J. Q. MILLER.

Packing Casing for Oil-Wells.

No. 217,292. Patented July 8, 1879.

Fig. 1.

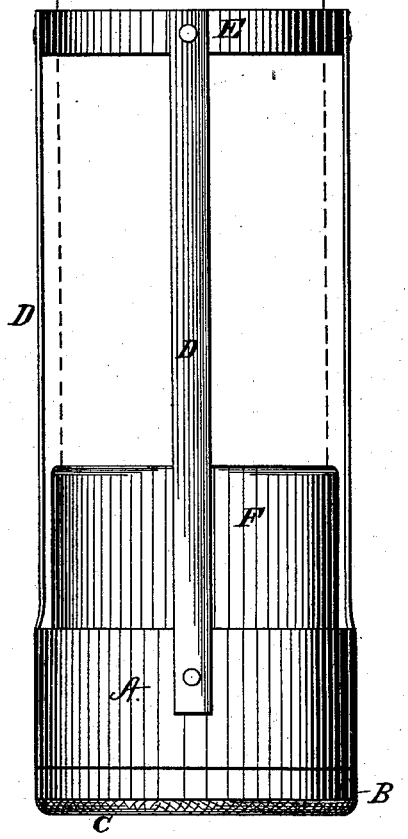


Fig. 2.

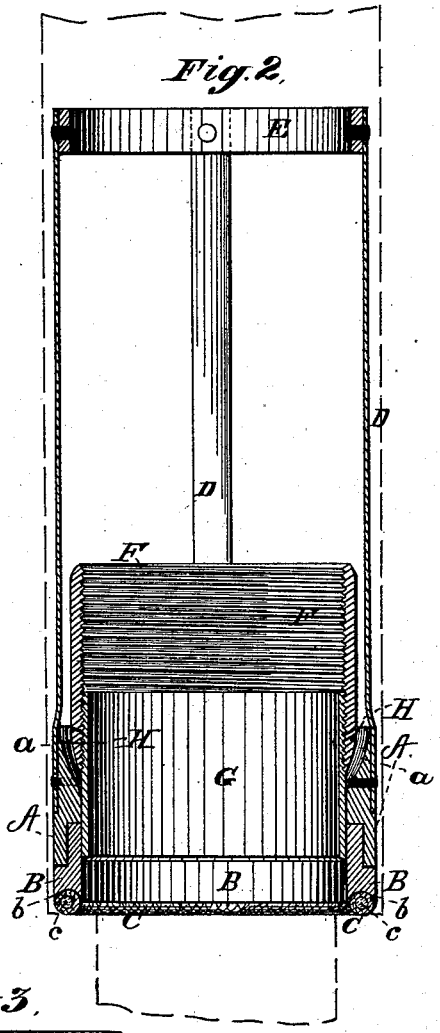
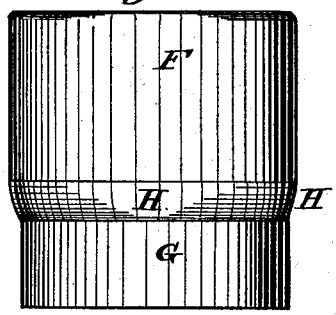


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE

JOHN Q. MILLER, OF ROUSEVILLE, PENNSYLVANIA.

IMPROVEMENT IN PACKING CASINGS FOR OIL-WELLS.

Specification forming part of Letters Patent No. **217,292**, dated July 8, 1879; application filed November 11, 1878.

To all whom it may concern:

Be it known that I, JOHN QUINBY MILLER, of Rouseville, in the county of Venango and State of Pennsylvania, have invented certain new and useful Improvements in Devices for Packing Casings in Oil-Wells; 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, in which—

Figure 1 represents a front view of my improved casing-packer, showing the casing in dotted lines. Fig. 2 is a vertical section of the same, with the conical packing partly separated; also showing the walls of a well in dotted lines. Fig. 3 represents a detached view of part of my improved packing devices.

My invention consists of improved devices for packing casing at the termination of the large hole in an oil-well, and is an improvement on Letters Patent issued to me July 9, 1878, No. 205,804.

In said drawings, A represents an annular ring or a sleeve provided with an annular rabbet on its internal surface, for the reception of a metallic packing, B, which is held securely in place by screws or rivets, and is provided on its lower end with the concave groove *b*, for the reception of a rubber or flexible packing material, *c*, and secured in said groove by nails or screws.

Sleeve A is provided with straps D, which extend upward and are secured on the outside of a heavy ring, E. The internal diameter of said ring is smaller than the external diameter of the thimble or coupling F, and is used for the purpose of drawing said packing-sleeve out of the well by the casing.

The thimble F has at its lower termination a short piece of casing, forming a nipple, G, which fits inside said sleeve A and metallic packing B.

At the union of thimble F and nipple G is an annular yielding metallic material, forming a conical packing, H, which rests on and packs the seat *a*, formed on the inside of the upper termination of the sleeve A.

Rubber or any other packing material can be substituted for the metal in the packing H.

To operate my improved packing devices, I pass the first length of casing through the ring E, screwing it into the thimble F, and lowering it into the well, and continue adding length after length until the ring C strikes the bottom of the large hole. Then the thimble F leaves the ring E, and the nipple G enters sleeve A and is forced downward almost flush with the lower end of the metallic packing B. The weight of the casing packs the cone H into its seat, and the ring C and metallic packing B against the shoulder of the well, where the large hole ends and the smaller hole commences, as shown by the dotted lines in Fig. 2, thus preventing any access of water from around the casing into the bore of the well.

I claim—

1. An annular sleeve or ring, A, provided with a conical packing-seat, *a*, for the reception of a packing-cone, H, and an internal rabbet to receive a packing-ring, B, having its lower extremity formed of flexible material, substantially as shown and described.

2. An annular sleeve or ring provided with a rubber or flexible packing, *c*, and metallic packing B, substantially as shown and described, and for the purpose as set forth.

3. The combination of the cone H, nipple G, thimble F, sleeve A, packing-rings B and C, straps D, and ring E, substantially as shown and described.

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

JOHN QUINBY MILLER.

Witnesses:

JAS. E. COCHRAN,

W. R. EDELIN.