

(No Model.)

M. ROUSE.
SLED BRAKE.

No. 394,012.

Patented Dec. 4, 1888.

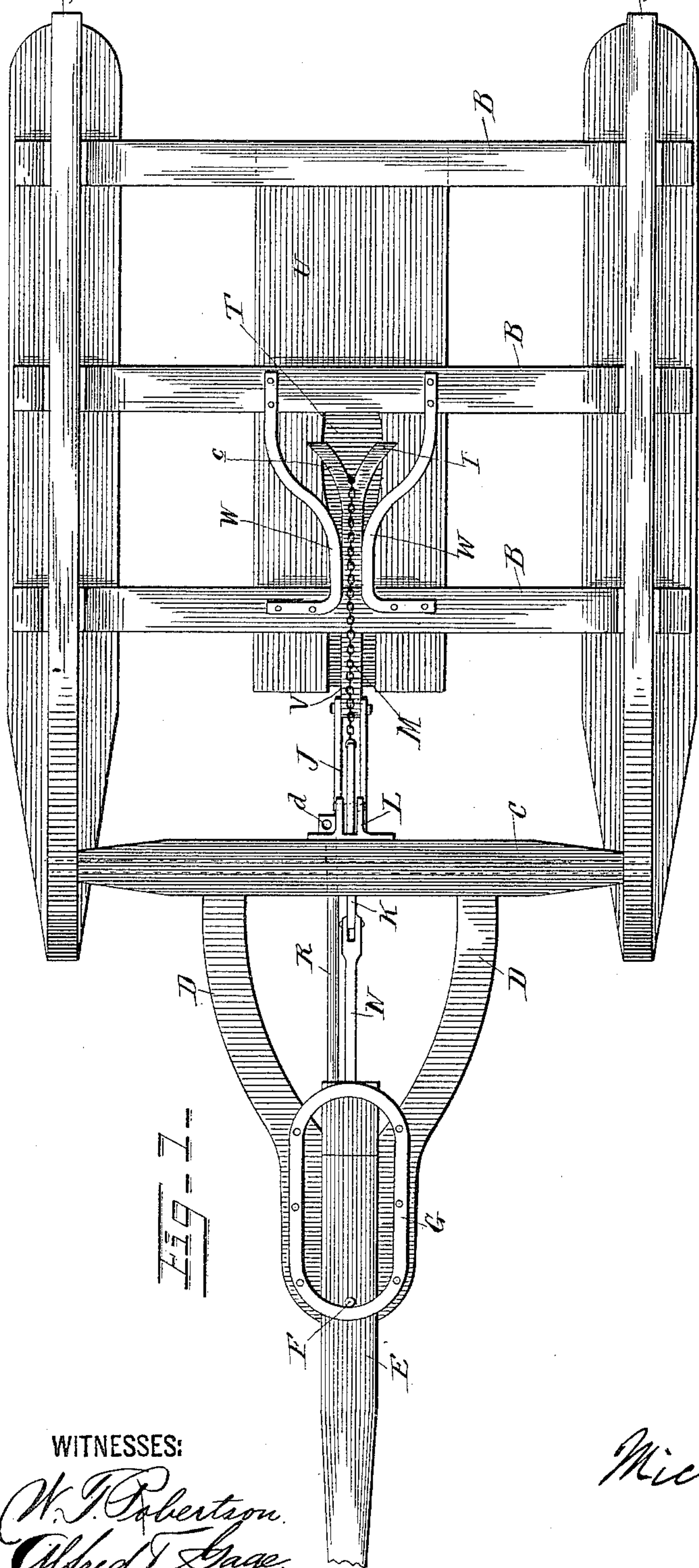


FIG. 1-

WITNESSES:

W. J. Robertson.
Alfred T. Sage.

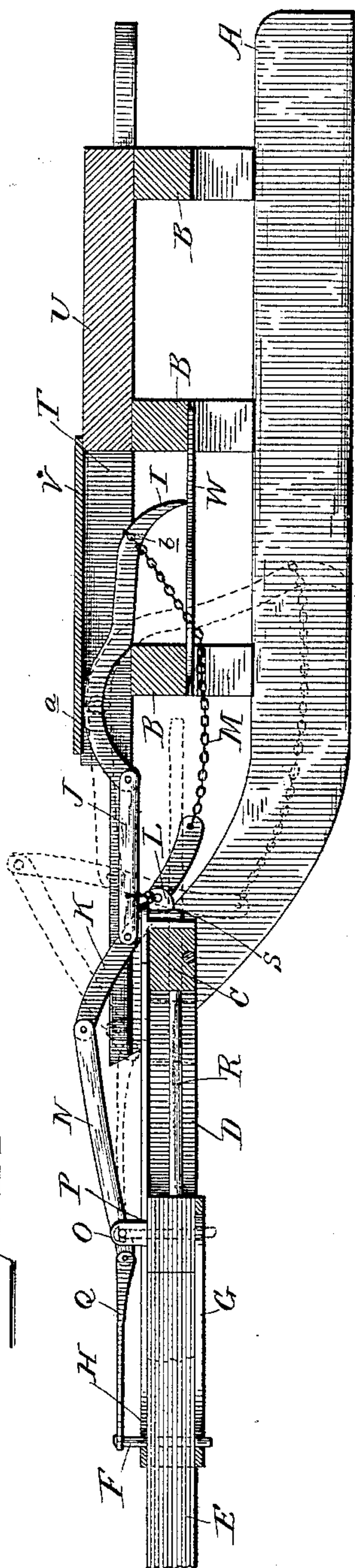


FIG. 2-

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UNITED STATES PATENT OFFICE.

MICHAEL ROUSE, OF DUSHORE, PENNSYLVANIA.

SLED-BRAKE.

SPECIFICATION forming part of Letters Patent No. 394,012, dated December 4, 1888.

Application filed May 15, 1888. Serial No. 273,983. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL ROUSE, a citizen of the United States, residing at Dushore, in the county of Sullivan and State of Pennsylvania, have invented certain new and useful Improvements in Sled-Brakes; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to sleds or sleighs, and has for its object to provide a brake therefor which will act on a part of the road between the runners so as not to cut up the road traveled by the runners, and which will be thrown into action by pulling back the horses or by the sled starting to run upon the horses and automatically released by the horses pulling on the tongue. Means are also provided for locking said parts so that the sled can be backed without the brake operating.

To accomplish the above objects and such others as may hereinafter appear, the invention consists in the construction and the combination of parts hereinafter particularly described and afterward claimed, reference being had to the accompanying drawings forming part hereof.

Figure 1 is a bottom plan view of the sled and brake. Fig. 2 is a vertical longitudinal section.

In the drawings, the letter A designates the runners connected together by the cross bars or ties B and at the front by the rotatable bar C, to which the hounds D are connected, so that the tongue E, attached to the hounds, may be free to swing up and down. The tongue slides back and forth between the hounds, and is limited in its movement by the pin or bolt F, which projects above and below the tongue, and below the tongue bears at its extreme forward movement against the front of the check ring or plate G and at the extreme of its rear movement against the rear of the same ring or plate. The ring or plate G also serves to strengthen the connection between the hounds, and the hounds may be

further braced by the plate H, secured to the top faces of the hounds and connecting the same at their forward ends.

The tongue is connected to the brake-shoe I by a series of levers, so that as the tongue is drawn forward in the position it bears when the horses are pulling the brake will be thrown upward out of action, and when the tongue is pushed backward or the sled run forward the brake-shoe is thrown down into action to check or stop the movement of the sled. The construction of brake-shoe considered the best is that shown, which is composed of two segments, *a* and *b*, of a circle, which will give it the greatest movement in the shortest space, besides imparting to it greater strength, and it is formed at its lower end with the fork or claw *c*. The upper end of the brake-shoe is connected by a pitman, J, preferably made of two bars, as shown, to a lever, K, which is pivoted or fulcrumed to a bracket, L, secured to the front bar, C. This lever is preferably curved, as shown, and its short arm is connected to the lower end of the brake-shoe by a chain, M. By connecting both the upper and lower ends of the brake-shoe to the lever K the upper end of the brake-shoe is moved backward and the lower end drawn forward at the same time, and consequently there is a stronger application of power to the brake-shoe both in moving it and in holding it to its place.

