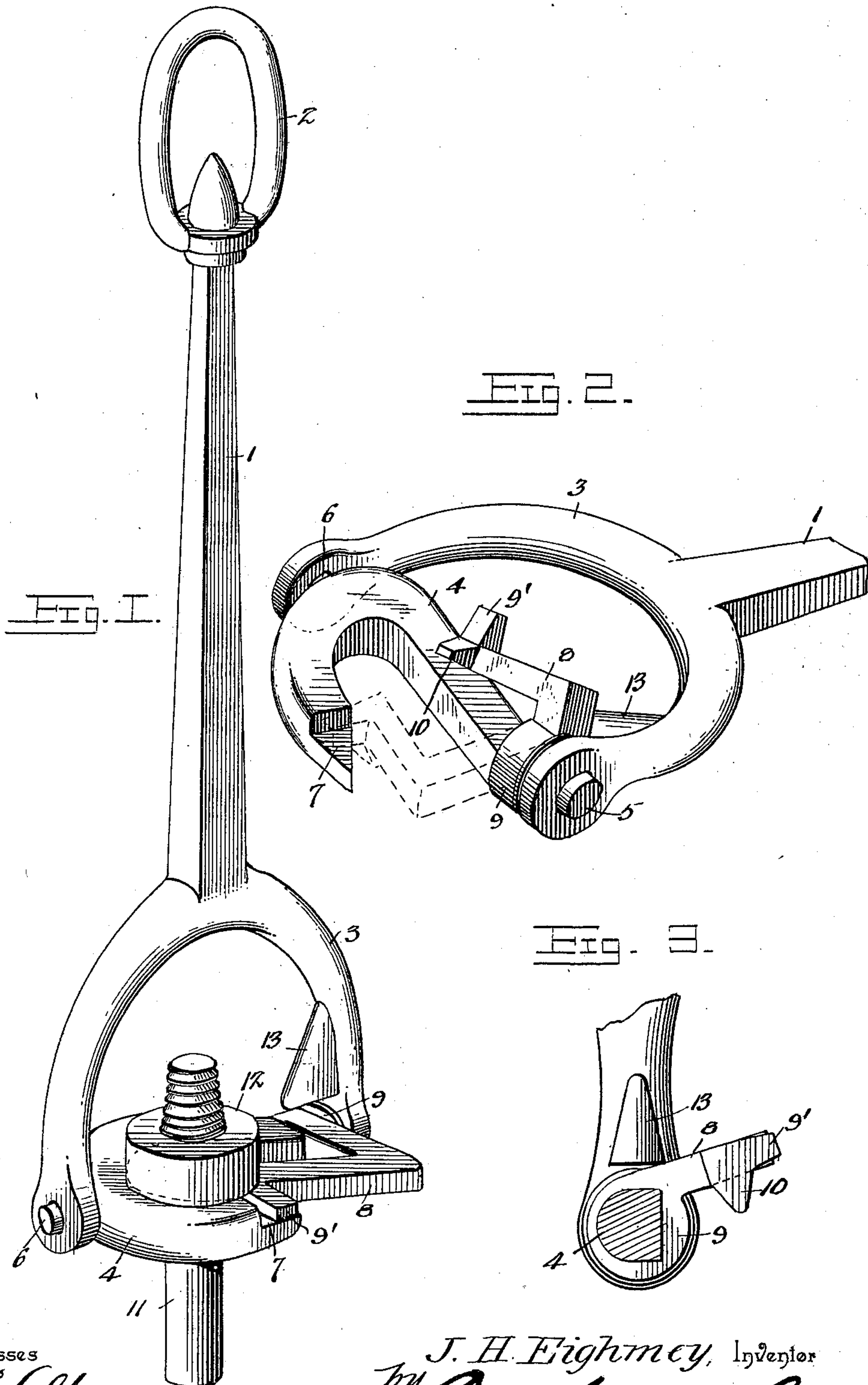


No. 684,982.

Patented Oct. 22, 1901.

J. H. EIGHMEY.
SUCKER ROD ELEVATOR.
(Application filed Apr. 18, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN H. EIGHMEY, OF BOWLING GREEN, OHIO.

SUCKER-ROD ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 684,982, dated October 22, 1901.

Application filed April 18, 1901. Serial No. 56,461. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. EIGHMEY, a citizen of the United States, residing at Bowling Green, in the county of Wood and State of Ohio, have invented a new and useful Sucker-Rod Elevator, of which the following is a specification.

