some very curious effects on the skin. There have been several authentic cases reported, some of which I have myself seen. It is not quite certain, however, that this effect is an unmixed one. For in every case the affected skin has been in contact with other things than the rays, as, for instance, with platinocyanides and other substances used in preparing the screens. It has also been noted that those who have done most fluorescent work are the most affected. So until all other possible causes can be eliminated, it would be rash to draw conclusions. Writing in *Nature*, one observer records his experience as follows:

For the first two or three weeks no inconvenience or discomfort was felt, but there shortly appeared on my right-hand fingers numerous little blisters of a dark colour under the skin. These gradually became very irritating, the skin itself very red and apparently much inflamed. The irritation increased, and the application of aqua plumbi, as recommended in a Berlin telegram to the *Standard*, had only a passing effect in allaying it. So badly did my hand smart, that I was constantly obliged to bathe it in the coldest water I could get, and I really believe I should have been obliged to resign my appointment had not a well-known medical man, who happened to attend one of the demonstrations, advised me to use a much-advertised ointment. I did so, with the remarkable result that the irritation left me immediately, and by using it regularly since then, I have at least avoided one of the disagreeable consequences of too much x rays. In the meantime, however, the skin on the fingers had become very dry and hard, yellow like parchment, and quite insensible to touch, and I was not at all surprised to find, a day or two afterwards, that it began to peel off. When this particularly unpleasant operation had been accomplished, I considered I was quite acclimatised to the rays, but soon found out my mistake. The same symptoms again appeared, the newly-formed skin going the same way as in the former case. But there was a further discomfort to follow. About the middle of July the tips of my fingers began to swell considerably, and appeared as if they would burst. The tension of the skin was very great, and, to crown all, I noticed for the first time that my nails were beginning to be affected. This was the commencement of a long period of serious discomfort and pain, which was only partly relieved when, from under the nails, there appeared a somewhat copious and unpleasant-smelling colourless discharge, which continued more or less until the old nails were thrown off. With this discharge the swelling in the finger tips decreased, but as the new and old nails began to separate in the middle, the pain was renewed, and I was unable to bear the slightest pressure upon them. The old nails turned quite black and very hard, and the state of my hands may be imagined when I say that I had to keep the fingers in bandages for more than six weeks.

That these lesions are the effect of the x rays alone must appear somewhat doubtful.

The following cases illustrate some recent clinical applications of the method:—

TWO CASES OF A HALFPENNY IN THE ŒSOPHAGUS.

BY

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REPORT OF CASES BY MR. JOHNSTON.

CASE I.—R. B., aged 2½ years, was brought to the Wirral Hospital for Sick Children, Birkenhead, on September 28th, 1896, his mother stating that he had swallowed a halfpenny on September 26th.

The child looked miserable and refused to take any solid food. It easily swallowed fluids. There were no other symptoms. Dr. T. Holland kindly offered to skiagraph the child, and on October 2nd he discovered the coin in the gullet. On the following day I easily removed it with the coin-catcher.

CASE II.—In September, 1895, I was called to see M. N., aged 2½ years, with the doubtful history of having swallowed a halfpenny. The child was able to swallow solid food, and as there were no other signs of the presence of a foreign body in the gullet the idea was abandoned, after closely scrutinising the stools for about a week.

I again saw the child in February, 1896, when he was suffering from acute broncho-pneumonia. About this time laryngeal stridor and inspiratory dyspnoea were observed. These symptoms were at first under the patient's control, but by May they had become involuntary and constant. He had always been able to cough, and the pitch and quality of his voice were scarcely altered. Several unsuccessful attempts were made with the laryngoscope. It was evident that a pneumogastric or recurrent laryngeal nerve was undergoing

pressure, but no light was thrown on the cause until October 3rd, 1896, when the Roentgen rays, under the guidance of Dr. Thurstan Holland, revealed the long-lost halfpenny. During these thirteen months the child was willing and able to take all kinds of food, although he sometimes refused beef, mutton, and fish.

On October 4th I removed the halfpenny by means of the ordinary coin-catcher. It was easily felt by the instrument, but was very hard to move. The coin in this case was blackened, and from the pus and membrane adhering to a large segment it appeared to have been imbedded in the Œsophagus. The difficulty I experienced in moving the coin in this case was so great that in future I shall, by means of a piece of catgut or silk tied to each side of the catcher, make it possible to withdraw the instrument without disturbing the foreign body in case Œsophagotomy be desirable.

NOTE BY C. THURSTAN HOLLAND.

In Case I there was no difficulty, and the coin was seen most distinctly with the fluorescent screen. I was then able to take the radiograph reproduced below. The result is so good owing

to the fact that we were able to keep the child quite still. In Case II, by means of the screen I was able to see faintly the shadow of a foreign body, apparently lying behind the upper part of the sternum. Afterwards an endeavour was made to obtain a radiograph, but the child in this case was very unmanageable, and we were not so successful. However, the print showed distinctly enough the rounded outline of the halfpenny, and it showed even more distinctly on the plate.

Both these cases are of great interest, as they show in a marked manner of what use the x rays are in surgery. To begin with, in both these cases it was quite uncertain whether a halfpenny was present or not. And then, again, when found I was able to show Dr. Johnston the exact position in which the coins were lying, and this, of course, very much facilitated their removal.