

Science Siftings

By 'VOLT.'

New Paper-making Process.

A new paper-making process described to the Paris Academy of Sciences has suggested new possibilities for the French colonies. Paper is made by felting cellulose, the elastic envelope of vegetable cells, and the new process is claimed to clean and make available much cellulose cheaper than that of wood. The plants include bamboo, alfalfa, poppy, sorghum, rice, maize, and seaweeds. Most promising of all is the banana, which on an equal area yields 133 times as much material as wheat, and is estimated to supply two tons of excellent pulp per acre every ten months, whilst the product of a pine forest, cut every sixty years, is only half a ton of pulp per acre annually.

White Paper from Black.

The paper of old newspapers and old books is used over again to make cardboard and coarse wrapping paper. Various attempts have been made to dissolve the oily or resinous part of the printing-ink with solutions of soap, petroleum, caustic sodas, and so forth, in order to wash away the black pigment afterwards. An American inventor has recently discovered a process for removing the ink pigment by treating the printed paper with boiling solutions of borax. The hope is expressed that this discovery may act as a check on the rapid deforestation of America, and avert a condition that has threatened to cause a crisis in the paper industry.

Tapioca.

Tapioca is produced from a plant which is a native of Brazil, and thrives in all tropical countries. It grows very rapidly, attaining maturity in six months. Tapioca, the commercial product, is a farinaceous substance prepared from cassava starch, which is made from large tuberous roots of the plant. The plant itself is bushy, and reaches a height of six or seven feet. The stems are white, brittle, and full of pith. The roots are larger, and resemble turnips somewhat. Some of them weigh as much as 30lb. From three to eight roots grow in a cluster. Both plants and roots contain a milky fluid, which is an acid poison. This is easily dissipated by heat and extracted. The roots are washed and grated to a pulp. The pulp is spread on iron plates and heated. The heat is sufficient to cause a partial rupture of the starchy granules, which burst into what is known as flake tapioca. Seed pearl tapioca is frequently known as sago. It is different from the ordinary pearl tapioca only in size and shape, caused by slightly differing methods of production.

The Action of Lightning.

A study of the action of lightning (says the *Globe*) provides us with many interesting facts, one of the most peculiar being that the victim of this subtle force is left in the very attitude in which he was surprised by death. Eight reapers who were eating their dinner under an oak during a violent thunder storm were all struck by the same flash of lightning, and later on a passer-by found them apparently still engaged on their meal; one had his hand in the dish, another was in the act of putting a piece of bread into his mouth, a third still held his glass; and yet all were dead—each stricken in the position he was in at the moment the discharge occurred. A woman was struck while she was plucking a flower; her body remained standing in a slightly bent position and with the rose still in her hand. It seems surprising that a dead body could thus preserve its equilibrium, apparently in contradiction to the laws of gravitation; but when lightning is in question nothing should surprise us. Some kinds of trees, notably the bay and pine, are supposed to be immune from lightning, but experience has proved that, though certain species are rarely struck, the exception is due to the size rather than the species. Telegraph posts and hedgerows which are wet should all be avoided, and it is advisable not to run in a storm.

Intercolonial

The Very Rev. John Ryan, S.J., has been appointed Superior of the Jesuit Fathers in Australia.

His Grace the Archbishop of Melbourne has appointed his Grace the Coadjutor-Archbishop Vicar-General.

The late Judge Casey, of Melbourne, left £1000 to form a nucleus of a fund for the building of a Catholic college in connection with Melbourne University.

On April 10 the Sisters of the Little Company of Mary (Nursing Sisters), at Lewisham Hospital, received news by cable of the death of Rev. Mother Mary, foundress and Mother-General of the Order. Mother Mary died at the head house of the Order.

His Lordship the Bishop of Armidale has received a beautiful and touching autograph letter from his Holiness the Pope, congratulating him on the completion and opening, free of debt, of his Cathedral. The letter was forwarded by his Eminence Cardinal Merry del Val, Papal Secretary of State.

A convent of the Sisters of the Good Shepherd from the Mother House, Abbotsford, Melbourne, will shortly be opened in Sydney. The Sisters have acquired a valuable property at Ashfield. At Abbotsford they shelter over 800 inmates. They have branches at Oakleigh, South Melbourne, Bendigo, Christchurch, Hobart, and Perth, West Australia.

The Church of SS. Peter and Paul, South Melbourne, which had been improved and added to, was solemnly blessed and opened on Sunday, April 13, by his Grace the Archbishop of Melbourne. The additions, which practically complete the edifice, and include sanctuary, chancel, priests' and boys' sacristies, cost about £10,000.

The Most Rev. Augustin Dontenwill, O.M.I., Titular Archbishop of Ptolemais (Syria), and Superior-General of the Oblates of Mary Immaculate, has arrived in Fremantle for the purpose of holding an official visitation of the Order under his control. He is accompanied by the Very Rev. Father Charles H. Lytton, of Dublin, and late Rector of St. Joseph's College, Colombo.

The annual district meeting of the H.A.C.B. Society of Victoria was opened in the Cathedral Hall, Melbourne, on April 16. The District Board in their annual report congratulated members on the splendid results shown for the year, both in funds and membership. The value of funds of the society in the State amounts to close on £84,000, being an increase during the 12 months of £5545. The total membership of the Society in the State (all classes) is:—Male branches, 8542; ladies' branches, 2405; juvenile branches, 94; grand total, 11,041, showing an increase of 424 members for the year.

His Grace Archbishop Mannix, in reply to an address of welcome presented to him by the Newman Society in the Cathedral Hall, Melbourne, dealt in the main with the education question. Short as was his acquaintance with local conditions, he said, he was aware that Archbishop Carr had given much anxious thought to the objects of the society, and it would not be his fault if Catholics did not in due time—and the sooner the better—take their proper place in the University of Melbourne. Catholics should be allowed to enter into free and open competition with all comers. They claimed no privilege, they asked for no exclusive or preferential right, and they were prepared to win on their merits or not at all. Surely logic and fair play were on the side of the Catholics, and logic and fair play would some time prevail in Australia. Scholarships established out of the public purse ought to be earmarked for ability and learning and the promise of future achievement, whether it came from a public high school or a Christian Brothers' College. To apply these prizes to bolster up a party or a party system was indefensible educationally and politically. Catholics would never be satisfied until the last vestige of sectarian privilege was wiped off the statute books of State and Commonwealth.