

Science Siftings

BY 'VOLT'

Telephone Service on Trains.

One of the railroads running between New York and Buffalo is considering the advisability of installing a telephone service on its trains, so that passengers may send and receive messages when at the several stations.

Steel Encased in Cement.

In tearing down a skyscraper building that had stood fourteen years, it was found that the parts where the steel had been encased in cement there was no rust, but where a paint made of pure linseed oil had been used to preserve the steel the paint had entirely disappeared, and there was more or less rust.

Automatic Enunciators.

A Chicago hotel has introduced a new method for calling out the name of a guest who is wanted at the office or elsewhere. Instead of sending a bell boy through the corridors to shout out the name in unintelligible tones, they have placed automatic enunciators in different parts of the house, all operated from one station, that clearly call out the name.

The Turkey.

The turkey is the only specimen of the native fauna of America which has ever been reduced to domestication. The deer, the antelope, the lordly bison, and the many birds which are used for food have all remained untamed, or have disappeared from the face of the earth, with the exception of the turkey. Just when or how this bird was reduced to subjection to man is now unknown. Even in name it is credited to an Asiatic country. The name probably came through the way the bird was introduced into England. It is supposed to have come by way of Spain, and was called a Turkish bird because of a notion that it was introduced into Spain by the Moors, who, in the common language of England at that time, were called Turka.

Protection of Electric Workers.

A rubber shield has been introduced recently with a view to protecting electric workers, especially 'linemen,' from contact with live wires. It is made of rubber, and is about the size of an automobile tyre, terminating at each end in two small tubes. It is hollow, and is slit all the way along one side so that it may be opened out and slipped down over a wire. At the shoulder between the small tube and the body tube is a hard-rubber ring, which fits closely around the small tube and clamps it upon the wire. This ring has a slot so located as to admit the wire. Each shield is subjected, before it leaves the factory, to a pressure of 30,000 volts, so after putting shields over the live wires the linemen need have no fear of accidental shock. He can also throw the shields, spread out, over the cross-arms, to sit or stand upon. Then, as he works upon a wire, the current cannot pass through his body to the ground by way of the pole. In trimming or repairing arc-lamps there is also danger of shock, so the lamp man may take one of the shields along with him on his rounds and stand in it as he would in a snow-shoe. Still another application is in tunnels or subways carrying live conductors. When the lineman is slicing or repairing these cables he makes use of one or more of the shields to sit or stand upon while at his work.

The Teeth of Mammals.

In shape and size, as well as in number, the teeth of mammals are very clearly related to the nature of their food in the first place, and to their use as weapons of attack or of defence. When the surface of the cheek-teeth is broad, with low and numerous tubercles, the food of the animal is of a rather soft substance, which yields to a grinding action. Such are fruits, nuts, roots, or leaves, which are 'trituated' and mixed with the saliva during the process of mastication. Where the vegetable food is coarse grass or tree twigs, requiring long and thorough grinding, transverse ridges of enamel are present on the cheek-teeth, as in cattle, deer, and rabbits. Truly carnivorous animals, which eat the raw carcasses of other animals, have a different shape of teeth. Not only do they have large and dagger-like 'dog-teeth,' as weapons of attack, but the cheek-teeth (very few in number) present a long, sharp-edged ridge running parallel to the length of the jaw, the edges of which in corresponding upper and lower teeth fit and work together like the blades of a pair of scissors. The cats (including the lions, tigers, and leopards) have this arrangement in perfection. They cut the bones and muscles of their prey into great lumps with the scissor-like cheek-teeth, and swallow the great pieces whole without mastication. Insect-eating mammals have cheek-teeth, with three or four sharp-pointed tubercles standing up on the surface. They break the hard-shelled insects and swallow them rapidly. The fish-eating whales have an immense number of peg-like pointed teeth only. These serve as do those of the seals—merely to catch and grip the fish, which are swallowed whole.

Intercolonial

At a meeting of the Catholic laity, held on January 21 in Perth, to organise a presentation to the new Bishop, Dr. Clune, the sum of £500 was subscribed by those present.

