No. 854,353. PATENTED MAY 21, 1907.

F. G. HOBART.

PUMP.

APPLICATION FILED AUG. 4, 1906.

Fig. 2.

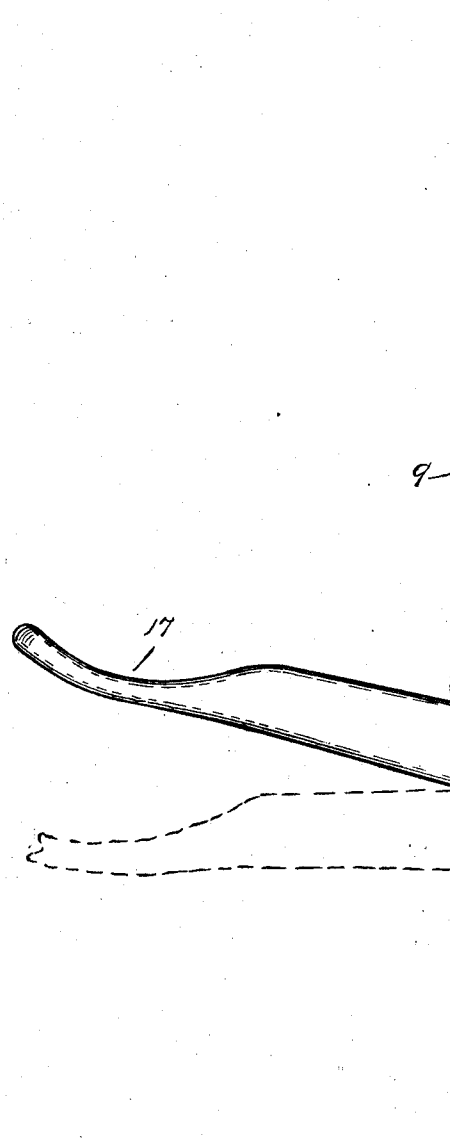
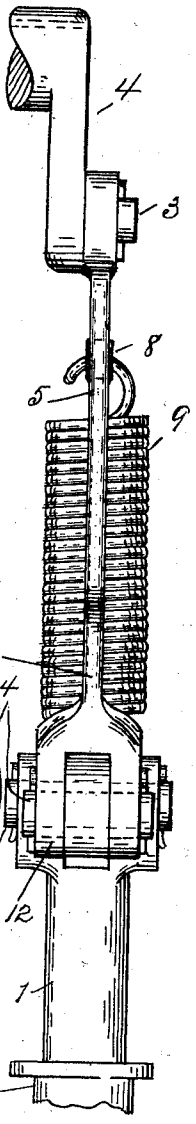


Fig. 1.



Witnesses
James P. Barry
Thos. O'Donnell

Inventor
Franklin G. Hobart

By Whittemore Hulbert & Whittemore
Attys.

UNITED STATES PATENT OFFICE.

FRANKLIN G. HOBART, OF BELOIT, WISCONSIN, ASSIGNOR TO FAIRBANKS, MORSE & CO., OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

PUMP.

No. 854,353. Specification of Letters Patent. Patented May 21, 1907.

Application filed August 4, 1906. Serial No. 329,218.

To all whom it may concern:

Be it known that I, FRANKLIN G. HOBART, a citizen of the United States of America, residing at Beloit, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Pumps, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to new and useful improvements in pumps and especially to pumps arranged for mechanical operation but which may be desired to be operated manually.

With explosive engines arranged to pump their fuel, it is usually necessary to prime the engine before it can be started, and this must be done either by a hand pump or other auxiliary means.

The object of my invention is to arrange the engine pump so that it may be operated by hand, if desired, independently of the crank pin or other mechanical means which cannot be usually operated except by turning over the engine. The means by which I have attained this object, and which may be applied to any pump designed for any purpose without departing from the scope of my invention will be more fully hereinafter described and particularly set forth in the claims.

In the drawings, Figure 1 shows an end elevation of the pump and links, and Fig. 2 shows a side elevation of the same with the plunger depressed as in manual operation.

1 is the plunger of the pump 2, and 3 is the crank pin of the crank 4 to which the plunger is usually connected by a straight link (not shown). My device is arranged in place of this straight link and comprises a link 5 journaled on the crank pin and a lever 6 pivoted on the plunger by means of a pivot pin 7. The link 5 is provided with a laterally projecting lug 8 to which is attached one end of a yielding member 9, preferably a coiled spring. The other end of the spring is secured in the aperture 10 in the link or lever 6 for a purpose to be hereinafter described. The link or lever 6 is preferably arranged to extend transversely to the line of movement of the plunger and one end engages between the furcations 12 of the laterally projecting free end 13 of the link 5 and is fulcrumed in said furcations on a pin 14. The coiled spring and the fulcrum pin 14 are arranged on opposite sides of the pivot pin 7 so that the tension of said spring normally holds the shoulder 15 on the link or lever 6 in contact with the shoulder 16 on the link 5.

The free end 17 of the link or lever 6 is preferably slightly curved, as shown in Fig. 2, for hand actuation and the operation of the device is as follows: The plunger 1 being pivoted to the lever 6 between the spring and the fulcrum has less leverage than the spring, and the spring is formed with a sufficient tension to normally hold the links folded with the shoulders 15 and 16 contacting. The crank pin, which I shall call the mechanical actuating means for the pump, may thus operate the same, and when said mechanical actuating means is not in motion the pump may be operated by hand by means of the handle 17 independently of said mechanical means.

What I claim as my invention is,—

1. The combination with a pump and a plunger therefor, of means for actuating said plunger, a link and a lever pivotally connected to each other, and one being pivoted to said plunger and the other pivoted to said means, and yielding means having constant connections with said link and lever for normally holding said link and lever folded on their common pivot into contact with each other, for the purpose described.

2. The combination with a pump and a plunger therefor, of means for actuating said plunger, a link having an arm projecting at an angle to the line of movement to said plunger, a lever pivotally connected to said link, the link being pivoted to said means and the lever being pivoted to said plunger, resilient means for normally holding said lever in contact with the arm of said link, and means for overcoming the tension of said re-

silient means and for operating said plunger independently of said first-mentioned means.

3. The combination with a pump and a plunger therefor, of means for actuating said plunger, a link pivotally connected to said means, a lever pivotally attached to said plunger and having its end fulcrumed on said link, and a resilient member for yieldingly holding said link and said lever in fixed relation to each other, for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANKLIN G. HOBART.

Witnesses:
W. A. Goss,
C. J. Mitchell.