

Science Siftings

By 'VOLT.'

Construction of Cargo Steamers.

Increase in size is accompanied by reduction in cost of construction and operation of cargo steamers. A cargo vessel 400 feet long and weighing 3700 tons will carry 4000 tons of cargo 3000 miles on a consumption of 500 tons of coal. Each hundred tons of cargo will involve $92\frac{1}{2}$ tons of structural material and $12\frac{1}{2}$ tons of coal per voyage. In a vessel 500 feet long, weighing 8700 tons, each 100 tons of cargo will require only $77\frac{1}{2}$ tons of ship and 8 tons of fuel.

Wireless Lighthouses.

Trinity House is following very closely an experiment in the use of Hertzian waves, and it is believed that the system will prove of far more lasting value than coast lights, since it can be successfully employed in foggy weather when the lighthouses cannot be seen. Several steamers are now fitted with what are known as direction finders. When near a wireless station on shore, the navigating officer of a ship can, with the assistance of one of these instruments, take bearings under the worst of weather conditions and thus lessen risk of collision. Some experts, in fact, look forward to the gradual extinction of coast lights. On the North Coast of France the French Government has for some time been experimenting with special stations for the purpose, the signals being emitted at regular intervals.

Air Scout's Phonographs.

When the military aeroplane is scouting, it usually carries two men. One is the pilot, who runs and steers the craft; the other is the observer, who marks the placing of the hostile troops, the position of their guns, the movement of trains, and the like. The observer also makes many sketches of the ground over which he is flying—work that often interferes with his writing notes and memoranda. In certain conditions of flight, too, it is often hard for him to use a pencil and paper. To obviate that difficulty the military aeroplane now frequently carries a phonograph, with a speaking-tube running to the mouth of the observer, so that by talking into the machine at any time during the flight he can record his observations, and still have his hands free for his field-glass or his sketching pencil.

Proving the Earth's Motion.

It has puzzled a good many people to know how the earth turns round. The following directions are given for proving that the earth 'does move.' Take a good-sized bowl, fill it nearly full of water, and place it upon the floor of a room which is not exposed to shaking or jarring from the street. Sprinkle pulverised chalk over the water. Then upon the surface of this coating make, with powdered charcoal, a straight black line, say an inch or two in length. Having made this little black mark with the charcoal powder on the surface of the contents of the bowl, lay down upon the floor close to the bowl a stick, or some other straight object, so that it will be exactly parallel with the mark. If the line happens to be parallel with a crack in the floor or with any stationary object in the room, this will serve as well. Leave the bowl undisturbed for a few hours, and then observe the position of the black mark with reference to the object that it was parallel with. It will be found to have moved about, and to have moved from east to west—that is to say, in the direction opposite to that of the movement of the earth on its axis. The earth, in simply revolving, has carried the water and everything else in the bowl around with it, but the powder has been left behind a little.

ELECTRIC MASSAGE

in your own home by means of the Zodiac machine—a wonderful apparatus easily carried in the pocket. Never requires recharging. For all pains, rheumatism, neuralgia, etc., is unequalled. Thirty shillings, post free, from WALTER BAXTER, Chemist, Timaru....

Ohakune

(From an occasional correspondent.)

On Sunday, July 11, an event which made the day a memorable one in the lives of the children of the district, took place in St. Joseph's Church, Ohakune. On that day forty-seven boys and girls made their First Communion. From distant Ruarimu, Horopito, Rangataua, and Raetihi they came, being gathered together by our esteemed pastor, Rev. Father Menard, to complete their instruction and preparation for Holy Communion with the children of Ohakune. Here they spent a week, being billeted on various Catholic families, who generously provided for their accommodation, and a daily school of religious instruction was held from 9 a.m. until 3 p.m. in charge of two of the Sisters of St. Joseph from Wanganui. The parish owes a deep debt of gratitude to the Sisters for their noble work in sacrificing their well-earned holidays, and coming into the back-blocks to care for the spiritual needs of the little ones. The daily exercises made a marvellous improvement in the children, and on Sunday morning it was truly an edifying sight to see the little girls in their tasteful dresses of white, with wreaths and veils, and the boys with white sashes, devoutly reciting the prayers aloud, and to hear their singing at Mass the hymns which the Sisters had taught them. Both morning and evening, Father Menard gave addresses particularly suited to the children, and it is certain the impression made on their young minds will never be effaced. After Mass, Mr. and Mrs. A. W. Gould entertained the whole of the children at a Communion breakfast.

Subsequently they returned to the church, where all were enrolled in the Scapular of our Blessed Lady, and in the evening the First Communicants renewed their Baptismal vows. The day was a happy one for the young folk, and will doubtless be a source of many blessings to them.

In the afternoon a reception of Children of Mary was held, and here again another good work, inaugurated by our parish priest, was furthered.

The visit of the Sisters has been greatly appreciated here, and during their stay several aspirants have expressed a desire to join the Order. In the course of his address on Sunday, Rev. Father Menard, on behalf of the congregation, thanked the good Sisters for their visit and work, and expressed a wish that ere long they might be permanently established in our midst.

GOUT, SCIATICA, RHEUMATISM CURED BY RHEUMO.

These are blood diseases, caused by excess uric acid in the system, and the way to effect a lasting cure is by purifying the blood. Eliminate the poisonous acid—and you remove the cause of the disease, thus the pain and inflammation cannot remain. RHEUMO is a specific which neutralises and expels the uric acid, removes the pain and reduces the swelling at the joints. Long standing cases yield as surely as occasional attacks. Mr. Francis McGuire writes:—'For two years I have been a martyr to Sciatica, have had a course of Electric Massage, besides going to Te Aroha for the baths: have now been in Napier seven weeks, taking hot salt water baths, but all in vain: had tried almost every supposed remedy until a week ago a friend persuaded me to try RHEUMO. I've taken *only two bottles*, and the result is simply wonderful: can now walk and stoop with ease, and feel sure that another two or four bottles will make me as right as ever.' Let RHEUMO cure you. 2/6 and 4/6.

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