F. KINZBACH.

CASING HEAD.

APPLICATION FILED AUG. 10, 1918.

1,326,272.

Patented Dec. 30, 1919.

Fig. 1.

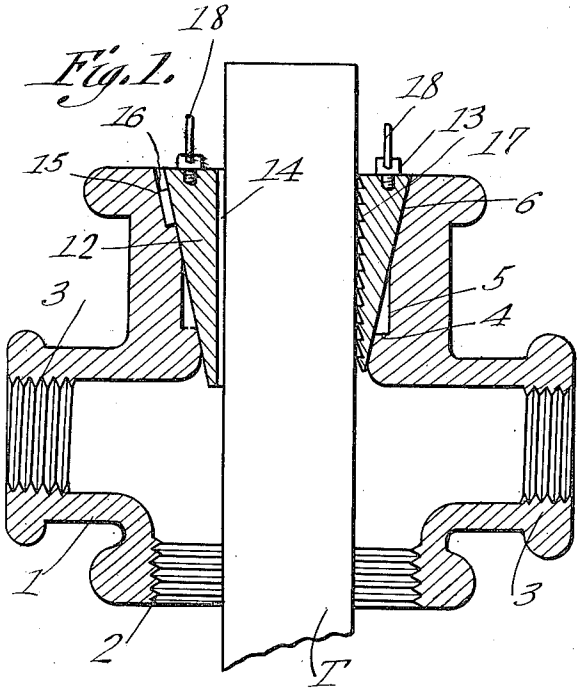
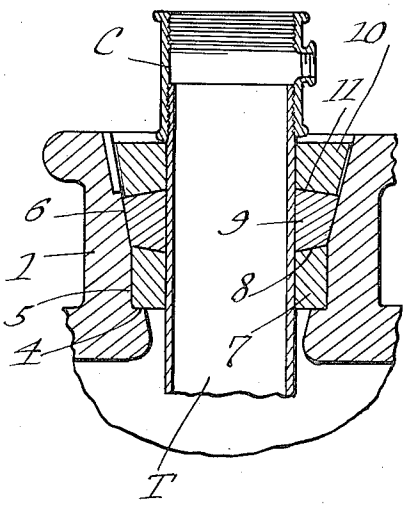


Fig. 4.



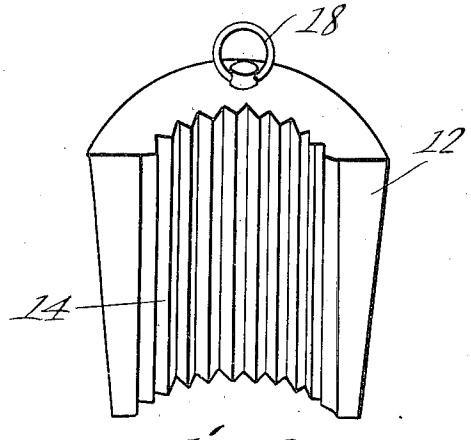


Fig. 2.

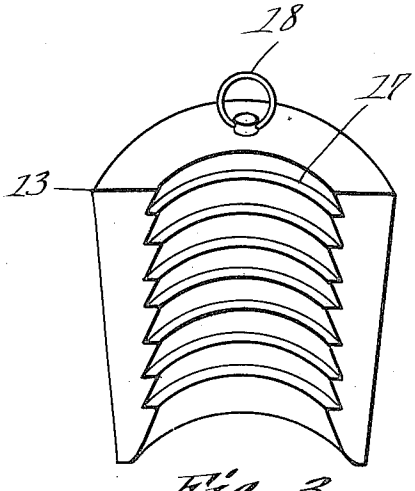


Fig. 3.

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Inventor

Witness

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UNITED STATES PATENT OFFICE.

FRANK KINZBACH, OF SOURLAKE, TEXAS, ASSIGNOR OF ONE-HALF TO O. W. BIGGS, OF SOURLAKE, TEXAS.

CASING-HEAD.

1,326,272. Specification of Letters Patent. Patented Dec. 30, 1919.

