

## Science Siftings

By 'Volt'

### Peculiar Action of Water.

Metal does not rust in Lake Titicaca, South America. A chain, an anchor, or any article of iron, if thrown in this lake and allowed to remain for weeks or months, is as bright when taken up as when it came fresh from the foundry.

### Combination in Metals.

A combination of copper and zinc makes bell-metal, a variety of bronze of which bells are made. A combination of tin and copper makes bronze metal, with a preponderance of copper.

A combination of tin, antimony, copper, and bismuth makes britannia metal. A combination of tin and copper makes cannon metal. A combination of copper and zinc makes Dutch gold. A combination of copper, nickel, and zinc, with sometimes a little iron and tin, makes German silver. A combination of gold and copper makes standard gold. A combination of gold, copper, and silver makes old standard gold. A combination of tin and copper makes gun metal. A combination of copper and zinc makes mosaic gold. A combination of lead and a little arsenic makes sheet metal. A combination of silver and copper makes standard silver. A combination of tin and lead makes solder. A combination of lead and antimony makes type metal. A combination of copper and arsenic makes white copper. A combination of tin and lead makes pewter.

### Glass-making Invention.

A consular report from Nuremberg, recently issued, gives details of a new invention in the glass-plate industry, which, if it does all that is claimed for it, will seriously affect the blowing glass-plate industry. The new method is the invention of Mr. Fourcault, a Belgian, who has sold his patent to a European syndicate of plate-glass manufacturers for £190,400. This syndicate consists of German, French, and Belgian manufacturers, and one Bohemian factory. Up to the present in the making of window glass the molten substance has been blown into cylinders by glass-makers' pipes and subsequently flattened, while in the making of plate-glass the viscous mass was cast from the pots and rolled. The new invention draws the molten substance from the pot and conducts it between rollers lying side by side. Seventeen pairs of these rollers are built up tower-like above the pot. The liquid cools on its way between the rows of rollers, and comes out from them polished on both sides, in any desired thickness (this being regulated by the relative position of the rollers), beautifully flattened and ready for use. It is believed that this invention will bring about a revolution in the trade.

### How Nature Takes Cover.

In an interesting lecture on 'How Nature Takes Cover,' in Wellington recently, Professor Kirk showed butterflies resembling green or faded leaves so perfectly, even to details of venation, that not only their enemies, the birds, but even human eyes might be deceived. Even the wings had narrow projections at the tip so that when they were folded and the insect perched on a twig it seemed to be attacked by a footstalk. Perfectly harmless flies in some cases so strongly resembled bees, wasps, or other stinging creatures that birds left them in peace. Caterpillars simulated buds, and even had the habit of resting standing on end at the proper angle to the branch. The New Zealand 'walking stick' was well known, the lecturer stated. He showed a number of living examples on a native plant. As an example of the effective mimicry of these curious creatures, Professor Kirk said that though he knew that there were fifteen on the plant from which he had taken them he could only discover three in the course of a long search. He explained the accepted theory regarding the evolution of these remarkable adaptations, that in the course of ages the elimination by natural enemies of the 'unfit,' particularly the conspicuous, left only those possessing exceptionally deceptive qualities to carry on the succession, and that the type was modified accordingly. He remarked that human intelligence had been slow to take the hint from animal instinct. The lion and tiger wore the livery of the jungle, but until lately men went forth to war in the brightest and most conspicuous garb.

Friend, when a cold invades the nose,  
And damp the daily hanky grows,  
When racking coughs distract the breast,  
And rob you of your nightly rest,  
And shooting pains in chest and joint  
To pulmonary troubles point—  
What can once more good health ensure,  
Why, simply WOODS' GREAT PEPPERMINT CURE.

## Intercolonial

Mr. Townsend Macdermott, the veteran barrister of Ballarat, who is 88, was called to the Bar in 1842, and practised as a junior in the Irish courts with Daniel O'Connell, whose trial he witnessed.

