

New Inventions.

Machine for Cutting Garments.

John Harraday, of New York city, has invented a machine for cutting garments, the object of which is to cut out several pieces or thicknesses of cloth or other fabric at the same time, of a uniform size and shape, so that the corresponding parts of a number of garments or pieces of furniture may be produced by one operation. This is effected by placing them upon a table or bed, and conducting them in a proper direction towards the edge of a knife, having a reciprocating motion through the fabric and the table, in a vertical direction. The opening in the table is furnished with a sharp edge, projecting above the surface of the table, to prevent the cloth from being drawn in, and thus choking the knife. This is made of peculiar shape, and is capable of being turned so as to cut in any direction.

New Car Brake.

Alphonso Pernot, of New York City, has invented an improved rail car brake, which consists of levers with pawls attached to them, they being thrown backward, when it is desired to stop the car, against springs, by means of a chain winding around the axles, and thrown forward by means of the re-action of these springs when it is desired to start the car, the levers being made to act upon the wheels when thrown forward, by the pawls which catch into the teeth of ratchets on the inner side of the wheels. It will be seen that by this plan the momentum of the car is made to act upon the spring, and is reserved until the car is to be again started, when, by the re-action of the spring, the force required to start the car again will be materially lessened.

Improved Turning Lathe.

Samuel Carpenter, of Flushing, L. I., has invented a machine for turning hubs, tool handles, and other like articles, the novelty of which consists in feeding up to the stationary cutters, by means of a screw-feeding motion or other similar device, a square bolt of wood through a square hole in the center of the driving pulley, and also in an arrangement of a belt shipper, by means of which, when the bolt has been fed up the length of the article to be turned, the shaping cutter and another cutter for separating the hub or handle are brought into action, and the hub or handle is finished and cut off. When that is accomplished, the belt is returned by the shipper, and the bolt is again fed up. Quite an ingenious invention.

Shuttle Guard.

Peter Migget, of Hoosic Falls, N. Y., has made application for a patent upon a guard for preventing shuttles from being thrown out of power looms. Fastened to the back of the shuttle box is a piece of metal of such a shape as to form the top and front side of the entrance to it, and present a flaring opening for the shuttle to enter, by means of which, in combination with a guard and spring, the escape of the shuttle is prevented.

Improved Candle Mould.

Frederic Laudenbacker, of Buffalo, N. Y., has invented a new candle mould, the nature of which consists in the employment of a sliding frame with spools, and tightening rollers so arranged that all the candles may be withdrawn from the several moulds at one operation, and all the wicks tightened at once in the different moulds for the succeeding operation. The inventor has applied for a patent.

Improved Lock.

Elijah A. Freeman & Noah Rogers, of Waymart, Penn., have applied for a patent upon an improved Lock. The invention consists in the combination of tumbler catches and a guard, the operation of which is governed by a series of tumblers, and so arranged as to prevent the picking of the lock.

Rotary Engines.

Gerard Sickles, of Brooklyn, N. Y., has invented an improvement in Rotary Engines, which consists in making the revolving head

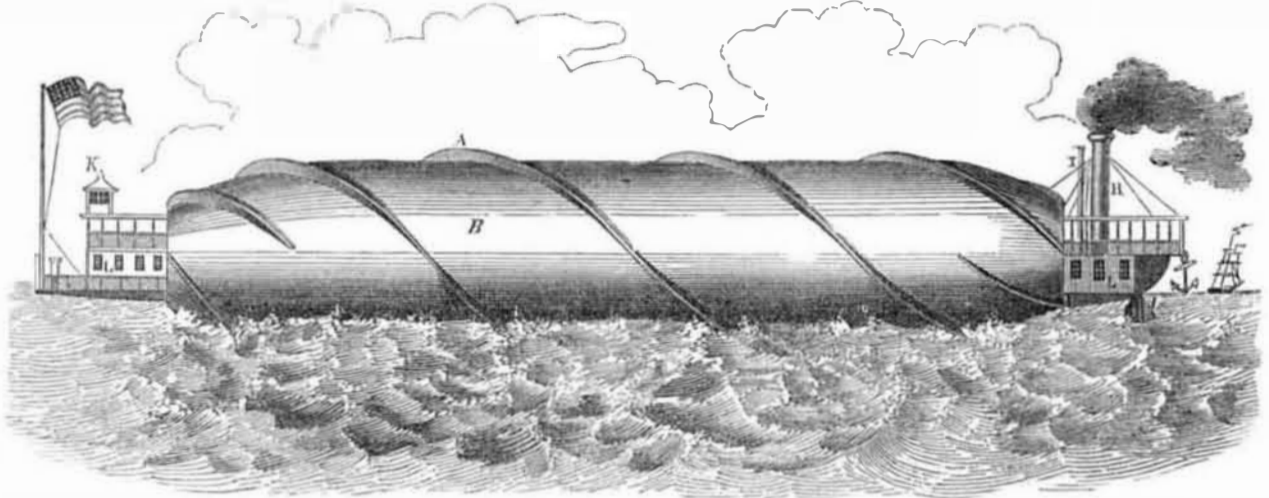
with a flange on one side only, which flange has its inner face fitting to a suitable surface within the cylinder, while that face of the main portion or hub of the head opposite the flange, fits close to the bottom end of the cylinder; and admitting steam to act on the sides of the re-