Application filed August 10, 1918. Serial No. 249,320.

To all whom it may concern:

Be it known that I, FRANK KINZBACH, a citizen of the United States, residing at Sourlake, in the county of Hardin and State of Texas, have invented a new and useful Casing-Head, of which the following is a specification.

This invention relates to a casing head for use in connection with oil wells, one of its objects being to provide a casing head having means whereby packing can be forced tightly about the tube by the weight of said tube applied thereto through the tube coupling, thus to form a tight seal and insure the outflow of gas through the proper channels.

Another object is to provide a casing head designed to receive gripping jaws of novel form for engaging the tubing so that one pair of elevators can be dispensed with while pulling the tubing to clean a well and a closed hook can be used in carrying out said operation, thereby avoiding the frequent occurrence of an elevator becoming unhooked, falling and causing injury or death to workmen.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claim, it being understood that various changes may be made in the construction and arrangment of the parts without departing from the spirit or sacrificing any of the advantages of the invention as set forth in the appended claim.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings—

Figure 1 is a section through a casing head applied to the tubing of a well and showing the jaws in position.

Fig. 2 is a detail view of one of the jaws.

Fig. 3 is a detail view of the other jaw.

Fig. 4 is a section through a portion of the casing and showing the packing gland therein.

Referring to the figures by characters of reference 1 designates the casing head having the bottom portion 2 for engagement with the well casing and the side outlet portions 3 for gas which will flow through the head from the portion 2. The top member of the head 1 has an interior shoulder 4 at the lower end of a cylindrical bore 5 and extending from the upper end of the cylindrical portion is a flared or tapered bore 6. While the well is in use the tubing T is supported in the head and sealed by the arrangement of rings shown in Fig. 4. A metal ring 7 is fitted in the portion 5 of the bore and fits about the tubing, the upper face of this ring being inclined downwardly toward the center thereof as shown at 8. On this inclined face is supported a packing ring 9 of suitable material which, in turn supports a top ring 10 of metal, the lower face of which is recessed as shown at 11. The rings 9 and 10 are fitted in the tapered bore 6, ring 9 being tight therein while ring 10 is loose. The coupling C connected to the tubing rests on the ring 10 thus holding the parts together and compressing the ring 9 so as to seal the connection.

When it is desired to pull the tubing the jaws shown in Figs. 1, 2 and 3 are employed. The two jaws, 12 and 13, are oppositely disposed and, when assembled edge to edge, form a tapered split tube adapted to fit snugly about the tubing and to engage the tapered bore 6 and the edge of the shoulder 4. One of the jaws, 12, has longitudinally extending ribs 14 on its inner or concave face provided with biting edges and a key is arranged longitudinally upon the outer face of the jaw, as shown at 15, and is adapted to fit in a short key-way 16 in the wall of bore 6 thus to hold the jaw against rotation within the head 1. The jaw 13 is provided on its inner or concave face with transverse ribs 17 having biting edges. Both jaws have rings 18 connected to their upper ends whereby they can be manipulated readily.

It will be obvious that when the jaws are driven into the tapered bore 6 and about the tubing T their ribs will bite into the tubing and it will thus be possible to hold the tubing properly while the sections are being coupled together or uncoupled.

What is claimed is:—

The combination with a casing head having a tapered bore and a longitudinal key way in the wall of the bore at its outer end, the wall of said tapered bore being interrupted between its ends by a cylindrical portion forming an annular shoulder, of opposed segmental jaws tapered toward one

end and insertible into the tapered bore one of said jaws having transverse ribs provided with biting edges and the other jaw having longitudinal ribs having biting edges, all of the ribs being located on the concave surfaces of the jaws, a rib upon the outer surface of one of the jaws and insertible into the key way, there being an interior annular shoulder within the tapered bore for supporting a packing, said rib and the jaw from which it extends constituting means for holding the other jaw against rotation relative to the casing head.

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

FRANK KINZBACH.

Witnesses:
LEE WILKINSON,
J. J. DE VERE.