J. H. WILLIAMS.

Tire Setter.

No. 108,544. Patented Oct. 18, 1870.

Fig. 1.

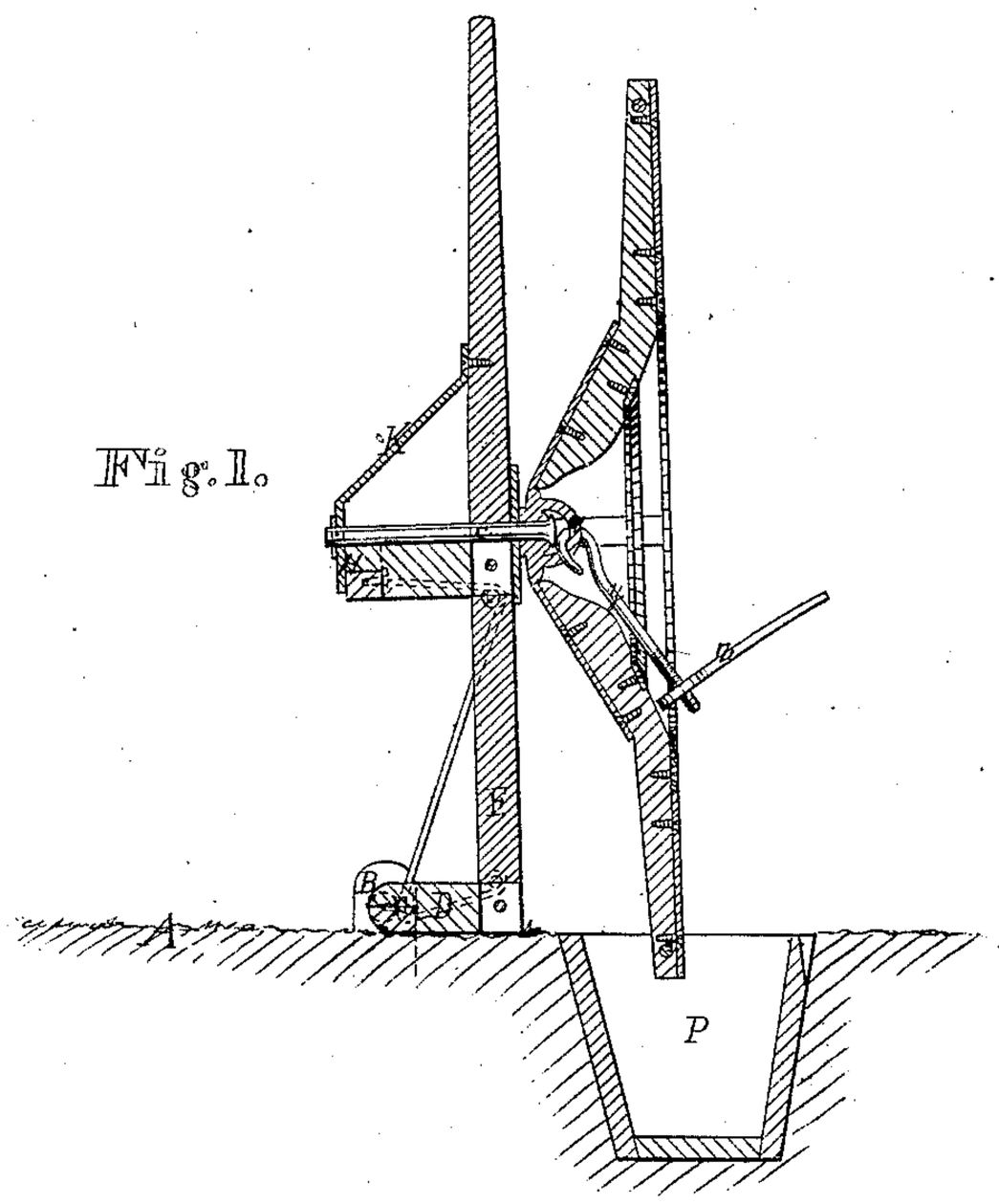
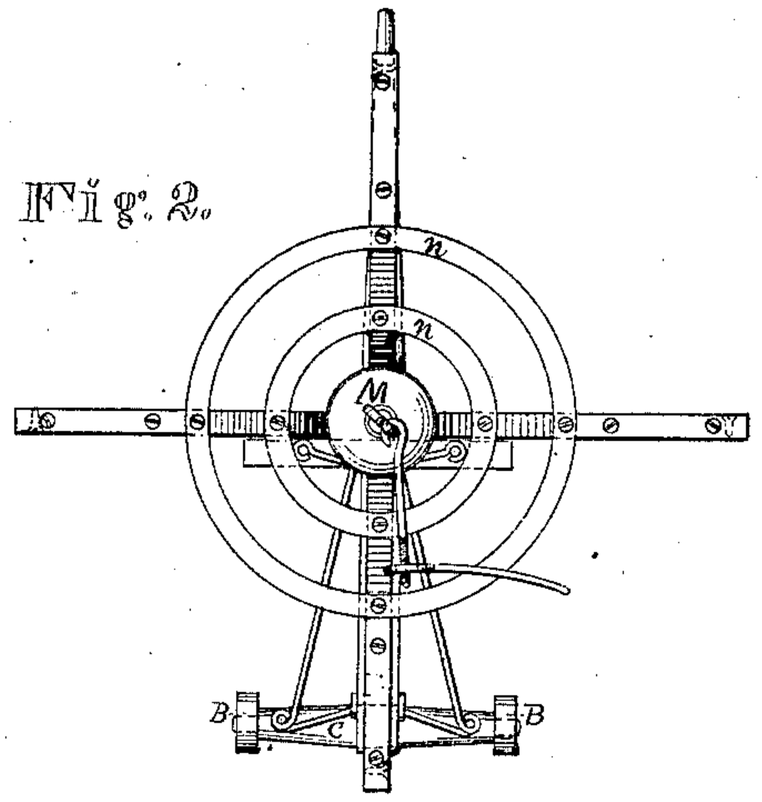


