

Science Siftings

BY 'VOLT.'

Strength of Beetles.

Few people have any idea of the wonderful strength possessed by beetles. It has been shown that a common beetle can draw five hundred times its own weight, and a stag beetle has been known to escape from under a box weighed with a book one thousand seven hundred times greater in weight than the beetle underneath it.

A New Fibre Plant.

The zapupe fibre plant, similar in appearance to the henequen plant of Yucatan, has recently attracted attention in Mexico. It was used for centuries only by the Indians in the manufacture of lariats, bridles, cordages, etc., but attempts are now being made to grow it on a large scale, and it is believed by many that it will soon become a source of great wealth.

German Toed Shoe.

A novel German shoe has partitions to separate the toes. These terminate in soft pads pressing against the foot, so that the thrust in walking is taken at the base of the toes instead of the point. Jamming of the toes into the toe of the shoe is prevented. It is expected that the deforming of the feet now so common will be avoided by this arrangement, and that walking will be made more comfortable.

Making Marbles.

Germany maintains a monopoly of making stone marbles in spite of various efforts made to wrest the trade away. In the marble and agate quarries there are innumerable chips and bits of stone from the cutting of the large blocks, and this refuse is broken into cubes about the size of a marble. An experienced worker produces these cubes of stone at an incredible speed and with remarkable uniformity. When about a bushel are ready they are dropped between a grooved bedstone and a revolving runner. Water is kept constantly supplied, and in half an hour the stones are turned out perfect spheres. With abundant water power the cost is slight, as a couple of men can keep a dozen stones supplied, and the raw material costs nothing at all. In other countries the cost of preparing the blocks eats up the profits and competition with the German-made product is impossible.

Clocks.

The invention of clocks is by no means a modern one. Clocks which were run by weights were used by the Saracens at the time of the Crusades, and some authorities state that they were invented by Pacificus as early as the ninth century. In the works of Dante are references to machines which struck the hours, and clocks must have been used in Italy about the end of the thirteenth century. The oldest clock of which there is any certain record was erected in a tower in the palace of Charles V. of France in 1364.

Why Gold is a Precious Metal.

Pure or fine gold will stand any tests it may be put to in comparison with other metals. It can be rolled or hammered, extending it in any direction, until it becomes transparent. It can also be drawn into threads as fine as human hair. It melts at about 2000 degrees F., and, though it may be kept in a molten state for an indefinite time, it loses none of its weight, even should the heat be increased. The color is unaffected by air, water, or heat, and will stand any test of oxidation. No simple acid will dissolve or attack pure gold. In conjunction with silver gold is the first metal with which man became acquainted, and is the most valuable by reason of the vast number of uses to which it is put. It is found in almost every country in a metallic state, and nearly always in crystals. The old Egyptian symbol for gold signified divinity and perfection. The chemical term used to-day is aurum.

Intercolonial

The Right Rev. Mgr. O'Haran, who has been an inmate of St. Vincent's Private Hospital, Sydney, for several weeks, is now convalescent, and is expected to leave the institution shortly.

The High School of the Marist Brothers, Darlinghurst, recently erected at a cost of £11,000, including the purchase of a magnificent site, was blessed on Sunday, July 9.

The Speaker of the South Australian House of Assembly (Sir Jenkin Coles), who has not been in his usual health lately, was unable to be present at the opening of Parliament. He had never before since his appointment to the office, 20 years ago, failed to be present on any day when the House was in session.

Rev. Father B. J. Sheridan, of Shoalhaven, celebrated recently his sacerdotal silver jubilee. He was entertained at a banquet and conversazione, at which several priests of the archdiocese were present. It was held in the Berry School of Arts, the Mayor (Alderman R. Shepherd) presiding. Father Sheridan was presented with an illuminated address.

Very Rev. Father E. Bertreaux, S.M., Prefect-Apostolic of the Southern Solomon Islands, has arrived in Sydney. The prefecture comprises the main islands of San Christoval, Guadalcanar, Malaita, Florida, New Georgia, the Russell Group, and all the islets under British Protectorate.

Rev. Father James Sheridan, speaking at St. Patrick's Church, Lithgow, the other day, was especially severe on people who deny themselves in order to have their children taught the piano. Parents will starve themselves in order to have their children taught the piano, and yet the same children are never taught how to cook a good dinner, he declared.

Rev. Mother Salmon, Superioress of the Religious of the Sacred Heart of Jesus, Rose Bay, has been called to Ghent in Belgium for the election of a new Mother-General in place of Mother Josephine Digby, who died last month at the age of 75 years. The election takes place in August, and Mother Salmon left by the Orsova on July 8.

News has been received in Sydney of the death of the Very Rev. Father Frederick Heffernan of the Passionist Order, who for eight years was superior at St. Brigid's Retreat, Marrickville. Father Frederick, who held many offices in the Congregation to which he belonged, left Sydney towards the end of last year for Ireland, and it was at the Passionist Monastery, Ardoyne, Belfast, that he died on June 21.

A very interesting gathering of Hibernians was held in Sydney on July 1, with the object of making presentations to three recently retired District officers—Bro. William Hogan, who retired from the office of District Treasurer after over a quarter of a century's continuous service in that and other offices; Bro. L. Cotter, Past District President for 1909, and Bro. L. T. Courtenay, Past District President for 1910. Bro. Hogan, in thanking the members for their presentation, said that when he came into the society it had only 14 branches, some sickly, with less than 1000 members, and about £800 in funds; and on his retirement there were 167 vigorous branches, with 10,000 members, and over £63,000 in funds. This was really marvellous progress.

As usual, the recent Public Service examination reveals the marked ability of the students of our Catholic colleges as well as the efficient manner of the instruction which their teachers impart (writes the Brisbane correspondent of the *Catholic Press*). In the ordinary division there were 35 vacancies for males, and three for females. The latter three places were won by Catholic students. As far as can be at present ascertained, not less than 22 out of the 35 vacancies for boys are claimed by students of our Catholic schools. This is a marvellous record of successes, and students and teachers alike are deserving of warmest congratulations. In the professional division five out of the ten candidates who were needed were educated by the Christian Brothers.