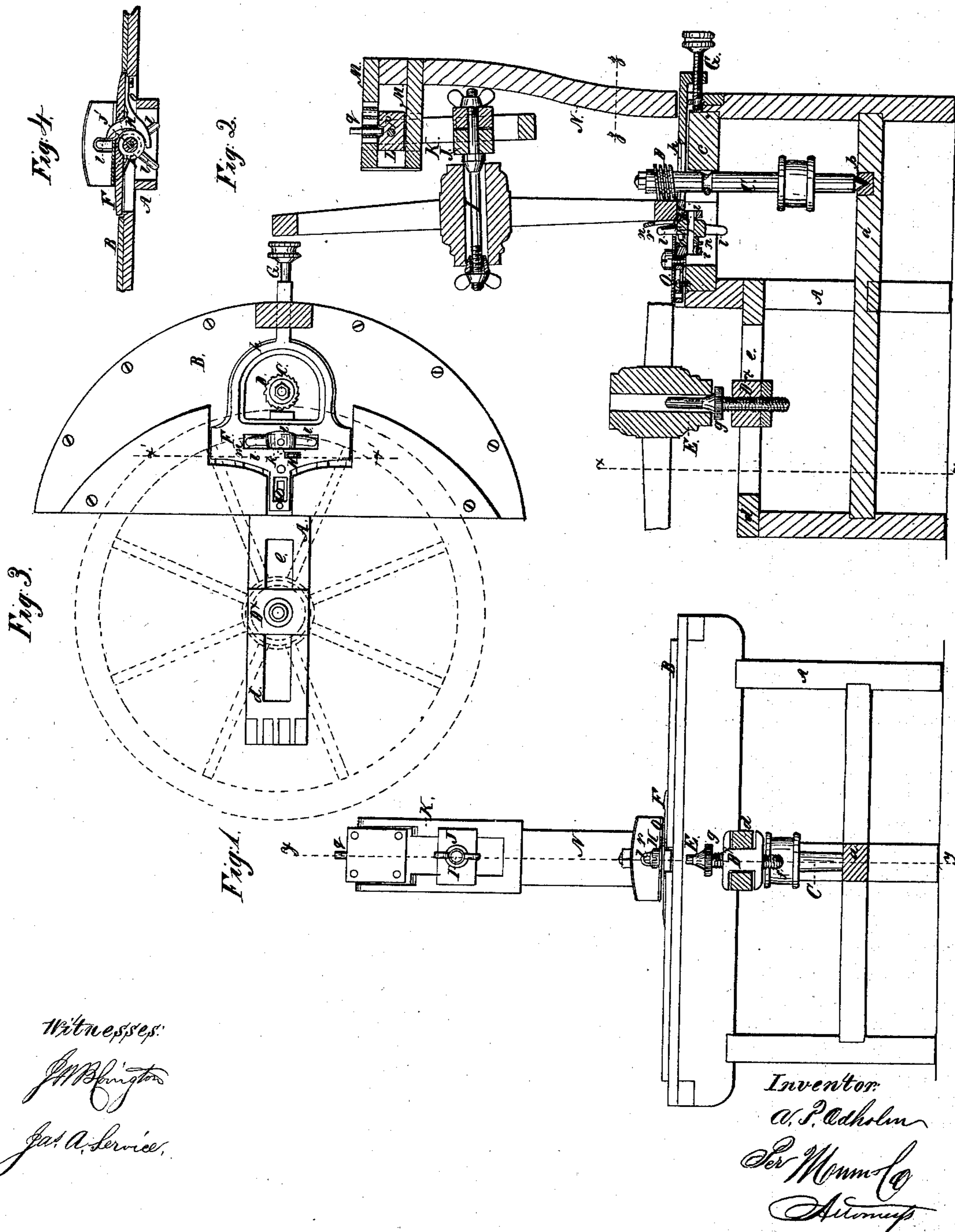


A. P. Odholm,

Making Fellies.

N^o 60,040.

Patented Nov. 27, 1866.



Witnesses:
J. M. Blington
Jas. A. Service

Inventor:
A. P. Odholm
Per Wm. Co
Attorney

United States Patent Office.

IMPROVEMENT IN MACHINES FOR DRESSING THE FELLOES OF WAGON-WHEELS.

ANDREW P. ODHOLM, OF BRIDGEPORT, CONNECTICUT.

Letters Patent No. 60,040, dated November 27, 1866.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ANDREW P. ODHOLM, of Bridgeport, in the county of Fairfield, and State of Connecticut, have invented a new and improved Machine for Dressing the Felloes of Wheels; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, sheet No. 1, is a front sectional view of my invention, taken in the line $x x$, fig. 2.

Figure 2, a side sectional view of the same, taken in the line $y y$, fig. 1.

Figure 3, sheet No. 2, a horizontal section of the same, taken in the line $z z$, fig. 2.

Figure 4, a vertical section of a portion of the same, taken in the line $x' x'$, fig. 3.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved machine for dressing the sides of the felloes of wheels, and is more especially designed for operating upon carriage-wheels. The object of the invention is to obtain a machine of simple construction which will admit of the work being rapidly and perfectly performed, and capable of being adjusted to suit wheels of different sizes or diameters.

