(No Model.)

H. G. SCHMITT.

DEVICE FOR DISPLACING AND REPLACING KNIVES IN SICKLE BARS.

No. 441,776. Patented Dec. 2, 1890.

FIG. 1.

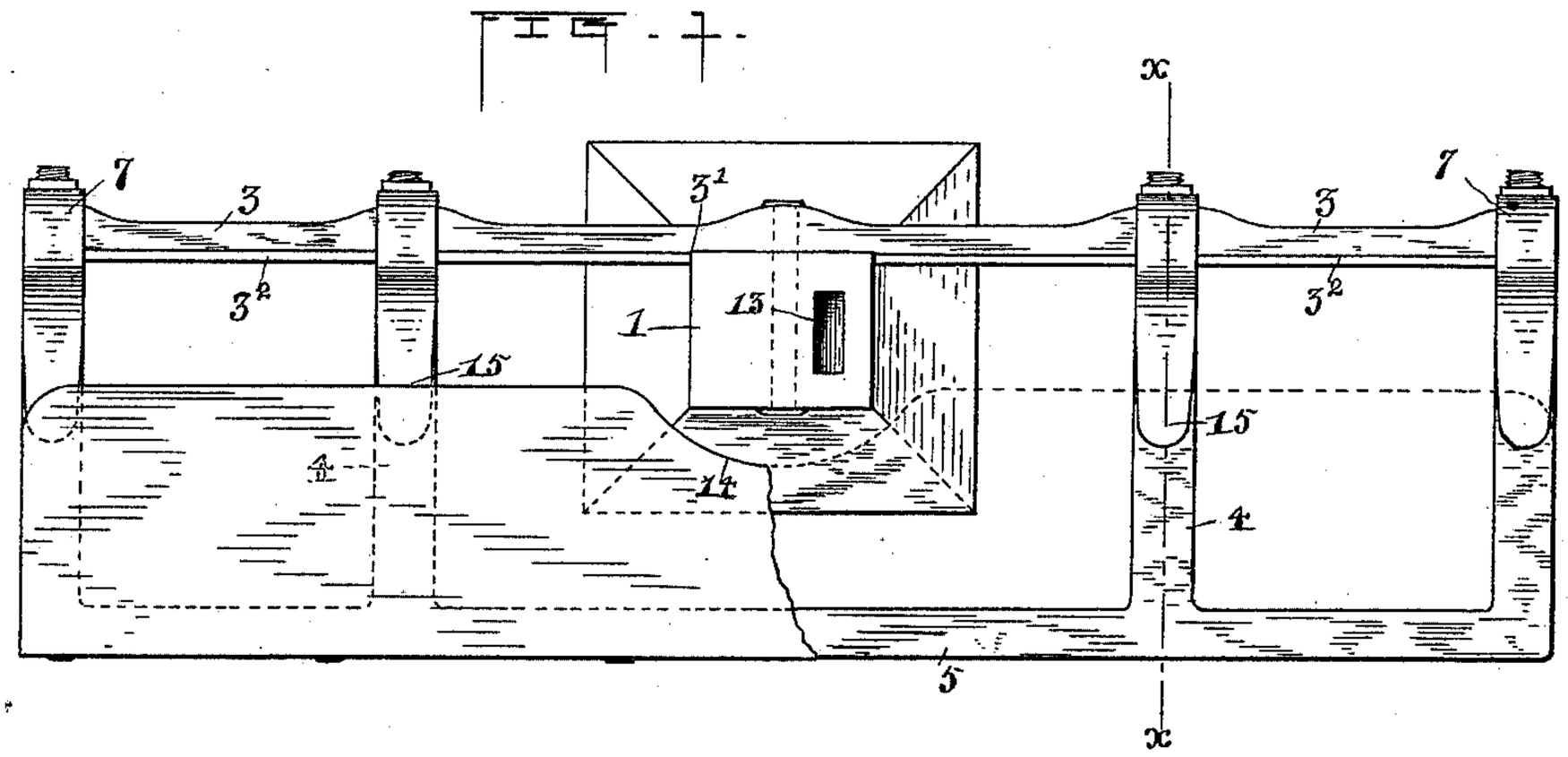
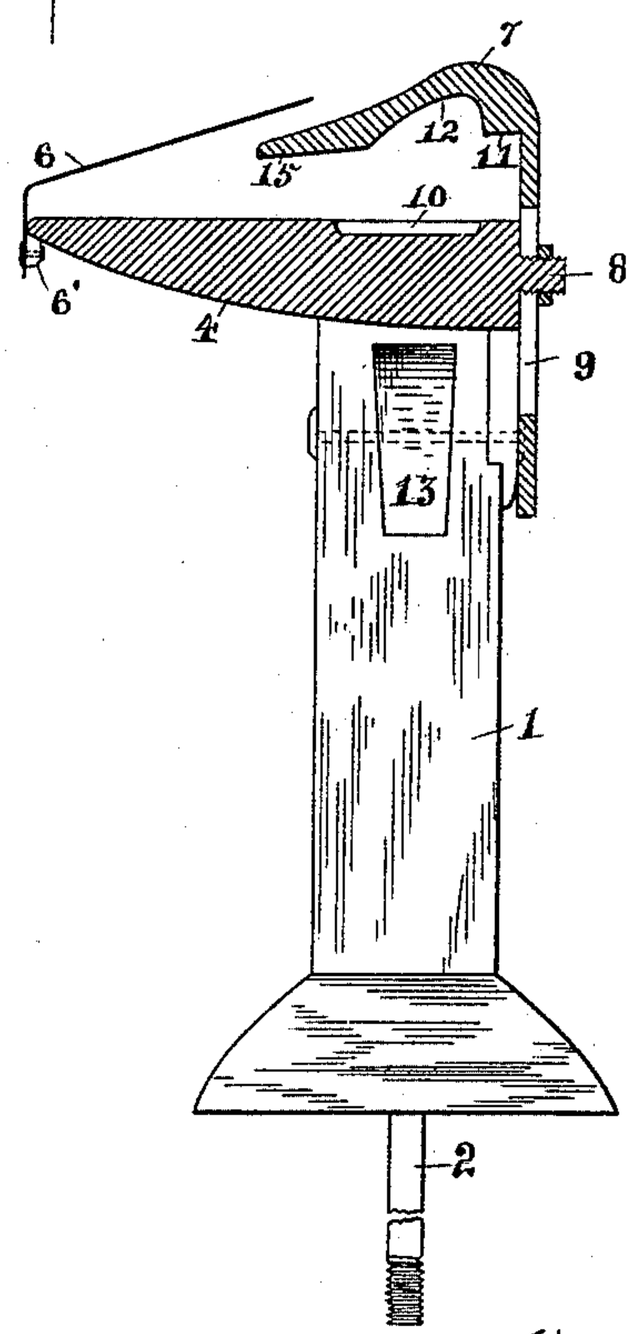


