

X RAYS.

IN November, 1895, Professor Rontgen, of Wurzburg, discovered that some form of radiant energy emitted from a Crookes' tube he was using, affected a photographic plate in an enclosed box lying near by. He further discovered that these rays would pass through any of the tissues of the body, the bones much less readily than the muscular and other structures, and that glass and most metallic substances were fairly opaque. He demonstrated, too, that these rays appeared incapable of refraction, regular reflection or polarization, and also of deflection by a magnet; the latter feature distinguishing them from the already known "kathode" rays, and also from Lenard's rays. Not being certain of the character of the new rays he appropriately named them "X" rays.

Although the announcement of Rontgen's discovery stirred into activity a host of physicists, who have diligently wrestled with the new problems for upwards of two years, it is remarkable how little of real value has been added to our knowledge.

As might be expected, there is considerable diversity of opinion regarding the character of the ray. The purpose of this paper, however, is to deal with the practical application of the phenomena, rather than the phenomena themselves, and mere mention of a few of the theories must suffice.

Many English physicists, perhaps the majority, hold that Rontgen rays are very short, rapid, transverse vibrations in ether. Rontgen, himself, at the time of his discovery, believed them to consist of longitudinal vibrations.

Precht, of Heidelberg, has quite recently advanced the theory that we have to deal with an exceedingly complex radiation, that some of the waves are transverse, some longitudinal, and a portion not wave-motion at all.

The problem is yet unsolved; it concerns, however, the physicist more than the physician.