

J. MOLONEY.
Sand-Pump Lever Attachment.

No. 226,534.

Patented April 13, 1880.

Fig. 1.

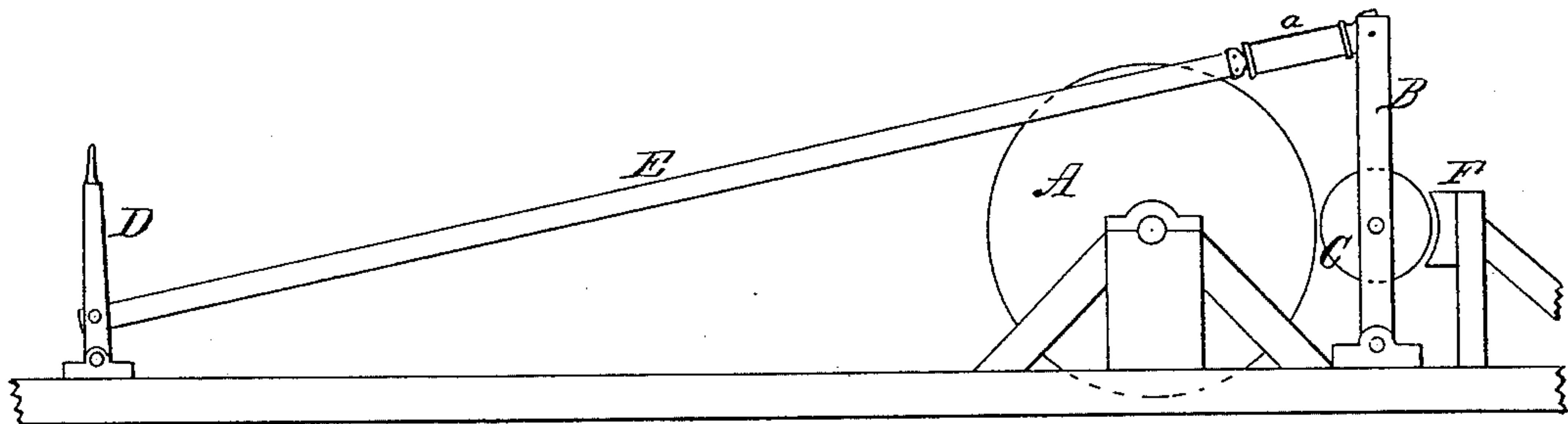


Fig. 4.

