

Science Siftings

By 'Volt'

Concerning the Ocean

The oceans occupy three-fourths of the surface of the earth. A mile down the sea, the water has a pressure of a ton to every square inch. If a box 6ft. deep was filled with sea water, which was then allowed to evaporate, there would be 2in. of salt, left in the bottom of the box. Taking the average depth of the ocean to be three miles there would be a layer of salt, 440ft. thick covering the bottom, in case all the water should evaporate. In many places, especially in the Far North, the water freezes from the bottom upward. Waves are deceptive things. To look at them, one would gather the impression, that the whole water travelled. This, however is not so. The water stays in the same place, but the motion goes on. In great storms waves are sometimes 40ft. high, and their crests travel fifty miles an hour. The base of a wave (the distance from valley to valley) is usually considered as being fifteen times the height of the wave. Therefore a wave 25ft. high, would have a base extending 375ft. The force of waves breaking on the shore is seventeen tons to the square foot.

Air-ships

Rudolph Martin, Imperial Councillor of Germany, has recently made an interesting statement on aeronautics. 'Within ten years (he says) trans-Atlantic passages through the air, will have become a regular and normal method of journeying between Europe and America. The air voyages will be made in four days at a cost of fifty dollars for a first-class ticket. This is not the statement of an enthusiast, but is a sober statement based on scientific deductions. Only those directly interested know what giant strides have been made in the past few years in air-ships. The principle of air navigation has been solved, and the world is on the point of seeing the principal put into practical operation. The type of air-ship that will be employed for travelling between America and Europe, will undoubtedly be based on the aluminum vessel of Count Zeppelin! It will have a cubic measurement of about 1,000,000 feet, will be from 600 to 700 feet long, and will be able to carry about thirty passengers. It will be able to make the distance between Hamburg and New York in 100 hours. Such an air-ship will cost about £75,000. to build. I may say that inventors are already figuring on the construction of such air-ships, and that how they will be navigated and successfully carried from shore to shore is already known to man. The air-ship, in my judgment has passed the experimental stage, and is now entering that of practical usage'.

Trees that yield good soap

Consul General Guenther of Frankfort, reports the following interesting item: Mr. S. Bertrand, chairman of the Algerian Agricultural society at L'Arba near Algiers, has succeeded, after numerous experiments, in cultivating a large plantation of soap trees. From it are taken thousand tons of berries annually. The soap tree resembles an apple tree of medium growth. The fresh fruit is green, the interior of which, besides the kernel, contains a yellowish gelatinous, sticky substance. The fruit used for making soap contains three times as much soap as the 'panama' wood. It seems destined to be of great service to the cloth and linen manufacturers, and, above all, for domestic purposes, as it can be used to clean linen and silken fabrics and colored embroideries. The colors are in this way renovated, whereas, the use of ordinary soap makes them run together.

Big Concrete Bridge Span

What is likely to be for some time, the longest concrete bridge span in the world, is that in a structure in Philadelphia, now being erected. The main span is to be 233 feet long, and 120 feet high, and, with four other spans, this bridge will have a length of 520 feet. Its breadth is 60 feet. In parts of the structure reinforced, concrete will be used, but most of it, will consist of plain concrete, without any steel in it. The cost is to be over £50,000, and the work will be completed in about a year. For the purpose of comparison, it is interesting to note that arches of masonry (not concrete) exist in Washington, having a length of 219 feet; in Luxembourg, Germany, 275 feet long, and in Plauen, Germany, 295 feet long.

Money and friends are often synonymous.
The worst of all faults is to have none.

Intercolonial

The death is reported of the Rev. M. Hanley, of Molong. By the death of Father Hanley the Bathurst diocese loses a worthy pastor. Father Hanley had been ill of late. He was very popular in Molong, and his death has evoked expressions of sincere regret from townspeople of every persuasion.

News has privately reached Melbourne that Amy Castles is shortly coming on a professional tour to Australia under the aegis of J. C. Williamson. She will lead a strong, selected company of singers. A chorus is already being organised in Melbourne, and trained to support her.

