

Science Siftings

By 'Volt'

Bricks and water.

Bricks are capable of absorbing about a pint of water each. Owing to this circumstance the captain of a ship that carries a cargo of bricks has to be careful that the leakage does not go undetected, the water being sucked up nearly as fast as it gets in.

A High Bridge.

The train bridge now building across the Royal Gorge in Colorado, will be the highest bridge in the world,—2,627 feet above the river below. Just at the point where this bridge is to stand, the abysmal chasm is only 50 feet wide at the bottom and 230 feet at the top. The rugged opposite walls rise almost vertically. Through this narrow gorge the waters of the stream rush with resistless force and fury.

How Rocks Grow.

Rocks do not grow in the sense that a plant grows. They may increase by accretion, and they may undergo chemical change. The old sea bed, being lifted up, becomes sandstone and limestone. The volcanic ash and lava strewn over the plains become tufa, hard enough for building stone. The pebbly shore of a river becomes conglomerate. The simple mineral does grow, however, when it takes a crystal form. The sparkling prism of quartz increases from an atom to a crystal as large as a forearm by a process of addition and assimilation, wonderfully slow, but beautifully regular, exactly as crystals of ice form on the window pane.

The Balloon Plant.

One of the curious devices of nature for scattering seeds is seen in the balloon plant of California. The fruit is yellow and is a little larger than an egg. It has the appearance of an empty bag, but it contains a watery substance, which evaporates or dries up when the fruit matures, a sort of gas taking its place. This gas is lighter than air, and the fruit flips back and forth in the wind until it finally breaks loose from its slender stem; rises into the air to a height of from seventy-five to a hundred feet, and sails away to fall in some distant spot and thus extend the growth of its kind.

A New Automatic Fire Indicator.

A new automatic fire indicator is thus described in 'La Nature of Paris: The 'securitas' may be placed at any point that needs watching, and serves also to indicate the abnormal heating of such substances as fats, coal, etc. It is placed on the circuit of an electric bell, which it operates as soon as the temperature rises to a certain point in the medium where it is placed. The apparatus is composed of a lower part shaped like a hemispherical vessel, closed hermetically by a diaphragm. This vessel is surmounted by a cylindrical portion having in its centre an adjustable screw completely isolated and protected by a cover. When the temperature rises, the air in the interior of the vessel expands, the central part of the diaphragm rises and touches the end of the adjustable screw. The circuit is thus closed and the bell rings, giving warning of the danger. Several devices of this kind may be installed in one establishment on one bell-circuit.

Typewriter for the Blind.

M. Dussand, the Frenchman, who has rapidly become known through a number of important practical inventions, has invented a new typewriter for the blind which is expected to revolutionise the writing of blind persons and enable them to write and read in the same manner and under the same conditions as those who can see. They will in future also need only a single alphabet instead of two, as heretofore. The apparatus is supplied with a row of keys, and if one, two, or more of these keys are pressed down with the fingers, the desired letter or the desired word appears. This new typewriter, with keys, is by far the most perfect instrument which has ever been offered to the blind for writing. It can be rapidly operated, and furnishes a regular writing that the blind can easily read. Another advantage of special importance is that the lines cannot run into each other. Tests have been made at the Ecole Braille for the Blind, at Paris, which have given the greatest satisfaction.

Intercolonial

A special cable message to the 'Advocate' states that Dr. Kenny, K.S.G., the well known Melbourne specialist, has been appointed Chamberlain of the Sword and Cloak to his Holiness the Pope.

On January 15, the Rev. W. Ganly left by the 'Ortona' on a twelve months' trip to Europe and the Holy Land. Many of the rev. gentleman's clerical and lay friends were at the ship's side to bid him bon voyage.

Rev. Brother Clement, who has presided over St. Joseph's College, Hunter's Hill, for the past six years, has been re-appointed Director for a further term of three years. This has given general satisfaction to all concerned.

Common coal tar has been demonstrated by Mr. P. Merrigan, of Springbank, Barnawartha, to be useful in destroying rabbits. A stone smeared with tar is placed at the mouth of a burrow, and it is found that a rabbit will not pass over it to enter or leave the burrow. A number of burrows dug out a few days after being experimented on with the tar were found to contain many dead rabbits.

In Catholic circles and in a wider sphere here (writes a Melbourne correspondent), and I think the same can be predicated of the Commonwealth and New Zealand, the high Papal distinction conferred on the eminent Melbourne specialist, Dr. Aloysius Leo Kenny, has given great satisfaction, and it is generally recognised that the genial specialist has fully merited the honor bestowed on him by his spiritual Sovereign, our Holy Father Pius X.

His Grace the Archbishop of Adelaide has decided on the following clerical changes in the archdiocese, which will take effect from May 1 next:—Monsignor Byrne, V.G., (who had retired from active duty) will resume the administration of the Goodwood parish, and the Rev. C. O'Donnell, who is at present in charge, will be transferred to Gleneig and Marion. The Rev. J. Hanrahan, who is at present in charge of the last named parish, will take charge of a new parish, comprising the Semaphore, Largs Bay, and the territory west of the Torrens at present included in the parish of Port Adelaide.

The following clerical changes have been made in the diocese of Perth:—The Very Rev. Dean O'Reilly from Coolgardie to York; the Rev. P. Lynch from York to Coolgardie; the Rev. P. Donagher from Busselton to Perth; the Rev. J. Maloney from Perth to Busselton; the Rev. M. Reidy from Albany to Ravensthorpe; the Rev. J. Reidy from Guildford to Albany; the Rev. T. O'Gorman from Perth to Boulder; the Rev. H. O'Reilly from Perth to Guildford; the Rev. J. Masterson from Perth to Kalgoorlie; the Rev. B. Fagan from Menzies to Victoria Park; the Rev. M. Grehan from Menzies to Cottlesloe; the Rev. T. Gilroy from Boulder to Menzies.

In reply to a newspaper representative, his Grace the Archbishop of Melbourne gave his opinion on the joint circular issued in England advocating an adequate observance of the Sunday, and which bore, amongst others, the signatures of the Archbishops of Westminster (Dr. Bourne) and of Canterbury (Dr. Davidson). His Grace said that the appeal was very timely and salutary. 'Where the obligations of the Sabbath are not observed,' he said, 'religion is certain to suffer. Man's chief duties are to God, and the Sabbath is set aside for the purpose of enabling a man to discharge these duties on that day in a fuller and more special manner than he has the opportunity of doing on the other days of the week. The Sabbath was intended for another purpose also, namely, the rest and reasonable relaxation of man after the labors of the preceding week. Where the two objects are conjoined the observance is, in the words of the appeal, adequate and reasonable observance of Sunday. 'It would,' he added, 'be impossible to state in any definition or form of words how, in each individual case, this fulfilment of the two classes of duties is to be accomplished. There are necessities on the part of the State, on the part of Society, on the part of private individuals, which must be taken into account. These vary in different times, and the object of the churches and the Legislature should be to reconcile them, as far as circumstances may permit, always bearing in mind that man's duties to God are primary and paramount.'