(No Model.) 3 Sheets—Sheet 1.

J. MONTO.

MACHINE FOR IMMERSING TINNERS' ARTICLES IN THE GREASE POT.

No. 421,601. Patented Feb. 18, 1890.

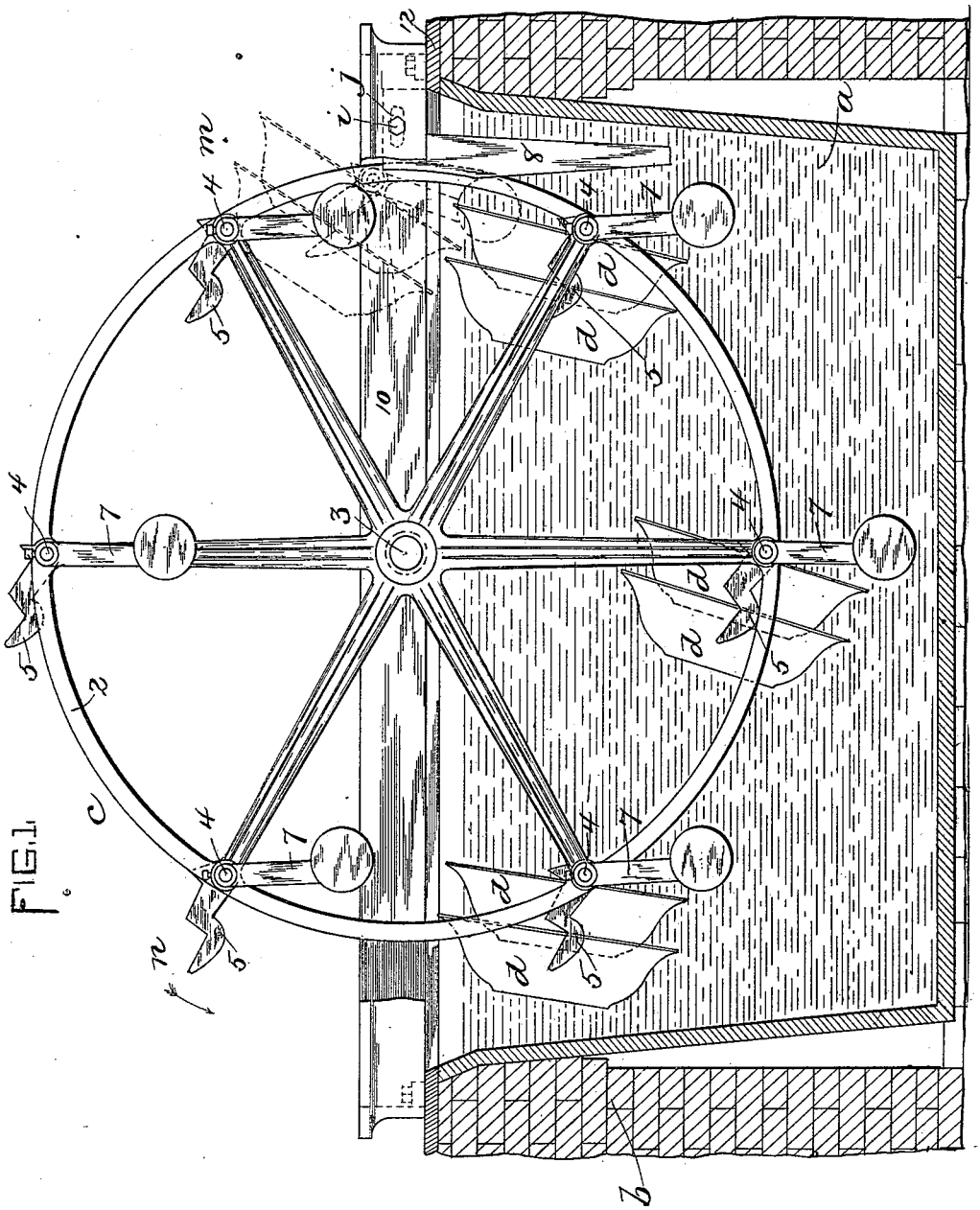

FIG. 1.

WITNESSES:
A. D. Harrison.
W. B. Ramsay.

INVENTOR
Joseph Monto
by Wright Brown Quinby & Atty

(No Model.) 3 Sheets—Sheet 2.

