New Inventions.

Morrill's Clothes Dryer.

The accompanying engraving illustrates an improved out-door clothes dryer, for which a patent was granted to Samuel Morrill, of Andover, N. H., Nov. 11, 1856. This invention consists in so arranging the reel as to allow it to be tilted for the purpose of putting the clothes thereon, and then by means of a handle raising the reel to a horizontal position which elevates the clothes high enough to be out of reach, and in a good position to dry.

In the engraving, H represents the post which is either set in the ground or upon a platform capable of properly supporting it. Near the upper end of this post there is attached by means of a bolt, *a*, the arm, C, so as to admit a working joint. To this arm, C, is hinged the lever, E, which slides through an oblique staple on the post, H, and has notches cut therein to fit the staple, and hold the reel in any position. The reel arms, D D, to which the lines are secured, are made of wood and securely fastened to the cast iron head, G, which is cast with apertures to receive the arms, and also has a ratchet wheel cast on the underside. Through the head, G, there is cast or made a hole which fits a pin (having a shoulder to prevent it dropping too far) on the lever, C, upon which it rotates. Attached to the post, H, directly under the ratchet wheel is a finger which, when the reel is tilted, will catch into the ratchet, and prevent the weight of clothes from turning it backward after being moved along.

To tilt the reel it is only necessary to elevate the lever, E, by the handle to a nearly horizontal position, when it will slide through the staple which causes the reel to tilt to the desired position, where it is held by the notches. To elevate the reel to the position of the dotted lines it is only necessary to raise the lever, E, from the staple on the post, and draw it forwards until the lever, C, is in a line with the post, H, when by dropping the lever, E, it forms a permanent fastening.

For further information address C. A. Durgin, 335 Broadway, New York.

Improved Machine for Turning Hubs.

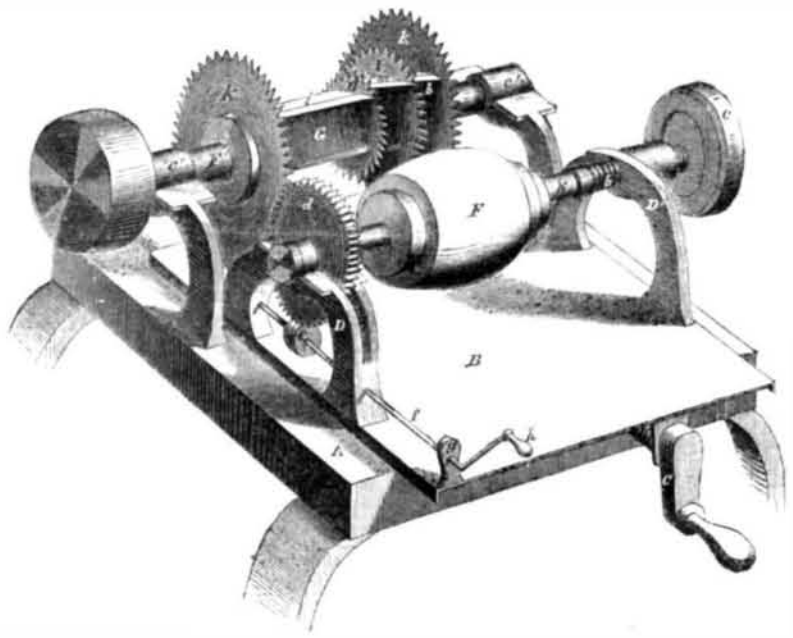
Of late, inventors have turned much of their attention to the production of new, and the improvement of old, carriage machinery, or combinations of mechanism, for the production of the several parts of carriages. The most important parts of a vehicle are, undoubtedly, the wheels; and on the soundness and accuracy of the hubs the safety of the carriage or cart depends.

Lovett Eames, of Kalamazoo, Mich., has invented a machine for turning the hubs of vehicles, which will admit of them being made any size, and perfectly in proportion, by simple and convenient mechanism. The machine is represented in our engraving, and its construction and operation we will now describe.

