

## Science Siftings

BY 'VOLT'

### Power of Niagara.

The horse-power of Niagara Falls is said to be represented by five million, and only 5½ per cent. of this is utilised in an industrial manner. Of this 126,800 horse-power is employed in electro-chemical processes, 56,200 horse-power for railway service, 36,400 horse-power for lighting, 45,540 horse-power for various industrial services; 12,300 horse-power is transmitted over more than 100 miles, 33,500 horse-power between 75 and 100 miles, 3100 horse-power between 75 and 100 miles, 3100 horse-power 50 miles, 79,640 horse-power between 10 and 30 miles, while 145,000 horse-power is used locally.

### Sand-soled Shoes.

Appreciating the rapidity with which leather soles wear out, an inventor now comes forward with a 'rock-bottom' shoe, which he declares to be practically indestructible. His invention consists of a cement for coating the under-side of the usual leather sole with fine quartz sand. His process is said to leave the sole as flexible as ordinary leather, and yet there is no danger of the cement cracking and chipping off. The shoes are designed principally for out-of-door workers, and it is asserted that not only will the shoe resist the effects of wear, but it will enable the user to maintain a footing upon the most slippery surface, the sole presenting hundreds of fine points which will grip anything without slipping.

### A Costly Skate.

Roller skating is older than most folk imagine. Joseph Merlin, a Belgian, born in 1735, a clever, inventive fellow, went to London in 1760 and exhibited his novelties at a museum in Spring Gardens, and afterwards in Prince's street, Hanover Square. Having made a pair of skates to run on wheels, he appeared with them at a masked ball given by Mrs. Cornelys, in Carlisle House, Soho. He was duly invited to display his skill. Having put on the skates he took a violin and began whirling about to his own music. One thing he had not studied, however, and that was how to guide himself and to stop quickly, and the result was that before the performance had lasted very long he dashed into an immense mirror valued at £1000, smashed his fiddle to bits, and seriously injured himself. That appears to have dampened the spirit of inventors, for we hear nothing of other wheel skates for nearly half a century.

### A Valuable Discovery.

Blotting-paper was discovered purely by accident. Some ordinary paper was being made one day at a mill in Berkshire when a careless workman forgot to put in the sizing material. It may be imagined what angry scenes would take place in that mill, as the whole of the paper made was regarded as being quite useless. The proprietor of the mill desired to write a note shortly afterwards, and he took a piece of waste-paper, thinking it was good enough for the purpose. To his intense annoyance the ink spread all over the paper. All of a sudden there flashed over his mind the thought that this paper would do instead of sand for drying ink, and he at once advertised his waste-paper as 'blotting.' There was such a big demand that the mill ceased to make ordinary paper, and was soon occupied in making blotting only, the use of which spread to all countries.

### A Little Lesson on How to Drive a Nail.

'It takes an apprentice a full year to learn that he does not know how to drive a nail,' said an expert carpenter. 'When once he has realised this it is only a matter of a few minutes to learn how it should be done. The commonest mistake is the belief that a hard blow with the hammer is more effective than several little taps, and the learner is inclined to admire the man who drives a nail all the way in with but one blow. This is where he is wrong; four or five blows are much better than one. The reason is that one hard blow inevitably makes the nail rebound, ever so slightly, it is true, but enough to make it hold less firmly than it would if driven in gradually. The nail may be driven almost all the way with one blow, but several lighter taps are necessary to finish the job. 'Another thing,' continued the old carpenter, 'the beginner generally tries to drive his nails as perpendicularly as possible. This is another error, for a nail driven a little diagonally holds the parts together much more firmly than one driven perpendicularly. And in driving a nail diagonally it is even more necessary to proceed with gentle taps, for hard blows inevitably displace the surfaces that are to be held together.'

Mr. E. Morris, jun., undertaker and embalmer, Taranaki street, Wellington, supplies coffins and caskets upholstered and polished in any design, and has a large and varied assortment of artificial wreaths and memoriam cards always on hand. All orders are carried out under the personal supervision of the proprietor....

## Intercolonial

The laity of the Archdiocese of Sydney have presented his Eminence Cardinal Moran with a sum of £2500 in connection with his silver jubilee in Australia.