J. MONTO.

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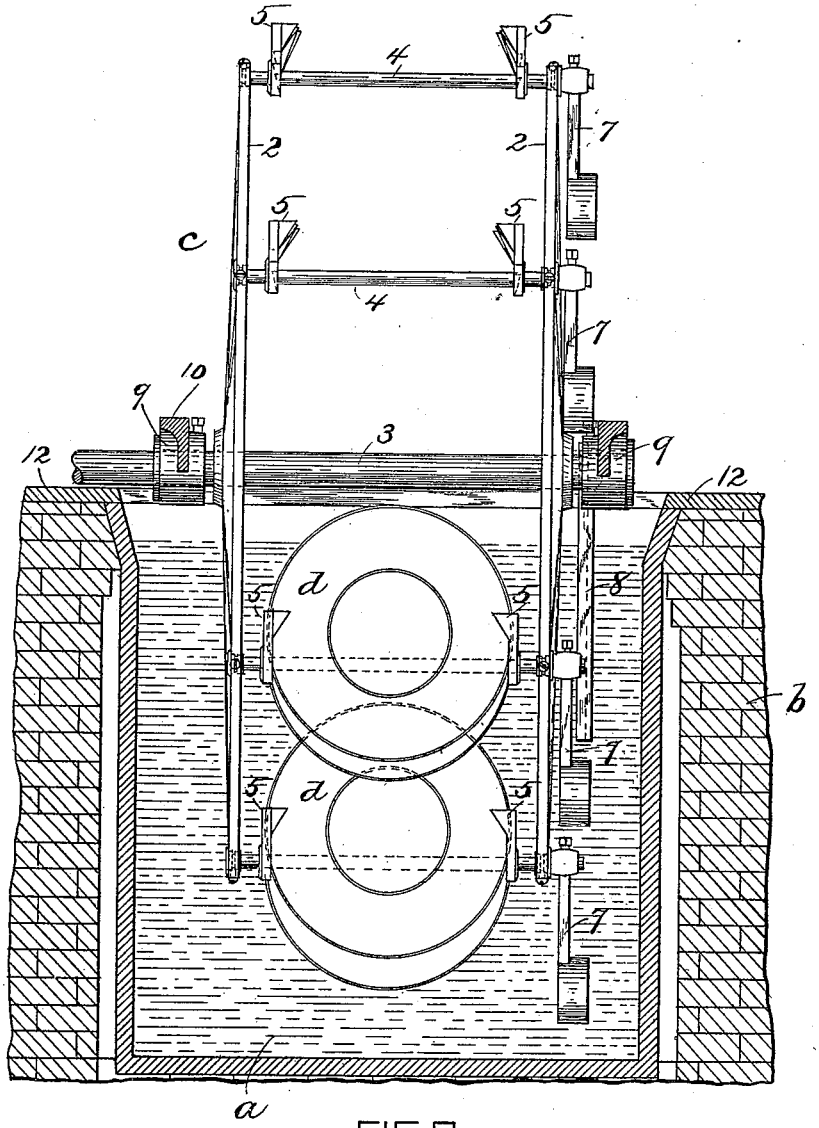

FIG. 2.

WITNESSES.
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(No Model.) 3 Sheets—Sheet 3.

J. MONTO.

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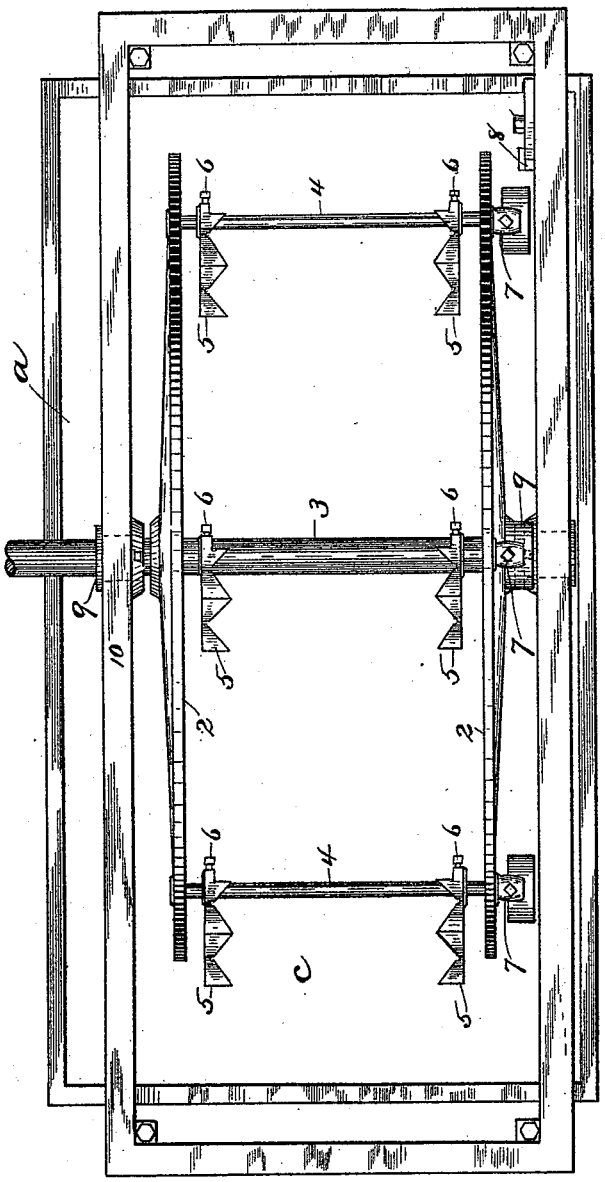

FIG. 3.

