(No Model.)

J. M. SWEET.

MACHINE FOR FINISHING WHEEL RIMS.

No. 433,054. Patented July 29, 1890.

Fig. 3.

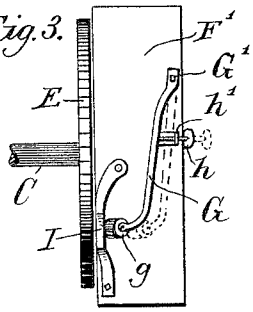


Fig. 1.

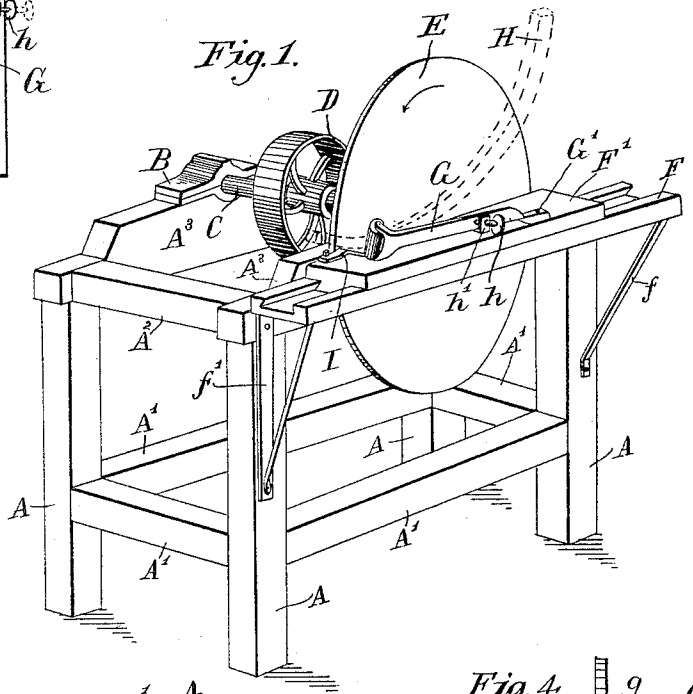


Fig. 4.

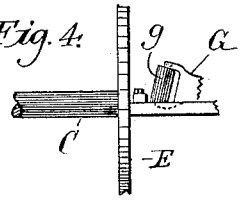
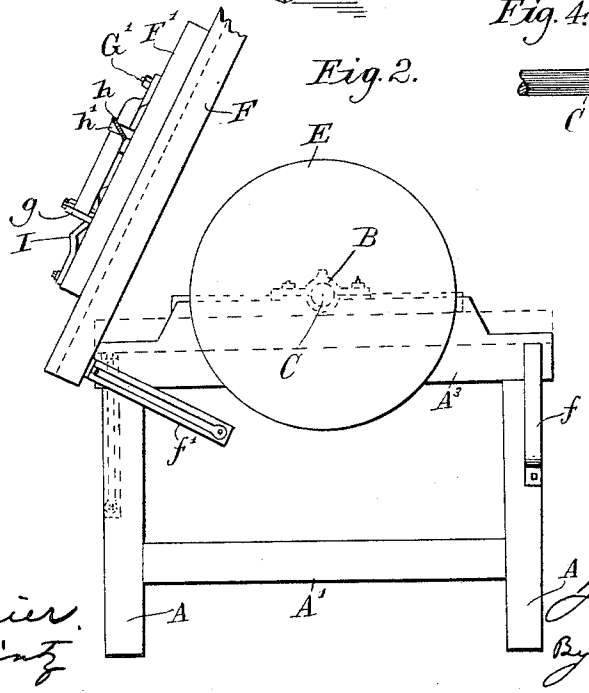


Fig. 2.



Witnesses:

Jno. H. Napier.

C. J. Heintz

Inventor:

John M. Sweet

By G. W. Ford

Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN M. SWEET, OF BATAVIA, NEW YORK, ASSIGNOR TO THE BATAVIA WHEEL COMPANY, OF SAME PLACE.

MACHINE FOR FINISHING WHEEL-RIMS.

SPECIFICATION forming part of Letters Patent No. 433,054, dated July 29, 1890.

Application filed October 4, 1889. Serial No. 326,051. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. SWEET, a citizen of the United States, residing at Batavia, in the county of Genesee and State of New York, have invented a new and useful Machine for Finishing Wheel-Rims, of which the following is a specification.

