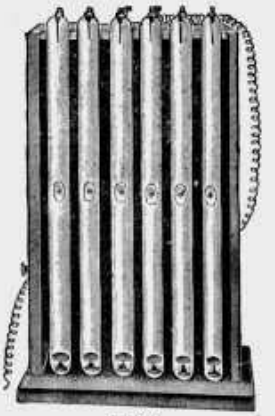

7099.

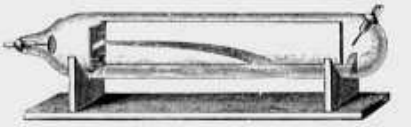

7100.


7101.


7104.


7105.


7106.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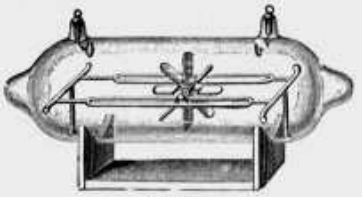
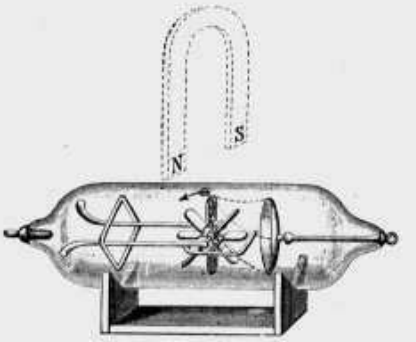

7108.

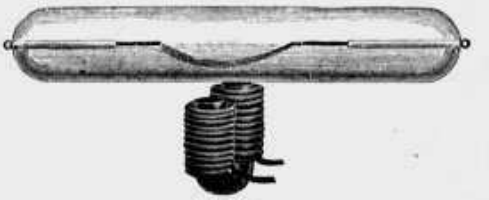

7109.


7110.



7116.


7113.


7115.

7097. **Vacuum tube with brilliantly phosphorescent substances.** (Gretschel, Fig. 4.) This tube we fill (our choosing) with hexagonite, calcspar, shells, pectolite, strontianite, alumina, Willemite etc. [Fig. 1/5 nat. size, p. 257.] . . . . . $ 2,65

7099. **Propagation of so-called radiant matter** in straight lines. (Gretschel, Fig. 6.) [Fig. 1/6 nat. size.] . . . . . » 2,25

7100. **Vacuum tube only moderately exhausted,** in which the discharge takes the form of a spark. (Gretschel, Fig. 7a.) [Fig. 1/5 nat. size.] . . . . . » 1,50

7101. — **with high vacuum** which allows the straight line propagation of the cathode rays and phosphorescence. (Gretschel, Fig. 7b.) [Fig. 1/5 nat. size.] . . . . . » 2,65

7104. **Vacuum scale,** Cross's form; 6 tubes in different states of exhaustion are fixed in a wooden stand [Fig. 1/9 nat. size, p. 258.] and show the following phenomena . . . . . $ 10,00

Tube 1 (40 mm pressure): band spark;
Tube 2 (10 mm pressure): broad band of light; cathode with weak glow;
Tube 3 (6 mm pressure): striated light, stronger glow, dark space at cathode;
Tube 4 (3 mm pressure): strong glow and dark space at cathode expanded;
Tube 5 (0,14 mm pressure): blue light, green luminescence of the glass wall;
Tube 6 (0,03 mm pressure): luminosity of the whole tube.

7105. **Vacuum tube with semi-cylindrical cathode** (Gretschel, Fig. 8). [Fig. 1/5 nat. size, p. 258.] » 1,90

7106. **Tube with cross, to show shadow** (Gretschel, Fig. 9). [Fig. 1/6 nat. size, p. 258.] . . . » 3,15

7107. — larger form . . . . . » 6,00

7108. **Vacuum tube with mica wheel** running on rails, to demonstrate the mechanical action of the glow (Gretschel, Fig. 11). [Fig. 1/4 nat. size, p. 258.] . . . . . » 5,65

7109. **Radiometer with aluminium wings** which are covered on one side with mica to show the reaction of the rays (Gretschel, Fig. 12). [Fig. 1/4 nat. size, p. 258.] . . . . . » 3,75

7110. — also rotating by the action of a red hot platinum wire (Gretschel, Fig. 13). [Fig. 1/4 nat. size, p. 258.] . . . . . » 3,40

Experiment I. The platinum wire and the upper electrode are connected to an induction coil; the radiometer rotates.

Experiment II. The connections with the induction coil are broken and both ends of the platinum wire and a resistance (for example No. 5670) are placed in circuit with a current supply (as, for example, the set of accumulators No. 5503 arranged to give 4 volts). By slowly decreasing the resistance the platinum wire is brought to a weak red heat; the wheel begins again to revolve.

7111. **Deviation of the rays by a magnet** (Gretschel, Fig. 14) on wooden base. [Fig. 1/6 nat. size, p. 258.] . . . . . » 3,15

7112. — larger design . . . . . » 6,25

7113. **Deviation of the rays by a magnet,** like No. 7112, but with caustic alkali tube attached, to show the influence which the various alterations in the vacuum exert on the deviations (Gretschel, Fig. 15). Without magnet but on wooden stand. [Fig. 1/5 nat. size, p. 258.] . . . . . » 4,15

7114. — larger design . . . . . » 7,50

7115. — **Deviation tube with moderate exhaustion** (Gretschel, Fig. 16). Without magnet but on wooden stand. [Fig. 1/4 nat. size, p. 258.] . . . . . » 1,00

7116. **Vacuum tube with mica wheel,** which is set in motion by the aid of the magnetic deviation of the ray either to the left or right; without magnet, on wooden base (Gretschel, Fig. 17). [Fig. 1/5 nat. size, p. 258.] . . . . . » 5,65

The concave mirror is made the cathode and a horse shoe magnet is held over the wheel; the magnet is turned round, and the direction of the rotation of the wheel is altered; if a bar magnet is used, it must be presented from the cathode side; the rotation with a bar magnet is not so quick as with a horse shoe magnet. The horse shoe magnets No. 4819 are particularly suitable.

7117. **Parallel streams are self repellent** (Gretschel, Fig. 18). On wooden base (compare in this connection Wiedemann & Ebert, Wied. Ann. 46, p. 158, 1892). [Fig. 1/5 nat. size, p. 260.] » 3,75

7118. — in larger design . . . . . » 7,00

7119. **Concave mirror tube.** The rays concentrated at the focus of the concave mirror produce heat. By means of a magnet the focus may be deflected so that it falls on the walls of the glass vessel where the heat is shown by melting a layer of wax previously put on. (Gretschel, Fig. 19.) [Fig. 1/4 nat. size, p. 260.] . . . . . » 1,75

A paper strip smeared with silver mercury iodide may also be held to the tube. On the place where the magnetically deflected rays strike, the yellow colour of the paper changes to red.