This invention relates to sucker-rod elevators for drawing sucker-rods out of oil and other wells, and has for its object to provide improved means for application to the ordinary elevator now in common use to prevent the sucker-rod from escaping from the elevator when the elevator-cable is slacked or when the lower end of a rod strikes the derrick-floor. It is furthermore designed to arrange for the convenient application of the improvement without materially altering the common form of elevator and to facilitate the engagement and disengagement of the device with respect to a sucker-rod.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of an ordinary elevator having the present improvement applied thereto and connected to a sucker-rod. Fig. 2 is a detail perspective view showing the handle in a substantially horizontal position and the attachment in position for the engagement or disengagement of a sucker-rod. Fig. 3 is a detail sectional view taken transversely of the wrench-head and showing the means for preventing accidental opening of the wrench-head.

Like characters of reference designate corresponding parts in all the figures of the drawings.

Referring to the drawings, 1 designates the handle or stem of the elevator, which has a swiveled link or eye 2 at its upper end and provided with a forked lower extremity 3. An ordinary substantially U-shaped wrench-

head 4 is rotatably mounted between the members of the fork in the common or ordinary manner—i. e., by providing one side portion thereof with a terminal pivot-pin or journal 5 and the opposite closed end of the wrench-head with a corresponding journal 6, both journals being sprung into engagement with terminal bearing-eyes formed upon the fork members. The extremity of the outer side of the U-shaped wrench-head is terminated short of the outer end of the opposite side and provided in its upper face with a terminal notch or seat 7.

The essential object of the present invention is to close the entrance-opening into the wrench-head, and this is accomplished by means of a reversed substantially L-shaped latch 8, which has one end provided with a pivot-eye 9, that receives the journal 5 and lies between the adjacent fork member and the shoulder on the wrench-head formed by the reduced journal. The other arm of the latch normally lies in longitudinal alinement with the outer side of the wrench-head, and the outer end of the arm is provided with right-angularly-related lugs or projections 9' and 10, of which the projection 9' is designed to rest in the notched portion of the head, with the other projection 10 lying against the inner edge of the notched portion of the wrench-head, whereby said projection forms a stop-shoulder projected into the opening in the head, as indicated by dotted lines in Fig. 2 of the drawings.

To engage the elevator with a sucker-rod 11, as shown in Fig. 1, the handle of the device is swung downwardly into a substantially horizontal position at one side of the wrench-head, as indicated in Fig. 2, after which the latch is raised or swung upwardly and over toward the handle, whereby the entrance-opening into the wrench-head is unobstructed and the device may be moved laterally to receive the sucker-rod into the slotted head. The latch is then swung downwardly, so that its outer free end may rest upon the outer extremity of the head, and then the handle is raised into a vertical position, the collar of the sucker-rod resting upon the upper side of the wrench-head and also upon the free end of the latch. In this position of the device the latch closes the entrance-opening

into the head, so as to prevent lateral displacement of the sucker-rod should the elevating-cable, which is connected to the link of the handle, become slackened or when the lower end of the sucker-rod strikes the floor of the derrick when being lowered after having been drawn out of the well. During the upward movement of the elevator and the rod the collar 12 rests upon the free end of the latch, and so long as the weight of the rod is upon the latch it is impossible for it to accidentally fly upwardly. A further guard is employed to prevent the latch from being swung to such an extent as to leave the wrench-head opening unobstructed by the provision of a lug or projection 13, extended inwardly from the fork member which is adjacent to the latch, said projection being located sufficiently far above the wrench-head to permit of the handle being swung downwardly, as shown in Fig. 2, and at the same time located in the path of the upward swing of the latch, so as to contact therewith, as shown in Fig. 3, and limit the upward swing thereof before the latch has entirely cleared the entrance-opening into the head. Thus it is impossible for the sucker-rod to escape should the latch be accidentally swung upwardly while the handle is in an upright position.

What is claimed is—

1. A sucker-rod elevator, comprising a handle having a forked terminal, a substantially U-shaped wrench-head having the terminal of one side formed into a trunnion which is mounted in the adjacent member of the fork, there being a trunnion provided at the opposite closed end of the wrench-head and jour-

naled in the opposite fork member, the other side of the wrench-head being terminated short of the trunnion end of the former side, and a latch journaled upon the first-mentioned trunnion of the wrench-head and having a transverse portion at its outer free end and projected inwardly of the wrench-head, and also constructed to engage the short side of the head to close the opening into the same.

2. A sucker-rod elevator, comprising a handle having a forked terminal, a substantially U-shaped wrench-head having one side terminated short of the other and provided in its normally upper side with a terminal notch or recess, the longer side being provided with a terminal trunnion mounted upon the adjacent fork member, and the closed end of the head also having an outwardly-directed trunnion mounted in the other fork member, and a latch pivoted upon the first-mentioned trunnion at the inner side of the fork, and having an outer terminal lateral member projected inwardly of the head and overlapping the adjacent end of the short side thereof, the outer terminal of the said member having transverse angularly-related projections constructed to respectively lie within the recess of the head and in engagement with the inner side thereof to prevent displacement of the latch.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN H. EIGHMEY.

Witnesses:

W. R. HARRINGTON,
G. H. BANKEY.