Fig. 2.



Witnesses.
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JOHN H. WILLIAMS, OF PLEASANT HILL, OHIO.

Letters Patent No. 108,544, dated October 18, 1870.

IMPROVEMENT IN TIRE-SETTING MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN H. WILLIAMS, of Pleasant Hill, in the county of Miami and State of Ohio, have invented a new and valuable Improvement in Setting Tires; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of longitudinal section of my invention.

Figure 2 is a plan view of the same.

My invention relates to means for setting the tires of carriage-wheels, and consists in a novel arrangement of devices intended to aid the operator in holding the wheel while the tire is being adjusted, and afterward cooling the same in water.

A of the drawing shows a smooth piece of earth, into which are firmly driven the piles or stakes B B.

The letter C represents a rotating base-bar, pivoted in the piles B in the manner shown.

D represents an arm, firmly attached to the bar C, at its lower end, while its upper end is rigidly united with the operating lever E next mentioned. The lever E is connected with the arm D at its front end, while its rear end is extended to such a distance as may be found desirable, to enable the operator to manage the apparatus with ease and dispatch.

The letter H represents a support, adapted to sit firmly upon the ground, and serve as a rest and support for the holding apparatus. This support is united with the lever E by means of the vertical arm or standard K, and in the manner shown on the drawing.

Braces, such as are represented on the drawing, serve to give strength and firmness to the operating parts.

The brace *a* also serves as a guide and support for the rotating shaft *c*, as hereinafter mentioned.

The letter *m* represents a wheel, constructed with four arms, as shown, united and held in place by the circular strips or plates *n n*, in the manner shown.

The arms of this wheel are respectively united at their inuer ends with the enlarged head of the rotating shaft *c*, in such manner as to compel the wheel to rotate with said shaft.

The shaft *c* rests, by its enlarged head, upon the upper surface of lever E, while its lower end passes downward through said shaft and through a suitable opening in the brace *a*, as shown.

I form a ring, *v*, in the top of the enlarged head of shaft *c*, and attach thereto, by an eye or hook, the working rod *y*.

I cut a screw-thread on the upper end of rod *y*, and connect therewith the wrench *z*, in the manner shown.

It will be observed that the wheel *m* is constructed in the form of a dish, or concave from the point inward at which the outer strip *n* is attached, and that inward from the point at which the inner strip *n* is affixed, there is a cavity extending downward to the top of the bolt *c*. This cavity is designed to hold the hub of the wheel, while its fellies rest upon the arms of my holding wheel. The rod *y* is passed through the opening in the hub, and afterward the wrench *z* operated so as to hold the wheel securely in place.

The letter P represents a trough, placed in the ground, its upper surface being upon a level with the ground.

When the tire is set, the operator seizes the extended end of lever E, and, by raising it, forces one side of the wheel into the water of the trough, when, by rotating the operating wheel, said tire is cooled, and the wheel may be disengaged from the apparatus.

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement of the piles B, rotating bar C, lever E, support H, shaft *c*, wheel *m*, rod *y*, wrench *z*, and trough P, when constructed snbstantially as and for the purpose specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

JOHN H. WILLIAMS.

Witnesses:

NATHANIEL HILL,

SIDNEY G. S. BARTON.