

Improved Wagon-box Setter.

Fitting a set of carriage wheels with a gouge and chisel to receive the boxes, if well done, is a tedious operation. Workmen generally cut out every part too large except the end of the hub, in order to make a quicker job. This injures the wheel by giving the spoke tenons less bearing surface. By using the machine illustrated herewith the workman cannot fail to bore the hub as square and true with the rim, as if it was secured to the face-plate of a lathe. The machine also saves a great deal of the labor, besides making a carriage worth much more from the character of the workmanship upon it. Frequently the spokes do not stand at right angles with the hub; but as the wheel is secured by the rim to the arms of this machine, the workman cannot fail, and the hole must be square with the felles and of any size or taper required by carriage-makers. The hub is at all times accessible when on the machine, so that the box can be tried occasionally to see if it fits. The machine is simple to operate, and not liable to get out of order.

The following description will enable every one to understand the operations of this hub-borer:—

The shaft, A, is a feed and cutter bar combined; the end near the workman is carried in a bearing, B, so arranged as to be secured permanently to bore a straight hole, or else permitted to have play so that the shaft may move in a circle in order to bore a taper hole. This latter peculiarity is obtained by holding the center of the cutter-bar fast, or so that it may turn merely on its axis, in the socket joint, C. In this latter detail there is a nut which nearly fits the socket, and has an oscillatory movement in the case, but does not revolve with the shaft, being prevented from doing so by projections cast upon it fitting recesses in the socket. This nut gradually feeds the cutter bar into its work, as the handle is turned. At the outside of the bearing, B, there is a slide, D, which has a diagonal slot cut in it; it works between checks, a, so that when the slide is moved one way or the other, the cutter-bar is pushed out of the center to a corresponding degree; it then stands obliquely with the hub, and the machine will then bore a taper hole. The slide is fixed in its place when set to the proper point by a set-screw on the under side. The frame, E, the wheel is fastened to, has hinges at F, so that the wheel can be easily set in its place and made ready for operating upon. This is a very neat, simple and ingenious arrangement for the purpose, and will do all that is claimed for it by the inventor. Mr. A. D. Stockwell, a carriage-maker in Binghamton, N. Y., certifies that it is the best he ever used. It was patented on the 30th of September 1860, by T. G. Pearsall, of Apalachin, and S. A. Garrison, of Union, N. Y., through the Scientific American Patent Agency. For machines, territorial rights (except New England and New York State, all but Tioga county, which are sold), or additional information, apply to G. T. Pearsall, sole proprietor, Apalachin, Tioga county, N. Y.

Mechanical Hair-brusher.

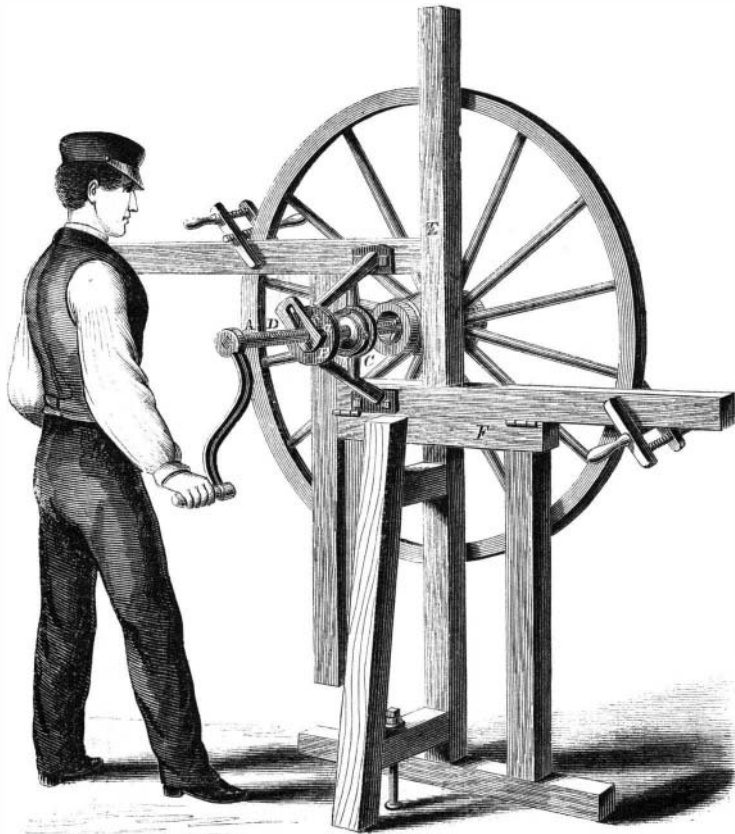
A correspondent, writing from England, gives the following description of the sensation produced by the new mechanical hair-brusher:—

"When I went in to get my hair brushed, had sat down before the glass, and been tucked in as usual, with bib and dressing-gown, the hair-dresser took up one of his circular brushes and hitched it to the revolving band over my head. In a moment I felt a silent fanning, as if some monstrous butterfly were hovering over me; this was the air of the twirling brush, which caught my hair up and laid it down, and traveled all over my head with incessant gentle penetration. It crept down my whiskers and searched my beard with the same tender and decided effect. There was no scratching, not even of the neck and ears, but the skin of cheeks and chin was reach-

