

Science Siftings

By 'Volt'

A Valuable Find.

What promises to be a valuable discovery in monazite, containing thorium, has been made at Kangaroo Island, South Australia. Thorium is valued at £1700 per ton. The precise percentage of thorium is at present not definitely known, but experts say it is high. One expert states that the crystals found are the largest in the world. The interest of the discovery lies in the fact that thorium is used for the manufacture of incandescent gas mantles, the increase in the use of which has been a factor in sending up the price of thorium enormously of late years.

Road-Making Extraordinary.

Some experiments are at present being conducted in road-making which should interest all concerned with the laying-out of new roads. The roadway selected for treatment is ploughed as deeply as possible. Furrows are then dug across the road from ditch to ditch, four feet apart. Cordwood is then placed in the ridges thus formed, and ploughed clay is laid thereon in layers, care being taken to provide flues in order that the wood which is to be set afire will readily burn and bake the clay. When the firing is completed the treated clay is rolled and compacted to eight inches in thickness. The clay has been changed by the burning into clinkers, which compact into a solid roadbed, which will not form mud. The cost is low, and while the wearing qualities of the road have not been ascertained, it is believed that it will wear as well as other made roads. Where wood is dear it is thought petroleum might be substituted.

New Epoch in Wireless Telegraphy.

A new epoch in wireless telegraphy seems about to open with the Poulsen system, which was explained recently to a distinguished audience of scientific men and others, under the presidency of Lord Armstrong, by its inventor, who is a Dane. It replaces the present sparkling oscillator by an apparatus for producing continuous electric waves. This effects a great economy of energy, and has a further result of the highest importance to the transmission of clear, distinct, and intelligible messages. An illustration is given from sound waves. A pistol-shot near a piano would set all the strings in vibration; but a tuning-fork would make only that string of the piano give a sound which had a corresponding rate of vibration with a tuning-fork. So far telegraphists have had, as it were, to pick out a message from the strings all vibrating together, and interference between different lines of communication has been difficult to avoid. As the result of successful experiments the Poulsen system will soon be operating commercially; and it is likely to affect the possibilities of wireless telephonic communication.

When Forks Succeeded Fingers.

Table-forks are a comparatively modern invention. They have been in general use only during the last few hundred years. They were first used by the Italians as early as the twelfth century, but it was not until the end of the fifteenth that they came into general use.

In other countries at that time the use of table-forks was considered a contemptuous vice, and in 1450 Marius praised the King of Hungary for eating with his fingers without soiling his clothes. In the sixteenth century forks were not used in Sweden, and at the end of the same century they were novelties at the French court, where the French beauties soiled their dainty fingers in conveying their food to their mouths.

Strange to say, England was one of the last among the larger nations to adopt the use of table-forks, and Ben Jonson, in his play, 'The Devil is an Ass,' says: 'The laudable use of forks is being brought into custom here as in Italy, to the sparing of napkins.'

It was not until Shakespeare had been in his grave for twenty years that forks came into general use in England.

After an extended tour of twelve months, embracing several continental countries of Europe as well as England and Ireland, the Hon. John Meagher, M.L.C. arrived in Sydney on February 8.

Intercolonial

A Carnegie Public Library has been opened at Hobart. It cost £7500.

Two diggers at Poseidon rush are making £450 a week. Up to date, the local gold buyers have purchased over 5000oz of gold.

The Mayor and Councillors of Collingwood, non-Catholic ministers and leading citizens, visited the Magdalen Asylum, Abbotsford, recently at the invitation of the Rev. Mother Provincial. The result of their inspection is to give the lie direct to Mr. Tregear's slanderous charges. The visitors, one and all, were loud in their praises of the institution. An entertainment was given by the inmates, and an address was presented to the Mayor and Councillors.

Never in the history of the Perth Christian Brothers' College (says the 'W.A. Record') has it had such a year of successes as during the year 1906. Of the two University Exhibitions the college secured one, and of the five Senior Exhibitions the college boys secured two. The success of the school was still more marked in the results for the Junior Exhibitions, of which eight are annually given, the college securing no less than half of them.

In the Hamilton district a 'divining rod' expert is engaged in putting down bores for landholders on the principle of 'no water no pay.' During the last twelve weeks (writes the 'Leader') he has discovered underground flows and erected windmills on eleven bores on the properties of district landowners. The deepest bore was 114 feet. In one place an unsuccessful attempt had previously been made to find water by boring, and the expert, Mr. McLennan, went to one of the highest rises about the place near by, and struck a good flow at 22 feet. He states that his process never fails, and that he has used it successfully in Western Australia as well as in Victoria.

A review of the work of Sydney hospitals in 'S.M. Herald' shows that St. Vincent's compared very favorably in every respect with the State-aided institutions. In noting the large Government subsidies to Prince Alfred and other hospitals, the 'Herald' in a half-ashamed way remarks:—'In fact, St. Vincent's Hospital was the only one of the five institutions that did not receive Government aid. It was, as usual, entirely maintained by private subscriptions and patients' fees, and the expenditure in this hospital was considerably reduced by the fact that the 'Sisters of Charity, who do most of the nursing, carry on their work without fee or monetary reward, and purely as a labor of love.'

Arrangements for the shipment of this season's Tasmanian apples to England and Germany have been completed. Altogether 21 steamers will load at Hobart, and the total shipment will exceed half a million cases, almost double the quantity of last year, when the crop was short. A new departure will be the shipment of 20,000 cases to Antwerp and Hamburg by the German-Australian line of steamers. The freight will be 3s 0½d per case to Germany, a saving of from 9d to 10d per case on the cost of shipment from London. The all-round cost of shipment will be equal to a reduction of 2d per case on last year. The first shipment was despatched by the 'Orontes' on February 12. Steamers will call regularly thereafter for fruit till April 27.

The Rev. Dr. Rentoul (says the Melbourne correspondent of the 'Freeman's Journal') has returned from his holidays abroad. In an interview he said: 'Perhaps the first thing to strike one on returning to England after a number of years' absence in relation to the English public and political life is the immense personal popularity of the present King. It is not easy to define the various reasons for this great popularity and the confidence reposed in him. It exists in every section of the United Kingdom, and in Ireland also. If Irishmen are dissatisfied with the method of England's rule in Ireland, the feeling certainly is not at all against King Edward personally. The striking thing is that all the Roman Catholic Irishmen believe that he himself is disposed to grant a friendly hearing towards the national aspirations of the Irish people. And another thing which strikes one about the public and social life in England, and also in a degree of Scotland, is the change of mood produced by the wonderful dispersion of wealth, bringing with it a more luxurious mode of living.'