

## New Inventions.

## Extension of Patents Applied for.

J. A. Pitts, of Springfield, Ohio, and H. A. Pitts, of Alton, Illinois, have petitioned the Commissioner of Patents for an extension of a patent granted to them on the 29th June 1837, for improvements on machinery for threshing and cleaning grain, which expires on the 29th of next June. The petition will be heard at the Patent Office, on Monday the third of next March, at 12 M. All persons are notified to appear and show cause why the said patent should not be extended.

All extensions are for seven years. The Commissioner has the power of granting the extension. Those opposing extensions can also file their objections in writing in the Patent Office. The objections thus sent on must be filed 20 days before the day of hearing. All testimony thus filed must be taken according to the legal rules of the Patent Office.

Advertising notices of applications for inventions are published in the Washington Republic, New York Tribune, and some other papers. We intend to publish all such notices for the future, not charging the government nor Patent Office for the same. Such favors are awarded only to political papers, not because they are vehicles to carry out the objects of the Patent Law, but to fulfil the old maxim of Gov. Marcy—"to the victors belong the spoils." One hundred times more inventors read the Scientific American, who are interested in such things, than all of the papers in which the advertisements are published.

## Electric Clock.

M. Peyrott, of St. Etienne, has arranged an electrical clock, after, we believe, an American invention, which, at small expense, and by means of communicating wires, will indicate the same moment upon a myriad of clock-faces. In this manner, one clock will serve a whole city, and the inhabitants may take Time into their houses, and pay by the month as we do for gas and water. What a vista of pleasant possibilities this discovery opens! No more inaccuracy in dinner arrivals—no more being caught at home, by difference in clocks, at hours arranged for friends or creditors to call.—[Exchange.]

[The Electric Clock is now ten years old, and is the invention of Bain.]

## Machine for Splitting Rattans.

Mr. Joseph Sawyer, of Royalston, Mass., has invented and taken measures to secure a patent for a very useful improvement in machinery for splitting rattans, which are exceedingly useful for many purposes. The rattans are fed into two chisels by a set of grooved horizontal rollers, and they are held to the action of the chisels by two movable vertical rollers. The strips that are cut off, fly out in one direction and the larger part of the rattan by another. Thick or thin stripes can be cut at the will of the operator. It is a good improvement.

## Machine for Making Umbrella Ornamental Handles, &amp;c.

Messrs. West & Plumb, of Honesdale, Pa., have invented a very beautiful and simple machine for making ornamental umbrella handles, canes, &c. We have seen this machine, and some of the work performed by it, and we must say that this is a good improvement. Waved and circular smooth elevated windings are produced on the handles: this is done by a peculiar die, which acts upon the handle by pressure, while it (the handle) receives both a rotary and reciprocating motion at the same time.

A German manufacturer, represented by an agent in London, is constructing a musical bed for the exhibition of 1851. Directly the occupant of this bed presses it, soothing airs will be emitted; and thus lulled, he may luxuriously fall into the arms of sleep.

A pair of compasses, said to be undoubtedly Roman, but resembling in every respect the modern instrument, have been found among the Roman remains lately discovered at Cirencester, Eng.

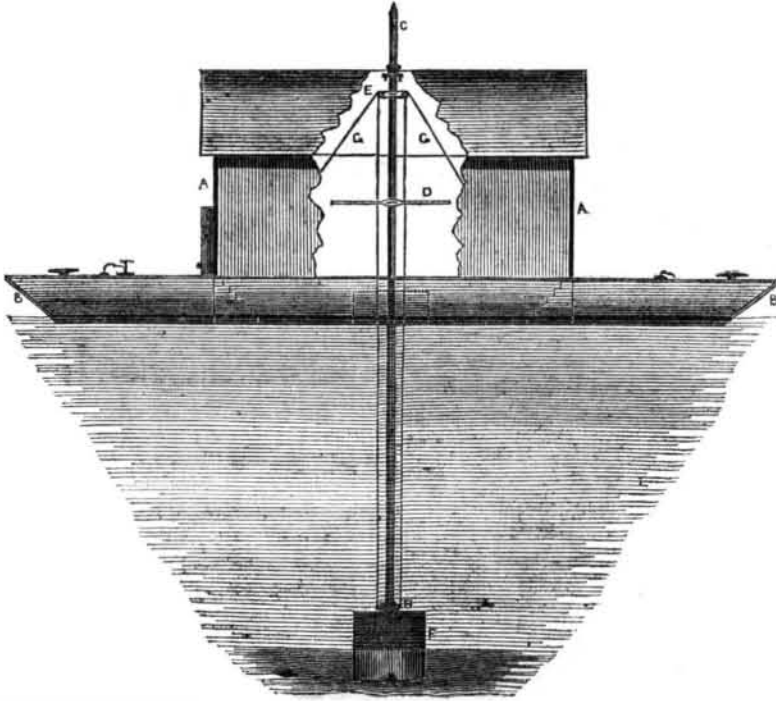
## Inventors.

