

Science Siftings

By 'Volt'

The Age of an Egg.

A simple method of finding out the age of an egg is by means of the air space, which is situated towards the broad end of the shell. If the egg is held up between the hands before a light in a dark room, the air space can easily be discerned, and by its size the age can be determined. In a perfectly fresh egg the air space is very small, but as age increases it extends, until when the egg is three weeks old the air space occupies about a sixth of the entire contents. With practice the age can be told to within twenty-four hours.

Working Under Water.

In the interests of science men are greatly daring. Messrs. Leonard Hill and M. Greenwood, two well-known engineers, lately determined to investigate the effect of working under compressed air, but instead of collating experiences of others they made stays themselves in a cylinder loaded up to various pressures. They underwent a pressure of 92lbs above the atmosphere, corresponding to a head of 212 feet of water. They had one effect which workers would not suffer—neuralgic pains caused by their remaining quiescent; whereas it is of the utmost importance that every joint and muscle should be kept in motion, and the capillary circulation kept active. As a result of the experiments the two investigators have come to the conclusion that work may be safely carried out in 212 feet of water, or perhaps even 250. At 16 lbs air pressure the voice becomes metallic, and at 45 they found it impossible to whistle. Hearing was very acute, and after the nervousness had worn off there was no feeling of pressure during a fifty minutes' stay in the cylinder.

Devices for Catching Mice.

Not knowing what else to do with its vast accumulation of models, the Patent Office at Washington is about to disperse the collection. Under the patent law every applicant for a patent must submit a model of his invention. Of models of patent mouse-traps alone there are no fewer than 1810, and the hundreds of thousands of models of every conceivable invention have filled to overflowing the old Post Office buildings. It has been determined not to be worth while to erect new storehouses for the mass of material, the bulk of which is rubbish. The Government will preserve the models of really great inventions, such as the first sewing machine, the original telegraph instrument, or the first threshing machine, and similar devices that mark eras in the country's development, and many other models will probably go to colleges and technical schools. There is a fine chance for curiosity-mongers to pick up freaks of ingenious inventors, but the great mass of the models is doomed to a holocaust.

A True Clock.

The most mathematically exact thing created by man, and the perfection of accuracy in registering the flight of time is the famous Reifel clock, which has been installed in seven of the observatories of the United States.

This clock, which costs £200, is enclosed in an airtight case in a vacuum. It is wound up every seven minutes by electricity to keep it always under the same pressure, and has a nickel steel pendulum that does not expand or contract under the changing atmospheric conditions 51,000 of a degree of a second. The one at Washington stands in a room which is almost a dungeon, being heated by electric lights, so that there shall not be as much as a hairbreadth change in the temperature registered on the microscopic thermometer. And still this clock is not as perfect as one created ages ago, and which was known to earliest man—the earth is the only perfect clock. If we take the position of a fixed star at a certain moment of time to-night we know that exactly at that corresponding moment to-morrow the earth, in its revolution, will arrive at the same point, and will not vary as much as even 1,000,000 part of a second. And still, again, the earth is not wholly exact, as it has been estimated that our day is 1-84 of a second longer to-day than it was 2500 years ago. This is due to the tremendous effect of the tides in the revolution of the globe from east to west.

Intercolonial

The will of the late Mr. Frederick Michael Lynch, of Hawthorn (Vic.), who died on July 18, refers to estate valued for probate at £270,427, including £65,632 realty, and £4815 personalty. Mr. Lynch left the whole of his personal estate to his mother, who receives also part of the realty, and is to have an interest in the remainder of the realty for life. On the death of the mother, a piece of land in Glenferrie-road, Hawthorn, with the buildings thereon, is to go to the Society of Jesus, and the following distributions are to be made, in addition to legacies to relatives:—£1000 to Melbourne Hospital; £1000 to the Austin Hospital; and £500 each to the Little Sisters of the Poor, St. Joseph's Home (Surrey Hills), St. Vincent's Hospital, and Consumptive Sanatorium (Echuca).

The popularity of the Rev. T. P. Lynch, who was recently appointed to the charge of the Portland parish (says the 'Ararat Chronicle') was strikingly manifested on Thursday evening, September 6, when several presentations were made to him in St. Mary's Hall. The Very Rev. P. O'Hare, who presided, said he was delighted to see so many present to do honor to the Rev. T. P. Lynch, who no doubt duly appreciated the compliment. Mr. T. G. Grano, on behalf of the parishioners, presented Father Lynch with a gold watch, a purse of sovereigns, and a dinner set. The Very Rev. Father O'Hare also made presentations on behalf of the choir, the school children, and others, paying a well-deserved meed of praise to Father Lynch's labors in the parish, and to his popularity among all classes. Father Lynch was also the recipient of a silver mounted wallet from the local golf club, and of presents from the pupils of St. Stanislaus' School, the boarders at the convent, and others of a private nature.

The solemn blessing and opening of the new church of the Redemptorist Fathers, Waratah, took place on Sunday, September 9, the ceremony being performed by his Lordship the Bishop of Goulburn (Right Rev. Dr. Gallagher). There were also present the Coadjutor-Bishop of Maitland (Right Rev. Dr. Dwyer), Right Rev. Mgr. Hand, Very Rev. Father O'Farrell, C.S.S.R., Very Rev. Father Murray, C.S.S.R., and other members of the Redemptorist Order. The occasional sermon was preached by the Right Rev. Dr. Dwyer, who in conclusion said:—'He might, on behalf of all present, sincerely wish that the work of the Fathers of the Redemptorist Order, not only in Waratah, but throughout the Australian provinces, would be blessed by God, that it might be continued and increased.' His Lordship referred to the unavoidable absence of Cardinal Moran and Bishop Murray, who, though absent in the body, were present with them in the spirit. The offering realised £484 0s 6d. The church, adjoins the monastery, is designed in the Cistercian style, and is built of brick, with stone dressings. The outside appearance is very attractive, and inside the church is finished in an ornate manner.

In the course of an interview recently with a representative of the 'Raleigh Sun' (Bellinger River), Bishop Doyle told the story of how the diocese of Grafton was changed to the diocese of Lismore. His Lordship said it was a story with a moral in it:—'You have doubtless seen to-day (said the Bishop) that I am a good beggar for the Church, but I assure you that when it comes to a question of asking anything for myself, I am one of the most sensitive men alive. Years ago, at Grafton, I was in sore need, because, you know, Bishops require money like other men. Well, I was stationed at Grafton, and the church wanted beautifying and renovating, and I was without funds. I determined to ask the people there once, and once only, for help, and I did. I told them my position, and told them also that on the next Christmas Day I would expect their gifts. The day came, but not the gifts, which were less than they had ever been. I then reasoned that it was unfair that the people who enjoyed the honor arising from the Bishopric should possess it at other people's expense, and I cast about for the most suitable locality for a See along the North Coast. With a knowledge of the various districts I selected Lismore, and the result has justified my choice. I then visited Rome, and had the See proclaimed at Lismore. I foresaw that the town and district had a great future before them, and my foresight was warranted. This was many years ago, and I have never been disappointed.'