

Science Siftings

By 'VOLT.'

The Cultivation of Sponges.

The color of the living sponge is black, becoming brownish at the base. The plan of the sponge culturist is to grow sponges in quantities large enough to be of commercial value, and that this may be done economically they must be grown in water, shallow enough to leave them easily accessible, without the aid of diving apparatus, which is expensive to maintain.

The Aluminium Industry.

Although the early expectations of the wholesale substitution of aluminium for steel and iron have not, for very good reasons, materialised, it has shown such a perfect adaptability to certain of the arts that the demand for the new alloy has grown enormously. From a production in the United States of less than 100,000lb in 1883, in 1893 the output had grown to 350,000lb, in 1903 to 7,500,000lb, and to-day it is in excess of 50,000,000lb.

To Test Wallpaper.

Many of the cheap papers contain arsenic, and this poison is most dangerous to human beings. The following is a test which is easily applied: Take a piece of the paper, and dip it into a saucer containing strong spirits of ammonia. If arsenic is present the green paper will gradually turn blue in color. If the color only changes slightly a little crystal of nitrate of silver (caustic) added to the ammonia in the saucer will cause a yellow sediment, showing that arsenic is present.

A Jet of Water.

A factory in Grenoble, France, utilises the water of a reservoir situated in the mountains at a height of 200 yards. The water reaches the factory through a vertical tube of the same length, with a diameter of considerably less than an inch, the jet being used to move a turbine. Experiments have showed that the strongest men cannot cut the jet with the best tempered sword; and in some instances the blade has been broken into fragments without deflecting a drop of water, and with as much violence as a pane of glass may be shattered by a blow from an iron bar. It has been calculated that a jet of water a small fraction of an inch in thickness, moving with sufficient velocity, could not be cut by a rifle bullet.

Ships of Concrete.

A 500-ton concrete scow was recently launched at Baltimore, Maryland. It is 110ft long, 28ft wide, and has a depth of 10ft 6in. Others, built before this one, have shown a large saving in repairs over wooden craft. It is claimed by the builders that concrete vessels will ultimately create a revolution in ship construction. The Italians have already made use of concrete vessels, and have found them practicable, it is stated. Indeed, they seem to be of exceptionally stout build, for one of them, rammed by a small war cruiser, showed no other injury but a crack, which it was quite possible to repair successfully. This accidental test gave the constructor much satisfaction.

The Making of Films.

The immense amount of work entailed upon the German censorship of films is almost incredible. According to the official returns, during June alone 154,000 yards of film (87½ miles) were examined by the censor; and in July 173,000 yards (98 miles). It is difficult to estimate the average cost of manufacturing a film, says the report, because the managers grossly exaggerate the fees paid to the artistes acting for the purpose of advertisement. However, it is a matter of common knowledge that M. Max Linder, 'the Film King,' declares that he has received £40,000 in three years as 'cinematograph stage manager' for a famous French firm. The same house produces sixty miles of film every week at a cost of £4000, which produce £320 of revenue weekly, or £16,000 a year.

Intercolonial

The dignity of Domestic Prelate (says *Rome*) has been conferred on the Right Rev. Mgr. Thomas Robinson and the Right Rev. Mgr. Patrick Verling, of the diocese of Perth, West Australia.

Rev. Father McDwyer, who was recently appointed to the new parish of Urana, was, on the eve of his departure from Junee, where he was stationed for some time, entertained by the parishioners at a musical evening, and presented with a purse of sovereigns and a travelling rug.

Brother Paul, director of De la Salle College, Armidale, has been appointed provincial of the Order of the Brothers of the Christian Schools, and leaves in about a month to visit the various communities of the Order in South Africa. Brother Fridolin, who has had charge of the primary school at Surry Hills for some years, succeeds him as director of the college at Armidale.

The Rev. W. Ryan, S.J., who was for many years mathematical master as St. Aloysius' College, North Sydney, has been elected a Fellow of the Geological Society of England for original research work of considerable scientific importance. Father Ryan is at present engaged in scientific work in Vienna, and will spend some months in visiting the principal seismological observatories in Europe before returning to Australia next year. He will be attached to the Riverview College Observatory.

The annual meeting of the Hospital Saturday Fund of New South Wales was held recently in the Town Hall, Sydney, Sir Gerald Strickland presiding. The sum of £8800 was distributed among the various hospitals. Miss Strickland, who was present on the platform, handed cheques to the representatives of the institutions. Catholic hospitals received the following amounts:—St. Vincent's, £800; St. Joseph's, Hospital, £140; Lewisham Hospital for Women and Children, £315; Mater Misericordiae Hospital for Women and Children, £75; Sacred Heart Hospice for the Dying, £105.

Patrick Keane, the Dublin newsboy, whose ambition to emigrate to Australia has been fulfilled through the kind offices of the Hon. L. O'Loughlin, arrived by the Ballarat last week (says the *Adelaide Southern Cross* of August 1). Owing to Parliament meeting at noon on Thursday, Mr. O'Loughlin was prevented personally from going to the Outer Harbor to meet the little fellow. His son (Mr. C. O'Loughlin), however, went down. A pressman had a chat with the boy before he went ashore. 'I'm not sorry,' he remarked, 'that I've come to Australia. Mother cried when I left home, but I know I shall like here better than selling newspapers at home. I'm going to Mr. O'Loughlin's ranch, where I'll have some riding on horseback to do.'

The Convent of the Good Shepherd, and the Magdalen Refuge attached thereto, in Victoria road, Ashfield, Sydney, was opened and blessed on July 31 by the Archbishop of Sydney. Despite the fact that it was a week-day, there was a large gathering at the ceremony. The convent is, perhaps, the finest building in Ashfield, and is surrounded by several acres of gardens and park lands. Rev. H. McGuire (Lewisham) welcomed his Grace on behalf of the Sisters. He briefly pointed out that the work to be done was most important, and that everyone would extend their sympathy to the Sisters, and give them every encouragement. The property had been secured for £13,000, but a further sum of at least £3000 was necessary to equip it for active work. A laundry was to be built and machinery installed out of this sum, which would leave a total debt of £16,000 to be supported by the Sisters. The speaker doubted not that their work would meet with the success which it deserved, and felt assured of the practical co-operation of each and everyone present.

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 precious one.