

Science Siftings

By VOLT

Phoning Through the Earth.

The most interesting experiments in telephoning without wires are those of the French scientist Ducretet. He places an ordinary telephone transmitter in direct communication with the ground, and at a considerable distance away, on the other side of some buildings with thick walls and cellars, he has a receiver, connected by one wire to the earth, and by another wire to a small metallic sphere let down through an opening to the floor of the catacombs beneath Paris. When words are spoken in the transmitter they are heard in the receiver with much greater clearness than in an ordinary telephone. Monsieur Ducretet is continuing his experiments at increasing distances.

When to Wind a Watch.

At a recent meeting of the British Watch and Clock Makers' Guild the question whether it is better to wind a watch at night or in the morning was discussed. Some members were of the opinion that it was better to wind it at night, as in the morning the mainspring would be colder than it would be after being carried about in the pocket all day, and steel is more brittle when cold than when it is warm. Mr. Wright, the vice-president, said that during the day the watch was carried about and subjected to all kinds of irregular conditions, and when it was fully wound it was able to withstand these abnormal conditions better than when it required winding. He thought it was a decided advantage to wind it up in the morning. This view of the case was agreed to by the majority of the members of the trade who were present.

Curious Deceptions.

Our senses deceive us curiously at times. A flash of lightning lights up the ground for only one-millionth of a second, yet it seems to us to last ever so much longer. What happens is that the impression remains in the eye or the retina for about one-eighth of a second, or 121,000 times as long as the flash lasts. If on a dark night, a train speeding along at sixty miles an hour is lit up by a lightning flash it appears stationary, yet in the eighth of a second during which we seem to see it the train travels eleven feet. But we really only see it during one-millionth of a second, and in that time it travels only one-hundredth of an inch. When a man's leg is cut off, if the stump be irritated he feels the pain in his toes. This curious deception is the same as any one can practise on himself by striking his elbow on the table, when he feels the pain in his fingers. Of course, in both cases the pain is felt in the brain. We do not actually perceive different distances with the eye, but judge them from various indications. When our judgment is at fault we are deceived. If you see a person in a fog, for instance, he seems to be much bigger than usual. The same thing happens when you see men or cattle on the top of a hill against the horizon in twilight. In both cases you judge them to be farther away than they really are, and consequently they appear uncommonly large.

The First Gas.

Soon after Argand invented his lamp, William Murdock, a Scottish inventor, showed the world a new way of lighting a house. It had long been known that fat or coal, when heated, gives off a vapor or gas which burns with a bright light. Indeed, it is always a gas that burns, and not a hard substance. In the candle or in the lamp the flame heats the oil which comes up to it through the wick and thus causes the oil to give off a gas. It is this gas that burns and gives the light. Now Murdock, in 1797, put this principle to a good use. He heated coal in a large vessel, and allowed the gas which was driven off to pass through mains and tubes to different parts of his house. Whenever he wanted a light he let the gas escape at the end of the tube in a small jet and lighted it. Here was a lamp without a wick. Murdock soon extended his gas pipes to his factories, and lighted them with gas. As soon as it was learned how to make gas cheaply, and conduct it safely from house to house, whole cities were rescued from darkness by the new illuminant.

For Children's Hacking Cough at night Woods' Great Peppermint Cure. 1s 6d and 2s 6d.

Intercolonial

A new church which has been erected at a cost of about £10,000, was dedicated on Sunday, June 7, at Benalla, in the diocese of Sandhurst.

After an illness extending over several months, Rev. Mother Gonzaga, Mother-Superior of the Convent of Mercy, Grafton, passed away on Tuesday, May 19.

The Rev. Father Martin Vaughan, prior to his departure from Berrigan to take charge of Crookwell, was entertained at a banquet, and presented with a purse of sovereigns by the ladies of the parish.

Mr. Percy Jones, formerly conductor of St. Augustine's Orphanage Band, Geelong, who left Australia to pursue his musical studies in Europe, is now in Vienna, he having left Leipzig on April 30 for that city, where other Victorians are also studying music.

The death is reported of Mrs. Hope-Connelly, 'Thomasine' of the 'Nation', who passed away the other day at Bundaberg. The late Mrs. Hope-Connelly was one of the band of brilliant writers who made the 'Nation' famous between 1842 and 1852. The deceased lady was a native of Castlebar.

Sister Mary Martha O'Donnell, of St. Brigid's Orphanage, Ryde, died on June 5. She was a native of Galbally, County Tipperary, Ireland, and had been in religious life as a Sister of Mercy for 11 years. She was 39 years of age, and was attached to the Parramatta community of the Order.

His Lordship Dr. Olier, Bishop of Tonga, who returned to Sydney from his missionary work in the Islands for the benefit of his health, is much improved by his treatment at St. Vincent's Hospital. When sufficiently recovered in health he will return to his mission, where he has already spent twenty-eight years of his life.

The Rev. W. P. Walsh, of North Melbourne, was entertained at a farewell banquet in St. Michael's Hall, North Melbourne, prior to his departure for South Melbourne. He was presented with an illuminated address and a dressing-case by the parishioners of St. Michael's Church.

His Eminence the Cardinal blessed the foundation stone of the additions to St. Athanasius' Church, Manly, on Sunday, June 14. The increase in the Catholic population in Manly has rendered the additions to the church absolutely necessary, and it was due to the generosity of Mrs. Dwyer, who donated £2000, that the Rev. T. Hayden was enabled to proceed with the work this year.

The Brisbane 'Courier' says of the new hospital in charge of the Sisters of Mercy, Brisbane, the foundation stone of which was laid by the Cardinal: 'There is no need at this hour to speak of the noble work done by the Sisters of Mercy in all parts of the world, and one knows that the present institution has a field for unbounded usefulness in the philanthropic life of Brisbane. The appeal made some months ago in our columns has elicited a generous response, so that the buildings to be erected will, in Cardinal Moran's words, be a monument of Catholic charity.'

We ('Freeman's Journal') have just heard that the veteran Redemptorist missionary, Rev. Father Hegarty, has taken his departure from the Philippine Islands for Ireland, and that the cause of his departure is a serious illness which requires special hospital treatment in a cool climate. Many of our readers will remember the well-known missionary, who for twenty-six years has labored in every part of Australia and New Zealand. We hope the change to his native air will restore the Rev. Father to his former robust health.

Owing to the death of Rev. T. J. Carroll, which occurred at Crookwell recently (says the 'Freeman's Journal'), several changes have been made in the diocese of Goulburn by the Bishop (Dr. Gallagher). Rev. Father M. Vaughan, who has had charge of Berrigan, takes charge of the Crookwell parish. Rev. Father Fleming, who was attached to Wagga for some years, and was recently appointed assistant at Cootamundra, takes charge of Berrigan. Owing to the rapid growth of the Berrigan and Tocumwal districts, the Bishop has decided to allow the Rev. Father Fleming an assistant.

Messrs. Maling and Co., Ltd., Christchurch, are importers of Havana, Manila, and Indian cigars; Egyptian and other cigarettes; Ceylon, China, and Indian teas, coffee, etc....