New Inventions.

Manufacture and Reduction of Platinum.

W. S. Newton has recently obtained a patent in England for improvements in the manufacture and reduction of platinum. The platinum ore to be operated upon is rinsed in a state of division with lime, baryta or strontia, magnesia, or other carbonates. This mixture, on being roasted in the open air, will be deprived of the greater part of the osmium which it contains. The ore is afterwards melted in vessels, the inside of which are lined with lime, baryta, strontia, magnesia, or the carbonates of these bases, and this fusion is effected by means of a combustible gas in combination with oxygen.

Oilcloth to Imitate Leather.

A patent has lately been secured in England by J. J. C. de Clerville, for the following method of making ornamental oilcloth. Instead of first painting or printing with oil colors on a white ground, as is usually done, he employs cloth which has first been printed upon, or dyed like calicos, and on this he puts a transparent ground or coating, by applying several coats of clarified linseed oil, rendered "drying" in the usual way with sulphate of zinc or acetate of lead. When this transparent coating is dry, it is rubbed smooth with pumice stone, and a hard varnish put on the top—copal varnish is employed for light colors, and asphalt varnish for black glazed cloth.

Extraction of Copper from Ore.

Lewis H. Parrish and R. M. Roberts, have secured a patent in England for improvements in the separation and extraction of copper from its ores. The object sought is the chemical treatment of copper ores, so as to obtain a greater per centage of pure copper from the ore, and also to render available refuse ore. The ore, if large, is broken up into lumps of about two or three inches cube. These are then placed in a furnace, calcined, and kept at a dull red heat. After being sufficiently roasted, the ore is withdrawn from the kiln through a trap underneath, and instantly passed through two pairs of ordinary crushers, the first pair of which will reduce it into small lumps, and the second will pulverize it. While still hot it is next plunged into an acid bath made of lead or slabs of slate, to stand heat. This tank is placed inside an iron tank containing water, and fire is applied to the bottom of the water tank; the solution is to be kept within a few degrees of boiling point. The ore must be kept frequently stirred. When the solution has taken up all the copper, it should be drawn off through a filter into a second tank, containing iron to precipitate the copper. The tank is to be kept warm by a low heat under the bottom. When the whole of the copper has been precipitated, the solution may be carefully drawn off into another vessel, and is then ready to be rinsed after adding fresh acid. The precipitate left in the tank is then thoroughly cleansed with water, laid upon a drying stove, thoroughly dried, and is then ready for melting.

New Patent Plow.

The advantages of having plows constructed so that their shares and mold-boards can be adjusted laterally and vertically, and thus take more land, or give a greater depth of furrow, as required, are now fully appreciated by the farmer; our engravings illustrate a plow—invented by T. Sanford, of Redding Ridge, Conn.—which fulfils these conditions.

Fig. 1 is a perspective view, and Fig. 2 a top view of this plow, in both of which A is the land side, B is the mold-board, and C is the standard. To the mold-board and land side are secured by screws and nuts, *a*, two inclined bars, D, of wood; they are connected by the cross bar, E, and bolted to the bars, F, by means of bolts, *c*, near the handles, *b*. The bars, F, meet together in a socket, *d*, where they are secured by a screw, and this socket has an eye, *g*, cast in it, through which passes the bar, H, provided with the ring, *h*, to which the horses are attached. On the bar, H, is a screw and two pieces, which can be moved along, and as they grasp the coulter it can be fixed in any position. H passes through the standard, C, and terminates in a screw nut, *f*. A piece of iron bar bent to a V-shape is passed under H, and each branch is secured by a nut and screw on its end to one of the bars, D, at *e*, and from the top of the standard, C, rise bars, *i*, to F, of wood, and adjustable iron bars also. The use of all these braces and

SANFORD'S IMPROVED PLOW.

Fig. 1.

