

Science Siftings

By 'VOLT.'

A New Use for X-rays.

Dr. J. Hall Edwards, of Birmingham, one of the British medical men who early devoted themselves to the use of the X-rays in surgery, recently delivered a lecture in London on X-rays and the important part they played in surgery. Speaking of other uses of the X-rays except in medicine, he said he only knew of one and that was for the discovery of pearls. Instead of destroying the oyster to ascertain if it contains pearls, he declared that the rays might be used to show whether the oyster contained a pearl, and if nothing were discovered the oyster might be put back into the sea so as to continue to grow.

Alps Could Run the Railways.

Engineers in Zurich report, after careful examination, that sufficient electric power could be developed from the waterfalls of the Alps to run all the railways in Switzerland. There would be little or no reduction of cost, it is said, but the time may come when the change from steam to electricity may be desirable, because Switzerland has to import all the coal she uses. From 21 waterfalls, some of which are already partially utilised for industrial purposes, 86,000 horse-power could be developed, but only 60,000 horse-power would be required to replace the steam power now used on the railroads.

A Pocket Wireless Telegraph.

An Italian inventor, Cerebotani, has reduced the apparatus necessary to receive wireless messages to a size so small that he calls it a "pocket wireless telegraph." Cerebotani has held for some years a professor's chair in Munich, Bavaria. His inventions include a printing telegraph, said to be easily and rapidly usable by anyone who knows how to read; a wireless printing telegraph, which, it is predicted, will revolutionise wireless methods: a selector, for use either with or without wires, which may solve the problem of wireless secrecy; and a new form of telautograph. The pocket wireless may be carried easily, perhaps not in an ordinary pocket, but at least in a small case, like an opera-glass.

Scarcity of Meerschaum.

The valuable material from which meerschaum pipes are made is continually getting scarcer, and the large industry which has flourished in Vienna, Budapest, Nuremberg, Paris, and in the Thuringian town of Ruhla seems endangered. The manufacture of meerschaum pipes is much more important than is generally supposed. The town of Ruhla alone has been exporting in round figures pipes to the value of about £300,000 annually. The finest grade of meerschaum is found near Eski-Schelir, in Anatolia, Asia Minor, in a hollow, which in early days was a lake, in which the meerschaum was precipitated. Meerschaum is also found in other places, including Thebes, Egypt, the Bosnian Mountains in the neighborhood of Grubschitz, and Nuendorf in Moravia, and in some section of Spain and Portugal.

Powers of Penetration.

The destructive power exerted by a projectile from the 110-ton gun has been shown by a full-sized diagram more than forty feet in length, which traces the path of the huge conical bullet through various obstacles, the diagram professing to be a correct representation of an effect which actually occurred. The projectile itself is depicted embedded in a mass of brickwork into which it has penetrated three feet, but before finding itself at this end of its journey it has made a hole first through a twenty-inch steel plate, then through eight inches of iron. It next tore its way through twenty feet of oak timber, five feet of granite and eleven feet of concrete, still having sufficient impetus to bury itself in the brickwork, as already described.

Intercolonial

At a meeting of the Bishops held at St. Mary's Presbytery after the Month's Mind for the late Cardinal Moran (says the *Catholic Press*), the Archbishop of Melbourne, the Bishop of Wilcannia, and the Archbishop of Sydney were deputed to write to the other Bishops of Australia with a view of completing St. Mary's Cathedral as a memorial to his Eminence.

Preparations (writes the Melbourne correspondent of the *Freeman's Journal*) are going on apace to give a splendid welcome to the Irish envoys on Tuesday, October 10. They will be welcomed by the Irish national friendly societies and clubs, and escorted to the Cathedral Hall, where the formal reception will take place. A visit to Heidelberg in drags will follow, and the great Home Rule rally will be held in the evening in the Town Hall. Meetings will subsequently be held in the provincial centres. The ladies are co-operating in the proposed welcome to Messrs. Redmond, Hazleton, and Donovan.

His Lordship the Bishop of Wilcannia (Dr. Dunne) has had a strenuous episcopal time this year (remarks the *Freeman's Journal*). He had just completed a three months' visitation on the eastern side of his diocese when the sad news of the Cardinal's death was telegraphed over the Commonwealth. To understand what this means, it has only to be stated that his Lordship, in order to get from west to east of his diocese, must, owing to absence of direct railway communication between Broken Hill and the western railway limits of New South Wales, take train at Broken Hill for Adelaide, and thither to Sydney—a matter of some 1500 miles. During his recent episcopal visitation on this side his travels involved a distance of between 3000 and 4000 miles.

Probate has been granted of the will of the late Cardinal Moran, who died on August 16 last (says the *Freeman's Journal*). Testator's last will and testament is dated May 1, 1885, but there is a codicil dated April 3, 1909. Testator bequeathed all his real and personal estate to his trustees and executors upon trust 'for the person who will be appointed, according to the rules of the Roman Catholic Church, to hold the office of Roman Catholic Archbishop of Sydney after my decease.' The total assets were sworn at £1804 19s 2d, and the total debt at £2109 4s. Of this debt the sum of £2100 was a loan fund in the hands of the Cardinal. During the past four years the Cardinal expended £18,000 on St. Columba's College, Springwood, out of his private funds, and then made it a gift to the archdiocese. The expenditure during the last eighteen months considerably exceeded the Cardinal's anticipations. His Eminence was never known to make an investment for himself, and always tried to pay off each debt as it fell due.

Three special trains from Sydney were overcrowded on Sunday afternoon, September 17 (says the *Catholic Press*), when 500 people went up to Westmead for the annual re-union at the St. Vincent de Paul Boys' Industrial Home, and for the laying of the foundation stone of the new wing that is being added for the accommodation of deaf and dumb lads. This new department marks a most important development in the expansion of the institution's work, and is not intended to interfere in any way with what is being done for afflicted children by the Dominican Nuns at Warratah. On the contrary, it has been almost entirely owing to the urgent representations of these nuns that the members of the Society of St. Vincent de Paul have taken on this additional burden. The result of long experience has convinced the Sisters that when deaf and dumb boys reach a certain age it is necessary that they should be placed under the direction of men. The new building, which is being erected, at the southern side of the Home, will provide room for about 50 boys, and no deaf and dumb lads will be admitted until they have passed the age of eleven years. The Marist Brothers, who conduct the Home for the Society of St. Vincent de Paul, will commence the new branch of their labors with sixteen or twenty subjects.