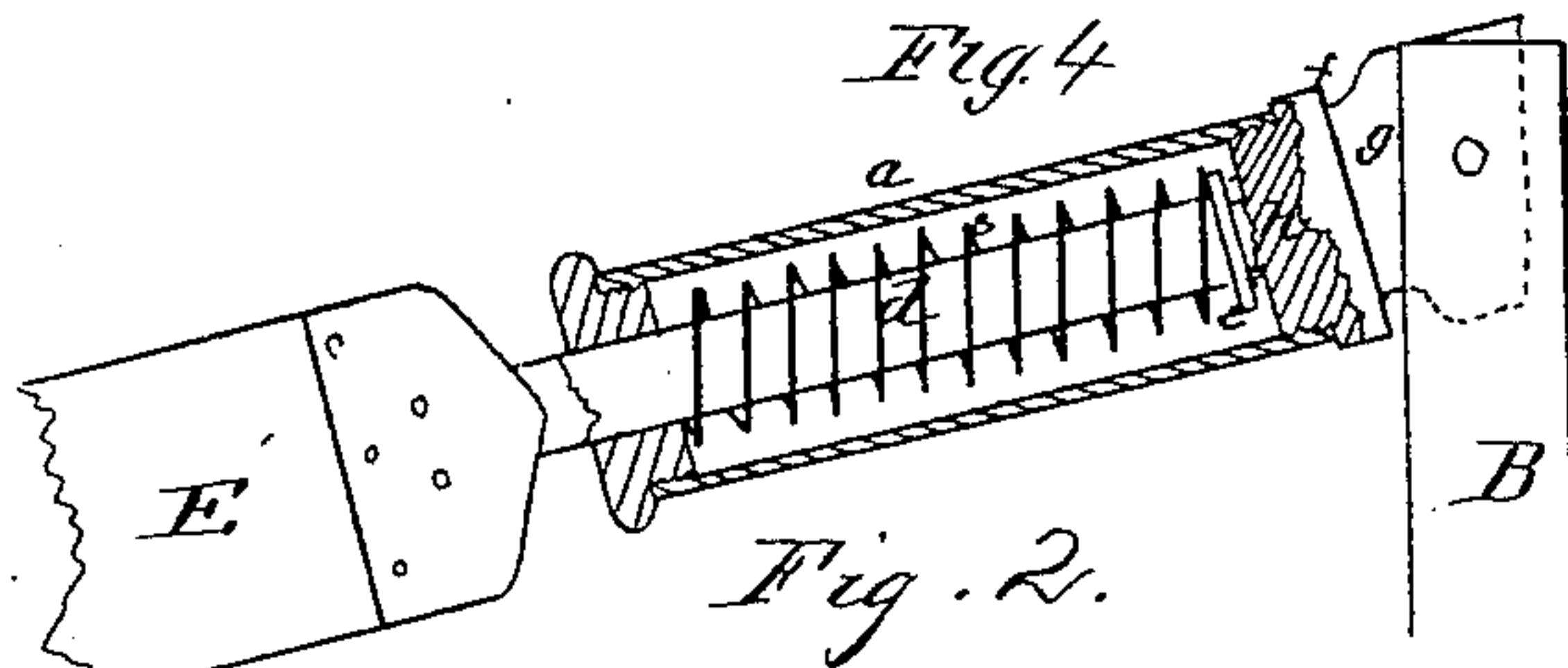


Fig. 2.

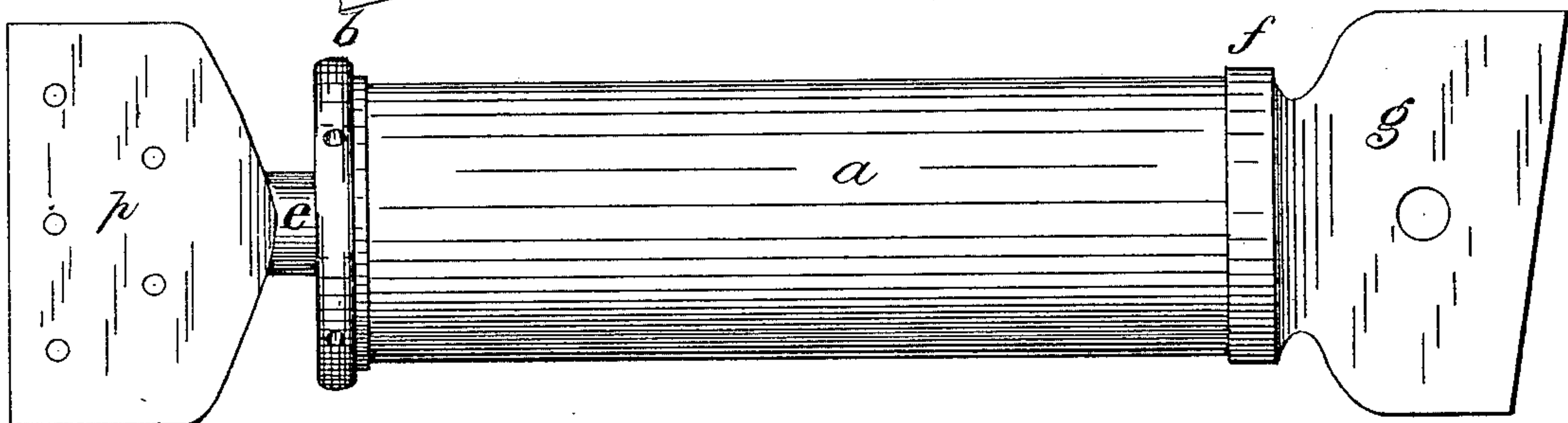
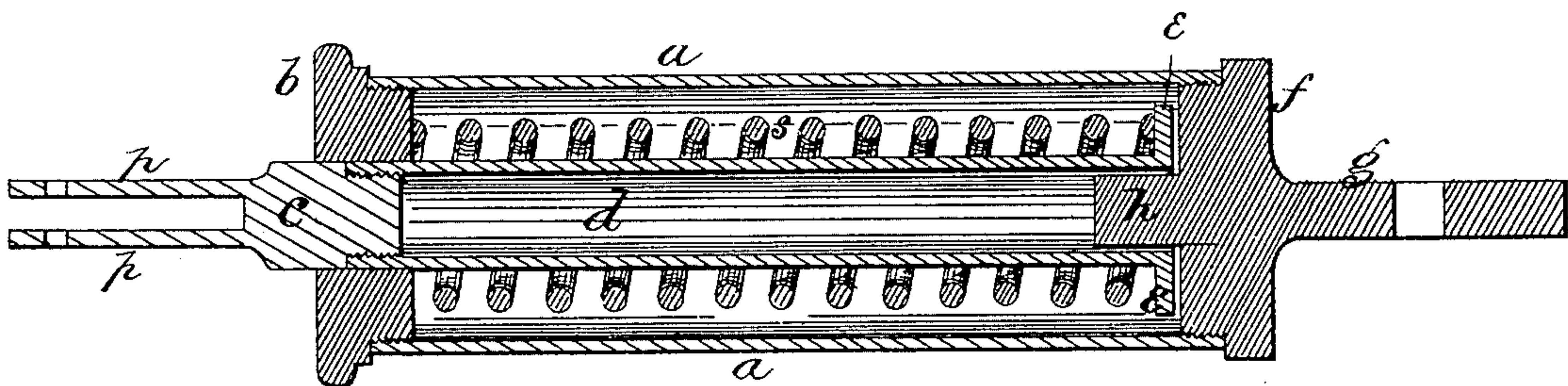


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN MOLONEY, OF GREAT BELT, PENNSYLVANIA, ASSIGNOR OF ONE-FOURTH OF HIS RIGHT TO CHRISTIAN I. O'CONNER.