WITNESSES.
A. D. Harrison.
W. C. Ramsay.

INVENTOR.
Joseph Monto
by Wright Brown Quinby & Attys.

UNITED STATES PATENT OFFICE.

JOSEPH MONTO, OF CHELSEA, ASSIGNOR TO THE STEEL EDGE STAMPING AND RETINNING COMPANY, OF BOSTON, MASSACHUSETTS.

MACHINE FOR IMMERSING TINNERS' ARTICLES IN THE GREASE-POT.

SPECIFICATION forming part of Letters Patent No. 421,601, dated February 18, 1890.

Application filed August 1, 1889. Serial No. 319,419. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MONTO, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Machines for Immersing Tinners' Articles in the Grease-Pot, of which the following is a specification.

This invention relates to machinery for immersing tinned sheet-metal articles in a bath of hot grease and withdrawing said articles after a suitable period of immersion, the object of such immersion being to regulate the thickness of the coating of tin on the articles, the same having been dipped in a bath of melted tin to give them a suitable finish and conceal the marks incidental to the processes of manufacture.

The object of the invention is to provide a simple and rapidly-operating machine, which shall be capable not only of immersing the tinned articles in and raising them from the grease-bath, but also of tilting or tipping the articles while they are in the bath and emerging therefrom to prevent the tin from settling unevenly on the lower edges or portions of the articles. These results I attain by the improved mechanism which I will now describe.

In the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation of my machine, and Fig. 2 an end elevation of the same, the grease-pot being shown in section and parts of the supporting devices being broken away in both figures. Fig. 3 represents a top view.

The same letters and figures of reference indicate the same parts in all of the figures.

In the drawings, *a* represents the grease-pot, which is supported by a suitable setting *b* of masonry, and is heated by a furnace beneath it. (Not shown.)

c represents a rotary carrier for the tinned articles *d*. Said carrier is composed of two wheels 2 2, mounted side by side on a shaft 3, to which they are rigidly attached, rods or shafts 4 4, journaled in the rims of said wheels and extending across the space between the same, and holders 5 for the articles *d*, attached to the shafts 4 by set-screws 6, said holders 5 having downwardly-projecting weighted arms or pendulums 7, which maintain the arms normally in the position shown in full lines in Fig. 1, and permit them to be tilted, as shown in dotted lines in said figure, when the pendulums come in contact with a fixed guide 8, which projects downwardly into the grease-pot. The shaft 3 is journaled in boxes 9 9 on a frame 10, which rests on the top plate 12, covering the setting of the grease-pot, and is rotated in the direction indicated by the arrow in Fig. 1 by power applied in any suitable way. The holders 5 5 are preferably W-shaped, each having two grooves in its inner side for the reception of the articles, and inclined faces to guide the articles to said grooves, as shown in my pending application for patent for machine for tinning or retinning filed May 31, 1889, Serial No. 312,768. It is obvious, however, that any other suitable form of holder may be used, my invention not being limited to this particular form.

The carrier-shaft is arranged just above the grease-pot, so that nearly half of the carrier is constantly immersed in the bath. The arrangement of holders here shown is such that three holders and the articles held thereby are immersed in the bath simultaneously.

The guide 8 is an arm attached by a bolt *i* (passing through a slot *j* in said arm) to the frame 10. The arm projects downwardly into the grease-bath and has an inclined side which is arranged to strike the pendulum of each holder just before the holder begins to emerge from the bath. The inclination of the guide is such that while the articles held by the holder are emerging from the bath they are tilted or partly rotated, whereby their lower portions are moved laterally in the bath, any excessive accumulations of tin that may have gathered on said lower portions or edges being washed off, so to speak, by said lateral movement.

The articles may be removed from the holders by an attendant located at *m*, and fresh articles may be inserted in the holders by another attendant located at *n*. The rotation of the carrier may therefore be continuous, no stoppages being required for loading and unloading.

I claim.

1. The combination, with a grease-pot, of a rotary carrier projecting partly into the

grease-pot, a series of holders pivotally connected to the carrier and provided with weighted arms or pendulums, and a guide whereby said arms and holders may be tilted to give the lower edges of the articles a lateral movement in the bath, as set forth.

2. The combination, with a grease-pot, of a rotary carrier projecting partly into the grease-pot, a series of holders pivotally connected to the carrier and provided with weighted arms, a guide arranged to tilt said holders, and means for adjusting said guide toward or from the carrier, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 18th day of June, A. D. 1889.

JOSEPH MONTO.

Witnesses:
C. F. BROWN,
A. D. HARRISON.