(No Model.)

G. E. ELLIOTT.

HAND LEVER FOR STEAM PUMPS.

No. 301,349. Patented July 1, 1884.

Fig. 1

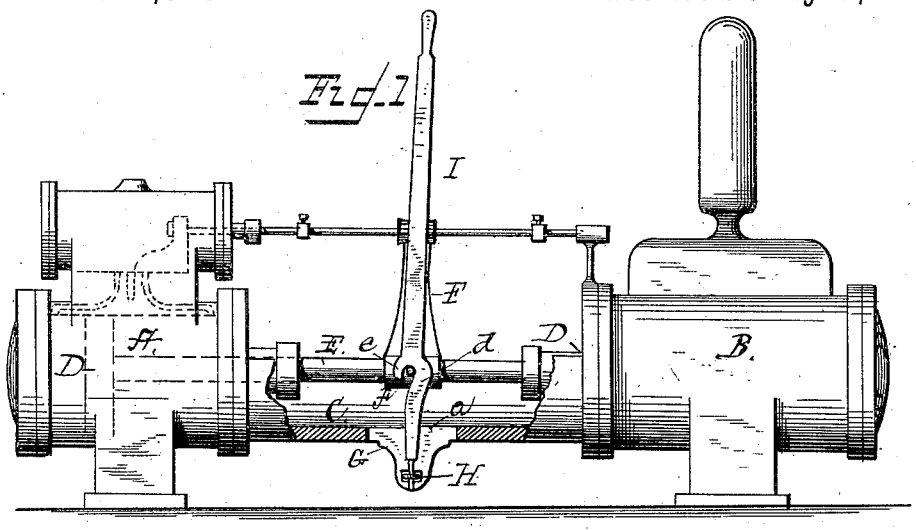


Fig. 2

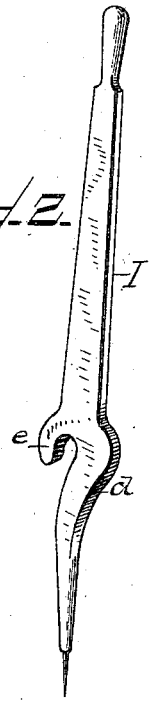
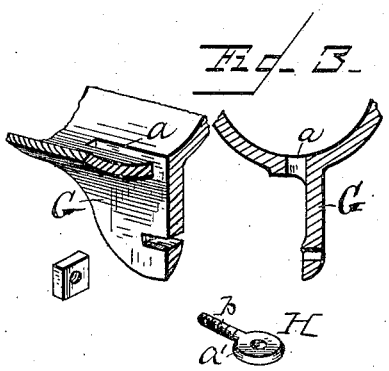


Fig. 3



WITNESSES

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GEORGE EDMUND ELLIOTT, OF CALAIS, MAINE.

HAND-LEVER FOR STEAM-PUMPS.

SPECIFICATION forming part of Letters Patent No. 301,349, dated July 1, 1884.

Application filed February 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. ELLIOTT, a citizen of the United States of America, residing at Calais, in the county of Washington and State of Maine, have invented a new and useful Hand-Lever for Steam-Pumps, of which the following is a specification.

My invention relates to improvements in detachable hand-levers for producing reciprocating motion, and is particularly adapted as an attachment in connection with steam-pumps for operating the pistons by hand-power when the supply of steam is insufficient. Previous to my invention there has been used for the purposes named a lever forked or slotted at its lower end to pass over two pins, one of which is attached to the tappet-arm and the other to a bracket projecting down from the yoke or base of the pump and forming a fulcrum for said lever. A lever pivoted to a frame upon the pump's yoke or base, and provided at its lower portion with an eye having a slotted extension in order to admit of its connection with a bolt or headed projection upon the piston-rod, has also been employed, as well as various others more or less complicated in construction and unsatisfactory in arrangement.

The object of this arrangement is to provide a hand-lever for the purpose named that will be simple and effective in its construction and operation, readily attached to or detached from a steam-pump, as occasion may require, and which will be more easy and even in its operation than those now in general use.

My invention therefore consists in the novel construction and arrangement of the parts, as will be hereinafter described with reference to the accompanying drawings, wherein—

Figure 1 is a view in side elevation of a steam-pump, the yoke being broken away to show the application of my improvements. Fig. 2 is a detail view of the hand-lever, and Fig. 3 is a view in detail of the bracket, lug, and nut.

The letters A B represent the cylinders of a steam-pump, connected together by a yoke or base, C, and provided with the usual pistons, D, and piston-rod E, the latter having secured thereto the tappet-arm F, the upper end of which is fixed to the valve-rod in the usual manner.

Projecting down from and forming a part of the base of the yoke C is a bracket, G, the yoke or base being slotted at the point of junction with the bracket, as shown at *a*. Connected to this bracket G is a lug, H, formed with an eye, *a'*, and provided with a screw-threaded extension, *b*, and adapted to pass through a perforation in said bracket and be held in place by a nut, the lug being fitted loosely in the perforation in the bracket, in order that it may have free play and turn with the movements of the lever when being operated. In this eye *a'* is inserted the lower end of the lever I, the end of which is tapered and shouldered, as shown, and fits loosely in the eye of the lug, loosely secured to the bracket on the yoke, the said lever having that portion extending from the lower end to the point of contact with the lug or pin on the tappet-arm curved, substantially as shown in the drawings at *d*, and also formed with the downward-extending side lip or hook, *e*, the base of which serves as a seat when the lever is put in operative connection, in which connection the hook fits over and rests on the stud *f* on the tappet-arm F.

The adjustment of my hand-lever in operative connection is apparent. The lever-point is inserted through the slot in the yoke into the eye in the lug secured in the depending bracket, and the hook or lip placed over the lug or pin on the tappet-arm, when the lever drops of its own weight into position, and is ready for use.

It will be observed that this lever can be readily attached and as easily detached, the length of the hook and the length of the part which fits into the eye of the lug on the bracket corresponding, in order that when one connection is released the other is also, and the implement can be lifted from its place freely. The function of adaptability to the movements of the lever given to the lug in the bracket obviates all strain that would exist in that connection were the connections rigidly fixed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The hand-lever I, formed with the side lip or hook, *e*, and having its lower end tapered and shouldered, substantially as described, and for the purpose set forth.

2. The hand-lever I, formed with the side lip or hook, *e*, and having its lower end tapered and shouldered, the yoke or base provided with a slot and a depending bracket, having loosely secured therein a lug formed with an eye adapted to receive the lower end of the hand-lever, and a stud or pin projecting from the tappet-arm, all constructed and combined to operate substantially as and for the purpose set forth.

In witness whereof I have hereunto set my hand in the presence of two attesting witnesses.

GEO. EDMUND ELLIOTT.

Attest:

GEO. H. BOARDMAN,

N. Q. BOARDMAN.