

(No Model.)

D. BERRY.

CASING HEAD FOR OIL, GAS, AND OTHER DEEP BORED WELLS.

No. 322,242.

Patented July 14, 1885.

Fig. 1.

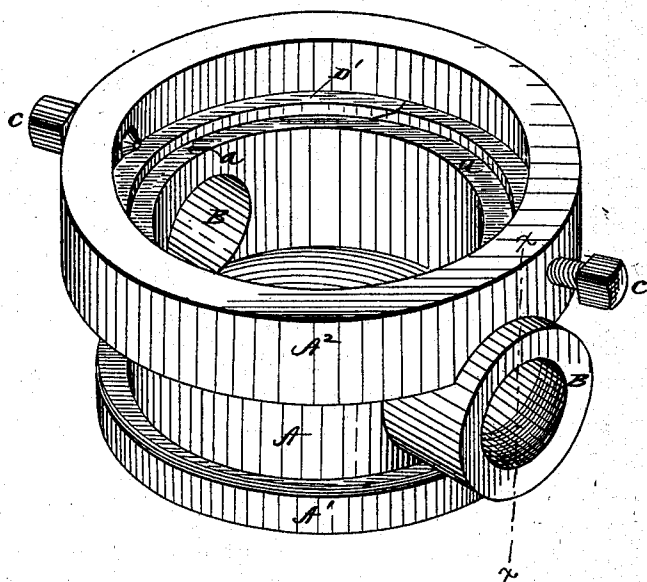


Fig. 2.

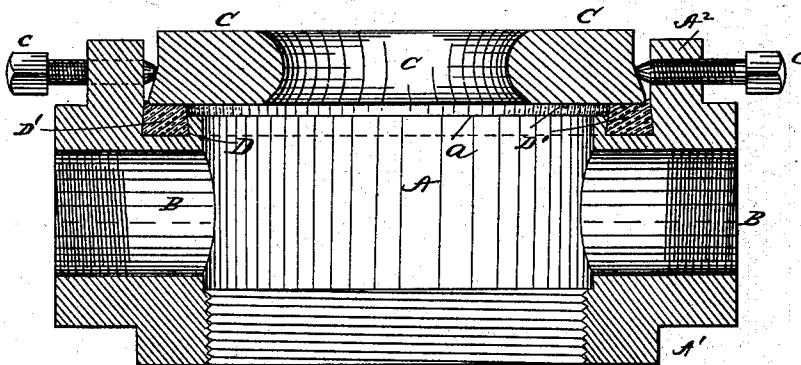
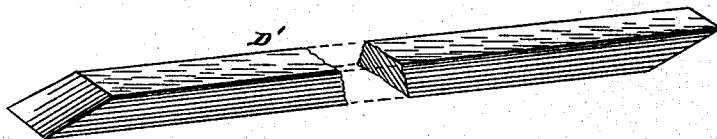


Fig. 3.



Witnesses.

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DAVID BERRY, OF BALLTOWN, PENNSYLVANIA.

CASING-HEAD FOR OIL, GAS, AND OTHER DEEP BORED WELLS.

SPECIFICATION forming part of Letters Patent No. 322,242, dated July 14, 1885.

Application filed August 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, DAVID BERRY, a citizen of the United States, residing at Balltown, in the county of Forest and State of Pennsylvania, have invented certain new and useful Improvements in Casing-Heads for Oil, Gas, and other Deep Bored Wells; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to casing-heads for oil and other deep bored wells; and it consists in improvements in the construction thereof, as will be hereinafter fully described, and pointed out in the claim.

Oil and gas wells and many other deep bored wells are cased with tubing, and on the top of the casing there is a cast-iron fixture called the "casing-head." This fixture consists of a body having on its lower side an internally-screw-threaded flange, by which it connects with the casing, and on its upper side a flange, which gives an enlarged opening to receive within it a cap or cover, or a tubing-ring, or an oil-saver, as desired, said articles seating on a ledge formed by the enlarging-flange. It is also provided, generally, with two side ways or openings, into which pipes can be screwed to convey away the gas or oil when a cap or oil-saver is used in the casing-head to prevent leakage of gas or oil; and to effect this it is the practice to lay some kind of packing on the seat, on which the cap or oil-saver sets, and thus secure a tight joint; but great difficulty is experienced in thus making a properly-packed joint, for when the work of packing is being done there is always a great rush of gas and oil, and it is very difficult to so adjust the packing material as to secure a close joint.

The object of my invention is to provide the seat of the casing-head with a permanent and fixed packing-ring which will always be ready for use, and will not become displaced by the rush of gas and oil past it as the cap or oil-saver is being adjusted in place.

My invention is illustrated in the accom-

panying drawings as follows: Figure 1 is a perspective view of a casing-head. Fig. 2 is a transverse vertical section on the line *xx* in Fig. 1. Fig. 3 shows the packing material.

Parts are indicated in the several figures by letters of reference, as follows:

A is the body of the casing-head; A', the internally-screw-threaded flange, by which the head is connected with the casing. A² is the expanding flange, which forms the seat *a*. B B are the ways or branch openings. C is a tubing-ring. D is a circumferential groove cut in the face of the seat *a*, and D' is the packing-ring.

All parts shown are as commonly constructed, or substantially so, except that the groove D is formed in the seat *a*, and the packing D' is inserted in the groove.

In order to insure the retention of the packing in the groove, I make the groove wider at the bottom than the top, giving a dovetail effect.

The material to be used for the packing-ring is not essential, so it serves the purpose. I use common square rubber packing.

It will be seen that when a cap or an oil-saver is put in place it is sure to be properly packed without the exercise of any care or attention by the operator, and that the packing is always in position for use, and will not be blown out by the escaping gas and oil while the cap or oil-saver is being secured in place.

The groove D need not be wholly within the seat *a*, as shown, for it could be cut partly within the inner wall of the flange A² and not change the results at all. I do not, therefore, desire to be limited wholly to the form of the groove shown for securing the packing-ring in place, as it is not essential to the object or purpose of my invention, which is, as above stated, to provide a permanent or fixed packing on the seat *a*.

I am aware that an elastic diaphragm has been bolted to the cap and held between the cap and the casing-head by set-screws, and this I do not claim, as my device differs from

that form in that the packing is permanently secured to the seat without the interposition of the means above referred to; therefore,

What I claim as new is—

- 5 In a casing-head for oil or other deep bored wells, the combination, with the seat *a*, of the undercut groove *D* and the packing *D'*, secured in said groove, substantially as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

DAVID BERRY.

Witnesses:

JNO. K. HALLOCK,
ROBT. H. PORTER.