Inventors are, generally, poor hands at profitably using or disposing of their inventions. There is little use of inventors appealing to the public press, or men of science, for opinions favorable to their works, hoping thereby to make them go practically with the public. Every inventor should have a "good angel" in the shape of a ready, practical business man, to push his invention into the world. In this way only are inventions rendered profitable and known. Our friends of the Scientific

American, who probably know something—they ought to—of the history of inventors and inventions, will, we doubt not, bear witness to what we have said. Genius creates, but it takes talent and tact to apply—to render useful and profitable.—[New Yorker.]

[The above is nearly correct. Inventors although they may not have much of the world's goods, can still do a great deal by advertising. Without advertising now-a-days, very little indeed can be done.]

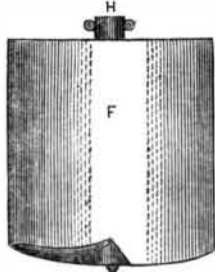
GOLD BORING EXCAVATOR.—Figure 1.



This machine is the invention of Mr. James Reynolds, No. 268 Broome St., New York City. Its object is to raise gold deposits in streams and rivers by a very simple and excellent combination and arrangement of machinery, which cannot fail to awaken considerable interest respecting its merits.

Fig. 1 is an elevation showing the apparatus in operation; fig. 2 is a side view of the borer; and fig. 3 is a plan view of it, (looking down.) The same letters refer to like parts. B B represents a scow seated on the water; it may be kept firmly in its situation by pointed stakes driven down at each corner. The water is shown, and the borer in operation. A small house, A A, is built on the scow for the gold diggers and washers, to live in. The borer consists of a metal cylinder, F, having its bottom cast partly solid with a socket tube, H, in the centre to receive a shaft C. This

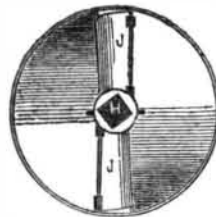
FIG. 2.



borer is peculiarly constructed. It is divided into two bottom sections, which have a projecting lip, each, like an auger's; these two lips project below the bottom. There are two openings into the borer cylinder through the bottom; these are covered with hinge valves, J J, which open upwards to let deposits rise up into the cylinder, F, of the borer, but will prevent them from falling back. These valves are not flat and horizontal, for in that case, they would not fall back fast enough to close the openings when the cylinder was lifted up, but they are hung upon their axes nearly vertical. The lips below, and their form are something of a screw or turbine form, so that the valves fall plumb, yet the lips are inclined outwards and downwards below them. The cylinder of the borer is intended to be heavy enough to sink by its own gravity into the mud. D is a lever on the shaft, C, for the men to turn the said shaft. When they do

this, the cylinder, F, moves round, and the auger lips below, acting like a screw, raise the deposits into the cylinder; and when it is full, by a rope, G G, passing over fixed pulleys, E, and down into eyes on the centre socket of the cylinder, the cylinder, with its contents, can be elevated carefully and rapidly with its precious load. The deposits can be washed by others on board of the scow in any of the known ways. This borer is certainly a novel plan for elevating the deposits, and no doubt it is a most excellent plan for some situations. Instead of having to turn aside rivers and streams, to lay bare their water courses, this apparatus can be used so as to save all such labor—a labor the most arduous, and oftentimes performed without any remuneration whatever. This machine can be used to tap, as it were, certain situations, before commencing operations, so that labor may not be spent in vain. It can be worked in all kinds of weather, and during all hours, night and day.

