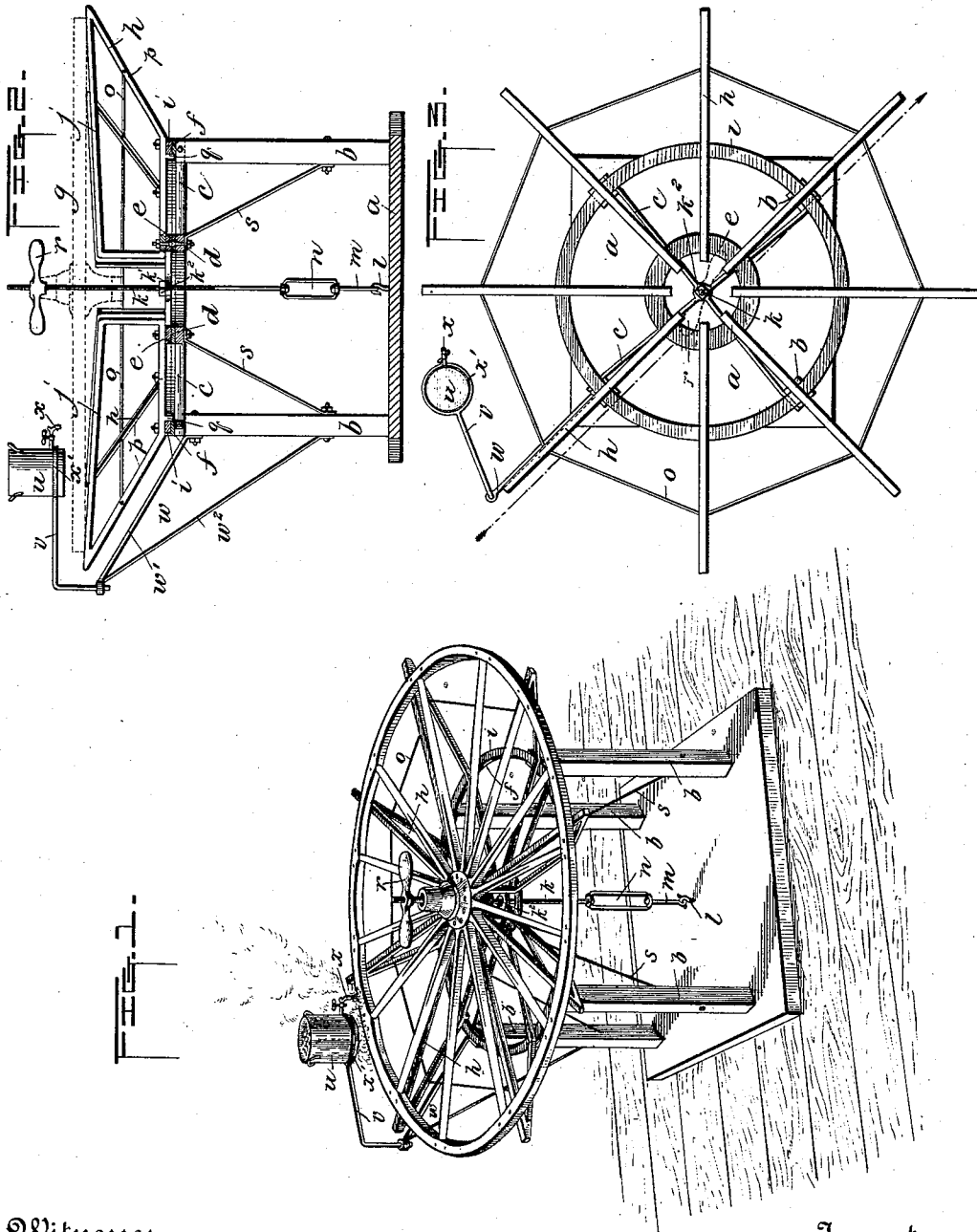


(No Model.)

D. R. MILLER.
TIRE SETTING MACHINE.

No. 407,739.

Patented July 23, 1889.



Witnesses

L. A. Connor, Jr.
J. H. Blackwood

Inventor

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UNITED STATES PATENT OFFICE.

DAVID R. MILLER, OF LOGANSFORT, INDIANA.

TIRE-SETTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 407,739, dated July 23, 1889.

Application filed August 29, 1888. Serial No. 284,064. (No model.)

