

## Science Siftings

BY 'VOLT'

### A Curiosity About Eclipses.

The average number of total and partial eclipses in any one year (says an exchange) is four, the maximum seven and the minimum two. There is nothing really peculiar in this except the fact that where only two occur they are always both of the sun.

### India Rubber.

Few articles seem more strangely named than India rubber. It gets the 'rubber' from the first use to which it was put—that of erasing pencil marks by rubbing. Nor should it be associated with India. The tree was first mentioned by an explorer among the Mexican Indians three centuries ago, and the first account of the substance occurs in connection with Columbus' visit to Hayti on his second voyage. Most of our present importation comes from Brazil. But Columbus and those explorers who followed him were searching for a short passage to India, and they supposed that the land they discovered was India. The name India rubber is therefore a permanent sign of their mistake.

### Atmosphere of the Sun.

If some of the latest results of astronomical investigation are to be accepted, the atmosphere of the sun is 5000 miles deep, and is composed of various gases and vapors of metals. Then, as observed through the telescope, its surface is covered with minute white forms, apparently floating in an ocean of greyish fluid, these being clouds, composed not of water, but chiefly of carbon, and it is argued that, just as the electrician uses carbon for producing the brightest of artificial lights, so the sun employs the same agent in the production of its transcendent light and heat, the sun clouds being, in fact, made-up of drops of liquid carbon, which have a radiance vastly exceeding that of the well-known glow of the filament in an electric lamp.

### Panama Hats.

The Panama is a leaf hat made in Colombia, Ecuador, and Peru from the undeveloped leaf of the 'bombonaje,' which is a screw pine rather than a palm. The trunk of the plant is only a yard in height, but the leaf stalks are two yards long. The leaf before it has opened is prepared for the manufacture of hats. It then consists of a bundle of plaits about two feet long and an inch in diameter called a 'cogollo.' The green outside is stripped off, and by means of a forked instrument it is cut into narrow strips of uniform size. The cogollo is next boiled to toughen the fibre and hung in the sun to dry and bleach, when the strips shrivel into cordlike strands ready for use. It takes sixteen cogollos for an ordinary hat and twenty-four for the finest, and a single hat is plaited in from four days to as many months, according to its texture and quality.

### Genesis of the Hailstone.

If it were not for the countless trillions of dust particles that float separately invisible in the atmosphere, there could be no rain drops, snow crystals, or hailstones. From a perfectly dustless atmosphere the moisture would descend in ceaseless rain without drops. The dust particles serve as nuclei about which the vapor gathers. The snow crystal is the most beautiful creation of the aerial moisture, and the hailstone is the most extraordinary. The heart of every hailstone is a tiny speck of dust. Such a speck, with a little moisture condensed about it, is the germ from which may be formed a hailstone capable of felling a man or smashing a window. But first it must be caught up by the current of the air and carried to the level of the lofty cirrus clouds, five or six or even ten miles high. Then, continually growing by fresh accessions of moisture, it begins its long plunge to the earth, spinning through the clouds and flashing in the sun like a diamond bolt shot from a rainbow.

For Bronchial Coughs take Woods' Great Peppermint Cure. 1s 6d and 2s 6d.

The New Zealand State Coal Depot, Dunedin, is now open for the sale and delivery of coal at reduced prices. The town office is at 35 Dowling street, and the depot is at the Jetty street wharf.

## Intercolonial

The Rev. G. A. Shannon, of Temora, was recently presented with an address, a horse, and buggy by the parishioners as a mark of their esteem.

The Ven. Archdeacon Beechinor, of Launceston, met with a nasty accident the other day. He was hurrying through a fence near his presbytery when he fell, dislocating his ankle and breaking one of the bones therein.

According to a return prepared by the Victorian Government Statist, there were 4530 factories in Victoria last year. In 1903 they numbered 4151. The hands employed have increased by 17,674, which is equal to over 24 per cent., in four years; the value of the machinery, plant, etc., by £2,169,259, or about 17 per cent.; wages paid by £1,408,852, or nearly 31 per cent.

Mr. Michael Real, of Ipswich, a brother of Mr. Justice Real, died on June 25. Mr. Real, who was in his 69th year, came to Queensland with his parents in the early fifties, from Pallas, County of Limerick, Ireland. The deceased's father died on the voyage, and after arrival in Brisbane the sorrowing family removed to Ipswich, where the deceased had resided ever since.

Speaking at a concert and distribution of prizes in connection with the St. Vincent de Paul Boys' Sports Association, held in the Catholic Hall, Melbourne, recently, the Very Rev. Dean Phelan, V.G., said that the training of boys as cadets would make them efficient as defenders of public and private property. The man who was known to be able to use his hands effectively, having been trained in the useful art of self-defence (boxing), found that the burglar gave his house a wide berth.

On May 20 his Grace the Archbishop of Melbourne and his Lordship the Bishop of Ballarat reached London by the India, having boarded that vessel at Gibraltar. Both prelates were in the enjoyment of excellent health and spirits at the date of the Archbishop's letter to the Very Rev. Dean Phelan, V.G. The passage was ideal and the passengers most excellent company. After spending some time in Ireland, the prelates will proceed to Rome.

The programme for the proposed reception to the American Fleet by the Catholics of Sydney was finally adopted at a large meeting held in the Cardinal's Hall on June 30. In the afternoon a meeting of the ladies of the Archdiocese was held in the same hall, at which the question of holding the entertainment at Manly or the Town Hall, Sydney, was brought forward. The consensus of opinion was that the natural beauties of St. Patrick's College grounds would materially add to the success of the reception. At the meeting of the gentlemen his Eminence the Cardinal explained the difficulties which had arisen in regard to holding the function at Manly; and it was unanimously decided that, as the Town Hall offered special facilities for the entertainment, it should be held there.

The enrolment of the Catholic Cadets has now been completed (writes the Melbourne correspondent of the 'Freeman's Journal'). The total strength is 1341. St. Augustine's Orphanage Band, Geelong, supplies 44 and the boys 118, and St. Vincent's Orphanage Band, South Melbourne, 45. The primary and secondary schools have come up to the expectations of the promoters of the movement. The Very Rev. Dean Phelan, V.G., has explained how the Catholic Cadet movement has developed. Last year his Grace the Archbishop had the matter under consideration, and being very much in favor of the proposal, instituted inquiries with the object of ascertaining how the corps could be formed without increasing the burden on the parents, who had not only to pay their share for State education, but to support their own schools. Another difficulty was that the members of religious Orders who taught the boys could not act as officers or join in the drill exercises. The first objection was to a great extent removed when the department agreed to pay 7s 6d per year to each cadet toward the cost of uniforms, and the second was met by the Superior of the Christian Brothers giving permission that lay teachers and ex-students could be appointed as officers and conduct the exercises.

The deepest mine is the Lambert coal mine in Belgium, which extends 3490ft into the earth.

The great annual winter sale is now on at the New Zealand Clothing Factory, Princes street, Dunedin. Now is the time to order a tailor-made suit, and thus save ten per cent....

# DEAR ME!

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