

Science Siftings

By 'Volt'

How High Birds Fly.

Those interested in the ways of feathered folk are still discussing the question of how high birds fly. Again and again balloons have been sent out to ascertain this, and several German aeronauts have collected valuable information.

At present it is believed that the average height of 'bird tracks' through the air is about 1300 feet above the earth, though occasionally they have been discovered at an elevation of from 6000 to 7000 feet.

Sterilising Milk.

The Paris "Matin" announces that Professor Behring has discovered a new method of sterilising milk without boiling it or destroying any of its essential principles. The method is based on the powerful qualities of German perphydrol simply oxygenated. One gramme per litre of this substance is sufficient to destroy all noxious germs. Milk thus sterilised can be kept a long time, and is not injured by travelling, but it cannot be drunk until it has been gently warmed and a drop of a catalytic substance added extracted from the milk itself. Dr. Behring sent two bottles of this sterilised milk to the central laboratory of the Ministry of Agriculture in Berlin, where it was found that the milk was perfectly pure. The "Matin" adds: Dr. Behring proved that light has a very harmful effect on the milk, whether sterilised, hot, or cold, and he recommends that it should be kept in a dark place or in red or green bottles.

What We Owe to Insects.

Professor Darwin said that if it had not been for insects we should never have had any more imposing or attractive flowers than those of the elm, the hop, and the nettle. Lord Avebury compares the work of the insect to that of the florist. He considers that just as the florist has by selection produced the elegant blossoms of the garden, so the insects, by selecting the largest and brightest blossoms for fertilisation, have produced the gay flowers of the field. Professor Plateau, of Ghent, has carried out a series of remarkable experiments on the ways of insects visiting flowers. He considers that they are guided by scent rather than by color, and in this contention he is at variance with certain British naturalists. Whatever may be the attractions in flowers to insects—as yet it appears undefined—it is certain that the latter visit freely all blossoms alike, making no distinction between the large, bright-colored ones and the less conspicuous blooms like those of the currant, the lime, the plane-tree, the nettle, and the willow.

Humming-Birds.

Some interesting characteristics of the humming-bird were given in a recent number of the "Field." A peculiarity of these birds, it appears, is their apparent lack of intelligence, while they are also remarkable for their vitality. At times when considered dead they have been quickly restored to life by placing them in light and warmth. They also resemble insects, particularly hawk-moths, in their custom of obtaining food from flowers, although they undoubtedly extract nectar from the blossoms; their chief food consists of insects which they find in the blossoms; certain species have been observed feeding on insects gathered from the leaves of various plants. Gould, in a comprehensive and valuable monograph on these birds, written in 1861, referred to about 400 species, but this number has been considerably added to since. It was Gould who brought a specimen of the ruby-throated humming-bird to London, but it lived only a very short time. A humming-bird captured at Washington also existed in captivity for several days in the care of this clever naturalist, who carried it about in a little gauze bag suspended on a piece of whalebone attached to a button of his coat. Gould fed it on sugar or honey and water with yolk of egg added, the mixture being carried in a bottle in his pocket; at feeding time he merely held the bottle against the bag, when the little bird readily thrust its bill through the gauze and down the neck of the bottle and sucked up the fluid until it was satiated; it would then retire to the bottom of its bag and preen its feathers.

Intercolonial

The unique spectacle of debt on a new church being subscribed within a few months (says the "Freeman's Journal") was witnessed by his Eminence Cardinal Moran at Cooranbong. This thriving little town, situated about three and a half miles from Morrisett, on the Northern line, through the loyalty and prompt co-operation of the faithful, had added another bright link to the marvellous chain of progress which has marked the career of the Catholic Church in Australia. Recognising the necessity of a more substantial and permanent edifice for the accommodation of his parishioners, Father Power, the parish priest, placed this fact before his people some little time ago. An energetic committee was at once formed, and, aided by the remarkable loyalty, faith, and generosity of the people, in less than seven months an imposing structure was erected. The collection at the ceremony of blessing and opening was sufficient to liquidate the balance of the debt.

It is very gratifying (says the Sydney "Freeman") to record the success of the Christian Brothers' Colleges at the Adelaide University, following, as they are, so closely upon the senior results of the Sydney University recently published. In the results, which were announced last week, we find that in the higher public—the most advanced examination for which any college in Australia presents candidates—the Brothers' College in Perth secured first and fourth places in the two States, with a total of eleven students passing the examination. The first place ensures the W.A. Government scholarship of £150 a year for three years, unless, as it seems not improbable, this student is awarded the Rhodes Scholarship, when the Government scholarships would have to be relinquished. The Adelaide College secured third place in the same examination, winning a University scholarship of £35 a year for three years. These students obtained first-class honors in Greek, Latin, English, French, Mathematics, and Science. In the Junior Public Examinations the Perth College passed sixteen students, obtaining first and second places from all candidates in the two colonies, thus securing the first and second scholarships awarded to local students by the W.A. Government and the cash prizes of £10 each awarded by the University. These students also obtained first-class honors in Greek, Latin, English, French, Mathematics, and Physical Science. The Adelaide College had fourteen successful students in this examination.

At the blessing of a new church at Cooranbong on Sunday, December 16, his Eminence Cardinal Moran referred to prominent topics as follows:—You have had during the past few days a deal of excitement over the elections, and I trust that that excitement has now passed away, and that those who were engaged in political strife, and have had some difficulties, will now live in harmony as before, and endeavor to co-operate in promoting the common interests of the country. Mr. Reid has, I believe, likened me to a Socialist. I am a Socialist in the true sense of the word, and I think all our Socialists and political parties should unite in genuine Socialism, and their progress should be one in the paths of justice, honor, and truth. I think all political parties should unite in that political destiny, and all co-operate on the lines of justice, honor, and truth. That is my explanation of genuine Socialism. In private and in every family life a sort of Socialism exists. I believe in that Socialism that promotes a spirit of sacrifice, gentleness, and truth, and all should determine to endeavor to promote such genuine Socialism. That is what I mean by Socialism, and, therefore, we should all be Socialists, and no matter what difference there is amongst political parties, all should combine in a genuine Socialistic spirit. The way you are carrying on your work is genuine Socialism, for it marks out progress in the paths of justice and the true spirit of sacrifice, and I trust that that true Catholic Socialism will always prevail in this district.

Lord Emly, who stood out so conspicuously in the House of Lords by reason of his remarkable pro-Catholic speech; is (says the "Pall Mall Gazette"), the only Nationalist in the Irish peerage. Yet he was once a Unionist of a most combative type. He struck many a blow in defence of his principles when as the Hon. Mr. Gaston Monsell he was member of the Local Board in Limerick. On his accession to the peerage he became a Nationalist.