

J. W. LAW.  
Motor for Operating Pumps.

No. 203,280.

Patented May 7, 1878.

Fig. 1.

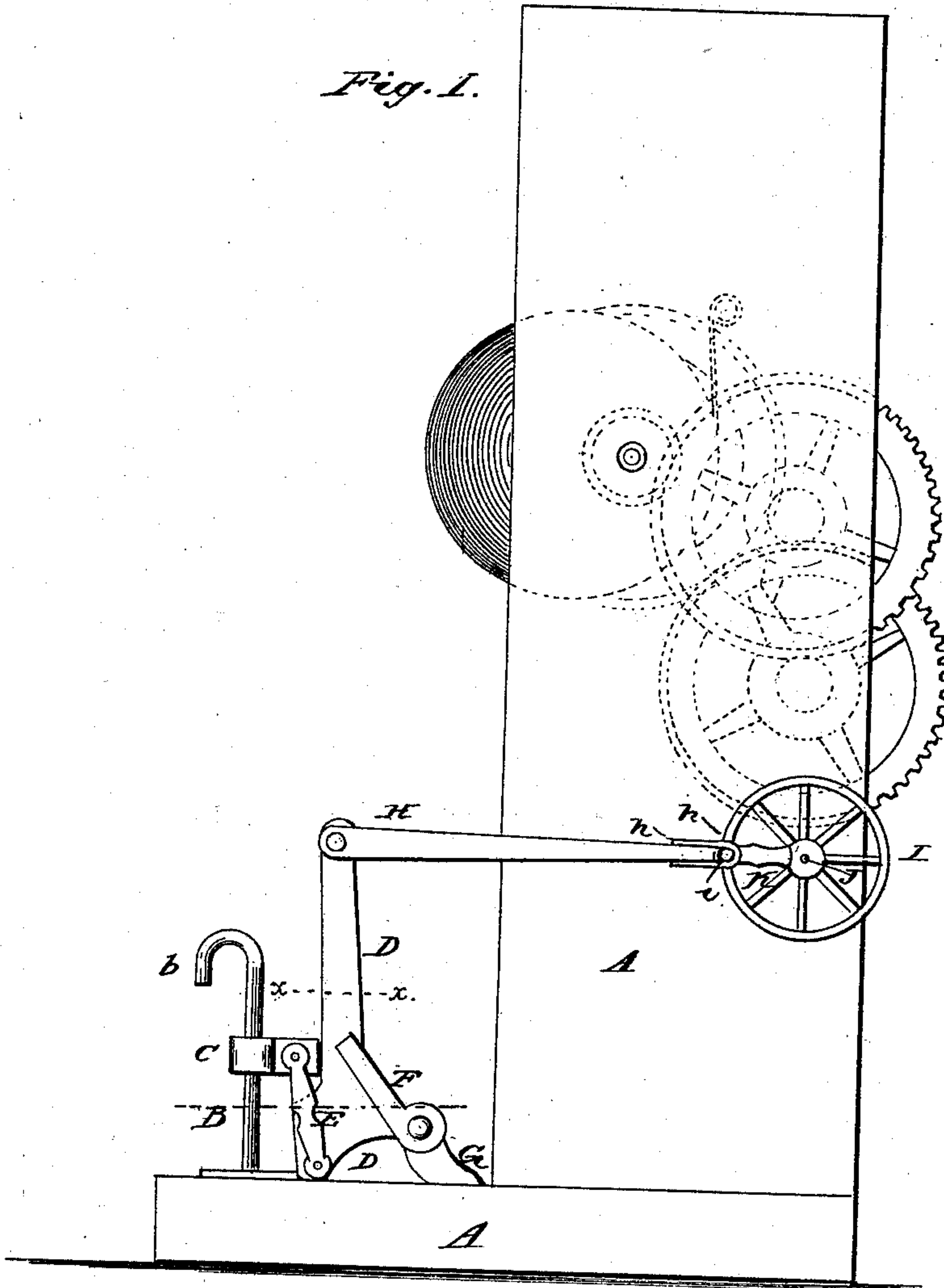
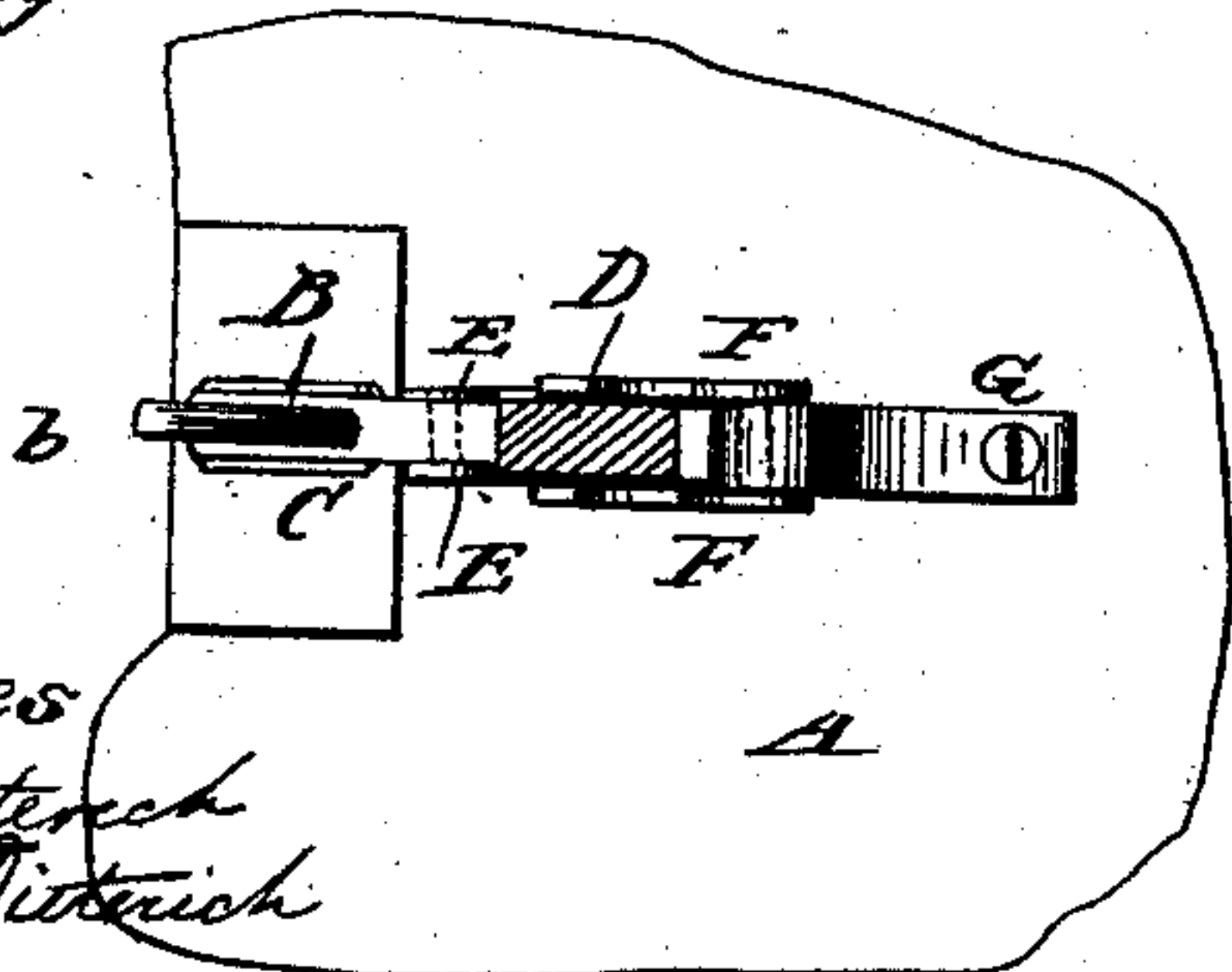
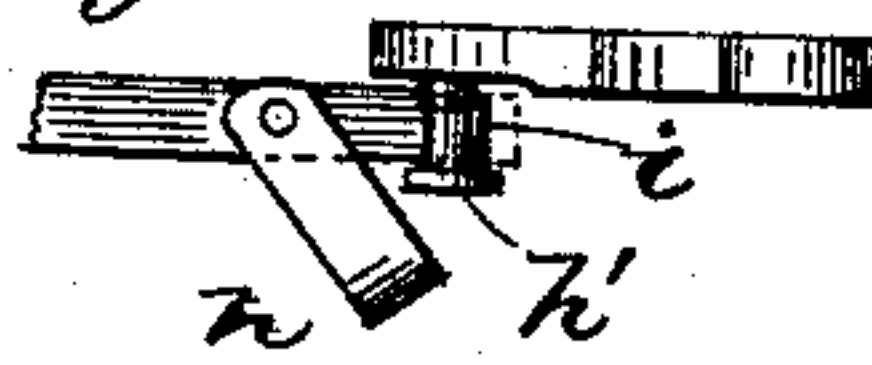


