N. T. Coffin,

Pump.

No. 113,144. Patented Mar. 28, 1871.

Fig. 1.

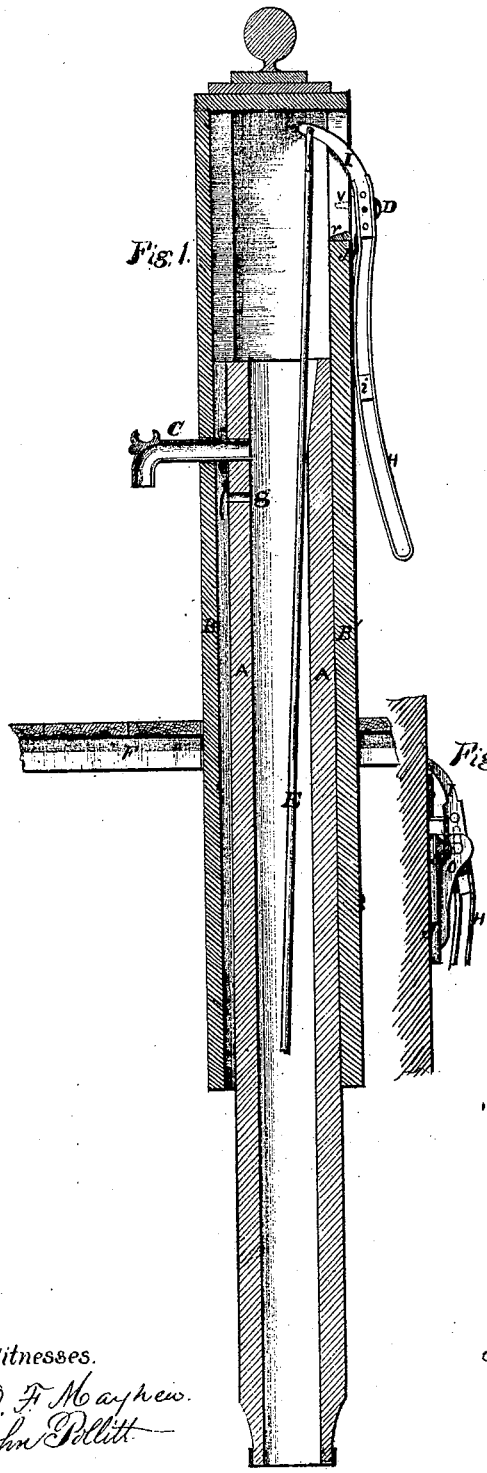


Fig. 4.

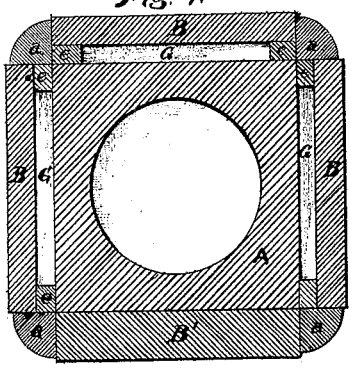
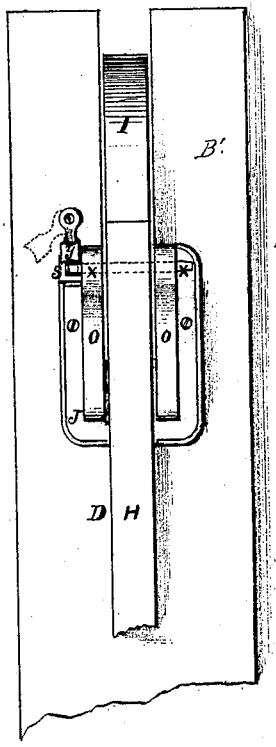


Fig. 3.

Fig. 2



Witnesses.

O. F. Mayhew.

John Pollitt

Nathan T. Coffin INVENTOR.

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United States Patent Office.

NATHAN T. COFFIN, OF KNIGHTSTOWN, INDIANA.

Letters Patent No. 113,144, dated March 28, 1871.

IMPROVEMENT IN PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

I, NATHAN T. COFFIN, of Knightstown, in the county of Henry and State of Indiana, have invented certain Improvements in Pump-Stocks, Pump-Handles, and Handle-Brackets, of which the following is a specification.

