

Science Siftings

By 'VOLT.'

Utilising the Chestnut.

The soapy nature of the kernel of the horse-chestnut has led investigators to search for a way to utilise it in removing dirt and grease from textile goods. According to a French journal, several methods of extracting this soapy substance have been patented, and, moreover, profitable uses have been found for other constituents of the horse-chestnut. The shell is rich in tannin, and is used in preparing an extract for tanning leather. The kernel contains about six and six-tenths per cent. of a pale yellow oil similar to almond oil. After the oil has been extracted, the residue, treated with dilute alcohol, yields an extract containing about fifteen per cent of esoulic acid, a saponaceous substance that has excellent lathering and cleansing properties. The material left after the oil and soap have been removed, can be made into a white starch. When treated with cold water to remove the bitter principle, it is suitable for food.

Paper Gas Pipes.

Paper, it is stated on French authority, can now be used for making serviceable gas pipes, and two processes of manufacture are in use. In the first the pulp is run into a mould, through which runs a mandril; it is then compressed, dried, and varnished. The tubes thus produced are rigid and little liable to breakage; they keep well, and are capable of rendering good service. In the second process sheets of Manila paper are cut to a breadth equal to the desired length of the tube, and then passed through a bath of the cementing material, asphalt in a state of fusion. From this, when half cold, they are rolled tightly and uniformly round an iron bar which forms the cone. Successive sheets are added until the desired thickness has been attained. The tube thus formed is subjected to pressure in a special machine, and covered with fine sand, which adheres to the asphalt. The whole is plunged into water to finish the cooling, and exterior and interior are finally rendered impermeable by a material which has silicate of alumina as a basis.

Greatest Ocean Depths.

There is nothing pertaining to the ocean which more easily carries away the imagination than the sense of its profundity. And yet when the first scientific measurements of sea depths were made there was probably a general sense of disappointment following their announcement. The ocean did not seem quite so deep when measured in feet, or fathoms, as when measured only by the elastic standards of fancy. The deepest of the oceans is also the broadest, the Pacific. Its greatest depth, as far as known, lies about one-third of the way from Oregon to Japan, where bottom has been found at the enormous depth of 28,027 feet, or more than five and one-quarter miles. The third greatest depth, 27,171 feet, is in the South Pacific, near the Friendly Islands. The greatest depth of the North Atlantic, and the second greatest depth yet measured, is 27,358 feet, just north of Porto Rico. There are many profound depressions in this part of the sea basin. Between Cuba and the Grand Cayman there is a hole 20,562 feet, or almost four miles, deep. Next after the Atlantic comes the Indian Ocean, with a greatest depth, south of Java, of 20,352 feet. The Arctic Ocean ranks next, with a record of 14,894 feet between Spitzbergen and Greenland. The China Sea is 14,097 feet in depth west of the Philippine Islands. The Mediterranean's greatest depth is 14,432 feet south-west of Greece. The greatest depth of the Black Sea is 8587 feet; that of the North Sea, at the Skagerrack, 2650; that of the Baltic, 1390, while the Antarctic Ocean attains a depth of 11,847 feet, near the edge of the so-called Antarctic Continent.

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Intercolonial

The golden jubilee of the Rev. Brother John Barnabas Lynch was celebrated by a High Mass in St. Patrick's Cathedral, Melbourne, on September 8.

Rev. Father W. A. Ryan, who has been transferred from Colac to the Camperdown parish, was tendered a farewell banquet recently, and presented with an illuminated address. The entertainment took place in the Victoria Hall, Colac, and was presided over by Mr. H. M. Powell. There was a large attendance of parishioners and friends, and speeches expressive of the high esteem in which Father Ryan was held, and regret at his departure, were made by a number of gentlemen present.

Mr. John McCormack and his wife arrived in Sydney by express from Melbourne on August 31, and lost no time in renewing friendships they had made during their previous visit. Mr. and Mrs. McCormack have taken a house at Rose Bay for some months, and will make Sydney their headquarters during the tour. Mr. O'Brien, the pianist of the company, is very much pleased with what he has seen of Australia, and has been saying nice things about it. Mr. McCormack was tendered a reception at the Town Hall by the Lord Mayor. The Premier and the Minister for Lands were amongst those present.

At the annual movable conference of the southern division of the Queensland district of the H.A.C.B. Society, held recently at Childers, his Grace Archbishop Duhig presided. According to the District Executive officers' report submitted at the meeting, the capital value of the funds to the credit of district and branches now amounts to £56,658 13s 9d, an increase of £6658 16s 3d for the year. The disbursements for benefits to members and their representatives were as follow:—Funeralage and compensation money, £520; mortality allowance, £920; sick pay, £3593 2s 7d; medical attendance and medicine, £5470 19s 11d; total, £10,494 2s 6d, as against £9634 3s 10d paid away during the preceding year.

There was a distinguished assemblage of prelates and priests at the golden jubilee celebrations at the Convent of the Good Shepherd, Abbotsford. His Grace the Archbishop of Melbourne, his Grace the Coadjutor-Archbishop, his Grace the Archbishop of Sydney, his Lordship the Bishop of Bendigo, his Lordship the Bishop of Ballarat, the Very Rev. the Vicar-General, Very Rev. Prior Scanlan, O.C.C., Very Rev. Dr. Hayden (Sydney), Right Rev. Mgr. Coonan, V.G. (Sydney), and others were present. The Coadjutor-Archbishop pontificated, and the occasional sermon was delivered by the Superior of the Redemptorists (Very Rev. C. J. Hunt, B.A., C.S.S.R.), who paid a graceful tribute to the self-sacrificing work of the Sisters of the Good Shepherd during the past fifty years. He quoted interesting statistics showing how the mustard-seed planted fifty years ago had flourished exceedingly.

On Sunday evening, August 31, St. Patrick's Cathedral, Melbourne, was crowded, on the occasion of the unveiling of a mural tablet to the late Professor Frederic William Beard. The memorial has been provided by the Cathedral Choir, the Victorian Festival Choir, and the National Operatic Society. After Vespers his Grace the Archbishop preached on 'Church Music,' and, in concluding his discourse, said: As a typical representative of church music, they were that evening honoring the late Professor Beard. No one had a higher or more accurate idea of what church music should be than the late conductor of the Cathedral choir. No one labored so zealously to fill his whole choir with enthusiasm for the meaning and the value of church music. He (his Grace) was glad to see them honoring the memory of Professor Beard, who was a great church musician, brimful of art, faith, and piety. He carried out, in its entirety the principle laid down by the Church in rendering of sacred music. He observed the practice of rendering the 'Introit,' 'Gradual,' 'Offertory,' and 'Communion' in plain chant, whilst the 'Kyrie,' 'Gloria,' 'Credo,' and 'Sanctus' were rendered in harmonised music.

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