C. E. WEIBLE.

Working Barrel for Oil Pumps.

No. 201,853. Patented March 26, 1878.

Fig. 1.

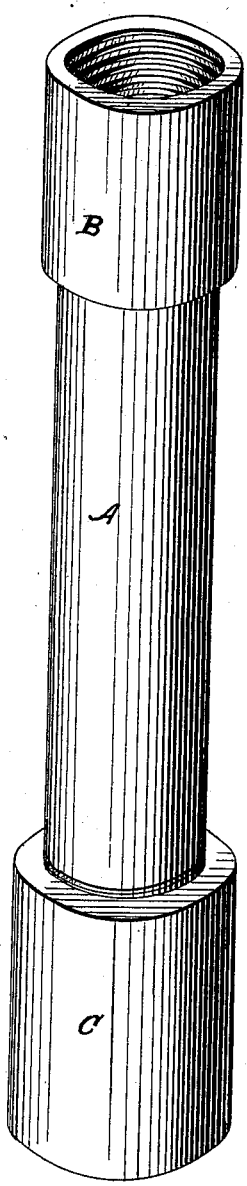
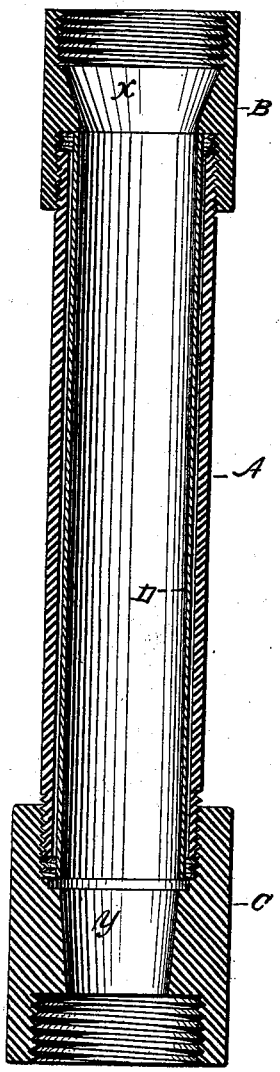


Fig. 2.



Witnesses:

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CHARLES E. WEIBLE, OF ST. PETERSBURG, PENNSYLVANIA.

IMPROVEMENT IN WORKING-BARRELS FOR OIL-PUMPS.

Specification forming part of Letters Patent No. **201,853**, dated March 26, 1878; application filed March 20, 1878.

To all whom it may concern:

Be it known that I, CHARLES E. WEIBLE, of St. Petersburg, in the county of Clarion and State of Pennsylvania, have invented certain new and useful Improvements in Working-Barrels for Oil-Pumps; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to working-barrels for oil-pumps, and in which pistons only operate; and it consists in making an outer barrel with thimbles, one on each end, and an inner lining snugly fitting said outer barrel, so that on the removal of either of the thimbles the inner lining may be replaced by a new one, or may be reversed end for end, as will hereinafter more fully appear.

In the accompanying drawing, Figure 1 represents an elevation in perspective, showing the working-barrel and thimble. Fig. 2 represents a longitudinal section, clearly showing the inner lining and the mode of securing it in place by means of the thimbles.

It may be observed here that the old method of constructing working-barrels for oil-wells, where linings are used at all, is to drive into the outer barrel the lining or tube, or to have a screw or flange at one end, or to swage and shrink them on, so that they are all rigidly fastened, and in some cases they are put in in sections, which is very objectionable, as where the joints meet they cut the piston-packing, and the results are, that they are very expensive, for the reason that the packing has to be so often renewed, and while thus renewing the parts and replacing them with new ones the well is stopped from being worked, causing a great loss of time, and consequently a great loss of money.

I do not claim any of the above devices, as they would not serve my purpose, and are not applicable to an economical working of oil-wells.

With my improvement the liner is made of one piece, snugly fitting the barrel, and is just the length of the stroke of the piston, so that when the liner is worn it is readily removed by unscrewing one of the thimbles, taking out the worn liner, which is never tight, and slipping in a new one, quickly screwing on the thimble, when it is again ready for use.

These liners are produced at a very little cost, and the time that is saved by their ready application is, after all, the great desideratum, because where wells are pumping from one to two thousand barrels of oil a day the great importance of time is readily seen.

There are other important features that might be enumerated in connection with this invention; but the above is thought to be sufficient.

Having reference to the drawing, A is the barrel; B, the upper thimble, and C the lower thimble. The lining is held at the top by the thimble B, having the tapering guide *x* to prevent the drop-valve striking the top of the lining, and at the bottom by the thimble C, provided with the drop-valve tapering socket.

In Fig. 2, D is the lining, and, as will be readily seen, is of very simple construction, easily removed and replaced by simply unscrewing either of the thimbles from the end of the barrel. The tube is then slipped out, reversed, or replaced. This lining may be made of ordinary gas-pipe, and is of equal diameter its entire length, or may be specially made of any well-known metal that will wear well and present a smooth inner working-surface. This lining requires no packing, as any leakage that may take place between the barrel and the lining will serve as a packing. The lining has no screws or flanges that would hinder it from being readily inserted in the barrel at either end. The same may be said of its withdrawal.

Thus it will be seen that it is a cheap and substantial improvement in the construction and operation of oil-pumps.

Having now fully described my invention, its construction and operation, what I claim as new, and desire to secure by Letters Patent, is—

In combination with the working-barrel of an oil-pump, the inner solid reversible lining D, the length of the piston-stroke, made in

one piece, and held at the top by the thimble B, having the tapering guide *x*, to prevent the drop-valve striking the top of the lining, and at the bottom by the thimble C, provided with the drop-valve tapering socket, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

CHARLES E. WEIBLE.

Witnesses:
FREDERIC C. GILFILLAN,
JAMES E. WAUGH.