

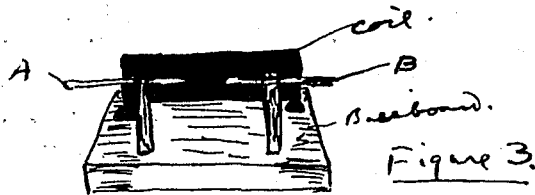
THE X-RAYS AND THEIR USES.

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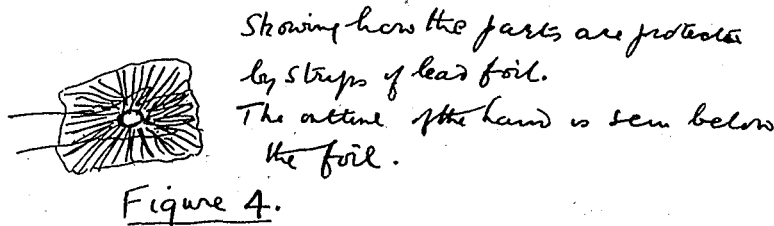
(Concluded from page 244.)

Turning to the question of treatment by the rays, we find ourselves confronted by a mass of records and many disappointments.

Almost every kind of case has been submitted to the action of the rays in order to try



and effect a more speedy cure. Nearly all classes of cases have to be returned as unsuitable. To be absolutely and brutally candid, the rays offer very little in the way of the hope of a cure to weary sufferers. Such cases as affections of the skin like rodent ulcer,



lupus, pruritus, hyperidrosis (excessive and disagreeable sweating in the axillæ and groins), and those awful cases of extensive carcinoma of the breast region, which spread out all round the side and under the axilla, and finally invade the region of the scapula (carcinoma en cuirasse), are markedly sensitive. In the last-mentioned cases the effect is not a curative one, but the rays exert a very powerful anæsthetic action and deaden the awful pain very considerably, although the checking effect upon the growth which some observers have noticed is, unfortunately, not often realised.

Tubercular glands in the neck afford a very good field for treatment, for huge masses of these, even when in the stage of fluctuation, can be made to disappear by repeated applications of small doses.

Ringworm is, of course, a subject unto itself, and the results in this line are better than in any.

The tube selected for use is generally of about a "two-inch alternative spark gap."

That means that the current will pass across the tube rather than across the two points on the coil (see Fig. 3, A B) when they are set two inches apart. Such a tube is called a "soft" one. Treatment tubes contain a special device for softening. The side tube F (see Fig. 1) is for this purpose. When the small end of platinum wire G is heated, air passes into the tube, and so softens it. The exact degree of heat required is a matter of experiment each time, as the wire is heated in "driblets," the hardness of the tube being tested each time. When the two-inch strength is reached, the heating is discontinued.

The part to be treated is now carefully surrounded with lead foil cut in strips and carefully overlapped. (See Fig. 4.) The tube is now brought close to the part until its side is about six inches away. The current is now turned on for five minutes and then stopped.

Sometimes a special tube made of lead-glass, with a small window at one point made of soda glass is used. (See Fig 5.) This keeps all the rays in the tube except those that escape through the window. The protective covering of the patient is thus avoided. In other cases the ordinary tube is put inside a special box arrangement fitted on a pillar. The rays can then only escape through the holes in one side of the box. The size of the hole is

varied by diaphragms which fit over it. In dealing with ringworm we have to give a dose just sufficient to loosen all the hairs, and yet not burn the scalp.

It has been found that when a pastille made of the same material as the screen with which we view the X-rays is placed at half the distance from the head that the point at which the X-rays are produced (point P in Fig. 1) is placed, and allowed to change from the natural

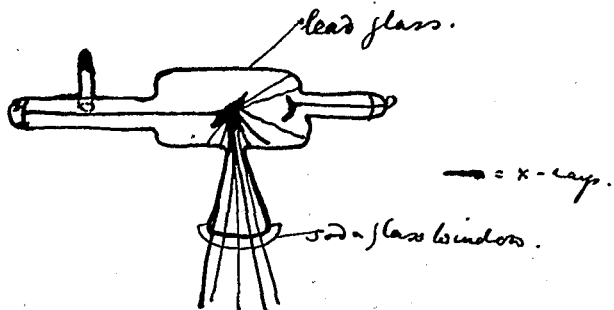


Figure 5.

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