

## NEW INVENTIONS.

## Olds' Revolving Coat Holder.

Mr. Wm. B. Olds, of West Meriden, New Haven Co., Ct., has invented and taken measures to secure a patent for a good improvement in apparatus on which to hang coats or other garments. The improvements consist in the employment of a bracket, which may be secured permanently in any suitable place, and upon the end of which bracket is secured a pivot, which has a thread cut on a portion of it to receive a nut to work thereon. On this pivot is secured a revolving bow or form, which preserves the shape of coats or other garments hung thereon for exhibition, &c. This Revolving Bow, with coats or other articles of apparel on it, enables the proprietors of clothing establishments to exhibit them in their most proper positions, and to show the same to their customers. This form also combines the excellent quality of maintaining the symmetrical shape and appearance of the articles suspended on it.

## Improved Hold-back for Sleds.

Mr. Perry Dickson, of Blooming Valley, Crawford Co., Pa., has invented and taken measures to secure a patent for a good improvement in sleds, which consists in attaching hold-back dogs rigidly to the roller, and connecting the tongue to the dogs, or to the roller by hinge joints, in such a manner that the stoppage or backing of the team will turn the roller back and drive the dogs into the ice or snow, while drawing the sled will raise them. The claim is for the combination; the stopping or slacking of the draft, when there is head-way on the sled, causes the roller to turn over backwards, and force the hold-back teeth into the ice or ground, forming a toothed drag or hold-back of great service in going down declivities.

## Improved Horse Rake.

Mr. George Whitcomb, of Greenwich, Fairfield Co., Ct., has invented and taken measures to secure a patent for an improvement in Horse Rakes. The improvement relates to a superior manner of operating the rake head, which is a revolving one with spring teeth. By a combination with a lever, stirrups, and the rake head, arranged conveniently to be operated by the driver, the teeth of the rake are worked in a superior manner, so as to elevate and depress them at the proper periods to do so, to gather up and discharge the hay while raking it up into winrows, &c.

## Machinery for Making Hay and other Agricultural Forks.

Mr. William Robinson, of Highgate, Franklin Co., Vt., has taken measures to secure a patent for improvements in machinery for making forks for agricultural purposes, and which relates to making forks with two, four, or more tines, from one piece of metal. The improvement consists in a certain combination of devices, in the same machine, for rolling down the piece of metal ready for splitting it to make the tines and for drawing them out and shaping them. The improvements in the machinery invented by Mr. Robinson produce superior hay and manure forks, more economically than by the machines at present in use for manufacturing such articles.

## Improved Excavator.

Mr. Anthony Frasier, of Montezuma, Cayuga Co., N. Y., has taken measures to secure a patent for an improvement in Excavating Machines, which consists in arranging the chains, and securing the buckets thereon in a peculiar manner, by which arrangement the ways, to which the drums are attached, do not come in contact with, or bear against the sides of the cut made by the buckets. The buckets extend some distance over the chains on each side, sufficiently so to scoop out a space greater in width than the ways, consequently the ways or frame over which the chain and buckets move, may be depressed, and the buckets lowered as fast as the earth is excavated.

## Measures for California.

The bill to establish a Branch Mint of the United States, in California, passed the Senate on the 16th inst. On the 18th, Senator Gwin introduced a bill for granting the right of way to aid in the construction of a line of telegraph from the Mississippi river to the Pacific Ocean.

## MACHINE FOR MEASURING AND CUTTING IRON.

The accompanying engravings represent a machine for measuring and cutting iron, invented by Levi B. Griffith, of Honeybrook, Chester Co., Pa., for which a patent was granted on the 4th of last November.

Figure 1 is a perspective view of the machine, made of cast-iron, and the measuring wheel placed in a horizontal position. Fig. 2 is a side elevation, with the casing removed, to show the spring and crank. Fig. 3 is a perspective view of the same device, made of

either cast or wrought iron, and the measuring wheel placed in a vertical position. The same letters refer to like parts.

A is an iron bed plate, cast with a raised socket, B, and vertical standard, C, thereto; this plate has holes for screws or nails near its outer edge, by which it can be secured to any convenient place. Figure 3 is so constructed that it may be placed on the ordinary anvil and removed at pleasure. D, fig. 1 is a vertical case, on the top of which is a circu-

Figure 1.