To all whom it may concern:

Be it known that I, DAVID R. MILLER, a citizen of the United States, residing at Logansport, in the county of Cass and State of Indiana, have invented certain new and useful Improvements in Tire-Setting Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved tire-setting machine; and my object is to provide a more simple, convenient, and efficient device than those heretofore used.

With these ends in view my invention consists in the peculiar features and combination of parts more fully described hereinafter, and pointed out in the claim.

In the accompanying drawings, Figure 1 represents a perspective view of my complete invention; Fig. 2, a side elevation in cross-section, and Fig. 3 a plan.

The reference-letter *a* denotes a base on which the legs *b* rest. A pair of horizontal cross-bars *c* are rigidly secured upon the upper ends of said legs, and these cross-bars are provided with a flat metal ring *d* upon their upper surface. Said ring is centrally located between the supporting-legs, and is rigidly secured to the cross-bars, so that it forms a bearing-surface for a corresponding ring *e* upon the rotary wheel-table *g*, which will be more fully described hereinafter. A larger flat ring *f*, which is concentric with the one just described, rests upon and is rigidly secured to the outer ends of the cross-bars, and also forms an additional bearing-surface for the wheel-table. This table consists of a series of supporting-arms *h*, radiating from the center of the frame. The bottom of the table is provided with a pair of concentric rings *e* and *i*, which have a frictional bearing upon the lower stationary rings *d* *f*. Each arm *h* consists of an open truss having its outer portion contracted and projecting beyond the supporting-legs *b*. The upper surface *j* of each arm, upon which the wheel rests, is given a slight inclination toward the axis of the frame for the purpose of forming a cavity for the reception of the wheel while the "dish" is being taken out. A central screw-threaded clamp-

ing-bar *k* is loosely connected to the base *a* by means of a screw-eye *l*, short rod *m*, and swivel *n*. This clamping-bar *k* extends up through an aperture *k'* at the intersection of the cross-bars *c*, and a nut *k*² upon the bar serves to hold the latter in its proper vertical adjustment and to regulate the tension of the swivel and hence the freedom with which the table rotates.

In order to more firmly hold the arms *h* of the wheel-table in position, they are strengthened by lateral chords *o*, which pass through the bracing portion *p* and entirely surround the table. Downwardly-extending lugs *q* keep the frame upon the bearing-rings *f*. The upper extremity of the vertical clamping-bar *k* is provided with a hand-nut *r*, by means of which the wheel is drawn down tightly upon the wheel-table while the tire is being set and in removing the dish.

The braces *S* have their ends connected, respectively, to the sides of the legs *b* and to the under side of the cross-bars *c* directly beneath the inner rings *d* *e*, to counteract the clamping force of said hand-nut *r* and prevent it from breaking the cross-bars *c*. For convenience in cooling the tire a water-reservoir *u* is supported above the wheel upon an arm *V*, which is pivoted to the outer free end of a bracket *w*, consisting of two upwardly-projecting rods *w'* *w*². By this arrangement the reservoir can be swung away from or over the wheel when desired. The reservoir is provided with any suitable faucet—such as *x*—and it may be attached to the free end of the pivot-arm *V* by any suitable means—such as the loop *x'*.

The object and nature of my invention having been set forth, I will now proceed to describe its operation.

The water-reservoir having first been swung out of the way, the wheel is laid upon the rotary table with its outer side up and the clamping-bar extending through the hub. The hand-nut *r* is then screwed down until the wheel is clamped rigidly to the table. The tire is now applied, and during the riveting and tightening process the operator may stand still, using one hand for hammering and the other for turning the wheel. If the wheel has been "dished," this defect will be removed when the wheel is clamped down

upon the table, and after the tire has been set the wheel will remain in its proper shape.

The tire is cooled by allowing the water to escape from the reservoir, as shown in Fig. 1.

- 5 The wheel can be easily removed by simply taking off the hand-nut. The ease with which the table rotates can be regulated by screwing up or unscrewing the nut k^2 .

- 10 It is evident that many slight changes which might suggest themselves to a skilled mechanic could be resorted to without departing from the spirit and scope of my invention; hence I do not limit myself to the precise construction shown.

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

In a tire-setting machine, a stationary stand provided with bearing-rings and a rotary table, in combination with a central screw- 20 threaded clamping-bar having an adjustable nut bearing upon the wheel-table, the clamping-bar being secured to the base of said stand by a swivel connection, in the manner and for the purpose set forth.

25 In testimony whereof I affix my signature in presence of two witnesses.

DAVID R. MILLER.

Witnesses:

TERENCE D. DEVINE,
HENRY SCHRIMP.