Master Manus O'Donnell, who has been awarded the violin scholarship at the Marshall-Hall Conservatorium, Melbourne, is only nine years of age. He is the youngest son of Dr. N. M. O'Donnell, of North Melbourne, the well-known president of the United Irish League of Victoria.

The Rev. Father Briody, pastor of Chatswood and Pymble, has left for a twelve months' holiday in Ireland and the Continent. Prior to his departure he was entertained at a conversazione and presented with a purse of 140 sovereigns.

The Ven. Archdeacon Dalton, who left Murwillumbah a little over twelve months ago on a visit to Europe, returned to Australia recently. On arriving at Murwillumbah he was accorded a grand reception, and presented with an illuminated address.

Sister M. Stanislaus, one of the original Sisters of Mercy who founded the convent at Newtown 50 years ago, died at that institution on February 25. The deceased had been a nun for 60 years, and the Convent of Our Lady of Mercy at Newtown, her only place of abode in Victoria.

The Solemn Office and Requiem Mass were offered on March 1 in the convent church at Abbotsford for the repose of the soul of Sister Mary of St. Francis of Assisi (Doyle), whose death occurred on February 27 after a lingering illness. The deceased religious had spent over 45 years in the community of the Good Shepherd, having been the second postulant who entered after the establishment of the Order in Melbourne. She was a native of Leighlin Bridge, County Carlow.

Archbishop O'Reilly, of Adelaide, who suffered severely during the recent heat wave, left on a health trip round the coast by the P. and O. mail steamer on March 5, and was to visit Melbourne, Sydney, Auckland, and Hobart. His Grace is accompanied by the Very Rev. Father Francis, C.P., rector of St. Paul's Retreat, Glen Osmond. The Archbishop (says the *Catholic Press*) expects to be away about a month, and during his absence the administration of the diocese will be in the hands of the Right Rev. Monsignor Byrne, V.G.

The following clerical changes have been made in the Archdiocese of Sydney:—The Rev. Father P. A. Holland returns to his parish at Nowra; Father J. Rohan goes from Nowra to Pymble; and Father J. Dunne returns to Bulli; Father J. H. Morris leaves Bulli to take charge of the parish of Richmond in the absence of Father O'Brien, who is ill. The Rev. Dr. Tuomey will join the staff at Manly College, and Father Brauer will be stationed at St. Mary's Cathedral. Father Peoples has been transferred from Kogarah to Moruya, and Father O'Sullivan from Moruya to Newtown.

All the Bishops of the province being in Lismore for the consecration of Dr. Carroll, except Bishop Dunne, of Bathurst, who was unable to be present, and Bishop Dunne, of Wilcannia, now on his way to Europe, the annual Provincial meeting of the Bishops of New South Wales was held in the Bishop's House (says the *Catholic Press*). His Eminence the Cardinal presided. After the meeting the Cardinal and the visiting prelates and priests were entertained at a river excursion by Dr. Carroll. The Cardinal motored to Ballina and blessed and opened the new convent recently erected for the Presentation Nuns.

There is a pathetic passage in the recent biography of Dr. Doyle, first Bishop of Lismore (says the *Freeman's Journal*). When he died last year we have been told that he had 18s as his sole personal estate. According to his biographer when he arrived in Sydney, en route to Armidale, he had even less. 'He often told me in after life how he borrowed £7 from Mr. Thomas Barry, of Waverley. Last year, when in Cork, he visited this Mr. T. E. Barry, who has since returned to the Old Country, and had many chats over his first days in Sydney.'

A grand representative of the old colonial school, and one of the most prominent citizens of Sydney, has just passed away in the person of Mr. Patrick Macmahon. The deceased at the time of his demise was in his eightieth year. He was widely known in the commercial world as the owner of the Macquarie Bond, over which his name has been emblazoned for nearly forty years. The late Mr. Macmahon was born at Cloonteen, near Six-mile Bridge, on the Clare side of the Shannon, about the year 1830. He received a sound practical education in his youth from Patrick Slattery, one of the finest scholars and mathematicians in the South of Ireland. As he grew into manhood he, like many of his compatriots, turned his eyes towards Australia, and eventually decided to emigrate to these far-off shores.

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