

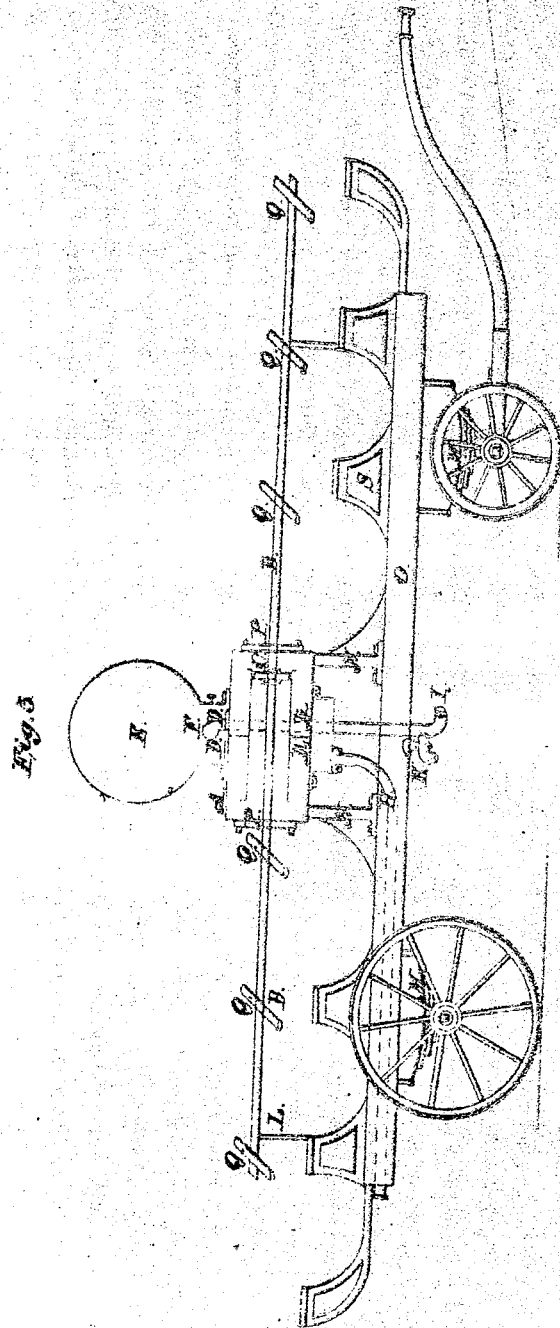
BEST COPY AVAILABLE

D. L. FARNAM AND F. RANSOM.

FIRE ENGINE.

5,077.

PATENTED APRIL 17, 1847.



ONLY PART OF DRAWING ACCESSIBLE 1919.

UNITED STATES PATENT OFFICE.

DUDLEY L. FARNAM AND FRANKLIN RANSOM, OF NEW YORK, N. Y.

FIRE-ENGINE.

Specification of Letters Patent No. 5,077, dated April 17, 1847.

To all whom it may concern:

Be it known that we, DUDLEY L. FARNAM and FRANKLIN RANSOM, of the city, county, and State of New York, have invented new and useful Improvements in Fire-Engines, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of the engine; Fig. 2, a plan, and Fig. 3 a longitudinal vertical section.

The same letters indicate like parts in all the figures.

The nature of my invention consists in arranging the pump of the engine in a horizontal position with the piston rod extending out through the heads of the cylinder at both ends, and sufficiently far to attach to it the handles by which it is worked, when this is combined with the carriage or body of the engine so arranged that the men who work the pump can sit &c. and apply their strength as in the act of rowing, and thus exert much more force than in any other known way.

In the accompanying drawings (O) represents a platform or bed frame of the carriage connected with the running gear by springs (M) in any known or desired manner. The cylinder (A) of the pump is attached to the middle of this platform by standards (N, N,) so as to elevate it to the required height, and within it is a piston (C) the rod (B) of which extends out to an equal distance both ways, and working through stuffing boxes (P, P,) one for each head of the cylinder. This piston rod is provided with a set of handles (Q) at right angles with its axis, and arranged at equal distances apart on each side of the cylinder for the men to take hold of to work the pump; and as the piston rod extends each way to a considerable distance, it may work through guides (L, L,) at each end. Seats (S) are arranged on the platform each side of the cylinder, corresponding in number with the number of handles

on the piston rod, and so arranged that the men that work the engine can set on them and to hold of the handles as in the act of rowing pulling one one side and pushing on the other, and vice versa.

The pump is provided as usual with an induction and eduction pipe (H) and (I), valves (D, D, D, D) and air vessel (E) from which the eduction pipe (I) extends. The pump may be constructed in any desired manner, as this makes no part of my invention. The eduction pipe (I) is provided with a small branch pipe and cock (K) near to where the hose are connected with it for the purpose of discharging the water from the hose before they are disconnected. By this arrangement of the pump and the benches or seats on the carriage the man can work the pump for a much greater length of time and exert much more force than with any other known arrangement, as it is a well known fact, ascertained by numerous experiments and long experience that "when a man's strength is applied as in the act of rowing, the effect produced is nearly one hundred and fifty per cent. more than in moving a pump lever or brake."

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

Arranging the pump in a horizontal position with the piston rod extending out through both ends of the cylinder and provided with handles, substantially as described, when this is combined with the seats on the carriage for the men that work the pump, so that they can work the pump in manner similar to the act of rowing, substantially as described, whereby they can exert more force and for a greater length of time than by any other known mode of working an engine.

DUDLEY L. FARNAM.
FRANKLIN RANSOM.

Signed by Dudley L. Farnam in presence of—

WM. H. CHEEVER,

DAV. T. SNELBAKER.

Witnesses for Franklin Ransom:

CHARLES ST. JOHN,

FERNANDO WOOD.