Lectures are being delivered in Melbourne and Adelaide in aid of the testimonial to Mrs. O'Doherty ('Eva'). In Adelaide Senator O'Loughlin, and in Melbourne Mr. Hugh Mahon, M.I.R., are actively interesting themselves in the movement. A meeting has been held for the same purpose in Sydney, and in West Australia Mr. P. Whelan, of Kalgoorlie, is promoting the testimonial.

A neatly printed booklet, giving the list of subscribers (14,000) to the Archbishop's jubilee testimonial fund, has been published (writes the Melbourne correspondent of the 'Freeman's Journal'). The brochure is enclosed with an artistic and appropriate cover. The publication was turned out from the 'Advocate' office, and, like the other issues from that publishing house, has given much satisfaction.

The 'Advocate' reports the death of a highly respected resident of Richmond in the person of Mr. William Stephen Cleary. The deceased had the consolation of the presence at his deathbed of three of his daughters, who are Sisters of Charity. The late Mr. Cleary, who was born in Dungarvan 75 years ago, was a brother of the Most Rev. Dr. James Vincent Cleary, Archbishop of Kingston, Canada.

The recent additions to St. Vincent de Paul's Church, Ashfield, mark the completion of the main body of the church, including the west front, baptistry, portion of the tower, and three confessionals. The foundation stone of the church was laid by his Eminence Cardinal Moran thirteen years ago, and on Sunday, October 13, in the presence of a large gathering of the faithful, he solemnly blessed and opened the sacred edifice.

The Rev. J. Fleming, recently promoted from assistant priest at Wagga to the charge of the Ganmain parish, was on October 9 presented with an address and a purse of sovereigns from the parishioners of St. Michael's Church, Wagga, as a token of their esteem and regard. The ceremony took place in St. Joseph's Hall, and was presided over by Mr. P. J. M'Alister. Amongst those present were: Monsignor Buckley, V.G., Rev. E. Laide, and the leading laymen of the parish.

By the 'Orontes,' which reached Adelaide on October 14, the Very Rev. Provincial Comnee of the Irish Province of the Jesuit Fathers was a passenger. Father Comnee was accompanied by the following members of the Order:—Rev. Fathers Baker, S. Foster, Davis, Morris, and Mackay. The party was welcomed at the Semaphore by the Very Rev. John Ryan, Superior in Australia.

His Grace the Archbishop of Hobart celebrated on Sunday, October 13, the 61st anniversary of his episcopal consecration. He is the oldest Bishop in the Church, the doyen of the episcopate in years and in length of episcopal reign. He is, too, probably, the oldest priest in the world. 'He is still hale and hearty,' says the 'Monitor.' 'Considering his years—ninety-three—he is marvellously so. His flock and many outside it will join with us in a fervent prayer that he may be still longer preserved to us.' His Grace was consecrated Bishop of Philadelphia and Vicar Apostolic of Hyderabad, India, in Kinsale, Ireland, on October 11, 1846.

The will of the late Mr. J. A. Chalk, of Ballarat, has been valued for probate purposes at £20,000. He bequeathed £850 to Catholic charities, as follows:—Convent of Mercy, Ballarat East, £50; Brigidine Convent, Echuca, £400; Nazareth House, Ballarat, £200; the Convent of Mercy, Echuca, £200; the Brigidine Convent, Rochester, £100; the Presentation Convent, Windsor, £100. Mr. Chalk, in his will, also directed that £20 should be expended in the purchase of tobacco for 'the poor old inmates of the Ballarat Benevolent Asylum.' Deceased was by religion a Quaker. His daughter, who died in the convent at Echuca about eight years ago, was a nun of the Brigidine Order.

DEAR ME!

Forgotten that SYMINGTON'S COFFEE ESSENCE! Whatever shall I do? Call at the nearest Store and ask. THEY ALL KEEP IT