

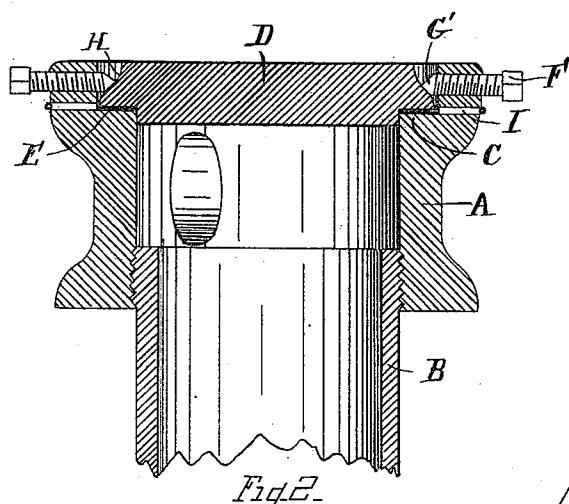
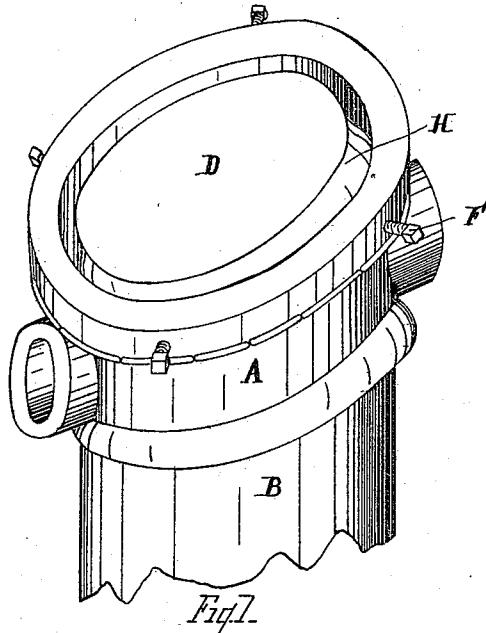
(No. Model.)

2 Sheets—Sheet 1.

M. R. SKINNER.
CASING HEAD.

No. 428,422.

Patented May 20, 1890.



WITNESSES

Carroll J. Webster
Anna J. Schaney.

INVENTOR

Merrill R. Skinner
By William Webster
Atty

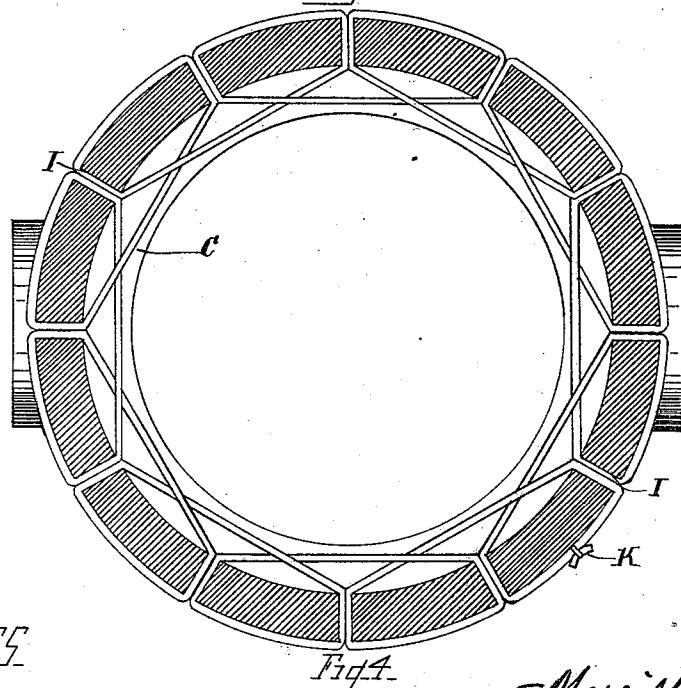
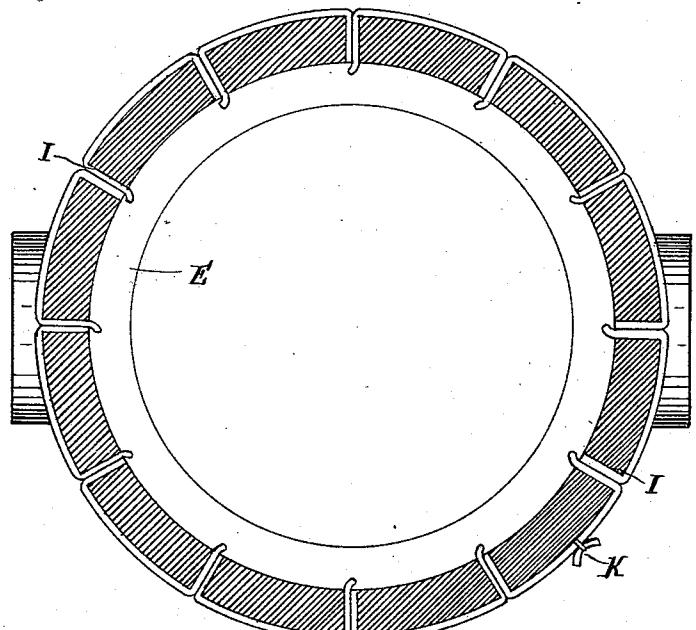
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UNITED STATES PATENT OFFICE.