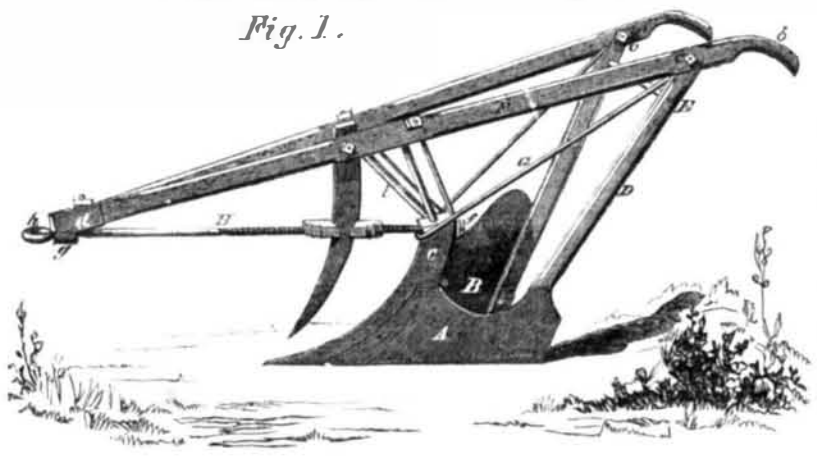
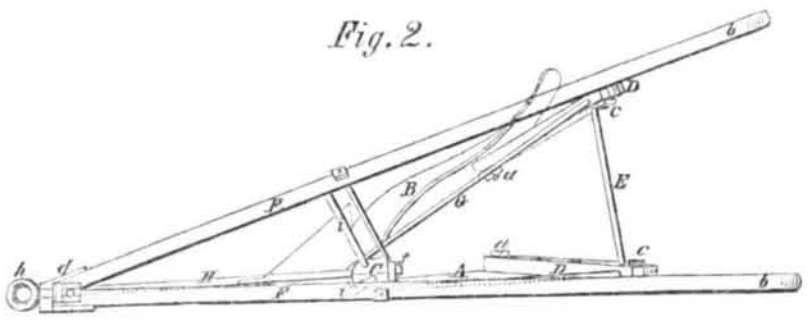


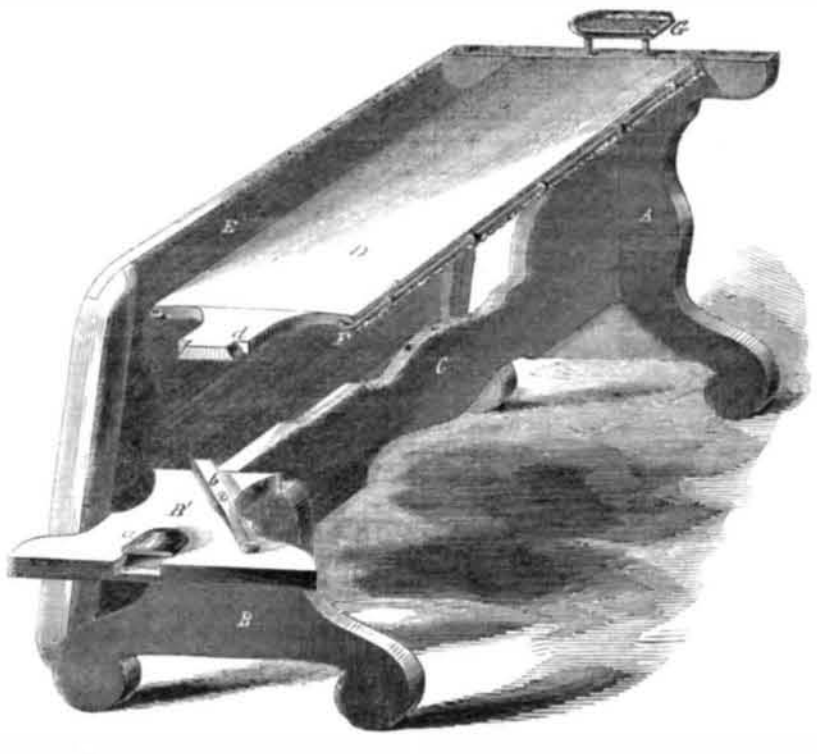
Fig. 2.



tie bars is very obvious; if it is desired to give more land to the plow, then the arm of G next the mold-board is slackened, and the other arm is tightened; and should less land be wished, then the opposite side is tightened, and the land side slackened. If a greater depth of furrow is required, the nut, *f*, is slackened, so as to let the point be placed at a greater angle with the surface of the ground, and the straining bars, *i*, are moved a hole nearer the handles on F, which have a number of holes perforated in them, wherein to fix the straining bars for the various depths of furrows required.