SAND-PUMP-LEVER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 226,534, dated April 13, 1880.

Application filed December 4, 1879.

To all whom it may concern:

Be it known that I, JOHN MOLONEY, of Great Belt, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Sand-Pump-Lever Attachments; and I do hereby declare that the following is a full, clear, and exact description of the invention, 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 letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side elevation of sand-pump apparatus provided with my improvement. Fig. 2 is a side view of the yielding connection. Fig. 3 is a central longitudinal section of same, and Fig. 4 is a central longitudinal section of the yielding connection as applied to the sand-pump apparatus.

My invention has relation to sand-pump appliances for oil and other wells; and it consists in interposing a spring or yielding connection between the hand-lever and the reel-post, as and for the purpose hereinafter described and claimed.

Referring to the accompanying drawings, A is the band-wheel; B, the sand-pump reel-post, made to swing with the reel C to and from the wheel A. D is the hand-lever attached to and operating the board E, which connects it to the post B. F is the brake-block used in lowering the sand-pump.

In operating these devices without the spring-connection the motion is solid and direct, without any yield, and causes the band-wheel and reel to wear uneven, and this causes such jarring and jolting as to shake the whole wood-work, loosening the jack-posts and pillow-blocks, and sometimes destroying two or more sand-pump reels on one well. This causes loss of time and money to the operator. To surmount these difficulties is the object of my invention.

A convenient form of my improved connecting device is illustrated in elevation by Fig. 2 and in section by Fig. 3. A hollow tube, *a*, has screwed into one end a head, *b*, through which slides a stem, *c*, having screwed on it a

smaller tube, *d*, and having at its outer end the two plates *p p*, perforated for the bolts which attach it to the connecting-board of the lever. Tube *d*, at its farther end, has a flange, *e*, between which and the head *b* of tube *a* a helical spring, *s*, is held. Into the other end of tube *a* is screwed or fitted another head, *f*, having the outer web, *g*, for attachment to the reel-post, and the guide-pin or stud *h* inside, which enters tube *d* and guides it properly. Thus made, a pull on the ends compresses the spring and forms a yielding cushion, while a push causes the tube *d* to strike the head *f*, when the push becomes solid and unyielding.

The device is interposed between the hand-lever D and the reel-post B at any convenient or desired location. I prefer to place it at the outer end of board E and attach it directly to the reel-post. It may, however, be located otherwise.

Now, when the driller grasps the lever to lower the sand-pump he has the required solid push backward to force the reel against the brake-block, in order to regulate the descent of the pump. When the pump has reached the bottom, and it is desired to elevate it, he operates the lever the opposite way to press the reel against the band-wheel and wind up the reel. In this operation the spring takes up all knocks and jars and prevents the rattle of the timbers, thus avoiding the danger of damage to the reel, band-wheel, and framework. At the same time the operator is relieved from the great strain on his muscles, and the work is less exhausting than under the old arrangement.

While I have described a specific form of spring, I do not confine the scope of my invention to such, as I believe myself to be the first to have applied a yielding connection in well-rigging between the hand-lever and the reel-post or its operating parts.

I am well aware that it is not new, broadly, to interpose a spring between the connecting parts of machinery to lessen strain, and that a pitman-connection provided with a yielding medium between its parts has been used. My invention is therefore limited to the combination of a suitable yielding connection with the

essential parts of a sand-pump-reeling apparatus, and I do not intend my claims to have any wider scope or application.

What I claim as my invention is as follows:

5 1. In sand-pump-reeling apparatus, a spring or yielding device interposed between the hand-lever and the reel or its operating parts, substantially as and for the purpose described.

10 2. In sand-pump-reeling apparatus, the combination of the hand-lever, the connecting-board, and the reel-post with an interposed spring so arranged, substantially as described, that the spring yields to a pull, but becomes rigid to a push.

3. In sand-pump-reeling apparatus, the combination of the hand-lever, the connecting-board, and the reel-post with an interposed spring device, consisting of the tube *a*, head *b*, plates *p p*, stem *c*, tube *d*, having flange *e*, spring *s*, and head *f*, having web *g* and stud *h*, substantially as set forth. 15 20

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

JOHN MOLONEY.

Witnesses:

T. J. MCTIGHE,
C. I. O'CONNOR.