volving head, thereby packing up the head to the cylinder. The pistons work between the flange above named and the bottom end of the cylinder, part of the cylinder being always open to the exhaust. The inventor has applied for a patent.

Prize for a Life Boat.

The Humane Society of Massachusetts offer a premium of \$400 for the best Life Boat, and of \$100 for the best carriage adapted to transportation of the boat, both to be tested in August next.

FROST'S MARINE LOCOMOTIVE.---Figure 1.

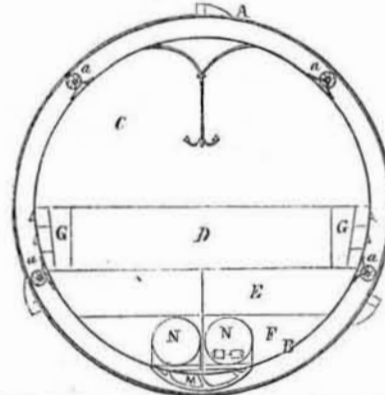


The annexed engraving is a representation of a Marine Locomotive, invented by Henry A. Frost, of Worcester, Mass. Fig. 1 is a perspective view, representing the outward appearance of the locomotive; fig. 2 is a transverse sectional view of the interior.

B is the outer rim or hull, to which are attached the screw blades, A; this is made to revolve by the driver wheel, M, which travels in a grooved track, forming an endless railway upon which the interior stands, supported by any number of wheels represented by a a. B, fig. 2, is the inner cylinder made water-tight, that in case of accident to the outer hull, the vessel may not sink. C is the saloon running the whole length of the vessel below which is the cabin, D, having rows of state-rooms on each side. E is the space intended for freight, while the machinery can occupy the lower portion, F. I and H, in fig. 1, are the smoke and steam pipes; J is the rudder, and K is the pilot-house.

L are portions of the cabin connect p to L the interior cylinder through the opening at the ends, which must be far enough above the water line to prevent the water from entering. The interior is lighted from end to end.

Fig. 2.



The advantages claimed by the inventor are greater speed, safety, and simplicity of construction, which he is very confident will be the means of creating a complete revolution in ocean travelling. Its application is unlike anything now in use.

The inventor also claims that his arrangement will be liable to no head water resistance, as he thinks the manner in which the screw blades enter the water will effectually prevent this. Another gain to be obtained is the freedom from motion, as the inner cylinder being loaded at the bottom will continually maintain the same position. Ease of repair, in case of accident at sea, to the outer cylinder, and a simple means of baling and ventilating the vessel, are also enumerated. As our readers will be able to judge for themselves in regard to this invention, we will say no more concerning it.

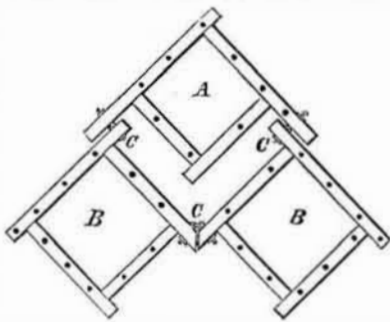
Further information can be obtained from the inventor, H. A. Frost, Worcester, Mass.

