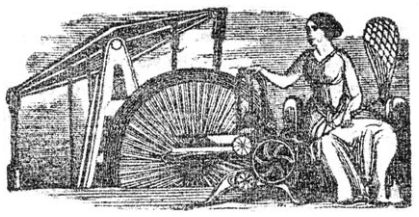


New Inventions.

Sanding Machine for Painters.

Mr. G. W. Maynard, of this city, has invented a very neat little machine for Sanding the fronts of houses, which is a most convenient instrument to the painter for the purpose. It consists of a small blower, in the front of which is placed a neat sand hopper, which communicates with the spout. By driving the crank handle of the blower, the sand is driven to, or on any part of the building the painter directs it. It is made to couple with a straight or curved spout, to direct the sand into the corners, &c. It can throw any quantity of sand on any particular spot, and it is therefore a most valuable acquisition to the art. It has proven itself to be this, as the inventor, who is a tradesman, has fairly and successfully tested it. Measures have been taken to secure a patent.

Improvement in Planing Machines.

Mr. B. Hoyt, of Nashua, N H. has made an improvement in the reciprocating Planer, by combining it with a spring guard which holds the board firm to the action of the planing knife and thus prevents slivers being thrown out by the action of the plane when it comes in contact with knots, &c. He has tried his machine and it works with great satisfaction. He has taken measures to secure a patent.

Improvement on Shingle Machines.

A very small improvement is sometimes a very valuable one. It all depends on the universality and use of the machine. An improvement on the steam engine, or in the cotton manufacture, although it may be a very small one, yet if it saves two or three per cent, it becomes of extraordinary value. Mr. W. Wood, of Westport, Ct. has made a small improvement on the shingle machine, but it appears to be a valuable one. It consists in the mode of shifting the tail block and block of wood by the combination of an arm of the main axle that shifts the block to the required angle from side to side for every cut, as the block is moved forward. The plan is very simple and effects the object in a clever manner. He has taken measures to secure a patent.

The Fan and Fly Wheel.

Mr. J. F. Mascher, of Philadelphia, has taken measures to secure a patent for an improvement in machinery, of a combination of the fan wheel for clocks and the fly wheel used in steam engines, the same as is now in use in musical clocks, with this difference that it expands by an increase of speed and answers the purpose of a most excellent governor, and for some purposes it is better adapted than any other kind of arrangement of the fly or fan.

Improvement in Carriage Axles and Thimbles.

Mr. P. S. Eastman of New Hartford, Oneida County, N. Y., has made a very neat and useful improvement in securing the thimbles to the wooden axle by a long screw bolt passing directly through the small end of the thimble, on which the wheel nut is placed, into the end and through a hollow part of the axle in which there is a screw nut to receive the screw end of the bolt. In this simple way it forces the thimble or sleeve as it is sometimes called, on to the axle and holds it perfectly tight. The wheel nut is screwed on the thimble, and on inner end of the thimble there is a large circular flange which extends around the wheel-hub, and this with the screw nut outside of the wheel, most effectually excludes dust and mud from the interior of the wheel. Measures have been taken to secure a patent.

A new invention has been patented in England, an ever pointed pencil. Twelve leads can be fed one after another, to the point.

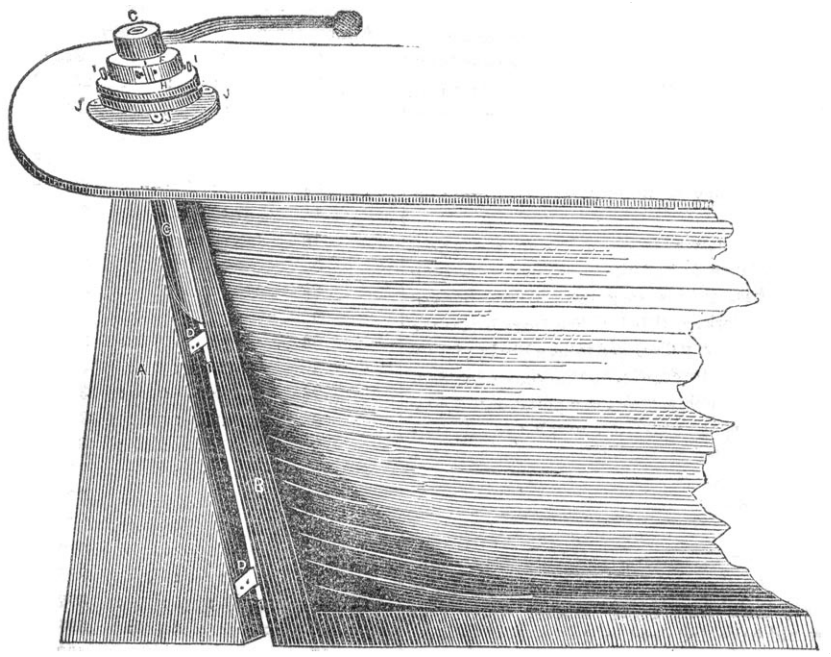
Liquid for Cleaning Metal Castings.