A is a bed, mounted on a suitable frame, and on it there slides a bed plate, B, upon the ways, *a*. The bed plate, B, is moved back and forth by the handle and screw, C. From B there rise two supports, D and D′, carrying journals, in one of which, D, there is a cog wheel, *d*, that is rotated by the worm, *e*, upon the shaft, *f*, passing through the standard, *g*, by the handle, *h*. The hub, or block F′, from which it is to be cut, is placed between the axle of *d* and E, that has upon it a screw, *b*, passing through a nut journal in D, operated by a hand wheel, *c*, that brings the hub into proper position, and holds it there.

From A there also rise two supports, having journals, *c′*, upon them; through these passes the axle, F′, carrying the saws, K H I *k*, for grooving and allowing the cutters to shape the hub in the proper manner. These cutters are placed on squares, G, between the saws, like

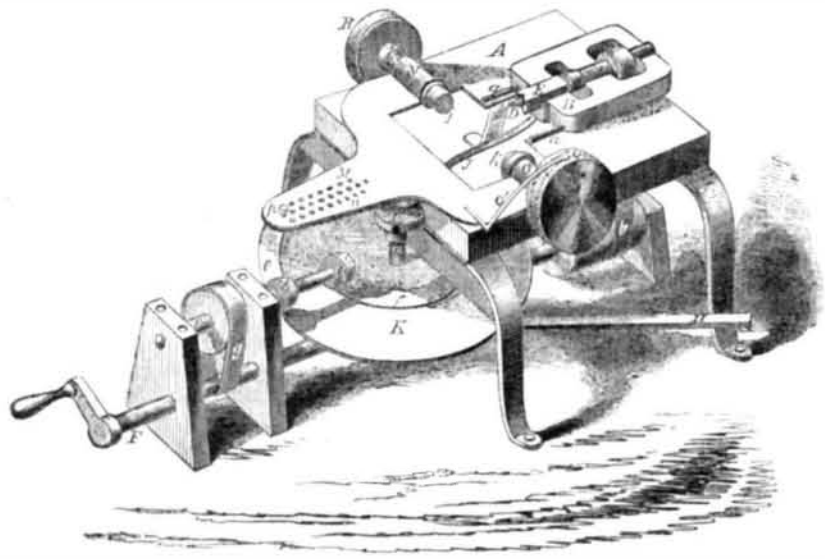
EAMES' MACHINE FOR TURNING HUBS.



the cutters of a planing machine, and are indicated by *i m b*.

The operation is very simple. A rapid motion being given to the cutters and saws from any prime mover, the hub or block is fed up to them by means of the handle, C, and the hub is rotated before them, so that it shall be cut perfectly round, by the handle, *h*, before described. A patent on this machine is applied for.

EAMES' HUB MORTISING MACHINE.



The improvements which constitute the invention in this mortiser are, the peculiar methods employed of giving the feed motion to the cutters, and other points, that will be seen as we proceed in our description. It is a supplemental machine to the above, and can either be used as such or by itself, the hubs being turned by any other machine. It was patented this week, and the claim will be found on another page.

A is a bed plate, mounted on any proper frame, and carrying a cutter frame, B, which slides upon the ways, *a*. In this frame, B, is a hollow cutting mandrel, E, in which there rotates a boring tool, D, turned by the belt, *b*, from the drum on the shaft of the crank, F. The hub is placed between the chucks, *j* and *k*, that rest on axles passing through journals, N and O. The hub is fixed tight and moved round by the wheels, R Q—Q being a stop wheel, having a spring stop, Q′, fitting into holes on its periphery, and thus regulating the distance apart that the mortises are to be, to accommodate the proper number of spokes. These chucks, wheels, and journals are placed on a movable plate, M, that moves to the right and left, and by a pin, *p*, passing through holes, *n*, in M, into corresponding holes in A, the hub is presented at a proper angle to the tool, to give the required "dish" to the wheel when the spokes are driven firmly in.

