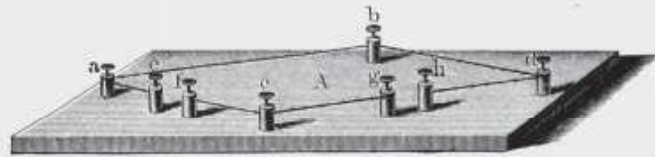
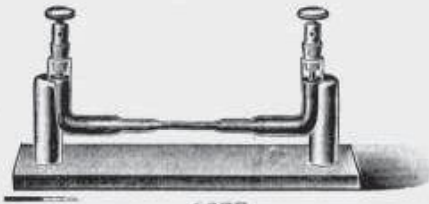


6216.



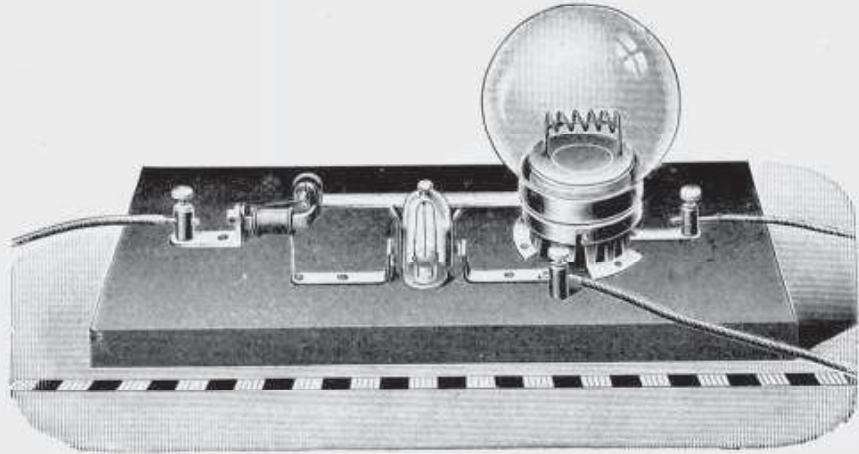
6218.



6277.



6303.



6301.

6216. **Resistance in liquids**, simpler form with copper, zinc and carbon plates. [Fig. 1/7 nat. size.] \$ 3,75
6218. **Wheatstone's bridge**, simple form. [Fig. 1/6 nat. size.] » 3,75
 Between *a* and *d* a cell is introduced, and between *b* and *c* a galvanometer. At *ef* and *gh* the resistances to be compared are inserted, namely the unknown resistance and a rheostat of known resistances. As soon as the rheostat is adjusted so that its resistance is equal to the unknown one the galvanometer needle returns to zero. As the unknown resistance the coils No. 6213 may be employed.
6277. **Dependence of the heating effect of a current on the resistance**; Børner's apparatus. » 1,50
 [Fig. 1/5 nat. size.]
 The glass tube, the middle part of which forms a capillary, is filled to within 2 cm of the edge of the bent-up arms with mercury, and the stoppers with the steel electrodes inserted. If a current of about 10–20 amperes is now passed the mercury in the capillary is heated so strongly that it evaporates; the mercury thread is thus broken and a spark passes. On cooling, the mercury again unites, heating again occurs, and so on.
6278. **Chain of silver and platinum wires** to show different heating effects of the same current on different metals The gram = about 50 cm » 1,00
6301. **Nernst lamp**, for demonstration, after Grimsehl. (Zeitschr. f. d. phys. u. chem. Unt. XVI, p. 263, 1903.) [Fig. 1/3 nat. size.] » 4,50
 The screw on the left is connected with the positive and the screw on the right with the negative pole of a direct current generator; with an alternating current the choice of the screws is indifferent. The current passes through the armature of the electro-magnet, and the heating spiral. As soon as the Nernst filament forming the axis of the bulb is heated by the radiation, it becomes a conductor and the current then passes through the arms of the electro magnet, through the resistance inserted in the circuit, and through the filament. The latter is heated to a bright glow, and simultaneously the armature of the magnet is attracted so as to cut the original heating circuit. The tension of the inserted resistance (e. g. 15 volts) + the tension of the lamp (for example 95 volts) is equal to the total driving voltage (here 110 volts). In ordering, the kind of current and the voltage and in the case of alternating currents the frequency must be stated.
6303. **Pair of carbon rods with handles and binding screws**, for showing the arc light. » 1,00
 [Fig. 1/6 nat. size.]