

## INTERESTING ITEMS.

M. Leon Say is about to visit this country for the purpose of studying the postal and telegraphic systems.

An International Art Exhibition is to be held in Munich next year, and thenceforth every fourth year.

Mr. John Hollingshead affirms that the electric light on a large scale can be produced at half the price of gas.

The *Cape Standard and Mail* states that a very extensive deposit of coal has been discovered in the Free State, near the Transvaal River.

Messrs. Bright Bros. are laying a wire from their Rochdale manufactories to their Manchester warehouses, to be worked by telephone.

A FRENCH gentleman who has visited Cyprus for commercial purposes says there will be no profitable business doing in that island for three or four years to come.

The Chinese are fast getting their revenge of the foreigners, especially the English, for compelling them to open their ports to the outside world. They are steadily getting the commerce and trade of nearly every land, originally established by foreigners, into their own hands; and it is said that from three-quarters to four-fifths of the commerce, great and small, of the country, introduced by the British, Germans and Americans, is owned and controlled by the natives. These are so very shrewd and so contented with small profits, and can live on so little, that the people of other nations can in no manner compete with them. They crowd out all other races, and the time seems not distant when they will be likely to have everything their own way.

**PLASTER OF PARIS FIGURES.**—Plaster of Paris figures are cast in plaster of Paris moulds. When the molds are in pieces, so as to be removed from the cast with ease, they are called safe or piece moulds. The pieces are saturated with boiled oil, and are oiled slightly every time they are used. When the pieces are numerous they are covered with an outer case—also of plaster of Paris—in two pieces. The mould is fitted together, bound with strong cord, the gauged plaster (plaster mixed with water to the consistency of batter) is poured into the mould, and the mould turned about so as to insure a nearly equal thickness of plaster in every part of the cast. When the cast has set or hardened the mould is carefully removed, and the process repeated if more casts than one are required. The thin ridges covering a rough plaster cast are the marks left by the joints of the mould. A waste mould is made by covering a figure modelled in wet clay or wax with plaster of Paris. The mould is in two pieces if the model is of clay, in which case, when the plaster is hard, it is forced off the clay figure, and the latter picked and washed out of every part. If a wax model is used it may be melted out by placing the mould in a dish or pan over a stove. The plaster mould is then soaked in water until perfectly saturated and filled with gauged plaster. When the cast is set hard, the mould is chipped off with a carpenter's chisel and mallet, care being taken not to chip off any part of the inclosed figure. This process is called "knocking out." To guard against injury to the cast the waste mould is usually made of plaster coloured with red or yellow ochre. Large moulds are strengthened with rods of iron bent as necessary and imbedded in the plaster.

**AN INSTANCE OF ENGLISH VANDALISM.**—An English tourist mob has broken into the Louvre and smashed a vase. One James Orden was in the second room of the Musée Compara, looking at the objects in terra-cotta, and enjoying the solitude of the place, when a crowd of two hundred tourists, led by a man who spoke broken English, rushed in helter-skelter. Suddenly James aforesaid heard a faint shriek, succeeded by a crash, and lo! one of the two large vases from Cyprus, between four and five feet high, which he had been admiring, had been pushed over from its pedestal, and lay in a hundred pieces on the floor. The custodian was quickly on the spot to protest against the destruction of an art treasure. This was one of those "personally conducted parties" which advertisements have commended to the public of all climes, and the cicerone was equal to the occasion. "Well, it cannot be helped, but I cannot have my party interrupted in this manner; we are already late. You know me, you know Mr. —; send in your bill, but I won't have my party interrupted any longer." So the crowd swept on. Presently the *chef* was on the spot; he ordered the fragments to be collected in a basket, and in a few minutes a vacant pedestal was the only thing to show that a treasure which had escaped for centuries the vicissitudes in its own country, and the perils and destruction of

revolution and commune in the land of its adoption, had fallen at the hands of English travellers. James followed the mob, and only heard the guide remind his people that every picture in the Salon Carré was a masterpiece, and that "that one by Murillo" had cost \$25,000. Four stragglers, standing before Teniers' "Kermesse," were amused by the antics of the Dutch boors at the country fair, and the eldest of the group, in order to emphasize the remark, "By jingo, these two are having a foine toime of it," actually gave the painting a rap with his walking-stick.—*The London Times*.

**INK THAT CANNOT BE ERASED.**—According to the *Pharmacist*, an ink that cannot be erased even with acids is obtained by the following recipe: To good gall-ink add a strong solution of fine, soluble Prussian blue in distilled water. This addition makes the ink, which was previously proof against alkalies, equally proof against acids, and forms a writing-fluid which cannot be erased without destruction of the paper. The ink writes greenish-blue and turns black.

A VARNISH made of Canadian balsam, dissolved in turpentine, supplies a most valuable means of making paper transparent. The mode by which this is most satisfactorily accomplished is by applying a pretty thin coating of this varnish to the paper so as to permeate it thoroughly, after which it is to be coated on both sides with a much thicker sample. The paper is kept warm by performing the operation before a hot fire, and a third or even a fourth coating may be applied, until the texture of the paper is seen to merge into a homogeneous translucency. Paper prepared according to this process is said to come nearer than any other to the highest standard of perfection in transparent paper. Care must be used in making, as the materials are highly inflammable.

**EXPLOSIVENESS OF FLOUR.**—Professors Peck and Peckham, of the University of Minnesota, have been making a series of experiments on the explosiveness of flour to determine the causes of recent disastrous flour-mill explosions at Minneapolis. The substances tested were coarse and fine bran, material from stone grinding wheat; wheat-dust, from wheat-dust houses; middlings, general mill-dust, dust from middling machines, dust from flour-dust houses (from stones) and flour. When thrown in a body on a light all these substances put the light out. Blown by a bellows in the air surrounding the gas flame the following results were obtained: Coarse bran would not burn. Fine bran and flour dust burn quickly, with considerable blaze. Middlings burn quicker, but with less flame. All the other substances burn very quickly, very much like gunpowder. In all these cases there was a space around the flash where the dust was thick enough to ignite from particle to particle, hence it remained in the air after the explosion. Flour-dust, flour middlings, etc., when mixed with air thick enough to ignite from particle to particle, and separated so that each particle is surrounded by air, will unite with the oxygen in the air, producing a gas at high temperature, which requires an additional space, hence the bursting. There is no gas which comes from flour or middlings that is an explosive; it is the direct combination with the air that produces gas requiring additional space. Powerful electric sparks from the electric machine and from the Leyden jar were passed through the air filled with dust of different kinds, but without an explosion in any case. A platinum wire kept at a white heat by a galvanic battery would not produce an explosion. The dust would collect upon it and char to black coals, but would not blaze nor explode.

## LEAD POISONING BY BREAD.

The people in a populous district of Paris suffered lately from lead poisoning, and Dr. Ducamp traced the cause to the bread used. The baker from whom it was obtained, as well as his family, were equally affected. The flour, water, and yeast used by him were of the same kind as that used by neighbouring bakers, and contained no lead, while the bread he sold did contain it. Finally, it was discovered that he had heated his oven with old boards taken from demolished buildings. These boards had been painted with white lead, which, during combustion, was volatilized and deposited all round in the oven. It was then found that the persons employed to dust the bread from adhering ashes, etc., were the first and worst affected, while in one family where an old person ate the soft part and the young ones the crust, the first remained free while the latter were the most severely attacked.