One of the first operations in cleaning metallic work after it comes from the casting or faom the hammer, is to free it from the coat of oxide which adheres to it. This is done by keeping it for some time in water acidulated with sulphuric or muriatic acid. But there is one evil to which the metal is liable, in this way of removing the oxide, viz. the metal is liable to be attacked on its points, angles and edges. By combining creosote with the acid, this evil is said to be prevented. Napthaline and glycerine is as good as the creosote. The French remove the oxide from iron plates by steeping them in sour bran liquid. This we believe to be a most excellent process.—In the baths composed either of the acid and creosote, or the sour bran, the oxide is made to scale off without the metal being attacked. Therefore the castings can remain in the bath for a long time without any apprehension for the safety of the lines, points and figures.

To Unite Wrought and Cast Iron.

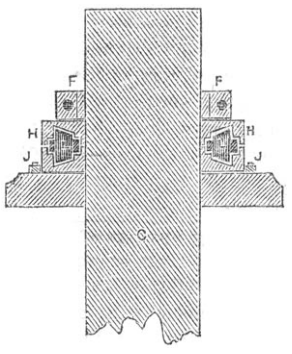
A cast iron and a wrought iron beam may be united by immersing the wrought iron beam in weak nitric acid ; then make it red hot, and plunge it into the weak bath of nitric acid again and free it from all the oxide that is upon it. It is then dipped in a weak solution of sal-ammoniac and immersed in a bath of melted tin until it is well tinned all over.—It is then coated, where it has to be united with the cast iron, with an alloy composed of copper 5 parts and tin 95 parts. It is then placed in a mould and made fast with tinned nails, when the cast iron in a molten state is poured into the mould, and a fusion takes place between the wrought and cast iron through the action of the interposed alloy. Steel and cast iron may be united in the same way.

IMPROVEMENT IN SHIPS' RUDDERS.---Figure 1.



This is an engraving of the invention of Capt. L. D. Gallup, of New London, Conn., to which we alluded last week. Fig. 1 represents its application to the rudder post, and fig. 2 is a vertical section, showing the inside. The same letters refer to like parts. The nature of the invention consists in combining a ring box with anti-friction rollers in it, to keep the weight of the rudder off the pintles, thereby making them to endure for a long time and to insure the free working of the rudder at all times, without any fears of its sagging in upon the stern post. This cut shows the patent rudder, to which this invention is applied.—A, is the rudder. B, is the stern post ; and C is the rudder post. D D, are the pintles, which couple the rudder to the stern post.—

Fig. 2.



In the old way all the weight of the rudder came on or was supported by the pintles, (bolt and socket joints.) By the continual motion of the rudder, the pintles endured but a short time and were very liable to get out of order. To remedy this evil is the object of this invention and this is done in the most simple and effectual manner. A ring anti-friction roller box is secured on deck. It is composed of three separate rings and a clasp. J, is the fixed ring. It has a groove which runs around it inside between two flanges. On the top of this lower ring is placed another ring. This ring has conical rollers fixed or cast in it. L L, fig. 2, show these rollers.—This ring is of a less diameter than the top or lower ring. J, is a top ring. It is formed exactly like the lower ring J, and these two rings (top and bottom,) H J, embrace the roller ring between them and form a ring box.—This ring box is coupled to the rudder post C, by a round metal clasp F, made in two pieces, which screw up tight on the rudder post; this clasp has two short stout arms I I, formed on it, which are received between two pins, or in grooves made for that purpose on the top of the ring H. It is therefore evident that the weight of the rudder is supported on the lower ring J, of the ring box, but it is supported in a most beautiful manner, viz. on the anti-friction rollers which along with the upper ring are allowed to move freely with the rudder post. This combination enables the rudder to be moved with great ease, while it is held snug and firm at the same time. A great number of these rings have been spoken for already, and there is not a nautical man who has seen it, and the number is not small, but has been delighted with it. Regarding the price, &c. more information may be obtained from the inventor, who has taken the usual measures to secure a patent.