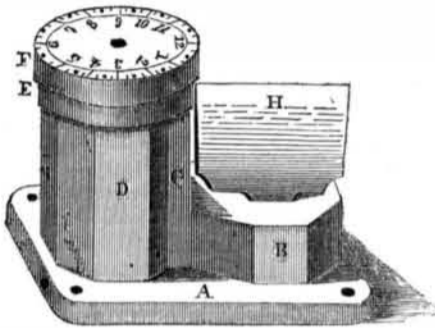
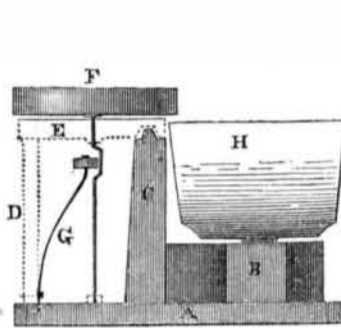


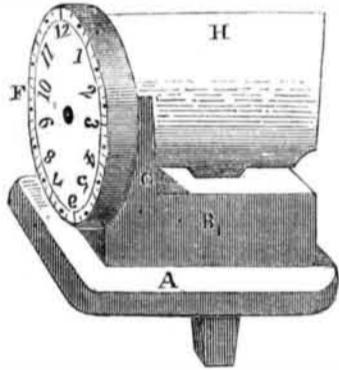
Figure 2.



lar horizontal plate, E, cast thereto, and projecting on all sides from the case, and over the standard, C, to which it is secured by a tenon, the lower end of the case, D, rests on a portion of the bed-plate, and is secured to it by a tenon, and is so arranged that it can be removed at pleasure. F is a measuring wheel, placed horizontally on the top of the vertical case, D, immediately over the circular plate, E: around the face of this wheel, F, there is a scale near the periphery (marked in the usual way) so as to indicate the inches around the periphery of the wheel; this wheel, F, is secured to a shaft which passes down through the circular plate, E, into the inside of the

vertical case, D, having its bearing in the centre of the circular plate; part of this shaft is bent in form of a crank, as shown in fig. 2, against which a friction roller and spring, G, is made to bear, the spring being secured to

Fig. 3.



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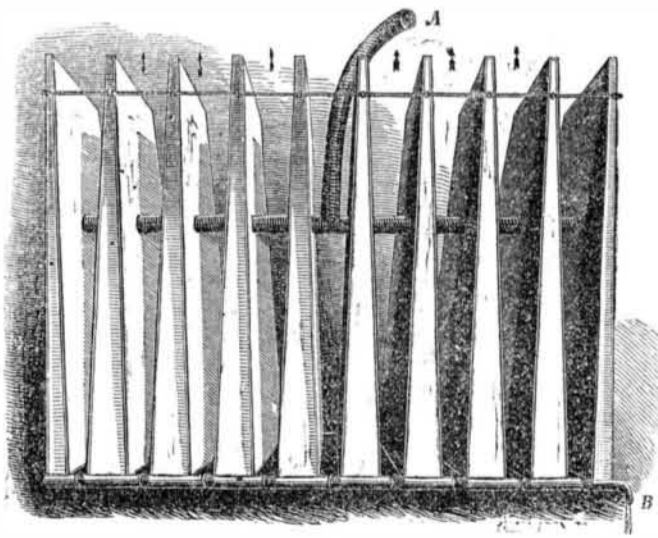
the inside of the case; this spring and crank causes the measuring wheel, F, to settle with the starting point of the scale always in a right position to commence measuring; (in fig. 3 the lower part of the measuring wheel is weighted, which is equivalent to the spring). H is a vertical cutter made of steel and placed in the socket, B, of the bed plate, the cutting edge of which is horizontal and stands close to the lower edge of the measuring wheel, F, when placed in a horizontal position.

By placing the iron to be measured on the cutting edge of the cutter, H, and moving it forward, pressing it gently against the periphery of the measuring wheel, F, causing it to rotate, the number of inches the iron has moved, will be shown by the scale on the face of the wheel, and the iron will be in a proper position for cutting or marking to any desired length.

This invention will be found of great practical utility to smiths, and others who work in iron, by having the measure always at hand, and the scale ready to commence measuring; thus affording the operator a speedy and convenient mode of measuring, without being required the trouble to lay down his hammer and take up and place his rule to measure, and then lay down his rule and take up his hammer to cut off. Much time and inconvenience will be saved by this invention; cheapness of construction, simplicity, strength, and durability are also combined in this arrangement.