The feed motion is given to the tool in an ingenious way; to B there is secured a link, J, the other end of which is connected with a crank wheel, I, upon an upright axle, G, to the bottom of which there is also a large disk, K. On this disk there are two semicircular raised pieces, *e* and *f*, in the position shown, and on or over these move the rollers, *h i*, upon the shaft, L; this shaft is rotated by the band, *g*, from the main crank shaft, F. As it is necessary to give a slow feed motion when the hub is being cut, the roller, *h*, first passes over *e*, and by friction gives motion to K, which draws the cutter or tool into the wood; and the amount of friction and consequent power of the feed in hard or soft wood is regulated by the lever, H, into one end of which the axle, G, is stepped, so that by pressing with the foot upon the other, the plate, K, is raised, and the ways, *e* and *f*, brought into closer contact with the respective rollers. The tool having cut the required depth, the gigging back must be quick, so the way, *e*, ceases, and *i* passes on to *f*, and that being nearer the center of K than *e*, gigs back the tool very quickly while the hub is being turned to the next spot to be mortised. A belt pulley may be substituted for the crank, F, when the machine is operated by power.

The inventor will give any further information concerning either of the above inventions upon being addressed at Kalamazoo, Mich.

Hoop Skirts.

There is a hoop skirt manufactory in this city which weekly turns out 24,000 ladies' skirts, employing for that purpose 500 hands, 180 sewing machines, and not less than a tun of steel. Hoop skirt making is a science, and one on which patient study and exquisite skill have been bestowed in the several departments of the fabrication, till by successive improvements an article of dress has been produced which is thought to be favorable to health, while it conduces to comfort and beauty. Various materials have been employed to give the required degree of flexibility to the skirts, to enable their wearers to sit upon them, and pack them to the smallness of compass frequently required, without affecting their elasticity and capacity to again spread themselves to the full extent and graceful form when raised to an erect position. We believe, however, that the rotundity of spread is now given to this general favorite of female apparel by very thin steel springs, so prepared and intertwined with the stiffened fabric of which they are principally composed as to give them these characteristics.

Art in Cast Iron.—Washington.

The fitness of cast iron for reproducing works of art has lately been beautifully illustrated by a medallion head of Washington, enclosed in an oval frame, and embellished with branches of oak and palm, secured by a ribbon, forming an allegorical design, the whole being in iron. The mold was made by A. W. Jones, of this city, and the likeness is the result of much research, being a compromise between the portraits taken by Stuart and Trumbull, and representing him as, at once, the hero and the sage. These heads have been remarkably well cast under the superintendence of the artist, by Messrs. Russel & Beach; and as castings, they will favorably compare with any of those works of art in cast iron, of an equal size, that are sent from the foundries of Berlin. Mr. W. Hallison gave his assistance in their production, and they are now for sale by Mr. Hart, at the warerooms of Boardman, Gray & Co., No. 487 Broadway, this city. We understand that Mr. Hart intends visiting our principal cities, and that the head of Henry Clay is shortly to be produced. The size is 42×30 inches. We hope that this form of honoring our great men will be liberally patronized by the people, for it opens a new era in the history of American practical art.

The Sunken Ships at Sevastopol.

The Philadelphia *Ledger* asserts, on excellent authority, that the report that the Sevastopol company has proved a failure, and that the sunken ships cannot be raised, is an error. Whatever the difficulties in removing these obstructions in the entrance of the most important port in the Crimea—and the difficulties have been greatly exaggerated—the Russian government is determined that they shall be overcome; and as it is prepared to remunerate the contractors adequately, no matter what may be the cost, success is only a question of time.

A Whisper in the Ear.—It is no more than fair that correspondents who write to us for information, and expect us to reply by mail, should enclose a stamp to pay return postage. We do not practice scolding when this point is not observed, nor as a consequence do we refuse to answer such letters; but we would remind all who come within the pale of this notice that our yearly postage tax is more than many parishes pay to their preachers.