The Rev. Father Gannon, C.M., Vice-President of St. Stanislaus' College, Bathurst, has left for Ireland. Father Gannon has been 16 years in New South Wales, where he is loved and respected.

Monsignor Beechinor says of the late Mr. Michael Davitt that, excepting Daniel O'Connell, no Irishman was held in higher esteem than the deceased, who had been a true friend of Ireland.

The Hon. C. O'Reilly's reappearance in the House of Assembly (Hobart) is most interesting. After 30 years' absence, he brings back to a chamber which sadly needs it the courtly grace and dignity of the old-time politician; aye, and the chivalry of the olden days, too.

On Sunday, July 8, his Lordship the Bishop of Ballarat laid the foundation stone of a new church at St. Arnaud, in the presence of a very large congregation. The church is to cost about £1000. Already over £1200 in cash have been subscribed, the collection on Sunday amounting to over £300.

The death is reported of Sister Colette (Carolan), who passed away at St. Joseph's Convent, North Sydney, on July 7. The deceased had spent over 36 years in St. Joseph's Convent. Her early years were passed in the Queensland schools, and later on in New South Wales, and she was for a time in Meaneer, Hawke's Bay.

A cable message was received last week conveying the sad intelligence of the death, on July 19, of Mrs. H. J. Olle, of Peshurst, Victoria, aunt of the Rev. Father Hickson, Christchurch. The deceased lady, who was a near relative of the Irish poet, Gerald Griffin, was an extremely gifted woman, highly popular and very charitable, and her loss will be greatly felt in the district.—R.I.P.

Miss Amy Castles, in a private letter received in Melbourne, says that, notwithstanding her successes at Home, she is long for a visit to Australia, and that she is fully determined to forego all European engagements to come here in 1908. She is booked ahead for many of the principal musical festivals, and she has already been approached by an American syndicate for an appearance in grand opera throughout the States.

On Monday evening, July 9, a dinner was given by his Grace the Archbishop of Melbourne in honor of the Irish envoys, Messrs. J. Devlin, M.P., and Donovan, LL.B. Nearly seventy gentlemen were present, including the Postmaster-General (Mr. Austin Chapman), the Minister for Lands (Mr. Murray), the Chief Secretary (Sir Samuel Gillot), the Hon. H. B. Higgins, the Hon. H. Mahon, the Hon. N. Fitzgerald, and the Hon. J. G. Duffy.

One of the oldest and most respected residents in the Yass district, in the person of Mr. James Gallagher, died at his residence on Tuesday, July 3, at the great age of 105. Deceased has been a resident of the district for over half a century, carrying on farming operations at Bango Creek until a few years ago, when he sold out and went to Yass. During the last few years he had been in bad health.

The death of the Rev. Mother Mary Francis Xavier (Beechinor) took place on July 3, at the Presentation Convent, Launceston. She had been only a week ill. The last Sacraments were administered by one of her brothers, the Right Rev. Mgr. Beechinor. Another brother, the Very Rev. M. J. Beechinor, of Deloraine, was also present at the Rev. Mother's death, which was most edifying. The deceased was born in the County Cork, Ireland, and was about sixty years of age. She was educated at the Convent of the Sacred Heart at Roscrea, and in 1865 entered the Presentation Convent, Bandon, as a postulant. As one of a band of postulant nuns she went to Hobart six months after her uncle, the present Archbishop, had assumed charge of the diocese in 1866. The party of religious were accompanied by the Rev. Daniel F. X. Beechinor (now Monsignor Beechinor), nephew of the Rev. Mother Mary Francis Xavier, and brother of the postulant who was soon to become Sister Mary Francis Xavier. In 1870, when a branch of the Presentation Order was founded at Launceston, the deceased lady was among the first nuns. She remained in Launceston ever since. Her aunt, Mother Mary Francis Xavier (Murphy) died in 1880. This venerated religious had governed the houses both at Hobart and Launceston, and on her death Sister Mary Francis Xavier became Superioress.