(Model.)

H. H. HUNTER.

FORCE PUMP.

No. 249,054. Patented Nov. 1, 1881.

Fig. 1.

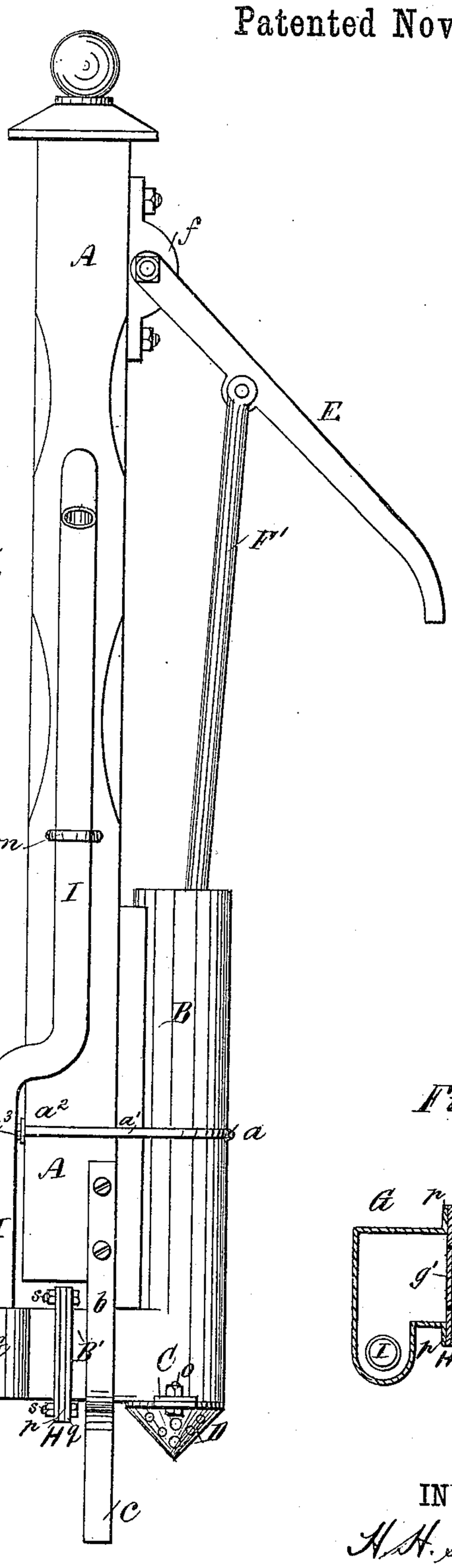


Fig. 2.

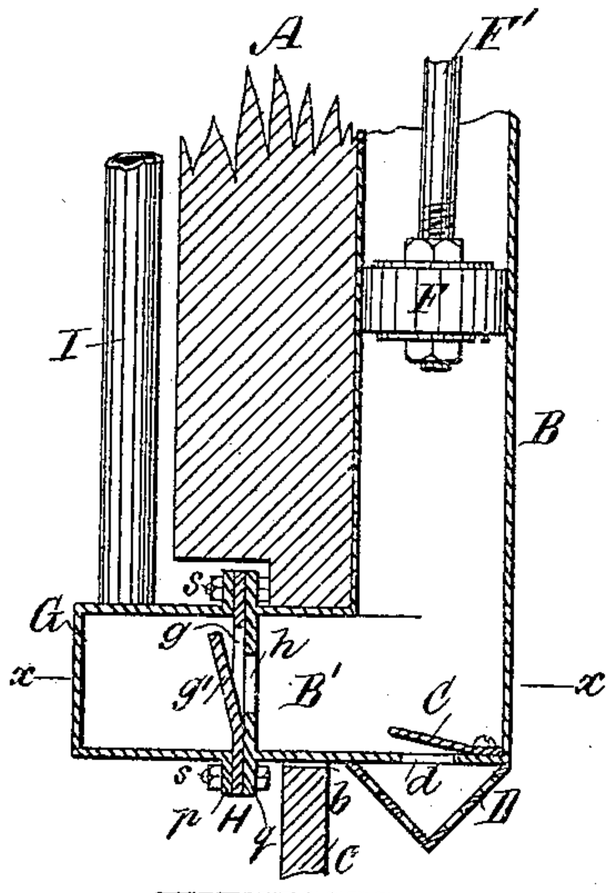
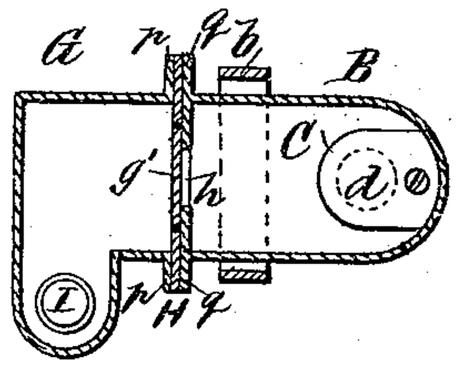


Fig. 3



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UNITED STATES PATENT OFFICE.

