

Science Siftings

BY 'VOLT'

An Interesting Discovery.

Explorers have recently discovered a new stalactite cave in the Dachstein Mountains, Upper Austria, and estimate it to be the largest of its kind in Europe. The principal tunnel measures about one mile and a quarter, with numerous branchings of varying length. The cave has two levels. In the upper, two immense ice halls were found, having precipitous glaciers some 300 feet in length. Spread over the lower level were a series of halls, the largest being 600 feet long and 100 feet high. Among the paleontological specimens found were brachiopods and cave bears.

The Heating Value of Coal.

Preparations are under way by the United States Government to extend the new method of coal purchasing which, partially operated a short while ago, has proved its feasibility. The coal bills are paid on the basis of the actual heating value of the coal, deduced by tests of samples made by the Geological Survey. The analysis shows the quality of the fuel in terms of carbon, sulphur, volatile matter, ash and moisture, and its heating capacity in calories. This new basis has found favor with all parties concerned.

Through Giant Tubes Under River.

A gigantic piece of engineering, costing more than 3,000,000 dollars, is going on in the heart of Chicago so rapidly but quietly that the casual observer will not know it until he finds himself some morning plunged from the light of day into a world of electric light, with concrete floor, walls and ceiling all about him, and only a small circle of daylight ahead. With the time for completion of three under-the-river tunnels not far away, thousands of workers for the north and west sides who ride on surface cars to and from their places of business will, it is hoped, forget the meaning of the word 'blockade,' for it is to help do away with congestion in Chicago's 'loop district' that these tunnels are being built.

Wireless on a Submarine.

The largest submarine in the British Navy, known as 'D1,' has recently been equipped with a wireless telegraph plant, which can be used when the vessel's hull is entirely submerged, leaving above the water only a slender mast supporting the aerial wires or antennae of the wireless installation (says a writer in *Engineering*). Experiments have recently been successfully carried out with this vessel in Torbay, the cruiser Bonaventure establishing and maintaining communication with the D1 when submerged. The D1 replied from below the surface. The installation was tested when the submarine was submerged to a depth just sufficient to keep above water the periscope, which is seen half-way up the mast. . . . The possibilities of such a development are considerable, as not only could the actions of submarines be directed by these means from larger vessels, but a flotilla of submarines will be able to use the system for the purpose of communicating among themselves when submerged, their value in naval warfare being thus considerably improved.

As Others Hear Us.

The last person a man becomes acquainted with is himself. He cannot see himself as others see him, nor can he even hear his own voice with the ears of the rest of the world. In proof of this latter inability, Doctor Laloy, in *La Nature*, describes some of his experiments. If a person records on a phonograph a few sentences pronounced by himself, together with others by his friends, and causes the machine to reproduce these, it generally happens that he easily recognises his friends' voices, but not his own. On the other hand, the friends recognise his voice perfectly. This fact proves that everyone hears his own voice differently from others. The difference lies in the quality of the tone. One hears his own voice, not only through the air, as do his auditors, but across the solid parts situated between the organs of speech and those of hearing. The sound thus produced has a different timbre from that conducted to the ear by the air above. Take the end of a wooden rod between the teeth and pronounce a vowel continuously. Let the other end be alternately taken between the teeth and released by another person who, at the same time, stops his ears. The latter will find that every time he seizes the rod in his teeth the sound is stronger than when it reaches the ear through the air above, and has a different quality. The passage of sound through a solid body augments its intensity and modifies its quality.

When coughs distract you every day,
To pain and suffering you're a prey;
Just go and get without delay—

Woods' Peppermint Cure.

You'll find yourself in one short night
Become quite well again and bright;
You'll shout—your heart will feel so light—
"Wood's Peppermint Cure!"

Intercolonial

The net receipts from the St. Patrick's Night concert in the Melbourne Town Hall were £190 14s.

Rev. Father W. Gallagher has been transferred from Subiaco to the Cathedral of the Immaculate Conception, Perth, to act as private secretary to Bishop Clune, who has made a number of clerical changes and appointments since his consecration a few weeks ago.

