

## Science Siftings

By 'VOLT.'

### Work of the Honeybee.

A writer in the *Revue des Sciences Naturelles* makes the following calculations in regard to the work done by the honeybee: When the weather is fine a worker can visit from forty to eighty flowers in six or ten trips and collect a grain of nectar. If it visits 200 or 400 flowers it will gather five grains. Under favorable circumstances it will take a fortnight to obtain fifteen grains. It would therefore take it several years to manufacture a pound of honey, which will fill about 3000 cells.

### A Gun that 'Fires' Cement.

The cement gun is not a new weapon for the navy, but a machine for squirting concrete mortar in stucco form upon a surface of any kind. The apparatus consists of a compressor, with gasoline engine and two tanks, mounted on an automobile truck. One tank carries the dry mixture of cement and sand, and the other contains the water, and both are under pressure. A novel feature is that the dry cement mixture and the water are pumped separately to within an inch of the nozzle. At this point they are mixed, and so thoroughly that a very perfect combination is discharged upon any surface, rapidly building up a very solid concrete structure.

### Machine-made Lace.

A machine has been invented in Lyons for manufacturing net and lace, the liquid material being poured on one side of a roller and the fabric being reeled off on the other side. One factory is now producing a thousand yards a day, and the process seems capable of indefinite extension and application to various sorts of woven knit and reticulated goods. The raw material is cotton waste and the finished fabric is a good substitute for silk. As in the process of making artificial silk the cellulose is dissolved in a puproammoniacal solution, but instead of being forced through minute openings to form threads, as in that process the paste is allowed to flow upon a revolving cylinder which is engraved with the pattern of the desired textile. A scraper removes the excess and the turning of the cylinder brings the paste in the engraved lines down into a bath which solidifies it. Tulle or net is now what is chiefly being turned out, but the engraved design may be as elaborate and artistic as desired, and various materials can be used. Since the threads wherever they cross are united, the fabric is naturally stronger than the ordinary. It is all of a piece and not composed of parts.

### Tall Trees.

Tall stories and tall trees are in a sense closely related, but the Conservator of Forests in Victoria, Mr. H. Mackey, seems to have thought it worth while to lay out a few cold official facts on the question. 'Where is the tallest tree in the world?' He approaches his task in a 'hedging' manner by remarking that it is likely the tallest tree has not yet been discovered. Then, growing somewhat bolder, he declares his belief that it is improbable that any exists of much greater altitude than some already measured. The chances, he says, are that there are scores of trees about 300 feet in height, and not one that reaches 350 feet. Mr. A. D. Hardy, an officer of the department, states that the greatest height actually ascertained by experts in Victoria was 326 feet 1 inch. This tree was of the eucalyptus amygdalina regnans species, and was found on a spur of Mount Baw Baw, in Gippsland. Its girth at six feet from the ground was 25 feet 7 inches. A tree of the same species discovered at Necrim, also in Gippsland, while only 227 feet high, had a girth of 55 feet 7 inches at 6 feet from the ground. Mr. Hardy quotes writers who refer to trees as high as 480 feet having been found in Victoria, but the records were not authenticated. In referring to American forests, he mentions a redwood tree recorded as measuring 340 feet.

## Intercolonial

Mr. T. J. Dalton, K.C.S.G. (Vice-Consul for Spain), has returned to Sydney after a holiday trip in New Zealand, where he visited the chief tourist centres.

The Very Rev. Father O'Gorman, of East Maitland, has been granted 12 months' leave of absence by the Right Rev. Dr. Dwyer, and early in March it is his intention to leave Australia on a visit to Ireland.

The Sisters of the Good Samaritan have acquired the beautiful Bishop's Court property at Randwick, hitherto owned by the Anglican Church and used as the episcopal residence. It will now be employed as a novitiate for the Good Samaritan Order.

The Presentation Nuns celebrated the twenty-fifth anniversary of their arrival in Lismore recently, everyone helping to make the occasion a fitting recognition of the grand work they have accomplished on the Northern Rivers.

The Melbourne *Advocate* reports the sudden death of Captain John Lynch, C.E., a highly respected resident of Smythesdale, where he had resided for 36 years. He was 55 years of age and unmarried. The deceased gentleman was a native of Ballarat, and a graduate of the Melbourne University. He was the eldest son of the late Mr. John Lynch, who was captain of the pikemen in the Eureka Stockade fight. He was a brother of Mr. Arthur Lynch, M.P. for West Clare, and Dr. Peter Lynch, of Carlton, Dr. Maurice Lynch, Melbourne, and of Mr. Thomas Lynch, of the Government Civil Service, Western Australia.

His Grace the Archbishop, who was accompanied by Dean Phelan, V.G. (writes the Melbourne correspondent of the *Freeman's Journal*), opened a garden fete in aid of St. Andrew's Orphanage, Bendigo, on November 22. Nearly £15,000 has been expended on this institution, which is conducted by the Sisters of the Good Shepherd. The Bishop of Bendigo, Right Rev. Dr. Reville, O.S.A., and a large gathering of the clergy, public men, and laity were at the function. Public men enlogised Catholic charity in providing for the wants of the orphan, the aged, and infirm. The fete is an annual fixture and realises about £1000 for the maintenance fund.

The Registrar of Friendly Societies has issued his report for the year 1910 (writes the Brisbane correspondent of the *Sydney Freeman's Journal*). The record of the Hibernian Society, which now consists of three separately registered districts, show the following sound position: Membership, 3943 males, 273 females; capital, £54,050; benefits paid, £11,871; capital per financial member, £13 6s 5d. The three districts are not connected with each other, and the record of the Brisbane District, which extends from Mount Perry on the north to Stanthorpe on the south and to Charleville on the west, shows a very satisfactory result for the year's operations, there being an increase in membership for the period of 219 males and 52 females. The membership at the end of the year was 3303 males and 216 females.

On Sunday, November 26, his Grace the Archbishop of Melbourne administered the Sacrament of Confirmation to 350 candidates at St. Michael's Church, North Melbourne. After the ceremony his Grace delivered an address to the parishioners, in which he urged them to support the movement for the introduction of healthy Catholic literature into their households, in view of the fact that so much current literature was pernicious, and often specially anti-Catholic in its tendencies. The Archbishop suggested in this matter North Melbourne might well follow the example of Malvern, a parish which had been systematically canvassed by zealous workers in the interests of pure reading generally, and more especially of the publications of the Catholic Truth Society. Their pastor, Father Norris, was secretary of the society, and what had been accomplished in this direction in Malvern, therefore, could certainly be repeated in St. Michael's parish.