A represents a framing, which may be constructed in any proper manner, to support the working parts of the machine, and having a semicircular horizontal platform, B, upon it, through which a vertical arbor or shaft, C, passes, the lower end of said arbor or shaft being stepped in a bar, a , of the framing, as shown at b , and the upper bearing in a bar, c , underneath the platform B, (see fig. 2.) On the upper part of this arbor, C, above the platform B, there is secured a cutter, D, constructed of a series of serrated circular plates or small circular saws placed one above the other. This cutter, however, may be constructed in any proper way—any kind which will make a smooth cut will answer the purpose—and I therefore do not confine myself to any particular construction of cutter. In one of the top horizontal bars, d , of the framing, A, there is made a longitudinal slot, e , in which a slide, D^* , is fitted and allowed to move or work freely. This slide has a vertical arbor, E, fitted in it by means of a screw-thread, f , cut on its lower part, so that by turning the arbor it may be raised or lowered and adjusted to the desired height, the arbor just above the screw having a fixed serrated or milled thumb-wheel, g , upon it for the convenience of turning it, and also to serve as a bearing for the hub of the wheel to be operated upon, as shown in red in fig. 2. In the upper surface of the platform B there is fitted a horizontal metallic plate, F, which is adjusted by a screw, G, shown in figs. 2 and 3, said plate being provided with a semicircular bow portion, h , as shown in fig. 3, so that it may not in its adjustment interfere with the arbor or shaft C and cutter D. The plate F is provided with two pendent ears or lugs $i i$, which serve as bearings for a small shaft, j , on which a hub or boss, k , is keyed or otherwise secured, said hub or boss being provided with a series of radial arms, l , at equal distances apart, which arms work through a slot, m , in the plate F, and project a suitable distance above the upper surface of the same. The hub or boss k has a series of teeth, n , made in it near one end, and H is a pawl which engages with said teeth and prevents the hub or boss and its arms from casually turning. This pawl is formed with a spring tang, o , or has a spring connected with or applied to it in such a manner as to keep the pawl engaged with the teeth n , (see fig. 4,) and a portion of the pawl projects upward through a slot in plate F to admit of it being depressed at the proper time in order to become disengaged from the teeth n and admit of the arms l being turned.

The parts above described, with the exception of the cutter, refer to those which are used for dressing the outer edges of the felloes on which the tire is fitted, and this side or surface of the felloes is dressed in a plane parallel with the axis of the wheel. The wheel is placed on the arbor E in slide D^* , the end of the hub resting on the thumb-wheel g , the arbor E being raised or lowered so that one side of the felloes may rest on the plate F, and the plate F adjusted so that the arms l may be in contact with the inner side or surface of the felloes, and the outer side or surface be in contact with the cutter D. The arbor E is then rotated by any convenient power, and the wheel is turned by hand, so that the cutter D will dress off the outer edges or surfaces of the felloes. The arm l of the hub or boss k , which projects up through the plate F, serves as a guide to keep the outer edges or surfaces of the felloes in contact with the cutter, and each spoke of the wheel, as the latter is turned, presses down the pawl H as the spokes come in contact with the part which projects up through plate F, and this depression of the pawl sets the hub or boss k at liberty and allows the spoke which depressed the pawl to turn the arm l down out of the way so that it may move along, and a succeeding arm l is turned up through the

plate F at the rear of the spoke above mentioned. Thus the arms are prevented from interfering with the movement of the spokes as the wheel is turned, each spoke before it comes in contact with the arm *l*, which is acting as a guide to the wheel, elevating the hub or boss from which the arms project, so that the spoke may turn the arm down, pass over it and raise another arm at its rear, which arm is turned down by the succeeding spoke, and so on—it being understood, of course, that the pawl H engages with a tooth, *n*, of the hub or boss each time an arm *l* reaches a vertical position at the inner sides of the felloes. The sides of the felloes are dressed as follows: The hub of the wheel is fitted on an arbor, I, which projects from a slide, J, fitted in a pendant, K. This pendant is suspended by a rod, *p*, from a slide, L, which works between horizontal guides, M M, attached to an upright, N, secured to the framing A, the slide L being secured at any desired point within the scope of its movement by a pin, *q*. The swinging movement of the pendant, K, admits of the sides of the felloes being adjusted to the cutter D either in a vertical or in an inclined plane, and this adjustment of the wheel to effect this result is accomplished by a plate, O, attached to the plate F, and provided with an upright lip, *r*, which bears against the sides of the felloes opposite to the sides against which the cutter D acts, (see fig. 2.) By adjusting the plate F through the medium of the screw G, the lip *r* will, in connection with the adjustment of the slide L, incline the wheel more or less or retain it in a vertical position. The outer sides or surfaces of the felloes are dressed in a vertical plane at right angles with the axis of the wheel, but the inner surfaces are dressed in an inclined plane corresponding with the plane in which the spokes of the wheel are placed, most wheels being "dished," as it is technically termed, by inclining the spokes in a greater or less degree.

This invention has recently been put in practical operation, and it performs its work well, trueing the wheel perfectly, and giving it a neat and finished appearance.

In the drawings the swinging-pendant K, arm I, and other apparatus for supporting the wheel where the back of the felloe is being pressed, are supported by an upright from the framing, A. They may, however, be arranged by connecting them with the side of the room over the machine; and I will ordinarily arrange them in this way.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

1. The slide D, with adjustable arbor E attached; the rotary cutter D, and the adjustable plate F, provided with the guide arms *l*, arranged so as to rotate, as shown, or in any other equivalent way, to admit of being removed or adjusted out of the way of the spokes by the action of the spokes themselves in the turning of the wheel, substantially as and for the purpose set forth.
2. The swinging-pendant, K, suspended from the adjustable slide L, having an arm, I, attached, in connection with the plate O, on slide F and the cutter D, all arranged to operate substantially in the manner as and for the purpose specified.

ANDREW P. ODHOLM.

Witnesses:

R. TOMLINSON,
WM. D. BISHOP.