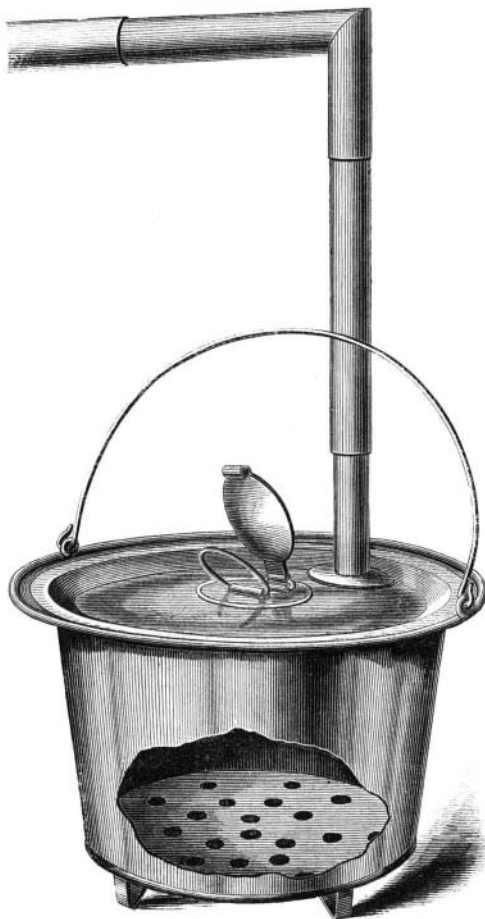
ed and swept. It was a new sensation. I felt as if I should like to be brushed continuously for a month."

BRITAIN'S POTATO-BOILER.

This convenient article for the kitchen is simply a tin or sheet-metal kettle, to be placed within any kettle in common use. The inner kettle is shown in the

**PEARSALL'S WAGON-BOX SETTER.**

engraving provided with a perforated bottom (to drain off the water) with riveted legs to allow it to stand



on the stove. It has a flanged rim fitting around or over the top of the outer kettle, and also a close-fitting cover. There is further a secondary hinged cover and an adjustable removable pipe to convey the

steam from the kettle into the stove-pipe. The adjustable pipe is made in separate sections to allow it to be lengthened or shortened as required. When preferred, the steam pipe and secondary cover may be omitted.

This kettle combines several advantages—it saves time, and the labor of lifting a heavy iron-kettle to pour off the water, it removes the danger of burning the hand, and provides a convenient method of keeping the potatoes warm, it also saves loss often caused by the potatoes being broken into fragments.

This potato-steamer was patented through the Scientific American Patent Agency on the 6th of October, 1863. For further information address the patentee, C. Britain, St. Joseph, Mich.

Ornamental Uses of Mica.

The application of mica to ornamental purposes is extensively practiced in Paris. When thus employed it is first cut to the desired thickness, then coated with a thin layer of fresh isinglass diluted in water, and the gold or other surface applied, after which it is allowed to dry. The sheet of mica can be easily rendered adherent to almost any article by glueing. The artisan then takes a pattern of copper, with a design cut on it, and places it on the reverse side of the mica, and with a small brush removes any superfluous parts; the required design thus remaining on the parts which have not been brushed. He then applies the colors either one or more times, as may be necessary, and afterwards coats the whole with a solution of liquid glue diluted in spirits of wine, which is applied for the purpose of rendering the mica pliable. When this is effected, the mica with the design upon it is applied to the

frame of the other object and fastened with glue. The junction of several pieces of mica is made imperceptible by first glueing them together with Venetian glue, and then applying a hot iron to the parts where the mica is joined together, the parts being thus completely united. From its unalterable nature, mica preserves the gilding, silvering or coloring from deterioration, and from its diaphaneity the articles so treated will preserve all their brilliancy. They are further preserved in a state of perfect cleanliness, as anything that soils them may at once be removed by washing.

THE GOODYEAR EXTENSION CASE.

The arguments in this case were concluded some weeks ago; the matter now rests in the hands of the House Committee on Patents, and it is possible that it may slumber there until the next session of Congress, when another effort will be made to secure favorable action upon it.

It must now appear quite evident to the Committee that public opinion is against another renewal of this patent; we therefore hope that the Committee will be prepared before the adjournment of Congress to report adversely to the prayer of the petitioner. Such action on its part would seal the fate of the patent beyond the power of resurrection, and assure the public that Congress will regard with disfavor all similar attempts of certain patentees and monopolists to keep alive, by special legislation, patents that have enjoyed the fullest benefits of the laws. We maintain that our patent laws afford adequate protection to all inventors, and beyond the protection thus afforded it is unwise to go, as it tends to make the whole system odious, and to give unequal advantages to large moneyed corporations who control valuable patents.

HEAVY HEN.—"John Smith," our news friend, has shown us half a dozen double-yolked eggs, laid in one week by a single hen, that weighed 1 lb. 4 oz. All the eggs of this valuable specimen, laid this spring, are double-yolked.—*Old Colony (Mass.) Memorial.*

[Rather a small hen to lay such heavy eggs. Agriculturists should not lose sight of this style of hen.—Eps.]