The Very Rev. Father T. Robinson, of Kalgoorlie, W.A., has been appointed Dean and Vicar Forane of the Goldfields. Bishop Clune has also appointed Archdeacon Smyth, of Bunbury, who has left for a holiday in Europe, Dean of the South-West portion of the diocese of Perth.

The Mother Provincial, Sister Mary Alphonsus Lignori (Dowling), and Sister Mary Stanislaus (Kavanagh), of the Order of the Good Shepherd, Abbotsford, Vic., have left for Europe to attend the General Chapter of their Order at Angers, France.

The Right Rev. Mgr. Byrne, of Goodwood, Vicar-General of the archdiocese of Adelaide, celebrated the 51st anniversary of his ordination to the priesthood on April 20. His golden jubilee was celebrated with great rejoicing by his people and the clergy last year. The Monsignor, who is in his 78th year, is the first priest to celebrate his golden jubilee in South Australia. He was ordained in Adelaide in 1860.

At the annual Communion breakfast of the Hibernian Society in Sydney, Past District President Fox presented a cheque for £1250 to the Cardinal as the Hibernians' contribution to the fund for the completion of St. Mary's Cathedral. Bro. Fox said that several months ago the society offered its co-operation in this work, and it was thought £1000 would be raised. The District Board little anticipated the most generous response made to their appeal by members, and he thanked them all, especially the ladies, for the assistance they had given the movement.

There passed away at Goodna, Queensland, on April 27, after a long illness, Father Thomas Hayes, who for the past nineteen years had ministered to the spiritual wants of the Catholics of that town and district. The deceased priest was a native of Brisbane, his father in the early days being one of the leading citizens of that city, and doing much to advance civic interests. Father Hayes was the first pupil enrolled by the Christian Brothers in Gregory Terrace College. He afterwards went to All Hallows', in Dublin, to continue his studies, and finally to Innsbruck, on the Tyrol, where he was ordained.

Representatives of what is brightest and best in Church and State, to the number of 500, assembled in the Cathedral Hall, Melbourne, on April 28, at the invitation of his Grace the Archbishop of Melbourne, who, as president, was again the host at the gathering of the members of the Newman Society of Victoria (Catholic University students) and their friends. It was a happy thought (says the *Advocate*) to give to the society the name of one whose rare intellectual gifts were only equalled by his great personal sanctity. His grace was the life and soul of the brilliant gathering in the splendid hall which will stand for all time as a monument of his pastoral zeal and solicitude for his flock. The hall itself had been carpeted and otherwise decorated for the occasion, and under the glow of the electric light looked at its best. The Archbishop received his guests at the main entrance to the hall, and in his purple robes looked a worthy member of the hierarchy of Mother Church.

Monsignor Bourke, of Perth, has retired from the active work of the priesthood in West Australia. 'Never in the history of the Catholic Church in West Australia (says the *W.A. Record*) has a veteran laid aside his armor with a more creditable, a more honorable, or a more valuable record of high and holy service, embracing over half a century of unceasing and unselfish work. What we now proudly term the Golden West was a despised and almost forsaken colony when Father Bourke first saw it in 1855. Fremantle and Perth were little better than rough, raw, ramshackle villages. Young Bourke, who was then a student, aspiring to the priesthood, was told that he must teach school for a few years; he was quite agreeable. In winter and summer for three years he waded through the sands between Subiaco and Perth, and successfully fulfilled the duties of schoolmaster at the day school, then carried on under Bishop Serra, O.S.B., in Perth. He was ordained priest on December 18, 1858, by Bishop Serra, in the Church of St. John the Evangelist, which still stands as the Children of Mary's Chapel, Victoria square, Perth. After his ordination Father Bourke commenced in Perth that work, the fruits of which remain to the present time. In those early days the journeys were long and tedious, the priests few, and the work very trying; but Father Bourke can look back with pleasure and satisfaction on the noble and successful part he took in pioneering Church work throughout West Australia. His labors, particularly at York, Northam, Newcastle, and the Vasse, are still remembered, and referred to with feelings of warm appreciation and gratitude. He was also manager and editor of the *W.A. Record* for some time.