(No Model.)

S. A. TEAL.

CROSS HEAD JACK.

No. 435,194. Patented Aug. 26, 1890.

Fig. 1.

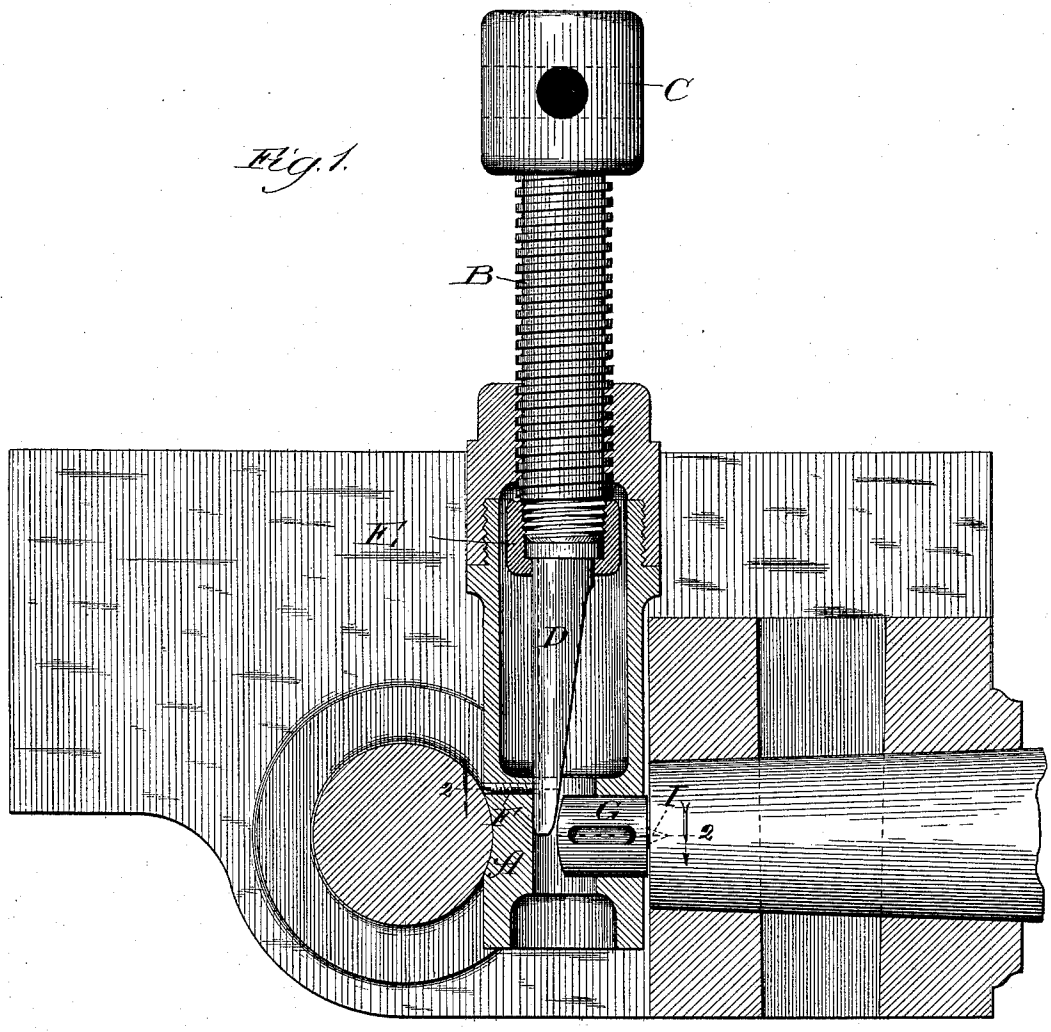
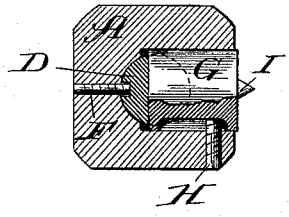


Fig. 2.



Witnesses:
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

STEBBINS A. TEAL, OF MISSOURI VALLEY, IOWA.

CROSS-HEAD JACK.

SPECIFICATION forming part of Letters Patent No. 435,194, dated August 26, 1890.

Application filed July 5, 1890. Serial No. 357,776. (No model.)

To all whom it may concern:

Be it known that I, STEBBINS A. TEAL, a citizen of the United States, residing at Missouri Valley, Harrison county, Iowa, have invented certain new and useful Improvements in Cross-Head Jacks, of which the following is a specification.

The object of my invention is to make a jack that can be used in removing the piston-rod from its hole in the cross-head; and my invention consists in the features and details of construction hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of a section taken through the cross-head and jack, showing the location and arrangement of the parts; and Fig. 2 is a transverse section of the jack, taken in the line 2 of Fig. 1, looking in the direction of the arrows.

In making my improved jack for removing the piston-rod from its hole in the cross-head I make a body or case A, provided with a longitudinal hole through it screw-threaded throughout a portion of its length. I make a threaded screw B, provided with threads of a proper gage to permit it to be screwed in and out of the longitudinal hole in the case or body of the jack. The upper end of this screw may be provided with a head C, furnished with holes to enable a lever to be inserted in them to turn the screw in or out. At the lower end of the screw I arrange a wedge D, which is preferably connected or attached to the screw by means of a swivel-nut E. The wedge is held from turning by means of a dowel-pin F, whose inner end fits into a groove or channel in the wedge. The body or case of the jack is also provided with a transverse hole leading from one side into the longitudinal hole, and a ram G is arranged in this transverse hole. This ram is also prevented from turning by the dowel-pin H, whose inner end fits into a slot or groove in its side. The inner end of the ram is preferably beveled, so that the inclined side of the wedge will the more readily engage it to force it out as the wedge is moved in by the screw. The outer end of the ram is also preferably provided with a projection or point I to fit into the center of the piston-rod. The ram is intended to be of such a length that when the wedge is moved out to the extent of its movement the outer end or face of the ram will be flush with the side of the case or body of the jack. Immediately opposite the ram I prefer to provide the side of the body of the jack with a concave surface in cross-section to enable it to fit the rounded surface of the cross-head pin and secure as much bearing-surface between the two as practicable.

In operation the jack is inserted between the end of the piston-rod and the cross-head pin with the point of the ram bearing against the center of the piston-rod. The lever is then inserted in the holes of the screw and the screw run in, so as to move the wedge in and cause its inclined surface to bear against the inner end of the ram. This will force the ram out beyond the surface or plane of the jack-body and force the piston-rod back out of its hole in the cross-head. As the wedge will be moved in gradually and steadily, all danger of breaking the cross-head or other parts will be obviated, while at the same time a powerful pressure will be secured against the piston-rod, so as to force it out of its hole.

What I regard as new, and desire to secure by Letters Patent, is—

1. In a cross-head jack, the combination of a jack-body provided with a longitudinal hole and a transverse hole leading from one side of the body to the longitudinal hole, a wedge movable in and out of the longitudinal hole, and a ram movable out of the transverse hole by the wedge beyond the plane of the body, substantially as described.

2. In a cross-head jack, the combination of a jack-body provided with a longitudinal hole having screw-threads part of its length, and a transverse hole leading from one side of the body to the longitudinal hole, a screw engaging the threads of the longitudinal hole, a wedge movable in and out of the longitudinal hole by the screw, and a ram movable out of the transverse hole by the wedge beyond the plane of the body, substantially as described.

STEBBINS A. TEAL.

Witnesses:

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