

facture enjoys the exclusive privilege of being sanctioned and admitted within the building of the International Exhibition. The matches were at first coated with sulphur in the usual manner; but this practice appears to have been discarded almost immediately in favour of the employment of some kind of fatty matter for impregnating the wood. No phosphorus being employed in the match composition, they are, of course, quite destitute of the unpleasant odour and poisonous character of this substance. The dangerous practice of carrying loose matches about the house, and the common habit among servants of striking them upon the wall to the disfigurement of the paper-hangings, will be altogether avoided by the introduction of Bryant and May's patent special safety match.—*Chemical News.*

Machinery For Printing Calicoes.

An idea may be formed of the extraordinary influence which the introduction of machinery and improvements in engraving have had in cheapening the cost of printed calicoes, from the statement made by Prof. Calvert of the United States, that large furniture patterns, such as are required for some of the oriental markets, and into which sixteen colours and shades enter, would have cost formerly from 7 dols. to 9 dols. per piece, because they would have required sixteen distinct applications of as many different blocks, and would have required more than a week in printing, whereas the same piece can now be printed in a single operation, which takes three minutes, and costs about 1 dol. 50-

The Electric Light.

M. Nadar has recently succeeded in obtaining a series of singular and interesting views of the Catacombs of Paris, by illuminating them with the electric light. The French department of the International Exhibition possesses some photographs printed by the aid of this light. Plants, grown under the influence of the electric light alone, are said to assume their green tint as in sunlight.

Interesting Geological Discovery at Hastings.

The fall of the cliff near Hastings has brought to light an interesting slab of stone bearing on its surface the clear impression of the foot of a gigantic bird. It has three toes, each of which is about nine inches long in the tread, with a claw at the end, of perhaps two inches in length. The back of the foot, where the three toes meet as in a centre, does not appear; that part of the foot did not reach the ground. But still further back is the mark made by the point of the spur, or fourth toe. From the point of the middle claw to the mark of the spur it measures twenty-four inches, and in width twenty inches. The whole of the slab is covered with the lines of ripple made by the waves upon soft mud, and there are numerous other impressions more or less perfect of the same bird's claws on other slabs of stone. The bird which has left us this footprint may be supposed to have been at least twelve feet high, and perhaps much more. Mr. Jones, of the Geological Society, Somerset House, suggests that it may not be the footprint of a bird, but probably of the iguanodon. But he has not seen the original slab.—*West Sussex Gazette.*

The Iron Fleet of Britain.

In addition to the iron frigate Achilles, 50, 6,079 tons, 1,250 horse power, building at Chatham dockyard, the following squadron of iron vessels are now under construction by private firms for the Admiralty, several of which are in a very advanced state—viz., the Agincourt, 50, 6,621 tons, 1,250-horse power, building at Birkenhead; the Northumberland, 50, 6,621 tons, 1,250-horse power, and the Valient, 32, 4,063 tons, 800-horse power, building at Milwall; the Minotaur, 50, 6,621 tons, 1,250-horse power, and the Orontes, 3, 2,812 tons, 500-horse power, building at Blackwall; and the Hector, 32, 4,063 tons, 800-horse power, building at Glasgow. The following iron-plated frigates are now building at the several Royal dockyards, the whole of which are intended to be afloat during the present year—viz., the Caledonia, 50, 4,045 tons, 800-horse power, at Woolwich; the Ocean, 50, 4,045 tons, 1,000-horse power, at Devonport; the Prince Consort, 50, 4,045 tons, 1,000-horse power, at Pembroke; the Royal Oak, 50, 3,716 tons, 1000-horse power, at Chatham; and the Royal Alfred, 50, 3,716 tons, 800-horse power, at Portsmouth. In addition to the above there are no fewer than 31 line-of-battle ships and other screw steamers now on the stocks at the several dockyards, most of which are admirably adapted for conversion into shield ships, on Captain Coles's principle. Of these the Bulwark, 91, at Chatham; the Repulse, 91, at Woolwich; the Robust, 91, at Devonport; and the Zealous, 91, at Pembroke, are all in a very advanced state, requiring only a comparatively small outlay to plate them with iron. There are also three first-class 51-gun frigates also building—viz., the Belvidera at Chatham, the Tweed at Pembroke, and the Dryad at Portsmouth,—which are admirably adapted for conversion into armour-plated ships. They would not require the removal of any decks, as would be the case with line-of-battle ships, but would only have to be lengthened and strengthened to enable them to bear the increased weight which would be placed on them. Of the other vessels in progress several are intended to carry 22 guns and upwards. If completed as iron-cased steamers they would be larger and of greater tonnage than either the Monitor or Merrimac. The whole of the hands have been removed from the wooden ships building at the several dockyards, and are now employed on the iron-cased frigates under construction, five of which will be afloat by the end of the present year.—*Times.*

Canadian Copper.

The quantity of ore produced at the Bruce Mines during the past season was 472 tons 11 cwt. 3 qrs. 2 lbs., of 17 per cent., being about 75 tons short of the previous year's production. The production at the Wellington Mine (leased from the Montreal Company by the West Canada Mining Company) was 1,175 tons, of about 19 per cent., being over 100 tons short of the previous year's production. The royalty paid to the Montreal Company from the Wellington was about 58 tons. The quantity produced at the Huron Copper Bay Mine, also in the hands of the West Canada Company, will, it is believed, exceed that of the Wellington, and probably bring last year's produce of the Bruce and Wellington and of the Huron Bay together to about 3,000