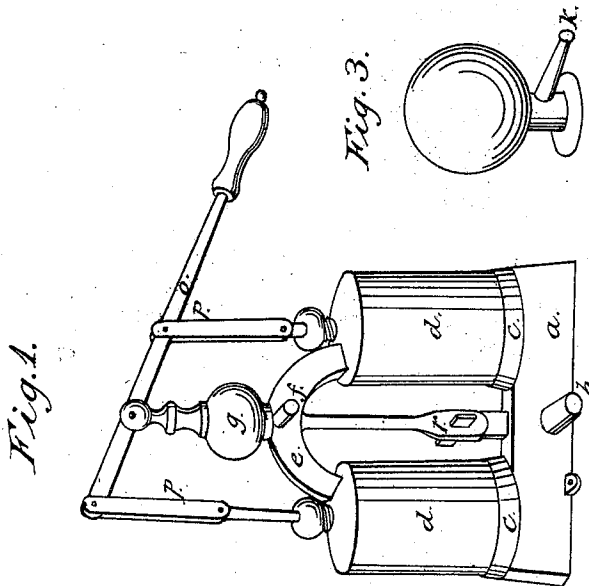
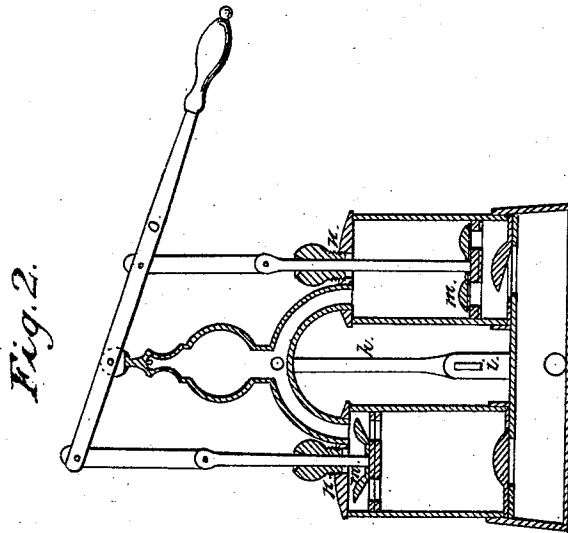


D. Hinman.

Fire Engine

N^o 4,823.

Patented Oct. 24, 1846.



UNITED STATES PATENT OFFICE.

DAVID HINMAN, OF BRUNSWICK, OHIO.

PUMP FOR RAISING WATER, &c.

Specification of Letters Patent No. 4,823, dated October 24, 1846.

To all whom it may concern:

Be it known that I, DAVID HINMAN, of Brunswick, in the county of Medina and State of Ohio, have invented new and useful Improvements in the Mode of Constructing Pumps, 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 view of the outside of the pump; Fig. 2, a section through the same; and Fig. 3, an extra air vessel to be affixed to the leading pipe of the pump.

The same letters indicate like parts in all the figures.

The nature of my invention consists in the manner in which I have constructed and connected the different castings of the double cylinder lifting and force pump by which the parts are more conveniently and readily connected, or disconnected for repair.

The construction is as follows: On an oblong hollow base (*a*) to which the induction pipe (*b*) is connected I form two circular seats (*c, c*), one near each end through which there is a hole into the base. Into these seats I fit a ring of leather to which the lower pump valve is connected in the usual way; two cylinders (*d*) are fitted onto their leathers in which the pistons (*m*) work through stuffing boxes (*n*) in the cover. The covers or upper heads of the cylinders are fitted thereto with leathers in the joints

and the two heads are connected by a hollow casting or pipe (*e*) of an arched form which connects with the cylinders through the head. A rod (*h*) is affixed to the underside of this arch at the center which extends down nearly to the base where it is cleft (as shown in Fig. 1) to receive a staple (*i*) up into it, an oblong hole is made in this rod (*h*) through which a wedge shaped key (*r*) is driven which holds all the parts firmly together, there being only one key used to tighten the form joints in connecting cylinders with the base and caps. From the center of the arch above I project up a standard that forms the fulcrum of the pump handle (*o*); this may be formed into an air chamber (*q*) as shown in the drawing if required; (*p, p*) are the pitmen that connect the piston rods with the handle (*o*).

The operation of this pump is like that of any ordinary double forcing pump and need not be described, and the manner of connecting the parts is preferably obvious from an inspection of the drawings.

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

Connecting all the joints of a double cylinder force pump, substantially in the manner described, so as to hold them firmly together by means of one key, as above specified.

DAVID HINMAN.

Witnesses:

J. J. GREENOUGH,
A. P. BROWNE.