More information about rights, &c., may be obtained by addressing as above, to Honeybrook Post Office, Chester Co., Pa.

## PATENT HEAT DISTRIBUTOR AND VENTILATOR.



The accompanying engraving represents a Heat Distributor and Ventilator, for which a patent was granted to the inventor, Mr. J. K. Ingalls, of Williamsburgh, L. I., on the 4th of Nov. 1851.

The attention of scientific men has been much turned, of late, to the discovery of some method of warming and ventilating by means of surfaces moderately heated, and which, at the same time, should be practically economi-

cal. Great numbers of hot-air furnaces have proved failures, so far as a healthy atmosphere is concerned, to say nothing of their unsightly and inconvenient arrangements, and the danger from fires, of which they are becoming a prolific cause. They are fatal to plants, and are not equally so to persons only because the latter have opportunities of changing their position and of obtaining fresh air from without; and they are only tolerated, because no

better plan is known, which does not involve an enormous expense, without diminishing the inconvenience. Hot water furnaces are so expensive as to be out of the reach of most persons, while the arrangement cuts up and disfigures a house even more than for hot air.

Steam, as heretofore employed, is subject to several objections: it requires pressure, which would involve danger. It requires much space to expose the surface, and hence is inconvenient, and disfigures the appearance of any room; and more than all, it affords no opportunity for the introduction of fresh air in contact with the heating surface, but creates a stifling and sickly atmosphere, highly injurious to health.

The engraving represents a radiator, constructed with reference to these well known defects in methods previously in use, by a man practically acquainted with this subject; and the public will decide how far he has overcome those difficulties. A series of very thin chambers, supplied with steam from any boiler through the pipe, A, are compactly arranged, so that in a space of two cubic feet as much surface is contained, as one hundred and fifty feet of 1 1/4 inch pipe would furnish, and yet, in consequence of the peculiar form, it is much more favorably disposed for contact with the air, than any arrangement of pipes can possibly be. The surfaces are made to recede from each other upward, or in the direction where the current is desired. The cold air, being introduced where the spaces between the chambers are narrowest, is allowed to expand as soon as it comes in contact with the heating surface. The receding forms act like a wedge on the expanding air, which continues to arise and expand, and is thus brought in contact with, and absorbs the heat from the surface.

With such rapidity does this arrangement condense the steam, and consequently heat the air, that no pressure is required, and the pipe, B, which carries back the condensed water, having an opening to allow the superabundant steam to pass off through some convenient flue, no explosion or collapse can by any possibility ever occur. Hot water can be used if preferred.

These Radiators can be placed in hot air chambers, or in the several apartments to be heated, in the fire places, base blocks, closets, pedestals, or under the floors, and be supplied with vapor by an inch pipe, which can be placed in the walls, partitions, or under the floors, with the same facility as gas or Croton pipes, without danger or injury to the house. The quality of heat will be preferable to that from the best hot-water furnaces, as no part of the surface will be heated above 212°, and the expense will be about one-fourth as much, while not more than one-half the fuel will be required.

In steam vessels they will not only heat and ventilate any desired parts but also supply a quantity of fresh water, without any trouble of pumping cold water over a condensing apparatus. It is also capable of application on a small scale, as an attachment to a cabin, range, or cooking stove.

The claim of the patent will be found on page 70, this volume Scientific American. It claims the tapering form of radiating surfaces, and embraces a wide field in heating apparatus. More information may be obtained by letter addressed to Mr. Ingalls.

## Adhesion on Rails.

We have been informed that on some of our railroads they have adopted the most simple and cheap method of creating adhesion of the driving wheels on the rails, that we have ever heard of. If there is any grease on the rails, or if they are wet, or in pulling large trains of cars, it has been found difficult, many times, to start the trains after stopping, in consequence of the locomotive slipping. Hence it has been necessary very frequently to throw sand on the track. This has been remedied by running a copper pipe, immediately in front of the wheels, through which the engineer can, at any moment he finds the wheels slipping, discharge a quantity of sand.

We see it stated in some of the papers that the proprietors of Bain's Patent and Bain's Lines, have sold out to Morse & Co. for \$83,000, to be paid in stock.