Fig. 2.



Witnesses  
Fred S. Dietrich  
Annie K. Dietrich

Fig. 3.



Inventor  
John W. Law  
by D. C. Allen  
att'y

# UNITED STATES PATENT OFFICE.

JOHN W. LAW, OF BLOOMINGTON, ILLINOIS.

## IMPROVEMENT IN MOTORS FOR OPERATING PUMPS.

Specification forming part of Letters Patent No. 203,280, dated May 7, 1878; application filed April 15, 1878.

*To all whom it may concern:*

Be it known that I, JOHN W. LAW, of Bloomington, in the county of McLean, and in the State of Illinois, have invented certain new and useful Improvements in Motors for Operating Pumps; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification, and in which—

Figure 1 is a side elevation; Fig. 2, a section on line *x x*, Fig. 1. Fig. 3 is a detail view.

This invention relates to improvements in mechanism for automatically operating pumps through the medium of spring machinery or weight power; and the invention consists in the combination and arrangements of parts whereby the pump mechanism will be automatically and steadily operated, all as will be hereinafter fully described, and pointed out in the claims.

In the drawing, A represents a frame for supporting the clock-work and operating mechanism, through the base of which passes the tubular pump-piston B, provided with the usual discharge-nozzle *b*. Rigidly connected to the upper portion of the pump-piston is a collar, C, which is connected to the lower front end of lever D by means of the link E, the lower rear end of said lever D being connected to the plate G, secured to the base of the frame by means of the arms F F, pivoted to said plate G.

By means of the above-described mechanism the tubular piston is adapted, through the medium of lever D and intermediate mechanism, to receive positive vertical or perpendicular reciprocating movement.

To the upper end of the pivoted lever D one end of a pitman-rod, H, is pivoted, its opposite end being connected to the fly-wheel I, or the shaft J, upon which the fly-wheel is mounted, by means of a crank, K.

The connection between the pitman-rod and crank is made by means of the pivoted strap *h* and the pin *h'* of the crank, said pin resting

in a concavity, *i*, on the end of the pitman-rod, as clearly shown in Figs. 3 and 1, and by means of said pivoted strap the crank and pitman-rod can be easily and readily connected or disconnected when desired.

In the present instance the crank is connected to the shaft J by means of a screw-thread on the end of said shaft and a female screw in the crank.

The shaft J is operated through the medium of clock or train of gearing, in the usual manner, said clock-work or train of gearing being operated by spring or weight power, as may be deemed most expedient.

It will be readily perceived that when the clock mechanism is wound up the pump mechanism will be automatically and steadily or uniformly operated, through the medium of shaft J, fly-wheel, crank, and pitman-rod.

I am aware that spring or weight machinery or clock-work for automatically operating pumps is old, and such I do not claim, broadly, as my invention; but,

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the pump-piston B, pivoted lever D, and intermediate connecting mechanism, of the clock-work and intermediate connecting mechanism, consisting of the pitman-rod H, crank K, fly-wheel I, and shaft J, the several parts constructed and relatively arranged to operate substantially as herein shown and described.

2. The combination of the pitman-rod H, provided with the concavity *i* in one end thereof, and pivoted strap *h*, and the crank K, provided with the headed pin *h'*, whereby said pitman-rod and crank can be easily and readily connected or disconnected, substantially as herein shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of March, 1878.

JOHN W. LAW.

Witnesses:

THOS. SLADE,  
H. E. HADLEY.