A. & F. Brown,

Steam Pump.

No. 27,426. Patented Mar. 13, 1860.

Fig. 1.

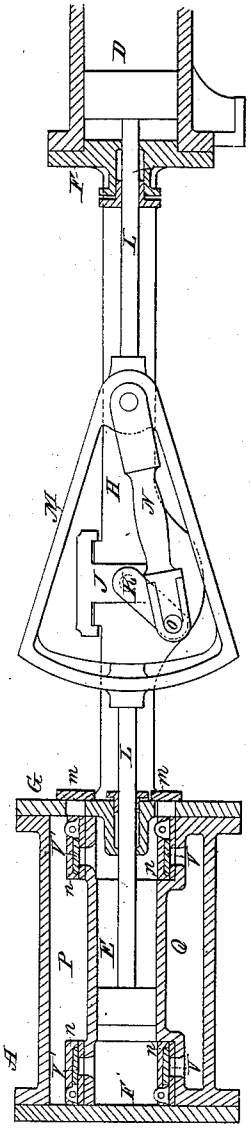


Fig. 2.

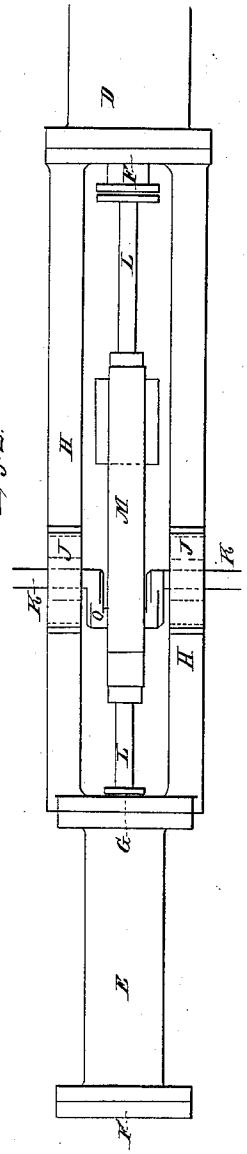
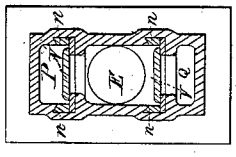


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

ADOLPH BROWN AND FELIX BROWN, OF NEW YORK, N. Y.

STEAM-PUMP.

Specification of Letters Patent No. 27,426, dated March 13, 1860.

To all whom it may concern:

Be it known that we, ADOLPH BROWN and FELIX BROWN, both of the city of New York, in the county and State of New York, have invented a new and useful Improvement in Steam-Pumps; and we hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Figure I represents a longitudinal section of our improved steam pump. Fig. II shows a top view of the same. Fig. III is a cross section at A, B.

Similar letters represent similar parts.

The nature of our invention consists, first, in the arrangement of connecting together the inner heads of the steam cylinder and the water pump by frames which latter contain the bearings for the shaft, facilitating thereby the fitting up of the pump, and dispensing with any other framing or foundation plate; secondly, in the arrangement of the valves in the chamber of the pump, in such a manner, that the entrance and discharge of the fluid to and from the barrel of the pump, shall be as direct and as near to the end of said barrel as possible, and at the same time give an easy access to the valves and seats for the purpose of examining or replacing the same.

In the accompanying drawing D represents part of the steam cylinder and E the pump.

F is the cylinder head and G the cover for the pump. These two are connected together by the frames H, which contain the bearings J, for the crank shaft, K, and are either cast together with the two heads or covers, F′, and, G, or otherwise firmly attached to the same.

The piston rods L, L, are connected together by the harp piece, M, in the middle of which the connecting rod, N, works on the crank, O.

By this arrangement the construction of the steam pump is considerably simplified and every other framing or foundation plate dispensed with, and only requires the steam cylinder and pump, after being finished, to be attached to their respective heads, when the steam pump is ready for operation, saving thereby considerable in the fitting up of the pump, and as the two heads, F, and, G, are bored out, for the piston rods, in one operation, and the said heads faced off, at the same time, the steam cylinder, and pump after being attached, must always be in a line, and true to each other.

Above and below the barrel of the pump E chambers P and Q are cast on, communicating at both ends with said barrel, and made with suitable provisions to receive the valves and seats V, V, V′, V′. These valves and seats are of the description commonly called wing valves, and are put in from each end of the pump, and secured in their places by keys (*n*), one on each side, fitting in suitable grooves made in the chambers. The pump is then closed by the heads or covers G and F′. On the inner head G small doors, *m*, are provided opposite the valve to obtain access to the same, without unscrewing the pump loose from said head when the valves require to be looked after. By this arrangement ready access is had to every valve, and the same can be easily replaced without much trouble, given at the same time a direct passage for the entrance and discharge of the water or fluid to and from the barrel of the pump and close to the ends of the same.

What we claim as our invention and desire to secure by Letters Patent is—

1. We claim connecting together the steam and pump cylinders of steam pumping engines, by means of frames or stretchers, which contain the bearings of the crank shaft, constructed and arranged as described, and for the purpose set forth.

2. We claim the hinged valves constructed as above described, when the same are arranged and used in combination with steam pumping engines as herein set forth.

ADOLPH BROWN.
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Witnesses:
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JAMES H. DAVIDSON.