

THE

MONTREAL MEDICAL JOURNAL.

Vol. XXXII.

MARCH, 1903.

No. 3.

Original Communications.

ON THE USE OF ROENTGEN RAYS IN MEDICINE AND SURGERY.*

BY

G. P. GIRDWOOD, M.D.,

Emeritus Professor of Chemistry, McGill University.

In December, 1895, Professor Roentgen, of Wurzburg, first announced the discovery of certain rays which emanated from an excited Crookes tube enclosed in a cardboard box, from which box no light was visible, but some platino-cyanide of barium which he happened to have, gave out a fluorescence when brought in the vicinity of the box. On further investigation he found this fluorescence was due to certain rays emanating from the tube which penetrated the walls of the box in which it was enclosed, and when further examined he found that these rays could pass through certain materials whilst they would not pass through others, and that when platino-cyanide of barium was spread on a card and held up near the Crookes tube when excited, platino-cyanide became luminous. and that when any substances, some opaque, some transparent to these rays were interposed between the tube and the platino-cyanide, a shadow picture of the opaque bodies was seen. These Crookes tubes may be excited by either a static machine or a Rhumkorff coil.

There are any number of static machines; the old frictional machines in which the electricity was developed by friction of glass cylinders, or plates or ebonite plates, these have given place to the induction machines, which are all based on the old electrophorus, in which a plate of resin or sulphur, or both, in a tin dish was excited by rubbing with a cat's skin, and then placing a metallic plate on the plate of resin and then touching the upper surface. The metal plate became charged with

* Read before the Canadian Medical Association, September, 1902.