

F. A. LEARENS.

STOCK-TUBES FOR CHAIN-PUMPS.

No. 173,479.

Patented Feb. 15, 1876.

Fig. 1.

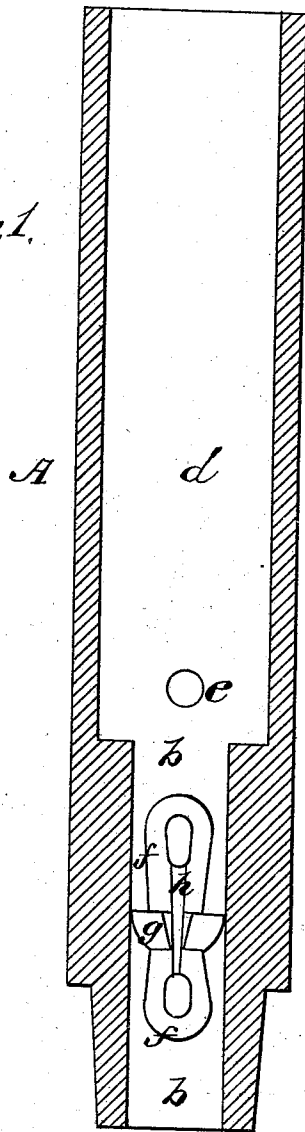
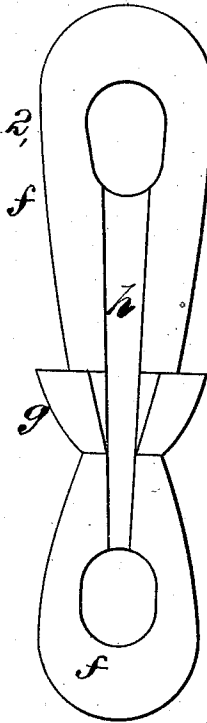


Fig. 2.



WITNESSES

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IMPROVEMENT IN STOCK-TUBES FOR CHAIN-PUMPS.

Specification forming part of Letters Patent No. **173,479**, dated February 15, 1876; application filed December 31, 1875.

To all whom it may concern :

Be it known that I, FENNER A. LEARENS, of Belle Plaine, in the county of Benton and State of Iowa, have invented a new and valuable Improvement in Stock-Tubes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a longitudinal central section of a stock-tube constructed in accordance with my invention, and Fig. 2 is an enlarged view of the link and bucket with clip-vent formed therein.

This invention relates to an improvement in stock-tubes for chain-pumps, and in the links of chains which are employed in connection with buckets for the purpose of raising water therein; and it consists in forming a bore in a stock-tube of different areas, as hereinafter shown and set forth, whereby room is left in the upper portion of the bore, which is of larger area than the lower, for the accumulation of ice without impeding the passage of the buckets, substantially as hereinafter specified.

Referring to the drawings, *a* represents a section of the stock-tube, having a bore of

different areas, the lower and smaller part *b* being adapted in size to the bucket *g* of the link. The upper portion *d* of this bore is of a different and larger area than said lower portion, whereby room is left for the accumulation of ice without impeding the passage of the buckets. A waste-vent, *e*, is formed at the lower end of said upper and larger portion of the bore, through which the water which remains in said part after the chain and buckets have ceased to operate will flow back into the well. The link *f* is formed with a bucket, *g*, and with a drip-vent, *h*, in said bucket, and in the solid part or shank of the link. This vent affords a means for the escape or return of water into the well from the lower and smaller portion of the bore.

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

A stock-tube for chain-pump, having its bore of different areas, as hereinbefore described, whereby room is left in the upper and larger portion for the accumulation of ice, substantially as shown and set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FENNER A. LEARENS.

Witnesses :

SYLVANUS T. CHASE,
JOHN A. WILEY.