Nature and Objects of the Invention.

The first part of my invention relates to the upper part of the stock, to which the handle and spout are attached; and

It consists in casing the stock in such a manner as to admit a circulation of the warm air rising from the well between the stock and casing, and forming a waste-valve in the stock some distance below the spout, and opening into the surrounding cases; the object of which devices is to prevent the water in the stock, above the ground or platform, from being frozen, and also so as to admit of a longer stroke of the piston, by which a greater quantity of water can be raised by a given movement of the handle.

The second part of my invention relates to the handle or lever, and the bracket in which it is hung as a fulcrum to the pump-stock; and

It consists in constructing the handle of iron in a manner to make it light, durable, and comparatively inexpensive, and to pivoting it in a bracket constructed in such a manner that the pin constituting the fulcrum will be securely held in place, and which, at the same time, may be readily and conveniently removed for such purpose as may be desired.

Description of Accompanying Drawing.

Figure 1 is a vertical transverse section through the center of a pump-stock, having also a handle and handle-bracket embodying my invention.

Figure 2 is a view of the stock on the handle side.

Figure 3 is a side view of a portion of the stock, with the handle attached.

Figure 4 is a horizontal section through the pump-stock.

General Description.

The pump-stock A is surrounded with casing B, as shown in figs. 1 and 4, the stock extending but a few inches above the spout C, thereby allowing the warm air that rises from the well to circulate as closely over the surface of the water as practicable, and, at the same time, forming an enlargement of the stock in the upper part, affording room for the play of the handle D and piston-rod E, by which I am enabled to secure a longer stroke of the piston than is attainable with wooden pump-stocks constructed in the ordinary manner.

The manner of attaching the casing will be readily understood from an inspection of fig. 4, the casing B on three sides being nailed to vertical strips *e*, so as to form the space G, while the casing B′ on that side to which the handle is hung is solid and equal in thickness to the casing and space on the other three sides, as shown, the corners being filled with quarter-round strips *a*, giving a good external appearance, besides being such a construction as is not liable to warp off and open unsightly cracks.

The casing extends below the platform F, covering the well, so that the warm air rising therefrom may pass up the spaces G into the chamber above the stock.

To prevent the cold air that may circulate through the spout C from impinging directly upon the surface of the water, I pierce the stock with a hole at *g* just below the spout, which allows the water to run off at that point, this distance being so slight that a single stroke of the handle is sufficient to raise the water to the spout.

The lower part of the handle is made of half-oval iron, H, bent into the form shown, and welded to the solid upper end I.

A stay, *i*, is put into the handle at about the middle of its length, to keep the two bars from being pressed together.

The material used, combined with the mode of construction, makes a handle of great strength and durability.

The bracket in which the handle is hung consists of the cast-iron plate J, furnished with the projecting jaws O and the stop S.

The plate J has a lug, *r*, projecting from the inside, at the bottom, to rest in the bottom of the handle-slot, and which, in connection with the smaller lugs, *v*, at the top, serves to hold the bracket firmly in place.

The stop S is formed in such a manner as to receive the end of the pin *x*, which forms the fulcrum of the handle, the end of the pin being bent at a right angle, so that, when it is inserted through the jaws and handle, the bent end may be turned back into the stop, and there held by the button *y*.

When it becomes desirable to remove the pin for any purpose, the button *y* may be turned, as indicated by the dotted lines in fig. 2, and the bent end of the pin turned out of the stop, when the pin may be readily withdrawn.

This arrangement prevents the pin from being worked out of place.

This arrangement for hanging the handle, in con-

nection with the enlargement of the stock heretofore mentioned, enables me to change the leverage, so as to get a long or short stroke of the piston, as may be desired.

I make no claim, broadly, to incasing pump-stocks so as to form annular air-spaces around the valve or water-chamber, as this has been done before.

Claims.

I claim as my invention—

1. The pump-stock A, open at its upper end, in combination with the waste-valve *g* and surrounding casing B, the latter being arranged to form a chamber above the stock, all substantially as and for the purpose set forth.

2. The bracket J O S, and pin *x*, and button *y*, all constructed and arranged substantially as set forth.

NATHAN T. COFFIN.

Witnesses:

O. F. MAYHEW,

JOHN POLLETT.