My invention relates to improvements in machines for finishing the rims of carriage-wheels previous to the placing of the same in position upon the spoke ends; and the objects of the improvements are to lessen the expense of manufacture and provide a more perfect rim than can be obtained in the usual manner—that is, finishing the rim after the same has been secured in place upon the spokes of the completed wheel. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the machine, showing in dotted lines a section of the rim in position to be operated upon. Fig. 2 is a side view of the same with the rim-table elevated for the purpose of covering or otherwise repairing the abrading-wheel. Fig. 3 is a top plan view of the abrading-wheel and a portion of the rim-table. Fig. 4 is a sectional view of a portion of the operating parts.

Similar letters refer to similar parts throughout the several views.

A are posts of the frame, which are secured together at their lower ends by girts A′, while the beams A^2 A^3 unite the upper ends of the said posts and form supports for the bearing-boxes B, within which the arbor C turns, and upon which is mounted the driving-pulley D and abrading-disk E.

F is a table having a dovetail groove upon its upper face, into which groove fits a corresponding dovetail formed upon the under side of the table F′, and in such manner that a fore and aft adjustment may be given table F′, for a purpose hereinafter explained.

f f′ are brackets supporting the tables F F′, the one *f* being secured by bolts to the post A, while the one *f′* is bolted upon its upper face to the lower part of table F, the vertical part of the bracket being pivoted near its upper end to the frame-work, and in such manner that the table may be raised upward, turning upon this pivot, as shown in Fig. 2, in order that the abrading-wheel E may be recoated without disarranging any part of the working mechanism. For covering the face of this wheel sand-paper is preferred; but emery or any other suitable abrading material may be used.

G is a leaf-spring, one end of which is by a single bolt G′ pivoted to the table, so that a lateral adjustment may be given the end carrying the anti-friction roller *g* by the use of the thumb-screw *h*, screw-threaded into the vertical part of the right-angled iron *h′*, the horizontal part of which iron is secured to the table-piece F′, as clearly shown. The roller *g* is made to turn upon pivots within the forked end of the spring G and stands in an inclined position relatively with the face of the abrading-disk, the upper end of the roller bearing away from the disk, so as to correspond with the rim, which is usually thinner upon the circumferential part than upon the inner edge, which rests upon the spoke-shoulder in the completed wheel. (Not herein shown.)

H represents in dotted lines a section of the wheel-rim in position to be operated upon for the purpose of smoothing before the same is affixed to the spokes for the completion of the wheel. The circumferential edge of this rim rests upon a corresponding concave portion made in the upper side of the plate I, which plate is secured to the table F′ at a point in close proximity with the face of the abrading-disk.

It will be observed that the table portion designated F, carrying the spring G and its coacting mechanism, as well as the plate I, is made adjustable upon the fixed table F in the line of the table's length, thereby enabling the roller to be brought to bear against the rim for the purpose of pressing the same against the face of the abrading-disk at different points relatively to its center and circumference, so that the entire wearing-surface of the disk may be utilized. It will also be seen that as the abrading-disk is made to rapidly revolve in the direction of the arrow the circumferential part of the rim will be brought down upon the concave portion of

the bearing-plate I, (said concave bearing being short to prevent undue friction,) while the spring-pressure being applied against the free side of the rim will cause the reverse side for some considerable portion of its length to closely adhere to the face of the abrading-disk in its rapid revolution, so that the disk acts in a great measure as a feed-wheel for moving the rim endwise, so that the operator has but little to do aside from placing the rim in position for being acted upon and removing the finished rim after its passage between the roller and disk, the rim at the conclusion being left with a smooth finished surface and free from all irregularities. After the first side of the rim has been smoothed the reverse side is brought in contact with the disk and the operation repeated, all of which will be readily understood without further description.

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

In a machine for dressing the rims of vehicle-wheels, the combination of a revolving abrading-wheel secured to a horizontal shaft, the two-part dovetailed interlocking table, the connection for supporting the rim, and the pressure-spring provided with a roller on one end, mounted upon said tables, the roller being made to bear against the outer side of the rim, thereby causing the rim to impinge against the face of the abrading-wheel, substantially as described, and for the purpose set forth.

JOHN M. SWEET.

Witnesses:
G. W. FORD,
F. RICHARDSON.