

Science Siftings

By 'Volt'

Indestructible Glass.

In consequence of many recent inquiries, the U.S. Consul at Liege has sent to Washington a report about the hardened glass and crystal ware manufactured in Belgium. On account of the costliness of the process, but few articles are as yet made of this glass, which is called agatine. It serves well for dishes and tumblers. An agatine tumbler may be dropped on a hard floor or thrown across a room with but slight chance of breaking. With great violence, of course, the glass can be broken, but its power of resistance is described as astonishing.

A New Style of Nail.

A recent patent is designed to help the novice at carpenter work to drive a nail straight when it is necessary to fasten abutting pieces of wood together in the manner technically known as toe-nailing. In this operation it is necessary to drive the nail at such an angle that it will enter the second board against which the first one abuts, so that the two will be held together. The difficulty in the use of the ordinary nail for this purpose, is to drive it at just the right angle, so that it will take a proper hold of both pieces. With the new nail this is accomplished by making use of a peculiar plough-shaped end, which causes the nail to describe an arc as it passes through the wood.

A New Method of Heating.

A Frenchman has invented fabrics called thermophile fabrics, which are in reality electrical heaters. Heat of a mild temperature is produced by a combination of a textile and a conductive thread. Electro-thermic wires are hidden in the fabrics. No smoke or gas is thrown off in the heating process and this makes the fabrics very hygienic and suitable for sick-room heating. Many other uses have been found for the fabrics, notably in electrically-operated railways, and electromobles in which thermophile carpets, either alone or in connection with a heating plate, are used to advantage for providing a most comfortable heating effect to the passengers.

Unhealthy Trades.

The latest compilations which have been made show that the air in cutlery factories, is laden with invisible metal dust, and this, being carried into the lungs, causes asthma and consumption. The steel grinders, bending over their work, inhale such huge quantities of metal dust that they rarely live beyond the age of forty. All metal trades are very hazardous, and phthisis or tubercular affections and respiratory diseases are the penalties of these pursuits. The rate of mortality among brewers is 50 per cent. greater than that among men of ordinary callings. Gout is an enemy which makes itself sorely felt in this occupation. Bakers, too, are more than normally subject to premature death. In the flour there is a very small microbe which has its effect on the teeth and attacks the drums of the ears, causing deafness.

The Shape of the Earth.

It was almost to be expected (writes H. P. Hollis in the 'English Mechanic') that the statement that the earth is shaped like a pear would lead to some misconception. One correspondent seems to think it is definitely proved that our earth is not a true oblate spheroid—so much so that the dissymmetry is easily measurable, and that the stock end of the pear is at the South Pole. The pear shape is simply a suggestion from theory, and that actual measurement, on which all knowledge depends, gives only the slightest indication of departure from the traditional orange-form. All that geodesy has done is to give a hint that the Equator may not be a circle, but the ellipticity is so small that it would not cause a difference of a mile between the lengths of the greatest and least radii. This is evidently a different kind of fruit to the one some readers suppose. There is as much variety of shape among pears as there is of color among plums.

The new memorial church to the late Rev. J. H. O'Gorman, at Michelago, now in course of construction, will be a fine large building, and will meet the requirements of Michelago for many years to come. The contract price of the church is £1095.

Intercolonial

There has been completed a handsome monument to the memory of the late Father J. J. Horan, to be placed in St. Mary's Catholic Church, Warwick.

At St. Mary's Church, East St. Kilda (Vic.), the Very Rev. Father Lynch, who has been absent recruiting his health for nearly two years, was welcomed home by his parishioners recently. Mr. J. C. Duffy was in the chair, and there was a very large attendance. Father Lynch, in acknowledging the warm welcome, gave an interesting sketch of his travels.

A builder of railways and other big works was the late Mr. Martin Danaher, who died at Marrickville on November 2. Mr. Danaher, who was a Limerick man, was well known as a contractor in New Zealand. He built several railway lines in Northern New South Wales and Southern Queensland. He retired from business seven years ago.

The Right Rev. Dr. Broeyer, Vicar-Apostolic of the Navigators' Islands, arrived in Sydney on November 5 by the French mail steamer. His Lordship left some months ago on his ad limina visit to Rome. He also visited Berlin to arrange some matters concerning his mission with the German Government, which holds a protectorate over Samoa, where he ministers. He was successful in this direction. He brought back with him five Marist Fathers.

On Sunday, November 4, his Eminence Cardinal Moran Blessed and formally opened the new Convent of St. Joseph at Penrith. The ceremony reminds us (says the 'Catholic Press') that the convent there was the first house of the Order founded in New South Wales. It was the present Mother General, Sister Mary of the Cross, who commenced the work there, having associated with her the present Superior at Penrith. That was in 1880, so that the celebrations of Sunday last really marked the silver jubilee of the advent of the Sisters of St. Joseph to this State.

Mr. W. S. O'Brien, son of Inspecting Superintendent O'Brien, Melbourne Metropolitan Fire Brigade (says the 'Freeman's Journal'), has been appointed deputy chief officer of the Wellington Fire Brigade, New Zealand. Mr. W. S. O'Brien, who was trained as a fire fighter under Chief Officer Stein, is regarded as one of the smartest young men in the brigade, and has on several occasions been the recipient of encomiums from his chief for his nerve and resourcefulness in work where it was most required. For several years Mr. O'Brien has been in charge of Malvern station.

His Grace the Archbishop of Melbourne has made the following clerical appointments and changes in the location of priests in the Archdiocese:—Rev. L. Martin, from St. Patrick's Cathedral to Kilmore, as permanent rector. Lancefield and Romsey have been cut off from Kilmore, and made a separate mission, with Rev. W. Hartnett (Geelong) as pastor. Rev. J. P. O'Connell, of Kilmore, takes Father Martin's place at the Cathedral; Rev. M. A. Vaughan (recently arrived from Rome), and Rev. C. Conlon, of Mansfield, have been appointed as assistants to Monsignor McKenna, V.G., Geelong; Rev. J. J. McCarthy, from Geelong to Mansfield; Rev. J. A. O'Brien, from Gisborne to South Melbourne; Rev. P. J. Gibbons, from South Melbourne to Gisborne; Rev. P. D. O'Connor, recently arrived from Ireland, to Footscray.

The Irish Envoys were to bring their meetings in Sydney and suburbs to a close last week, the final meeting being at Paddington on November 14. They were to leave Sydney for Goulburn on Saturday last. A very high tribute to Mr. Devlin's powers as an orator is paid by the 'Western Advocate,' Orange, which says: 'We have heard Mr. William Redmond speak, and he spoke very eloquently. We have heard Mr. John Redmond speak, and he spoke much more eloquently than his brother. Mr. Devlin surpassed them both in all the essentials of public speaking. We have heard the two most polished orators Australia has produced, Mr. Dalley and Dr. Kelynaek, but we have never listened to more brilliant speaking than that of Mr. Devlin. He is an orator—polished, forceful, convincing, rounded, and fluent. The even stream of carefully modulated sentences never checked; the impressiveness of the story was always evident, and his periods were the polished and rounded utterances of a scholar. He came to Australia with the reputation of an orator of the first water, and his oration here more than sustained the expectations formed by his delighted listeners.'