

of glass made to revolve by means of the handle, B; C is a cushion covered with amalgam (having the silk flap C₁ attached), against which the glass rubs as it revolves; D is a metal comb called the collector; E is the prime conductor, insulated from the rest of the machine; F are sparking knobs, one attached to the prime conductor E (from which the + electricity is obtained), and the other to the rubber C (from which the - electricity is obtained).

The plate electrical machine is constructed with a circular plate or disc of glass, which takes the place of the glass cylinder in the first-named instrument; but its action is practically the same.

INFLUENCE MACHINES.

These machines generate statical electricity more effectively and efficiently than the frictional machines. They depend upon induction or electric influence for their action, and are so constructed that a small initial charge, given from an external source, such as a rubbed rod, for instance, is speedily increased and multiplied many times in a few seconds.

Fig. 30 illustrates an influence-machine of the type known as the "Wimshurst."

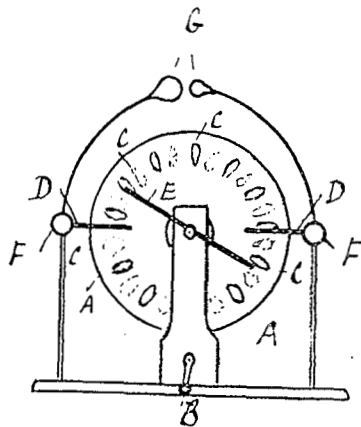


FIG. 30.

A A are two glass plates, which, without touching one another, are made to revolve in opposite directions by the handle B. C C₁ are strips of thin metal foil, which act as both carriers and armatures. D D₁ are metal collecting combs. E is a metal conductor, carrying a collecting brush at each end, which latter comes in contact with each carrier as it rotates. F F₁ are the main conductors, which communicate the opposite charges of electricity to the sparking knobs G, or to other conductors, of which the human body may be one.

All machines generating statical electricity are liable to derangement by atmospheric disturbances. Any moisture which may settle

upon the insulating parts of these machines is sure to cause leakage of the electricity generated, and this is often so serious a matter, that if the air of the room in which the machine is placed be at all damp the action fails entirely.

Influence machines are less liable to trouble on this account than frictional machines, but all of them require great care and attention to keep them dry and clean enough for satisfactory working. (To be continued.)

NURSING ECHOES.

*** Communications (duly authenticated with name and address, not for publication, but as evidence of good faith) are especially invited for these columns.

LECTURES on Nursing seem to be more popular than ever this year. From all sides I hear of



large audiences collecting to learn "how to do it," and "what not to do" from Nurses and Doctors. Mr. Andrew Clark—who was one of the first, I believe, to recognise the importance that if the public demand lectures on this subject they should receive accurate

teaching—is, I see, about to give a very practical course on Sick Nursing, at the Polytechnic, as evidenced by the following syllabus.

LECTURE 1 (Friday, May 30th).—Introductory Remarks—Brief account of some of the more important functions of the body in health—Circulation of the Blood—Respiration—Digestion—Animal Heat, &c.—Practical Demonstrations on the Use of the Roller Bandage. Lecture 2 (Tuesday, June 3rd).—Disease generally—Infectious and Non-Infectious Cases—Modes of Infection—Quarantine of Patient—Disinfecting and Disinfectants—Practical Demonstrations on the Use of the Roller Bandage. Lecture 3 (Tuesday, June 10th).—Selection, Preparation and Cleaning of Sick Room—Bed and Bedding—Furnishing—Warming and Ventilating—The Nurse, Management of her own Health—Practical Demonstrations on the Use of the Roller Bandage. Lecture 4 (Tuesday, June 17th).—Observation of the Sick—Rigors—Sleep—Pain—Posture—Skin—Appetite—Vomiting—Cough—Expectoration, &c.—Effects of Remedies—Management of Convalescents—Nursing Children—Preparation for the Physician's or Surgeon's Visits—Regulation of Visitors—Practical Demonstrations on the Use of the Roller Bandage. Lecture 5 (Tuesday, June 24th).—Practical Demonstrations in Bed

[previous page](#)

[next page](#)