FIG. 3.



More information may be obtained about it from Mr. Reynolds, who has taken measures to secure a patent.

## Pony Sleigh for the World's Fair.

Messrs. Jas. Gould & Co., of Albany, have built a pony sleigh of magnificent workmanship for exhibition at the World's Fair. The cushions are of crimson velvet, with satin borders. The body of the sleigh is crimson, highly polished, and the ornamental painting is very beautiful. It will be a creditable specimen of American skill in this important branch of mechanism.

## Scientific Examination of the Florida Coast.

Professor Agassiz is about to proceed to the South, intending to devote some time, in company with the officers of the Coast Survey, to a scientific examination of the Coast of Florida, with a particular view to the coal formations in that region.

## The Gases of Water.

That Mr. H. M. Paine has effected an admirable modification of the ordinary magneto-electric apparatus, by which, without proportionate increase of motive power or dimensions of any part, may be generated or rendered active an amazing quantity of electricity, is incontrovertibly true. And it is probably true, also, that, by peculiar adjustment of electrodes, Mr. Paine is enabled to decompose water with great rapidity, and liberate, at will, either hydrogen alone, or oxygen alone; but that this truly surprising effect proves, by itself, that what we term oxygen and hydrogen, are but two dissimilar electric or molecular conditions of one element, may not be admitted until the averment shall have been substantiated by accurate analytic experiment.

It may be asked—what becomes of the oxygen, when hydrogen alone is evolved? May it not remain in combination with water to the formation of peroxide of hydrogen? (or, properly, binoxide, since, for the present, we are to consider that ozone is the peroxide.) And when oxygen alone is eliminated, is it not more credible that the partially decomposed water becomes a sub-oxide of hydrogen (a hitherto undiscovered compound), than that, for more than two-thirds of a century, profoundly erudite philosophers in the most exact of sciences, have universally misread the primary character of their alphabet?

And lastly, and with less probability, may not the gases, which are furnished by this electrolytic action, be truly gaseous water in such isomeric condition that (in accordance with its electric attributes) it exhibits the respective properties of either hydrogen alone, or oxygen only? Indeed, Mr. Paine himself has said that the hydrogen produced by his arrangement of apparatus, differs from ordinary hydrogen in certain respects. Of these points of difference, one I presume to be, that it is perhaps more readily and effectually catalyzed by transmission through oil of turpentine and other camphenes, than ordinary hydrogen, which may not possess, in so great a degree, the quality of undergoing isomeric change by chemical inductive influence.

Something further, in this connection, may be said hereafter, when there shall have been developed data more tangible, on which to base our speculations. HERMES.

[We would state, as answer to the above, and some other articles which we have noticed in various papers, that Mr. Paine states that "he knows water to be a simple, or, in other words, can be resolved wholly into hydrogen gas."]

We have a letter now before us from Mr. Paine, wherein he states that he can give the names of scientific men, who have resolved all the water into hydrogen by a common Grove battery.

In all the accounts which have been published we have seen none that touches definitely upon the productive effect of Mr. Paine's machine: here it is as stated in his letter to us:—

"With a magnet whose legs are 12 inches long, and 2½ wide, with a weight of 64 pounds falling 3 feet in one hour, as a motor, I evolve 100 cubic feet per hour—more could be obtained, but not without danger."

In a short time Mr. Paine will furnish us diagrams and a full description—he has now gone to the South for a brief period.

Mr. Paine has published a challenge in the "Boston Commonwealth," to resolve water entirely into hydrogen without completing the electric current, with the use of any battery and electrodes his opponent may choose. The challenge is for \$5,000 to be given to some charitable institution. This challenge has been accepted. Here are the conditions:—

"I stipulate, according to the terms of his proposition, that the electric circle is not to be complete—that there shall be no possible connection between the poles of the battery, either by metallic, fluid, or any other electric conductor; also, that there shall be no oxygen generated, in a free or combined state; and, further, that Mr. Paine shall show to the satisfaction of the supervising committee that he purposes, that but one current of electricity passes through the fluid, by the agency of which hydrogen alone is disengaged."