The upper end of the lever K is pivotally connected to one end of a rod, N, the other end of which rod is connected to the tongue, preferably by pivoting to the ears O, formed on the metallic cap or plate P, securely fastened to the tongue. A rod, Q, may be linked or otherwise connected to the end of the rod N, and at its other end to the bolt F, which bolt may serve for the adjustment of the double-tree. It will thus be seen that every time the horses pull back on the tongue or that the sled in going downgrade runs upon the horses the rod will push backward the upper end of the lever K and draw forward the lower end of the same lever, so that through the pitman J and chain M the brake-shoe is thrown downward and forward, so as to bite the ground between the runners and thus check or completely brake the sled. It will

be observed, too, that the harder the pole or tongue is pulled back the firmer the brake-shoe will be applied, and so held until the tongue is drawn forward by the horses, when the levers will raise the brake-shoe out of engagement with the ground and into place.

A rod, R, extends from the rear end of the tongue through an opening in the front round, C, and when the tongue is drawn forward a catch or pin, S, can be dropped through a hole, *d*, made in the bracket L, so as to bear against the end of the rod R, and thus lock the tongue in its forward position, when the horses can be backed to back the sled without applying the brake.

The brake-shoe when out of action will lie in a recess, T, formed in the sand-board U, which may have a metal plate, V, applied over the recess, and when thrown into action will pass between the brace-irons W, which will diverge at their rear ends so as to form an enlargement for the claw-head of the brake-shoe to pass through, while the forward portions of the irons will form a groove or slot in which the narrower portion of the brake-shoe will fit and be held against side movement by the walls of the slot. These irons may be bolted to the under side of the cross bars or ties B, or otherwise secured under the bottom of the sled.

I have described with particularity the details of construction of the several parts, because the same are believed to best serve the purpose; but it is obvious that changes in the details can be made without departing from my invention, and therefore I do not intend in all particulars to confine myself to the details of construction.

Having described my invention and set forth its merits, what I claim is—

1. The combination, with the sled and the shifting tongue, of the brake-shoe connected with the tongue to be operated by it, and formed of segments of a circle, *a* and *b*, substantially as described.

2. The combination, with the sled and the shifting tongue, of the brake-shoe connected with the tongue to be operated by it, and the brace-irons W, secured to the under side of the sled to receive the brake-shoe when lowered, substantially as described.

3. The combination, with the sled and the shifting tongue, of the brake-shoe connected with the tongue to be operated by it, and the

brace-irons secured to the under side of the sled to form a groove or slot for the brake-shoe, and having their ends diverging to permit the passage of the enlarged end of the brake-shoe, substantially as described.

4. The combination, with the sled and the shifting tongue, of the brake-shoe connected with the tongue to be operated by it, and a recess formed below the top of the sled to receive the brake-shoe when in a raised position, substantially as described.

5. The combination, with the sled and the shifting tongue, of the brake-shoe, the pivoted lever, the pitman connecting the upper end of the brake-shoe to said lever; the chain connecting the lower part of the brake-shoe to the lower end of the lever, and means connecting said lever and tongue, substantially as described.

6. The combination, with the sled and the shifting tongue, of the brake-shoe, the pivoted lever, the pitman connecting the upper end, and the chain connecting the lower end of the brake-shoe to said lever, and the rod pivotally connected to the upper end of said lever and to the rear end of the tongue, substantially as described.

7. The combination, with the sled and shifting tongue and the brake-shoe connected with and operated by said tongue, of the rod extending rearwardly from said tongue, and the locking-bolt to engage said rod to lock the tongue against movement, substantially as described.

8. The combination, with the sled, the shifting tongue, and the brake-shoe operated by said tongue, of the hounds, between which said tongue slides, and the irons on said hounds serving in connection with a stop on the tongue to limit the play of the tongue, substantially as described.

9. The combination, with the sled, the brake-shoe, and the sliding tongue connected with and operating said brake-shoe, of the rotatable cross-bar connecting the runners of the sled, and the hounds confining the tongue in place and connected to said rotatable cross-bar, substantially as described.

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

MICHAEL ROUSE.

Witnesses:

RUSH J. THOMSON,
N. K. WOODWARD.