

Science Siftings

By 'VOLT.'

A Big Undertaking.

The Sydney Public Works Committee have come to a decision on the subject of the means of communication over the harbor between Sydney and North Sydney, which has been under discussion for so long. After the consideration of a huge mass of evidence that had been tendered on the various schemes submitted, it was decided that, in the opinion of the committee, it is expedient to connect Sydney and North Sydney by means of a bridge, and they recommend the adoption of the scheme, carrying four lines of railways, one 35ft roadway, one 17ft 6in roadway, and one 15ft roadway, at an estimated cost of £2,750,000.

A New Variety of Glass.

While the new variety of glass known as quartz or acid glass is valuable from the fact that it resists heat and does not crack when suddenly heated and cooled, so that various apparatus can be made of it, such glass has a tendency to crystallize when heated for a long time near the melting point. This makes the glass mechanically weaker, and it changes more with heat. A new glass made by M. Thomas does not become devitrified in this way, and he obtains it by using silica to which is added a small amount of certain metallic oxides, these being acid oxides, especially zirconium or titanium oxides. As small an amount as 0.1 per cent is enough to increase the mechanical resistance by 20 to 50 per cent., and the general properties are much superior.

How Birds Sleep.

The sleep of most wild creatures, whether birds or animals, is light; there is too much danger round to make sound sleep safe. The author of *A Game-keeper's Note-Book*, who made some very interesting observations on sleeping birds, found out that the perch-roosting birds always keep head to the wind. If a rook alights in the home tree in a light wind, he swings his head into the wind before alighting. So when wood-pigeons come home before the wind, they pass over their roosting-trees and then beat up into the wind. At rest, the bird doubles its knees, as it were, which causes the toes to contract, the weight of the body resting chiefly on the breast and outspread wings—not on the eggs if in a nest. The legs and feet have sinews which work an automatic locking action of the claws, so that, roosting with knees doubled up, the feet grip the branch unflinchingly.

Preservation of Stone.

The newer portion of the stonework of Dunfermline Abbey, in Scotland, restored in 1818, has recently been found crumbling and deteriorating, so that measures for its preservation have become necessary. A solution of silicate of soda or liquid glass applied in two coats to the surface of the stone after scraping off the outside surface, followed by one coating of calcium chloride, has been followed by excellent results, and it is said preserves the stone for forty years without renewal. As the cost of the solution is very little, the application might serve to protect the older stone churches of America from decay. It might also be noted that while this stone used in 1818 needs care and protection, the original stone used in the erection of the older portion of the nave of the Abbey, built A.D. 1040, still remains in a fair state of preservation, the explanation being that this enduring stone was brought by the Normans or Romans from distant parts.

It was a fearful shock to see
His look of pain and misery;
His cough, it made the houses quake;
His wife, she wept disconsolate.
His children joined the mournful throng,
And said: "We won't have father long";
But all is changed, his life's secure—
He's taking Woods' Great Peppermint Cure.

Intercolonial

Rev. Father Robinson, having firmly declined to accept a testimonial from his parishioners, they decided to present to the new church at Camberwell, in his name, the colossal golden statue of Our Lady of Victories, which is to surmount the great dome. The statue will cost £250.

The net proceeds of St. Patrick's night concert in Melbourne resulted in a profit of £111 1s, which has been distributed as follows:—Sacred Heart School (Sisters of Mercy), Fitzroy, £50; Foundling Hospital, Broadmeadows, £30 10s 6d; Receiving Home, Grattan street, Carlton, £30 10s 6d.

His Excellency the Governor gave a luncheon at State Government House, Sydney, to commemorate the inauguration of the additions to St. Mary's Cathedral. The following among other guests were invited: His Excellency the Admiral, the Archbishop of Sydney, the Archbishop of Melbourne, the Archbishop of Brisbane, the Coadjutor-Archbishop of Melbourne, the Bishops of Ballarat, Sale, Goulburn, Armidale, Maitland, Bathurst, and Lismore.

Rev. Fathers Albert Kelly and William Nolan, C.S.S.R., have arrived from Ireland at the Redemptorist Monastery, North Perth. Father Kelly is a native of Dublin, and was stationed at the Dundalk Monastery. Father Nolan, who is a native of Foynes, County Limerick, was at the Monastery, Esker, Athenry, County Galway. Both will remain for the present in the West, and probably one of them will take the place of Father Grogan, who leaves in the near future for the Philippines.

The Superior of the Jesuits in Australia, Very Rev. John Ryan, S.J., has sent the following letter to his Grace the Archbishop of Sydney:—"St. Ignatius", Richmond, Melbourne, May 29, 1913. My dear Lord Archbishop,—In the name of the Society I feel it my duty to express my sincerest thanks to your Grace and to the priests of the archdiocese for the kind sympathy manifested by you and them on the occasion of the obsequies of Father Keating. I have been away in Adelaide, and have only just returned here, otherwise I should have written sooner. With profound respect, your Grace's most dutifully in Christ.—JOHN RYAN, S.J."

His Lordship Bishop Clune of Perth and the Hon. J. D. Connolly, M.L.A., also of Perth, were in Malta for the recent Eucharistic Congress. They were very cordially received by a number of the Congress committee. Both his Lordship and Mr. Connolly were present at a meeting of the Maltese Emigration Committee, held at the officers' mess, Royal Maltese Artillery, and spoke on the question of Maltese emigration to Western Australia. Mr. Connolly paid a tribute to his Excellency Sir Gerald Strickland's advocacy of Maltese immigration, which he said had done much to forward the movement. Bishop Clune also addressed the sectional meeting for the English-speaking congressists in St. Augustine's Church.

The banquet of the Catholic laity of Sydney to the Archbishop of Sydney and the visiting Australian Hierarchy, in connection with the laying of the foundations of the unfinished portion of St. Mary's Cathedral, was held on the evening of June 5. There was a large and representative gathering, and when the Archbishops and Bishops arrived they were greeted with enthusiasm. The Hon. J. L. Trefle (Minister for Lands) was in the chair, with his Grace the Archbishop of Sydney on his immediate right, and his Grace the Archbishop of Melbourne on his left. The other members of the Hierarchy present were the Most Rev. Dr. Mannix (Coadjutor-Archbishop of Melbourne), their Lordships Bishops Higgins (Ballarat), Dwyer (Maitland), O'Connor (Armidale), and Carroll (Lismore). The only toast was that of 'The Australian Hierarchy,' which was responded to by their Graces the Archbishops of Sydney and Melbourne, the Coadjutor-Archbishop of Melbourne, and his Lordship Bishop Higgins.

Photographs!

He may be Prime Minister. That is the privilege of every New Zealand boy. Photographs that preserve his boyhood will mean a lot to you; so that the little collection taken at various ages will always be a priceless treasure.

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