H. SPECHTMEIER.

TOW HOOK FOR STEAM TUGS.

APPLICATION FILED APR. 20, 1920.

1,377,159. Patented May 3, 1921.

Fig. 1.

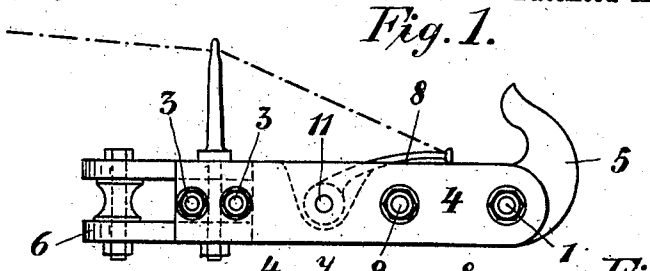


Fig. 2.

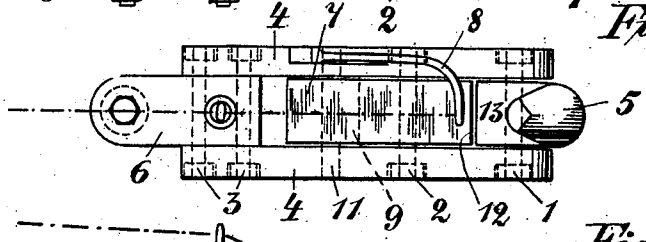


Fig. 3.

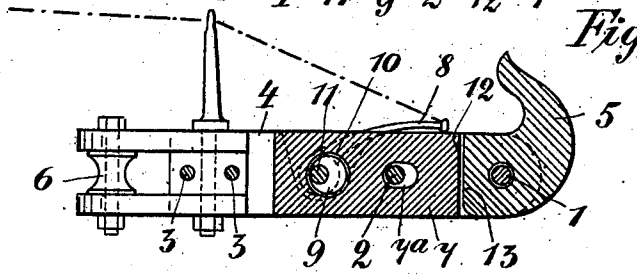
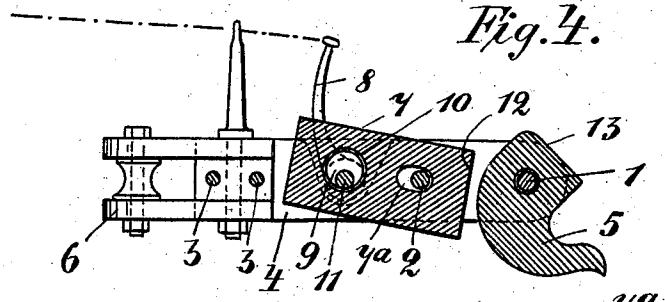


Fig. 4.



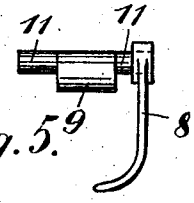


Fig. 5.

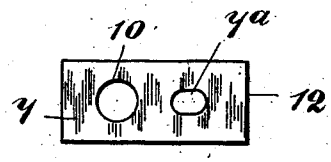


Fig. 6.

Witnesses:
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UNITED STATES PATENT OFFICE.

HEINRICH SPECHTMEIER, OF BARGTEHEIDE, GERMANY.

TOW-HOOK FOR STEAM-TUGS.

1,377,159. Specification of Letters Patent. Patented May 3, 1921.

Application filed April 20, 1920. Serial No. 375,320½.

To all whom it may concern:

Be it known that I, HEINRICH SPECHTMEIER, a citizen of the German Republic, and residing at Bargteheide, Holstein, Germany, have invented certain new and useful Improvements in Tow-Hooks for Steam-Tugs, of which the following is a specification.

This invention relates to an improved tow-hook for steam-tugs and the like, which is distinguished from the known hooks of similar kind by its simple and rigid construction as well as by its durability and handiness during use.

The improved tow-hook comprises essentially a rigid frame formed of two iron-jaws, on one end of which the hook proper is pivotally mounted while the other end carries a pivotal member for attachment of the tow-hook to any fixed support. Between said hook proper and pivotal member an easily disengageable locking contrivance is located, by which the hook can be locked in its position of use, while a single manipulation is required for unlocking the hook.

The hook proper is, for this purpose, flattened at its rear end, so that it is immovably fixed in its position of use by the correspondingly flattened end of the locking-block when the latter is pressed thereon by action of a cam-disk or the like.

The annexed drawing shows the improved tow-hook.

Figures 1, 2 and 3 are respectively a side-view, plan-view, and a sectional side-view, of the same, in its position of use;

Fig. 4 is a sectional side-view of the same in its unlocked position;

Fig. 5 is a plan-view of the cam-disk with its axle and operating-lever;

Fig. 6 is a side-view of the locking-block.

Between two rigid elongated iron-jaws 4, which are held together by distance-bolts 1, 2, 3, and at one end of the same, the hook proper 5 is pivotally mounted on the bolt 1, while at the other end a pivotal member 6 is fulcrumed on the bolt 3, which serves for attaching the tow-hook to any fixed support. The prismatic locking-block 7 is made with an elongated slot 7^a therein and slidably arranged on the bolt 2. In a cylindrical boring 10 of said block 7 a cam-disk 9 is located and with its axle 11 mounted in said jaws 4. On one end of said axle an operating-lever 8 is fixed and located to work in a lateral recess of the corresponding jaw 4. The arrangement is such that, when the locking-block is moved by means of the cam-disk toward the hook 5, the two flattened ends 12 and 13 of said block and hook come in contact with one another, whereby the hook is kept in its upright position of use, the operating-lever being then turned down (Figs. 1 to 3). An unintended unlocking cannot take place, because the center of the cam-disk as well as that of its axle 11 lie behind one another in the pulling-direction of the tow-line to be attached to the tow-hook, so that a lateral strain for turning the axle or cam-disk does not occur. Besides, the parts under strain, namely the flattened ends of block and hook, are of such compactness that a breaking or wear cannot take place.

The free end of the operating-lever 8 is connected with a pull-cord by which it can be quickly turned-up (Fig. 4), so that the hook becomes thereby instantaneously unlocked and is allowed to turn down in case of need or danger when it is required to quickly loosen the tow-line therefrom.

What I claim, is:

A tow-hook for steam-tugs and the like, comprising, in combination, a frame having two rigid jaws, one with a lateral recess, three distance-bolts to hold said jaws together, a pivotal hook with flattened rear end at the front end of said frame on one of said bolts, a pivotal member at the other end of said frame on another of said bolts, a locking-block with flattened front end having an elongated slot therein by which it is slidably mounted on the third one of said bolts as well as a circular boring, a cam-disk mounted in said circular boring, an axle for said cam-disk turnably located in said jaws, an operating-lever on one end of said axle located when turned-down in the lateral recess in one of said jaws and adapted to move the locking-block by means of said cam-disk toward said hook so that the flattened ends of block and upwardly turned hook are in contact with one another, and means to disengage said operating-lever, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HEINRICH SPECHTMEIER.

Witnesses:

FRIEDRIK LUNOW,

HERMANN FEDDICKE.