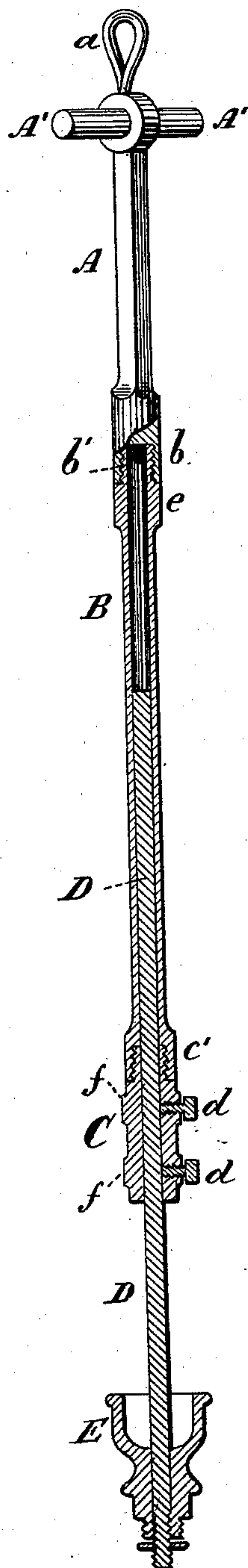


V. C. GILMORE.
 Pump-Rod Attachment for Deep Wells.

No. 203,260.

Patented May 7, 1878.



Attest:

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UNITED STATES PATENT OFFICE.

VANCE C. GILMORE, OF PETROLIA, PENNSYLVANIA.

IMPROVEMENT IN PUMP-ROD ATTACHMENTS FOR DEEP WELLS.

Specification forming part of Letters Patent No. 203,260, dated May 7, 1878; application filed October 9, 1877.

To all whom it may concern:

Be it known that I, VANCE C. GILMORE, of Petrolia, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Pump-Rod Attachments; 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 drawing, which forms a part of this specification, and in which is represented an axial or longitudinal section.

My invention relates to devices for regulating or adjusting the stroke of the piston-rod (known technically as the "polished rod") by which the valve or piston at the bottom of deep wells is operated; and it has for its object to produce a means whereby this adjustment may be effected by a person standing on the derrick-floor readily and without loss of time, substantially as hereinafter more fully described.

In the drawing, A is the cross-head, which is made solid, and has two bearings or trunnions, A' A', which are pivoted or journaled in boxes in the end of the walking-beam, in the usual manner. On the other side of the trunnions A' A' the cross-head forms an eye or loop, denoted by *a*, and at the end opposite the shank A is hollowed out to form a screw-threaded socket, *b*.

B is a wrought-iron pipe, the upper end of which has a collar, *e*, and screw-threaded tenon *b'*, which latter fits into the screw-threaded socket of the cross-head A, so that when the cross-head and pipe B are screwed together the collar *e* will press up against the lower rim of socket *b*, as shown in the drawing.

The lower end of pipe B terminates in a screw-threaded section, *c'*, in which is screwed a cylindrical sleeve, C, made of malleable, wrought, or cast iron. This sleeve has two

annular shoulders, *f f*, through which are drilled screw-threaded seats for the set-screws *d d*, the inner ends of which work against the polished rod or piston-rod D, which is inserted through sleeve C into the pipe B.

E is the stuffing-box, through which rod D passes down into the well, where it is, by a series of sucker-rods, connected with the working-valve in the usual manner.

By this construction and combination of the several parts I obtain a pump-rod attachment which is of great strength and stiffness, by means of which the stroke of the piston may easily be adjusted or regulated, and which may readily be withdrawn from the well by simply inserting the hook of the tackle commonly used for that purpose through the eye *a*. The wrought-iron tube B strengthens and stiffens rod D, so that the latter is not liable to bend, and by loosening the set-screws *d d* rod D may readily be adjusted, in its relation to pipe B, so as to shorten or lengthen the stroke, as circumstances may require.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of the adjustable piston-rod D, sleeve C, having seats *f f* and set-screws *d d*, tube B, and cross-head A, substantially as and for the purpose herein shown and specified.

2. In combination with an adjustable piston-rod for working deep wells, the cross-head A, having trunnions A' A' and eye *a*, substantially as and for the purpose herein shown and specified.

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

VANCE C. GILMORE.

Witnesses:

Z. T. POUNDSTONE,
GEO. B. HERBERT.