

drink a glass in the Pump Room, and then went back to his temporary laboratory in which was placed the electroscope, the delicate instrument with which the presence of radium is detected. The moment he entered the room the instrument showed unmistakable signs of the presence of radium, and all that there was that which he had drunk in the glass of water.

More important from the point of view of the spa were his measurements of the radium in the water, and the radium emanations in the water and in the gas, which is given off by the steaming water. As a result of these Sir William was able to state that the Bath waters contained twice as much radium emanation as the Buxton waters, and that the natural gas from the Bath water was four times as strong in radium as the Buxton natural gas.

These investigations are not only interesting in so far as they explain the wonderful curative properties of the waters which led the Romans to found the bathing establishments of *Aquae Sulis*, and which have been utilized to bring alleviation to sufferers from a variety of diseases, although the reason for their healing powers was not known, but they are important in that the application of the waters can now be made on still more effective lines by a more scientific use of both the water and the gas which is an agent when used with the water 20 times more potent than the mineral water alone. The discoveries have come at a moment when a big scheme for the development of the Baths of Bath is in contemplation, and the lessons of Sir William Ramsay's investigations will be profited by.

ANCIENT SURGICAL OPERATION.

There is no doubt that some rough form of surgery must have existed from very ancient times, but it is strange to find that so complex and delicate an operation as trepanning is one of the oldest.

So far as actual records go, Hippocrates gives us the earliest account. He wrote treatises on fractures, dislocations and wounds of the head, in procedure to be followed in the case of a fractured skull. His direction was to cut away a piece of bone so that the pressure on the brain might be relieved.

There are also records about this time and later of a file being used for this purpose, which at a time when anaesthetics were undreamed of must have been, to say the least, painful.

According to Dr. T. Rice Holmes, the operation of removing pieces of bone was performed long before historic times. The effects on the skull are easily seen after death, and are visible so long as the bones are preserved.