HENRY H. HUNTER, OF MILLERSBURG, KENTUCKY.

FORCE-PUMP.

SPECIFICATION forming part of Letters Patent No. 249,054, dated November 1, 1881.

Application filed July 25, 1881. (Model.)

To all whom it may concern:

Be it known that I, HENRY H. HUNTER, of Millersburg, Bourbon county, Kentucky, have invented a new and Improved Force-Pump, of which the following is a specification.

The invention consists in the combination, with a vertical pump provided with a horizontal extension or discharge pipe, of a receiving box or chamber provided with a vertical discharge-pipe, and secured over the valved opening of the horizontal extension discharge-pipe; and it consists, further, of a foot projecting below the pump-cylinder for the purpose of holding the latter above the bottom of a well or cistern, all of which will be hereinafter set forth.

Figure 1 is a side elevation of the improved pump. Fig. 2 is a sectional side elevation of a portion of the same. Fig. 3 is a cross-section on line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a post or stock, to which the porcelain-lined pump-cylinder B is secured by straps *a* and *b*, the latter of which serves as a saddle to support the cylinder B B′, and is prolonged into or has attached a foot, *c*, that extends below the said cylinder B, for the purpose of supporting the whole apparatus on the bottom of a well or cistern.

The strap *a* consists of a bent rod, *a′*, having screw-threaded ends, and a perforated plate, a^2, held on said ends by nuts a^3, on removing which nuts a^3 the plate a^2 and rod *a′* may be separated and removed, and then, on separating the receiving-box G from the pipe B′, said pipe and the cylinder B may be removed from stock A.

In the bottom of the cylinder B is a supply-port, *d*, controlled by a valve, C, and over this port *d*, outside thereof, is fixed a conical screen, D, to prevent the choking of the valve C by foreign substances, said screen D being secured to the cylinder B by bolts *o*, one of which being withdrawn the other operates as a pivot on which to swing said screen D aside to afford access to the valve C.

The conical form of screen D results in having a water-chamber directly under the valve, and admits a free flow of screened water to the pump.

The pump-handle E is preferably made of iron, and is hinged or pivoted to the lugs *f*, that are bolted on the post A.

Pivoted on the handle E is the plunger-rod F′, on the lower end of which is the plunger F.

This rod F′ is preferably made of half-inch iron, and may be supported and prevented from springing by iron guides that may be attached to the post or stock A.

G represents a cast-iron receiving-box or delivery-chamber, preferably porcelain-lined, bolted through its flanges *p* by bolts *s* to the open flanged end of the horizontal discharge-pipe B′ of the cylinder B; and H represents a packing strip or plate, of leather or other suitable material, secured between the flanges *p q* of the box G and discharge-pipe B′, respectively, and having formed in it an opening, *g*, corresponding with an opening in the end of the discharge-pipe B′, which opening *g* is covered by a valve, *g′*, which is formed by cutting the opening *g*, as shown.

It will be seen on removing the bolts *s* the chamber G can be easily removed to afford admission to the valve *g′*, to repair or renew the same.

From this box or chamber G the discharge-pipe I, preferably of inch-pipe, extends upward, as shown, and is held to the post A by a staple, *m*.

Constructed in this manner the pump is simple, cheap, effective, and durable.

A suitable strainer may be placed over the mouth of the discharge-pipe I, for straining the discharged liquid, and a metal stirrup with a thumb-screw may be used to attach a hose to said pipe.

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

1. The combination of the horizontal receiving-box G, provided with flanges and the discharge-pipe I, the piston-cylinder B, having a horizontal portion provided with flanges, the valved packing-plate, and removable bolts *s*, for securing said box, cylinder, and valve together, as shown and described.

2. The combination, with the post A and

cylinder B and pipe B′, of the combined strap and foot *b c*, as described, whereby the cylinder is held to the post and the whole apparatus supported on the bottom of the well or cistern.

3. The combination, with the pump-cylinder B and pipe B′ and post A, of the horizontal strap *a* and vertical strap and step *b c*, as herein shown and described.

HENRY HOWSON HUNTER.

Witnesses:
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