Ramsay's Flexible Harrow.

The above engraving is an illustration of the Harrow for which the first Prize Medal was awarded by the Jurors of the Agricultural Department at the World's Fair in New York in 1853, in competition with many others, including the great English Harrow, for which a prize of \$100 was awarded at the Royal Agricultural Fair held in London.

The engraving needs but little explanation. The interior of square A should be two feet, squares B B 2 feet 3 inches; C C and D are joints made of hooks and eyes, working similar to the universal joint. This arrangement of parts and joints gives sufficient freedom of motion to allow the implement to accommodate itself to uneven surfaces.

We should think this an excellent harrow, the Scotch, the Geddes, and the common double harrow, are each liable to some objections to which this is not open. It is more flexible and we should think less liable to choke than the former, while no part of it can sway out



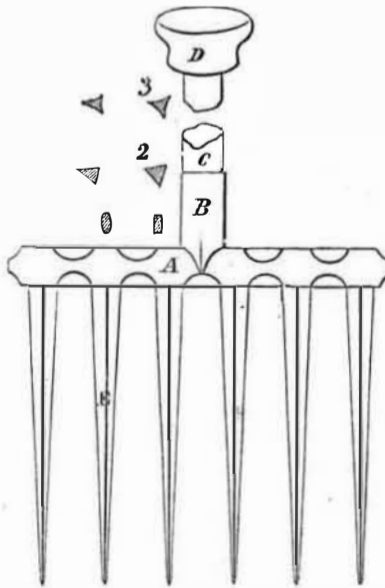
of the line of draught as can the latter. Ours is the greatest agricultural nation on the globe, three-quarters of all the capital in the United States, is invested in agriculture, and it is but due to American genius and the American nation that we should excel in inventions and manufactures in this department, and we feel just pride in knowing the fact, that we not only excel in the Thresher, Reaper and other like modern inventions, but also in the Plow and Har-

row,—these two more ancient implements for tilling the soil.

For further information address the inventors, Wm. B. Ramsay, Strabane, Washington Co., Pa., or G. M. Ramsay, this city.

Improved Agricultural Fork.

The accompanying engraving is an illustration of an improvement in hay and other forks, for agricultural purposes patented by Benjamin H. Franklin, of Worcester, Mass., Dec. 20, 1853. The principal figure is a front view, and figs. 2 and 3 are transverse sections of the tines.



The nature of this invention consists in making the tines triangular, and so arranging them in the head that one of the flat sides shall be uppermost, the other two consequently receding from the opening in such a manner that anything passing between the tines will slip through, and thus the fork will not be so readily choked.

The head or stock, A, may be made of wrought metal and provided with a ferrule or

socket, B, fitting on the handle, C. The tines, E, are triangular, as will be seen in their section at figure 2, or the top may be flat or the under sides concave. The shank of the tines or that part of them which is fastened into the head is also three sided, and the tines are put in separate, so that they may be replaced when broken. They taper from heel to point in the usual manner.

The advantages of a three-sided tine over one of four sides, or a round one, are, the depth or strength of the metal is precisely where the most strain comes upon it, viz., perpendicularly and horizontally,—they present a flat surface for the material to rest upon—anything passing between the tines, cannot bind or choke, as the space below is wider than on top,—the material will more easily slip or slide off when thrown from the fork,—there is less metal and consequently less weight, whilst the same degree of strength is preserved—there are but three sides to finish up instead of four. The shanks being three sided, and also the hole into which it is riveted, there is one side less to dress and fit up.

Any further information may be obtained by addressing the inventor as above.

Oil Varnish.

Liebeg's method of preparing a good varnish is as follows. 1 lb acetate of lead, 1 lb litharge, and 5 pints water are digested together until the reddish color of the litharge has become white, from the formation of 1-6 acetate of lead, and filtered. 20 lb linseed oil, containing 1 lb litharge is added to the filtrate, exposed to the sun, and frequently shaken, until the varnish has become wine-yellow and clear, when it is filtered through cotton. It dries rapidly. An analogous method for poppy-seed oil prescribes 4 oz. oil, 2 oz. litharge, and 2 pints water, and directs that the liquid should be poured off, 8 oz. of the oil poured on the white basic acetate remaining, and exposed to the sun until it has become colorless.