Manufacture of Parchment.

Vellum is made of the skins of calves, kids and dead born lambs, and parchment is made of thin sheep and she goat skins. The wool or hair must be removed from them first, and then they are steeped in a pit of lime water. After they are taken out of the lime pit, they are shaved and well washed, and then stretched on a frame made of upright and cross pieces strongly fastened together, and the bars are perforated with a series of holes to receive hard wood or iron tapered pins. Each pin has a hole in it like a violin pin, to hold the string tied to the skin, to stretch it, and prevent it from puckering while drying. Skewers are also employed to stretch more or less of the skin on this frame (*herse*) according as a greater or less piece is required to get hold of. Some employ hoops in place of the herse and this answers tolerably well. The great point is to stretch the skins as much as possible, keeping out all the wrinkles. While the skin is on the stretching frame, the workman with a currying double edged knife, removes the fleshy excresences by drawing the knife downwards. The skin is then sprinkled upon the fleshy side with chalk and well rubbed with a piece of flat pumice stone. The pumice stone is then rubbed over the other surface of the skin without chalk. The skin is then allowed to dry, but must be protected from sunshine and frost. It must not be dried too suddenly. When it is perfectly dry, the chalk is removed by rubbing it with the wooly side of a lambskin, but great care must be taken in this process, not to injure the surface. All grease must of necessity be removed from it, this is the object of steeping it in lime.

After the skin is dried it is transferred to a frame called the *scraper*, where it is extended with cords, generally upon a piece of calf skin well stretched. The skin is placed with the tail downwards, when the rough edges are pared off with a sharp knife and then the outside surface is scraped obliquely downwards till it becomes perfectly smooth, and whatever irregularities may remain, are removed by a flat smooth piece of pumice stone. To do this, the skin is placed upon a stool stuffed with wool and covered with soft parchment. It is called the *cushion*. The pumice stone should be very fine—the finer they are the better. Sometimes there are small holes made in the parchment skin ; these are neatly patched by cutting the edges thin and pasting on small pieces with gum water. Parchment is often colored green, which is done by a mixture of cream of tartar, verdigris and nitric acid, (only a small quantity of the latter.) It is made into a solution of water and laid on evenly with a sponge—the skin having been first wet. Parchment receives its necessary lustre from the white of eggs or weak gum water.

Georgia Burr Mill Stones.

The stone most commonly used for grinding wheat, is known by the name of "French Burr," because they are imported from that country. This species of stone, is a porous silicious mineral, so very hard, that a pair of millstones will last quite a number of years at full work, without being worn out. The French burr stones, owing to their great price, has from time to time stimulated both the Americans and the English, to many efforts to supersede them. During the last war between France and England, when it was impossible to get burr stones ; the London Society of Arts offered a premium of a gold medal, or one hundred pounds for the discovery of a quarry producing stones equal to the French Burrs.—A quarry was discovered in Wales with stone similar to the French, and answered tolerably, but they were not equal to the French. A number of masses of rock were also discovered at Stirling, Scotland, and made into stones, some of which indeed gave better satisfaction than the French burr, as they were of a more even texture, but the French stone still carried the bell. In our country a substitute for it, has long been a desideratum. This has now been obtained. In Burke County, in the state of Georgia, a large quarry embracing an area of 17,000 acres has been discovered ; and a Company named the La Fayette Burr Mill Stone Co., has been formed to work it and furnish American Mill Stones equal to the French Burr. The principle office of this Company is in Savannah. About 1,000 sets of stones have already been put up, and are now in operation, and some of them alongside of the French, where in every instance they have equalled—and a little more, the very best French Burrs Samples of this stone have been in our office for some. We have contrasted them in every way with French burrs, from which without knowing that the one came from France and the other from Georgia, no person could point out a difference. Those who have used the Georgia stone, prefer it for a more enduring fine sharpness, and in that case, it is more economical to use. From what we have seen of the Georgia stone, and heard about it from the most respectable sources, respecting its practical results, we are confident that the quarry must be of immense value.

It is stated by the Muncipal authorities of New Orleans, that the expenses incurred in stopping the great crevasse exceeded $80,000.