A patent was obtained for this excellent plow February 23, 1858. The inventor will be happy to furnish any further information upon being addressed as above.

VANDENBURGH'S IRONING TABLE.



The method usually adopted by laundresses for ironing shirts, skirts and similar garments is to lay the ironing board across two chairs, and by lifting up one end pass the garment off or on as the case may be. The table which is the subject of our engraving is intended to supply a good firm ironing table that will easily admit of articles being placed on or off it, and at the same time serve the purpose of an ordinary table when required.

A is a leg, to the top of which one end of the table is rigidly secured. A is connected by a crosspiece, C, to another leg, B, the upper half of which, B′, is movable on a hinge and has a groove in it, *a*, to receive the end, *d*, of the table, D. In the position which it has in the illustration, the shirt would be put on, and the piece, B′, turned to its place and secured by the catch, *b*, and a firm table is obtained on which every part of a circular garment can be ironed. The cover is secured to the table by the bar, F, passing through the loops on wire, *f*, that pass through the cloth. G is an iron stand that can be removed to admit of the top, E, being put over the ironing table, D, and render it useful for any household purpose. It was patented April 6, 1856. The inventor, W. Vandenburgh, Jr., of this city, has also applied for a patent for another method of attaining this same end, namely, by causing the top to slide laterally or vertically on fixed supports, so that he will be sure to have the laundress's desideratum, a really good ironing table. Mr. V. will give any further particulars upon being addressed at 313 Spring street, New York.

Colt's Extension.—Curious Rumors.

In our issue of the 1st inst. we announced, upon the strength of a statement which had come to our knowledge, that the Committee on Patents in the House of Representatives had reported strongly against the extension of Colt's patent. Since that date we have carefully examined the proceedings of Congress as they have appeared in the *Congressional Globe*, hoping to see some official confirmation of our announcement. None has appeared; and we are compelled to come to the conclusion that the Committee has not yet fully made up its mind what it will do with this important case.

Rumor—which is not always reliable—says that Colt does not wish the Committee to report at present, all things not seeming to be propitious. The reason given is, that by preventing an adverse report, and thus keeping his case in the pigeon-holes of the committee room from session to session, he can deter competitors—under impressions of fear that his patent may be extended—from engaging extensively in the manufacture and sale of his revolving arm, and thereby reducing the price now paid him for it by government.

We can believe almost anything in these perilous times, but we cannot twist our confidence in the Committee to such an extent as to believe that its members can so stultify themselves and the interests of which they are the appointed conservators, as to compound with any such iniquity. Is it possible that the spectre of a probable extension is to be held *in terrorem* over the heads of those who, besides Col. Colt, have rights in this matter? We cannot believe it. We do not believe the Committee will thus shirk this grave matter. Come forward, gentlemen, and make a report, one way or the other. If you think Colt is entitled to an extension, frankly say so; if not, be equally frank in your opposition. The public interests require such action at your hands, and the sooner this matter can be decided the better.

Shagreen.

The common horny looking covering which we notice on old spectacle cases and surgical instrument cases, of a green colo is of this material. It is prepared from the horse or ass skin, its granular appearance being given it by imbedding seeds in it while soft, and then shaving down the surface; the green used is that produced by the action of sal ammoniac on copper filings. The name is derived from a species of whale, *shagree*, from whose skin it was formerly supposed to be made, when the manufacture was confined to Astracan.

A Compliment.

Among the new members elected at the recent meeting of the American Association for the Advancement of Science we notice the name of Charles F. Loosey, Esq., the Austrian Consul General, who is highly esteemed in New York as a citizen and man of science, and has been largely instrumental in introducing American inventions into Austria.

We are indebted to Hon. John Cochrane, M. C., for a copy of Vol. 6, "Explorations for a Railroad Route from the Mississippi River to the Pacific Ocean."

The Emperor of Austria has presented the great Gold Medal of Arts and Sciences to Lieut. Maury, of Washington, for his contributions to science.

A great number of the silk worms of the south of France are diseased this season.