His Eminence Cardinal Moran made an appeal on behalf of St. Mary's Cathedral fund at Manly on Sunday, January 22, when subscriptions amounting to £1100 were received.

The Right Rev. Dr. Clune, the new Bishop of Perth, West Australia, will be consecrated in March in his own Cathedral. His Eminence the Cardinal (says the *Catholic Press*) will journey to Perth to perform the ceremony.

His Grace the Archbishop of Brisbane has given a site for the Christian Brothers' College, Warwick, valued at £1000. The *Age* reports that there is over £1850 in hand, and that the building is to be proceeded with at once.

His Grace the Archbishop of Melbourne and his Lordship the Bishop of Ballarat were present on Sunday, January 22, at the ceremony of blessing and opening St. Virgil's College, Hobart, which will be conducted by the Christian Brothers.

Bishop Dunne, of Wilcannia, returned to Broken Hill on Friday, January 20, after a visit to the Holy Land and Europe. At the Sacred Heart Cathedral on the following Sunday his Lordship, who is the senior suffragan Bishop of the State, being consecrated in Goulburn in 1887, was presented with a gold chalice, the gift of the Catholics of the town, who gave him an enthusiastic welcome home.

A new college for the Christian Brothers has been erected at Townsville, in the Rockhampton diocese. The grounds and building involved an outlay of £6000. His Lordship Bishop Duhig, of Rockhampton, blessed and opened the new college on Sunday, January 22. The collections at the ceremony amounted to close on £1000.

The Rev. Father O'Shea, who had been stationed at Dungog for eight years, was presented with an illuminated address and purse of sovereigns prior to his departure for Taree. The Very Rev. T. Harrington, of Quirindi, who is about to visit Ireland, was recently presented with a gold watch and chain and sovereign case, and also a purse containing 182 sovereigns.

The Very Rev. Mgr. Barry, V.G., Sandhurst, has received a cable from the Bishop (Right Rev. Dr. Reville, O.S.A.), notifying his departure from London. The Bishop was to meet the Right Rev. Dr. Corbett, Bishop of Sale, and the Rev. T. J. Rooney (Elmore) at Naples. Dr. Reville and Dr. Corbett are to receive a cordial welcome home about the end of February.

The presence of nuns at the Education Conference at St. Mary's Cathedral was quite an innovation (says the *Catholic Press*). It is indeed the first time in the history of Christendom that nuns have taken part in debates on the affairs of the Church. The Sisters not only took a keen interest in the proceedings, but entered into the discussions, and some of them spoke with remarkable oratorical ability, and made their arguments felt, too. The ablest women in Australia and the most highly educated are to be found in our Catholic convents.

It is the intention of his Lordship Bishop Carroll (says the *Catholic Press*) to erect the bell tower of St. Carthage's Cathedral to a height of 86 feet, leaving the work of erecting the spire for another generation. The estimated cost of the tower and the erection of the bells is £6100, of which the sum of £4025 is already in hand, leaving a balance of £1895 to be raised. This sum, it is expected, will be forthcoming in a very short time. A sum of £1000 is still due on the bells, and an effort is to be made to collect this amount in the southern portion of the diocese.

His Grace the Archbishop of Melbourne has made the following clerical changes and appointments:—The Rev. T. F. O'Sullivan has been transferred from St. Joseph's, Collingwood, to the Dalyston mission. The duties have proved too much for the attention of one priest (Rev. M. Dolan) owing to the settlement at Wonthaggi. Father O'Sullivan will take up the work of building a church at Wonthaggi on the site recently acquired for that purpose. The Rev. A. May has been transferred from Flemington to Collingwood.

Rev. Father O'Connell, S.M., formerly of Christchurch, New Zealand, will this evening begin the exercises of an eight-day retreat for the Sisters of the Presentation Convent, Launceston (says the *Monitor* of January 13). He has already given retreats to the Presentation Sisters, St. Mary's, Hobart, and to the Sisters of St. Joseph of the State, who assembled for their annual retreat at the convent, Newtown. The district president and the president and officers of the Launceston branch of the Hibernian Society purpose waiting on Father O'Connell on his arrival in Launceston to tender him on behalf of the society a welcome to the State.