

Science Siftings

BY VOLT

Wild Horses of Russia.

In the steppes of Russia, where wolves abound and the horses lead a wild life and have to shift for themselves, it is said that a young colt will sometimes be made so furious by the persecutions of his enemies that he will rush wildly among a drove of wolves and bite and strike until he has slaughtered a large number of them. These horses are exceptionally fierce, rendered so, it is supposed, by the extreme variations in the climate. At one time of the year they suffer from the intense heat of a tropical sun, and at another they live among raging snowstorms and extreme cold.

Seeing One's Own Voice.

An ingenious machine has been invented by means of which sound can be visualized. All sound comes from air vibrations, which radiate from the centre of a circle, just as when a stone is thrown into a still pond the water vibrates into little waves. The air waves of sound are, however, invisible, and though they can be measured they cannot be seen. By using a small flame and rapidly rotating mirrors, Mr. Brewer Brown, the inventor, is able to show a continuous picture of the vibrations caused by the human voice, which vary, of course, according to the note sounded. It is very difficult for a person to hear whether his own voice is sounding a correct note, but by means of Mr. Brown's machine he can see for himself.

Evolution of the Piano.

The piano, as we see it to-day, is the growth of centuries of invention. In its infancy it was a harp with two or three strings. From time to time more strings were added, and after a while the cithara was born. The cithara was in the shape of the letter P, and had ten strings. It took many centuries for musicians to get the idea of stretching the strings across an open box, but somewhere about the year 1200 this was thought of and the dulcimer made its appearance, the strings being struck with hammers. For another hundred years the hammers were held in the hands of the players, and then a genius invented a keyboard, which, being struck by the fingers, moved the hammers. This instrument was called a clavicytherium, or keyed cithara. This underwent some modifications and improvements from time to time. In Queen Elizabeth's time it was called a virginal. Then it was called a spine, because the hammers were covered with spines or quills, which struck or caught the strings of wires and produced the sound. From 1700 to 1800 it was much enlarged and improved, and called harpsichord. In 1710, Bartolomeo Christoff, an Italian, invented a key or keyboard such as we have now substantially, which caused hammers to strike the wires from above, and thus developed the piano. In the past 150 years there is no musical instrument which has so completely absorbed the inventive faculty of man as the piano.

A Dead Mammoth.

In 1846 a young Russian engineer, Benkendorf, saw the River Lena in Siberia release a dead mammoth frozen ages ago in the bog. There had been exceptionally warm weather in the north of Siberia, and the river, swollen by melting snow and ice and torrential warm rains, swept out of its old channel and carved a new one, carrying to the sea vast quantities of its former banks and furrowing up the thawing bogs over which it raced. As he made his way in a steam cutter against the current Benkendorf saw the head of a mammoth appear above the flood. Rush upon rush of water more and more released the body. Its hind legs were still embedded when he saw it, but twenty-four hours liberated these. The mammoth had sunk feet first into a bog. The ooze had frozen over it. Successive tides had heaped soil and vegetation upon it. Bone and flesh and hair were perfect. They secured it. They cut off its tusks. They dissected it and found in its stomach the last meal it had eaten, young shoots of the fir and pine and masticated fir cones. They were still at work when the river, spreading farther, engulfed them. The men escaped, but the waters surged over the mammoth and carried it for carrion to the sea.

Messrs. Whitaker Bros., Wellington and Greymouth, are about to publish a new and enlarged edition of the *St. Cecilia Hymn Book*. The work, which is being printed by the N.Z. Tablet Company, will be ready about the beginning of next month....

Intercolonial

Ensign Robert Emmet, of the American battleship Connecticut, a descendant of the famous Irish patriot of the same name, was the guest of his Eminence the Cardinal while in Sydney.

Mr. T. Dalton, K.C.S.G., has been appointed Vice-Consul in Sydney for Spain. The late Major Freehill was Consul for Spain, and during his absence in Europe his law partner, Mr. Frank Donovan, was Acting-Consul.

The Government has brought down a Bill for the assistance of mining in Victoria. The vote (£100,000) will be expended in developing gold and coal and other mineral fields. Pearls (some fine samples of which have been found in Gippsland streams) are also to be included.

Rev. Father Gleeson, Catholic chaplain of the American fleet, was honored at a social gathering at St. Mary's Presbytery, Sydney, when a number of his old fellow-collegians at Mount Melleray met him. His Eminence the Cardinal presided, and proposed Father Gleeson's health in felicitous terms. Among those present who were schoolmates with Father Gleeson at Mount Melleray in Ireland were the Rev. Fathers P. C. Cregan, of St. Columba's Seminary, Springwood; R. Collender (Surry Hills), J. Carroll (Moss Vale), P. Corbett (of Picton), and several other priests from the neighboring dioceses.

The main feature of a tour of the Sydney hospitals made by a number of the medical officers of the American fleet (says the *Catholic Press*) was a delightful entertainment given by the Rev. Mother and the community of the Lewisham Hospital. A score of naval medicos, conducted by members of the faculty in Sydney, visited the principal city hospitals in the morning, and, travelling in motors lent by the Automobile Club, they proceeded to the picturesque institution at Lewisham, which is presided over by the Sisters of the Little Company of Mary. After going through the wards and round the grounds, they entered the refectory, where luncheon was served. His Eminence Cardinal Moran, who met the party at the hospital, presided at table. The Right Rev. Monsignor O'Haran, the Rev. Father Gleeson, and the Rev. Dr. Bourke (of Lewisham) were also of the company, which sat down to an exquisite repast, that was the subject of more than one eulogy in the post-prandial speeches.

A reception in honor of the American fleet was held in the Cardinal's Hall, Sydney, on Sunday evening, August 23. The hall was artistically decorated with bunting, and graceful festoons were suspended from the ceiling. His Eminence the Cardinal received the guests, and was assisted by their Lordships Dr. Gallagher (Bishop of Goulburn), Dr. O'Connor (Bishop of Armidale), Dr. Dunne (Bishop of Wilcannia), Dr. Duhig (Bishop of Rockhampton), Dr. Dwyer (Coadjutor-Bishop of Maitland), Monsignor O'Haran, and the Cathedral priests. Fully three thousand visitors were received, many of whom remained to enjoy the attractive musical programme. The officers and men of the fleet attended in considerable numbers. The Rev. M. C. Gleeson was a prominent figure. Amongst those present were the Lord Mayor of Sydney (Alderman Thomas Hughes), the Federal Attorney-General (Mr. Groom), Alderman J. L. Mullins, the Hon. J. Meagher, M.L.C., Mr. G. S. Beeby, M.L.A., J. R. Dacey, M.L.A., and Mr. J. L. Trefle, M.L.A.

The D.I.C., Dunedin, is now opening up attractive spring novelties in dress materials, blousings, millinery, and ready-to-wear garments. A complete range of patterns sent on application....

IN AN INCUBATOR.—Mr. John Hogg, near Bluffton, Ind., is one of the enterprising poultry men who has found advantage in the use of Acetylene for incubator heating. Mr. Hogg uses Acetylene for lighting his house. Recently when he started his incubator containing four hundred eggs he connected up Acetylene for supplying the heat in place of the kerosene lamp formerly used. The claim he makes in the way of gains by using Acetylene is a saving of cost over oil, while more important still is the securing of an unvarying heat for the necessary period.

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