FIG. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY G. SCHMITT, OF HENDY CREEK, NEW YORK.

DEVICE FOR DISPLACING AND REPLACING KNIVES IN SICKLE-BARS.

SPECIFICATION forming part of Letters Patent No. 441,776, dated December 2, 1890.

Application filed August 8, 1890. Serial No. 361,429. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. SCHMITT, a resident of Hendy Creek, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Devices for Displacing and Replacing Knives in Sickle-Bars; 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 pertains to make and use the same.

The object of the invention is to provide for conveniently replacing the blades or knives in the sickle-bar of a mower or reaper, and for like purposes, and it contemplates a portable mechanism adapted to be secured upon the pole or other part of a harvester; and it consists in the construction hereinafter described and pointed out.

In the accompanying drawings, Figure 1 is a plan partly in section; and Fig. 2 is a section on line *x x* of Fig. 1.

1 indicates a post or bracket, which may be of any form adapted to be secured to the pole or other part of a reaper or machine in connection with which the device is to be used. In the present instance it is represented as provided with a screw-threaded stem or bolt 2 and an enlarged foot, whereby it may be attached to and firmly held upon the pole of a machine. To the top of the post is firmly secured in any convenient manner a cross-bar 3, provided with horizontal arms or brackets 4, preferably connected at their front ends by a plate or bar 5, adapted to support the point of the knives or blades. This bar 3 may be recessed at and fitted to the back of the post and then bolted thereto, or said parts can be cast in one piece. The bars 3 and 5, with the connecting arms or bars, form a table for the support of the sickle-bar and its blades while a blade is being replaced. 6 denotes an apron or guard to obviate danger of injury to the operator from the blades. It can be attached to bar 5, or to the arms 4, as found convenient. As shown, it has a flange bolted to lugs 6′, formed on bar 5 of the table.