MERRILL R. SKINNER, OF TOLEDO, OHIO.

CASING-HEAD.

SPECIFICATION forming part of Letters Patent No. 428,422, dated May 20, 1890.

Application filed October 3, 1889. Serial No. 325,843. (No model.)

To all whom it may concern:

Be it known that I, MERRILL R. SKINNER, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, 5 have invented certain new and useful Improvements in Casing-Heads; 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 applies to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to an improvement in 15 casing-heads, and has for its object to provide means for packing the same to avoid the loss of oil or gas incident to the present form of packing.

Heretofore in the branch of the art to which 20 my invention belongs it has been found difficult to adjust the packing and cap to the casing-head under the pressure of gas or oil with sufficient accuracy to insure a close fit to the same, and as a consequence the oil or 25 gas has found exit through openings left between the packing and cap prior to the final adjustment of the cap.

My invention has for its object to secure 30 the packing in the head without a possibility of disarrangement, whereby the cap may be secured thereon with a certainty of a sure closure to the same.

The invention consists in the parts and combination of parts hereinafter described, 35 and pointed out in the claims.

In the drawings, Figure 1 is a front elevation of a complete casing-head constructed in accordance with my invention. Fig. 2 is a longitudinal vertical section of the same, the 40 front half being removed. Fig. 3 is a plan view with the top removed and showing a packing-ring secured in place by a flexible medium threaded through the casing. Fig. 4 is a like view showing the packing comprised of strands of a flexible material threaded through the opening in the casing.

A designates the head screwed upon pipe B in the usual manner. Head A is formed with an interior ledge or shoulder C, upon 45 which rests a cap D, with a suitable packing

E interposed to seal the same from the escape of liquid or gas.

Ordinarily the packing E comprises a gasket formed of rubber, leather, or analogous substance, which is placed upon the annular shoulder C, formed with the casing-head, and the cap D is then placed thereon and pressed firmly thereon by means of screw-bolts F, tapped through the casing, and with their taper ends G upon an annular incline H, formed 60 upon the periphery of the cap.

The great difficulty heretofore experienced has been in holding the packing-ring E in proper place against the pressure of oil or gas escaping from the well while placing the cap 65 (sometimes called the "sand-cap") upon the gasket prior to securing the same. To overcome these difficulties, I form perforations I at stated intervals circumferentially of the cap and preferably in horizontal alignment 70 with the top of the shoulder C, through which is threaded a cord of hemp, cotton, or analogous material, which may form the packing, as shown in Fig. 4, and upon which the cap rests, in which arrangement the cord is passed 75 through alternate perforations for two or more circuits of the interior of the casing-head to provide a complete layer of the cord upon the shoulder C; or I may thread the cord through each perforation and through a 80 packing-ring of any desired material, as shown in Fig. 3, whereby the ring is secured from movement and a perfect packing is insured, upon which the cap may be secured.

It will be evident that in addition to the 85 packing-ring, (shown in Fig. 3,) I may thread the cord through the perforations I and secure the same to the ring, and, as a matter of precaution, add the packing (shown in Fig. 4) supplemental to and above the packing-ring. 90

The cord when threaded through the perforations I to complete the circuit of the casing is preferably tied, as at K, to secure the same firmly in place.

What I claim is—

1. A casing-head formed with transverse perforations, through which is passed a flexible medium for holding the packing in place, in combination with a top or cap resting upon the packing, as and for the purpose set forth. 100

2. A casing-head formed with an annular shoulder and transverse perforations above the same, in combination with a flexible packing threaded through the perforations, and a
5 cap secured upon the packing, as and for the purpose set forth.

In testimony that I claim the foregoing as

my own I hereby affix my signature in presence of two witnesses.

MERRILL R. SKINNER.

Witnesses:

WILLIAM WEBSTER,

CARROLL J. WEBSTER.