

Science Siftings

By 'Volt'

A New Coating for Iron.

As a protective coating for iron, cadmium is proving much superior to zinc. The coating looks like zinc, but it is much more adhesive and harder, it tarnishes less rapidly, and it withstands the fumes of acids better.

A Solar Emanation.

From observations on Mont Blanc and recent discoveries in physics, A. Hausky has concluded that the solar corona, zodiacal light, and aurora borealis are all electrical phenomena, and are due to negatively charged particles detached from the sun and repelled by the pressure of light with a velocity of several thousand miles a second.

A Rope Seven Miles Long.

Glasgow is the proud possessor of the biggest rope that was ever made for hauling purposes. Strangers view it as one of the 'sights' of the city. Manufactured to haul cars through one of the subways, the rope is seven miles long, several inches in circumference, and weighs nearly sixty tons. It has been made in one unjointed and unspliced length of patent crucible steel. The rope forms a complete circle around Glasgow, crossing the Clyde in its course, and is intended to run at a speed of fifteen miles an hour.

A Lightning Change.

A German paper manufacturer at Esenthal has just made an experiment to see how rapidly it is possible to transform a tree into a newspaper. 'Three trees in the neighborhood of his factory were cut down at 7.35 in the morning. They were instantly barked and pulped, and the first roll of paper was ready at 9.34. It was lifted into an automobile and conveyed to the press-room of the nearest daily paper. The paper being already set, the printing began at once, and at 10 o'clock precisely the journal was on sale in the streets. The entire process of transformation had taken exactly 2 hours and 25 minutes.

Wood Pulp Drain on Forests.

The forest service of the United States Department of Agriculture has furnished a preliminary statement showing there was used in the past years in the United States more than 3,000,000 cords of wood in the manufacture of wood pulp. The returns were from 150 firms controlling 232 mills. The wood used was divided among the various processes as follows: Sulphite, 1,538,000 cords; soda, 410,000 cords; ground wood, 1,068,000 cords. The total pulp production by all processes by the firms reporting was 1,903,000 tons. According to the census of 1900, the consumption of pulp wood was then 1,936,310 cords, so that there has been an increase of over 50 per cent. in the last six years.

The Rusting of Iron.

So familiar a process as the rusting of iron appears to have been misunderstood. The presence of moisture and oxygen has been regarded as the condition necessary, and the old idea that carbonic acid plays a part has been quite generally discarded. A different view has just been brought before the London Chemical Society by Mr. Gerald Moody. In very careful experiments a piece of polished iron was exposed to distilled water and a continuous current of air freed from carbonic acid, and the metal continued untarnished at the end of six weeks. When air with the normal carbonic acid was drawn over the sample, however, the bright surface was dulled in six hours, and was covered with deep red rust in seventy-two hours.

A City of Glass.

Des Moines City, Iowa, U.S.A., is decidedly a place that is being talked about. Its latest idea is to build its houses of glass, which is incombustible, strong, healthy, damp-proof, cheap, and easily kept clean. A young architect, who noticed that glass was usefully employed in the decoration of house-fronts, conceived the idea of building houses altogether of glass, and, to try his hand, he constructed a glass cottage, which was found to be so comfortable and sensible that he has had to build several other houses of the same material. The latest thing is to build a magnificent church entirely of glass, the interior of which will be most beautifully decorated with colored glass. There is plenty of excellent sand close to Des Moines, and the making of glass is now one of the chief industries of the place.

Intercolonial

His Lordship Bishop Doyle has concluded a tour through the southern parishes of his diocese in aid of the funds of the Cathedral at Lismore, now in progress of erection. During a two months' tour he succeeded in collecting £800.

In the course of his address at the laying of the foundation stone of a school-church at Newtown a few Sundays ago, his Eminence Cardinal Moran said that the pastor of the district, Very Rev. Dean Slatery, had labored unceasingly and devotedly for upwards of 42 years in the Archdiocese.

Another Eureka veteran died at Skipton (Victoria) the other day in Mr. John Daly. He kept a general store at Bakery Hill in the early fifties. In 1855 he went to Skipton, where he engaged in pastoral pursuits. Mr. Daly, who was in his 84th year, was a native of Watergrass Hill, County Cork, Ireland.

The new hospital erected by the Nursing Sisters of the Little Company of Mary from Lewisham at North Adelaide has cost £6000. The accommodation provides for 35 patients in two large, well-ventilated wards, and 15 private rooms. The new building is only part of a larger scheme. There are eight Sisters in charge and they have under them an in-and-out staff of 30 nurses.

The latest letter received from Mr. Daniel O'Connor (dated August 4) was written in St. Mary's Hospital, San Francisco, where he was recovering from three weeks' prostration, from an enteric epidemic induced by bad food and water. Mr. O'Connor, who eulogizes the treatment he had received at the hands of the Sisters of Mercy and their nursing staff, hoped within a short time to be starting Eastward.

The golden jubilee of the Rev. Mother Prioress of the Dominican Nuns of the Perpetual Adoration (Mother M. Raymund) occurred on August 28, and was celebrated most fittingly at St. Dominic's Priory, North Adelaide (says the 'Southern Cross'). Mother Raymund was born at Winchester, England, in 1840, and entered the Mother House, St. Dominic's Convent, Stone, Staffordshire, in 1855, receiving the habit in August, 1856, and was stationed in various houses of the Order in England until 1883. In that year the Rev. Mother, with Rev. Mother Rose Columba, came to found the present house at North Adelaide, and has been there ever since.

Marked progress (says the Sydney 'Freeman's Journal') is being made with the building in brick of the handsome Catholic Cathedral at Lismore. The main walls are now towering above the surrounding buildings, and the clerestory arches are almost completed. The arch over the main entrance to the nave is giving an imposing and chaste appearance to the southern facade. The pediments overhead and tracery rose windows above are finished. Some time ago it was decided to proceed with the sanctuary, two chapels, sacristy, and the northern end of the transept, and the walls of these are now up about ten feet. The convent is now receiving the joinery, fittings, and plaster, but it will be about December before it is ready for occupation. The exterior of the walls of the building are covered by a preparation resembling chipped marble and newly-fallen snow, and the effect is very striking. His Lordship hopes the Cathedral will be ready by Easter next, but owing to the immensity of the new building, this is very problematical. The cluster of buildings is a huge landmark in the town.

The Cathedral Fair (writes the Broken Hill correspondent of the Sydney 'Freeman's Journal') was a magnificent success, resulting in an addition of £1012 to the Cathedral funds. At the 11 o'clock Mass on Sunday, August 26, Dr. Dunne (Bishop of Wilcannia) tendered his hearty thanks to all who had in any way assisted towards the successful result achieved. He was particularly struck with the large number of non-Catholics who had attended night after night, and he was pleased beyond measure at such evidence of liberal mindedness and goodwill in their non-Catholic fellows. His Lordship repudiated the mention of the word 'gambling' in connection with a bazaar conducted in such a manner. If drawing for prizes at a bazaar was gambling, drawing for land at our land courts and at the local Star-Bowkett societies was gambling in a greater degree. People attended the fair not for any personal gain, but to assist in the liquidation of the Cathedral debt. He thanked all who had contributed to such a magnificent result, even those who by their opposition gave the fair an unlooked-for advertisement and stimulated the generosity of the more liberal-minded of the community.