

Science Siftings

BY 'VOLT.'

The Life of a Snake.

A naturalist once told how in a thicket on a mountain-side he saw a man kill a rattle-snake. He beat the life out of it with a club, and continued the pounding until it was mangled beyond recognition. When the naturalist remonstrated the man said: 'Boss, you can't kill a rattlesnake too dead.' On one occasion a boat bound for the United States from Rio de Janeiro touched at Pernambuco, where the mate drove a bargain with a snake dealer for half a dozen reptiles of various sizes. The mate had them in a cage on deck, and charged a sailor with the duty of washing it out with sea-water every evening. All went well as long as the weather was mild, but on the night before the Gulf Stream was crossed the sailor left a quantity of water in the cage, and about thirty hours from port a biting gale struck the ship. All hands were busy with the storm, and the snakes were forgotten. When the mate thought of them and went to look after their condition he found them frozen stiff and apparently as dead as the proverbial door-nail. The dealer for whom the mate had brought them came on board the following day. He professed great disappointment over the loss of his intended purchase, but offered to take the snakes away as a kindness to the mate. He gathered them in his arms like so much firewood and carried them home. But a rival dealer afterwards told the officer that plenty of warm water had resuscitated the snakes, and that they had been sold to various museums not a bit the worse for their 'death' by freezing.

Wonderful Eye Lenses.

A specialist has claimed that he can with the unaided eye distinguish lines ruled in glass that are only one fifty-thousandth of an inch apart, but Le Conte has limited the power of the eye to distinguish lines to one one-thousandth of an inch.

To show how immensely superior is the sense of sight in defining single things, one can try the sense of touch in comparison with it. The two points of a pair of compasses placed three inches apart on the least sensitive parts of the body will be felt as a single prick.

With the aid of the microscope the human eye can discern objects whose diameter is only about one one-hundred-and-eight-thousandth of an inch. It has been said that the eye of a fly can distinguish an object one five-millionth of an inch in diameter.

What we designate as the eye of a fly is really a compound eye, made up of numerous lenses. Of these, the common house-fly has something like four thousand in the two eyes. The structures of these lenses are well known, the optical part of each consisting of two lenses, which combined form a double convex lens.

That each lens acts as a separate eye can be easily proved by detaching the whole of the front of the compound eye, and by manipulation with a microscope it is not difficult to examine a photograph or other object through it. When this is done, a distinct image is seen in each lens.

Carpenter has shown that each lens reflects but a small portion of the image looked at, and that it requires the combined action of the four thousand lenses of the fly to produce the same effect as that seen by the one human eye. The human eye is therefore a more perfect optical instrument than the eye of the fly.

Scientists who have given considerable attention to the investigation of compound eyes have formed no opinion that would lead to the conclusion that their power of vision with respect to small objects exceeds that of the simple eyes of the higher animals. The images of objects formed in the separate lenses composing the compound eye are proportionately small, and the question whether insects can see smaller objects than animals furnished with single eyes is not a question of optics, but of the sensitiveness of the optic nerve, and consequently a matter of mere conjecture.

Intercolonial

The Archbishop of Adelaide celebrated his 65th birthday on Sunday, November 19.

Mr. Joseph Winter, proprietor of the Melbourne *Advocate*, has been elected vice-president for Australia of the American-Irish Historical Society.

The Irish envoys had a splendid reception in Adelaide. They were given a civic reception by the Mayor, entertained at luncheon at Parliament House by the Attorney-General, and addressed a magnificent meeting in the Exhibition Building in the evening.

His Grace the Archbishop of Melbourne has made the following changes in the location of priests: Rev. M. D. Finan, from Brunswick to Kilmore. Rev. W. O'Dwyer, from Kilmore to the charge of St. Ambrose's, Brunswick. Rev. Edward Murtagh, to Surrey Hills (during illness of Rev. D. Gleeson). Rev. Joseph Patrick O'Doherty to West Melbourne. Rev. Patrick Joseph Nicholson to Collingwood. Rev. W. Berntsen from Kyneton to Oakleigh. Rev. Timothy O'Callaghan to Kyneton. Rev. James Joseph Lee, Brunswick.

Rev. Thomas Gavan Duffy, youngest son of the late Sir Charles Gavan Duffy, K.C.M.G., who was raised to the priesthood at the College of the Missions Etrangeres, Rue du Bac, Paris, on September 23, will shortly leave Marseilles for his future field of work at Pondicherry, India, where there is an old-established mission of the French Missionary Fathers. Father Duffy has been making a farewell tour in England and Ireland.

The following clerical changes in the archdiocese of Sydney have been announced:—Rev. Father R. McElligott has been appointed professor at St. Patrick's College, Manly. Rev. Father P. O'Donnell goes as assistant to Mount Carmel. Rev. Father James Smith has been appointed an additional assistant at Forest Lodge. Rev. Father J. Meany, Diocesan Inspector of Schools, has taken up residence at St. Mary's Cathedral. Rev. Father M. O'Donoghue has been appointed assistant at Balmain. Fathers O'Donnell, Smith, and O'Donoghue only arrived in Sydney recently from Ireland.

Rangiora

(From an occasional correspondent.)

December 1.

The concert held last evening was a great success, every item being enthusiastically encored. The Territorials gave two short displays of the physical training, and worked well together under the command of their instructor, Sergeant-Major Ash. Mr. Alf Hunnibell acted as accompanist, and was untiring in his efforts to make the concert a success. At an interval Rev. Father Hyland thanked all present for their attendance, and also the performers, and mentioned that another concert for the same purpose would be held on January 1. The secretarial duties were capably discharged by Mr. H. T. Ash. The following was the programme:—Overture, pianoforte solo, Miss Mehrtens; song, 'They can't hurt you for it,' Mr. J. Johnson; song, 'Kate O'Shane,' Miss A. O'Meara; cornet solo, 'Alice,' Mr. G. Humphreys; song, 'Mary of Argyle,' Mr. Smith; song, 'The Kerry dance,' Mrs. H. T. Ash; song, 'You are the one,' Mr. P. Whisker; song, 'Because I love you,' Miss R. Lindon; song, 'The sleeping camp,' Mr. L. Devlin; song, 'Harrigan,' Mr. H. Dix (assisted by Masters Frank and Cyril Dix); physical training, Territorials. Part two.—Overture, pianoforte solo, Miss Nelmes; song, 'A sergeant of the line,' Mr. L. Devlin; song, 'Ashore,' Miss R. Lindon; song and chorus, 'I must go home to night,' Mr. W. Heap; sailor's horn-pipe, Mr. P. Whisker; song, 'Violets,' Miss A. O'Meara; duet, 'Life's dream is o'er,' Mrs. Ash and Mr. E. Chinn; comic song, Mr. J. Johnson; physical training, Territorials; national anthem and 'Auld lang syne,' the company.