7 7 denote clamps having fingers 15 and adjustably secured on bar 3 by means of screw-bolts 8 on the ends of the arms 4, which extend through bar 3 and into slots 9. These slots are made of sufficient length to permit suitable vertical adjustment of the clamps. The particular means described of adjusting and securing said clamps, though convenient and preferable, may be easily varied. The table may be cast in one piece, and other known devices used for adjustably holding the clamps.

In the top of each arm 4 of the table is provided a depression 10, adapted to receive the sickle-bar, and the bottoms of these depressions are in the same plane as the top of the post. As shown, the bar is notched, as indicated, at 3^2, this notched depression or recess being continuous with the recesses 10. By this means the heel of the cutter-bar is supported throughout its whole length within the extent of the table. 11 denotes a projection under each of the clamps, adapted to bear on the heel of the sickle-bar, and the recess 12 is provided for the passage, when necessary, of the eye on the sickle-bar.

13 indicates a hole in the post, which extends from the top downwardly and out at one side, as indicated in Fig. 2. The post in operation is used as an anvil, and 13 is a punching-hole.

14 denotes a notch or cut-away portion of the guard near the anvil.

In operation the device is secured to the pole of the machine or to any convenient object. A cutter-bar is passed endwise under the clamps and above the table until a blade to be removed is brought over the anvil and its rivet is over the hole 13. The clamps can then be moved down upon bar and secured in place. The blade may then be removed by punching out its rivet, which falls down through the hole 13. A new blade can then be put in place and riveted, the bar being moved a little to one side to bring the rivet over the solid portion of the anvil.

This device is conveniently secured to the pole in the rear of the doubletree or evener. It is obvious, however, that it might be applied to a work-bench or other solid object. The parts can be secured together in any manner known to skilled mechanics, and variations in respect to such details of construction will not constitute a departure from the invention, unless the mode of operation and prin-

ciples of construction are substantially altered.

The number or size of the clamps, and the particular form of the apron or of the table are not of the gist of the invention, except as may be hereinafter pointed out.

I am aware that a riveting-machine having an anvil, guide, and pivoted clamp has been proposed for riveting the blades of mowing or reaping machines, such devices, broadly considered, are not of my invention.

Having thus described my invention, what I desire to secure by Letters Patent is—

1. In a device for replacing the cutting-blades of a mower and for like purposes, a portable post and anvil, devices for detachably securing said post to a machine-pole, and a table secured to said post, in combination with adjustable clamps adapted to hold a cutter-bar upon said table, and an apron secured to the table, extending the whole length of the table, to guard the blades, substantially as set forth.

2. In a device for replacing blades in a cutter-bar, the table, the apron extending the whole length of the table, having a recess or cut-away portion opposite an anvil, in combination with said anvil, substantially as set forth.

3. In a device for replacing the cutting-blades of a mower and for like purposes, a detachable post and anvil, devices for securing it to a machine-pole and having a passage therethrough leading downwardly from its top, and a table secured to said post, in combination with adjustable clamps adapted to hold a cutter-bar upon said table, substantially as set forth.

4. In combination with the cutter-bar-supporting table, the adjustable clamps provided each with a shoulder or projection 11, adapted to engage the heel of the bar, and a finger 15 to press upon a blade, substantially as set forth.

5. In combination with the cutter-bar-supporting table, the adjustable clamps provided each with a shoulder or projection 11, adapted to engage the heel of the bar, and a finger 15 to press upon a blade, and a recess 12 for the passage of the eye of the bar, substantially as set forth.

6. The table for supporting a cutter-bar, having the depressions 10, and a post or support for said table, with its top in the same plane as the bottom of the depression, substantially as set forth.

7. The table for supporting a cutter-bar, having depressions 10 and 3^2, and a post or support having its top in the same plane as the bottom of said depressions, substantially as set forth.

In testimony whereof I have signed this specification in the presence of three subscribing witnesses.

HENRY G. SCHMITT.

Witnesses:
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W. W. BLOSS,
HOD. M. DARLING.