

Science Siftings

BY 'VOLT'

Speed of Electricity.

Electricity, when unretarded by atmospheric influences, travels at the rate of 288,000 miles a second. Along a wire it is, of course, vastly slower; a perceptible period of time is occupied by the electric current in sending telegrams.

Chinese Paper.

The Chinese peasant knows nothing of the scientific methods of paper-making pursued in western lands. He manufactures it in the traditional Chinese manner. To him the spring, stream, or well of clear water is indispensable in the practice of his art. If this good water is not found in a locality that he regards as otherwise favorable, it is useless for him to think of establishing a paper mill there. The grinding and kneading of the basic material is hard work, and is performed by mules or oxen, which draw the heavy, massive millstones. Later the pulp is stirred and beaten vigorously with wooden mallets by two men. The beaters accompany their toil with a rhythmic song.

The Manufacture of Needles.

In factories where needles are made the grindstones throw off great quantities of minute steel particles, with which the air becomes heavily charged, although the dust is too fine to be perceptible to the eye. Breathing the dust shows no immediate effect, but gradually sets up irritation; usually ending in pulmonary consumption, and formerly workmen almost all died before the age of forty. Ineffective attempts were made to screen the air by gauze or linen guards for nose and mouth. At last the use of the magnet was suggested, and now masks of magnetized steel wire are worn by workmen, and effectually remove the metal dust before the air is breathed.

Music-charmed Water.

Interesting experiments showing the influence of a tuning fork on jets of water have been made at the Royal College of Science, Dublin. A jet of falling water consists ordinarily of two parts, a clear column and a troubled portion. When the troubled part is photographed, with the aid of electricity, it is seen to be composed of a succession of drops following one another too rapidly to be separately perceived by the eye. These drops are irregular in size, shape, and distance. But if a vibrating tuning fork is placed in contact with the stand from which the jet starts, the drops fall into order with beautiful precision, a drop being cast off with each vibration. Many remarkable effects can thus be produced. A continuous jet may be thrown into a form like that of a vibrating string.

History of the Typewriter.

'The history of the typewriter is interesting,' said an inventor. 'The first patented machine was Henry Mill's. It was as big as a bureau, and made no popular appeal. This was in England in 1714. The first type bar machine was made in America. Its inventor was A. H. Beach. The patent was taken out in 1856. The Beach typewriter was not practical. The first practical typewriter was invented by Latham Sholes in 1867. Sholes had for partners S. W. Soule and Charles Glidden, but these two men became discouraged and dropped out. It wasn't till some years later that Sholes got his machine ready for the market. Then he took it to a big firm of gunmakers, the Remingtons, and it at once began to sell on a large scale. Sholes remained in the employ of the Remingtons up to the time of his death.'

Health-giving Occupations.

Breweries and tanneries and printing ink factories confer exemption from tuberculosis, and employees in turpentine factories never have rheumatism (says *Harper's Weekly*). Copper mining excludes the possibility of typhoid among the workers.

Shepherds enjoy remarkable health. The odd odor of sheep appears to exercise some influence tending to the prevention of disease. Sheep are especially good for whooping cough, so that in a sheep country when a child is taken down with that malady it is the custom for the mother to put it among the sheep to play. The next day, it is said, the child will be well.

Men and women working in lavender, whether gathering or distilling it, are said never to suffer from neuralgia or nervous headache. Lavender, moreover, is as good as a sea voyage for giving tone to the system. Persons suffering from nervous breakdown frequently give their services gratis to lavender planters in order that they may build up their vitality.

Salt miners can wear summer clothes in blizzard weather without fear of catching cold, for colds are unknown among these workers.

For Chronic Chest Complaints,
Woods' Great Peppermint Cure, 1/6, 2/6.

Intercolonial

During the visit of his Lordship Dr. Dunne to Canowindra, he made a special appeal to the people to build a convent for the Sisters. The result of that appeal was the collection of £1000, including £400 from the Rev. P. J. Doran, P.P.

The Sisters of Mercy in the diocese of Maitland met at the Mother House, Singleton, on March 28 for the purpose of electing a Rev. Mother in place of their late lamented head, Mother Mary Stanislaus Kenny. Mother Mary Magdalen Meaney was chosen to fill the important position.

No fewer than 21,000 officials (says the *Catholic Press*) will be engaged on election day on behalf of the Government in attending to the multifarious duties connected with the taking of a Parliamentary poll throughout Australia. If gathered together in one centre in Australia these officials would be entitled to return one member to the House of Representatives. In fact, this small army exceeds the number of electors who constitute a division in some of the smaller States.

Since the St. Patrick's Day sports carnival on Saturday, the 20th inst. (says the *Catholic Press* of March 31), the Cardinal, who was on the Agricultural Grounds from 2 o'clock till a quarter to 6—during the afternoon he delivered an address on Home Rule—has been rather gravely ill at St. Mary's presbytery, where he has been under the care of Dr. MacCarthy. He is now improving to the doctor's satisfaction, but though convalescent it will probably be some time before he resumes work with his customary activity. His Eminence was unable to take part in the Holy Week ceremonies at the Cathedral, and on Easter Sunday he heard Mass in the presbytery oratory.

His Grace the Archbishop of Melbourne, addressing a meeting of young men recently, said:—'It was all very well while the peace of Europe was being maintained, when the power of England was unchallenged; but, considering the growth of navies and armies on the Continent of Europe, no one could tell when the navy and the army of England would be engaged to the very utmost, and if that day should come Australia would be seriously menaced, and if the young men of the different generations did not prepare themselves for eventualities of that sort they would be neglecting their duty to their country and their children, and their grandchildren would have reason to rue the day when those who went before them were so infatuated and foolish as to think that the rich spoils of this country would be overlooked for all future time.'

Dr. Duhig, Bishop of Rockhampton, has issued a pastoral letter, which was read at St. Joseph's Cathedral recently, on the subject of the Bible-teaching in State schools referendum. It sums up the position thus: 1. For conscientious reasons, we maintain our own schools wherever that is possible. 2. Secular education in these schools is up to the required standard. 3. Religious instruction in them is properly imparted and adequate. We do not ask the Government to pay for teaching religion in our schools. What we now ask is that having once recognised the principle that religious instruction should be given in the schools, and seeing that in our schools that is being done in the only way acceptable to Catholics, the Government should make us a fair allowance for results in secular education.

Speaking at the St. Patrick's Night concert in Melbourne, his Grace the Archbishop said:—'Other things may change, but one thing remains always constant, and that is the love of an Irishman for his native land, and the desire he has to see her native Parliament re-established in College Green. I am not going to discuss political questions, but I cannot help making a reference to the results of the recent British elections, which have brought Home Rule not only within the range of practical politics, but I believe within the reach of the Irish Parliamentary Party. It is providential that one great obstacle to the introduction of Home Rule is being rapidly removed, and that is the settlement of the land question in Ireland. The outlay connected with that settlement involves a vast expenditure. That expenditure would present a very serious, if not an insurmountable, obstacle for a native Parliament, but now that the money has been advanced, or is being advanced, by the British Treasury, there can be little difficulty in the course of the years in paying it back, and then that one serious difficulty will be removed from the path of Home Rule. The granting of Home Rule will, I believe, cement almost every class in Ireland. Those who have stood apart up to the present, those who have formed sections, those who have separate interests, now that the land question is being settled will all unite in advancing the political interest of their common country. Ireland has to look back with sorrow on a considerable part of her history, but so far as her ancient history is concerned she can look back upon it with unmixed pride—pride in regard to the missionary zeal of her children, the development of the arts and sciences, the advance of architecture, and the cultivation of music. May God bless Ireland and give her that consummation she looks forward to—local government.'