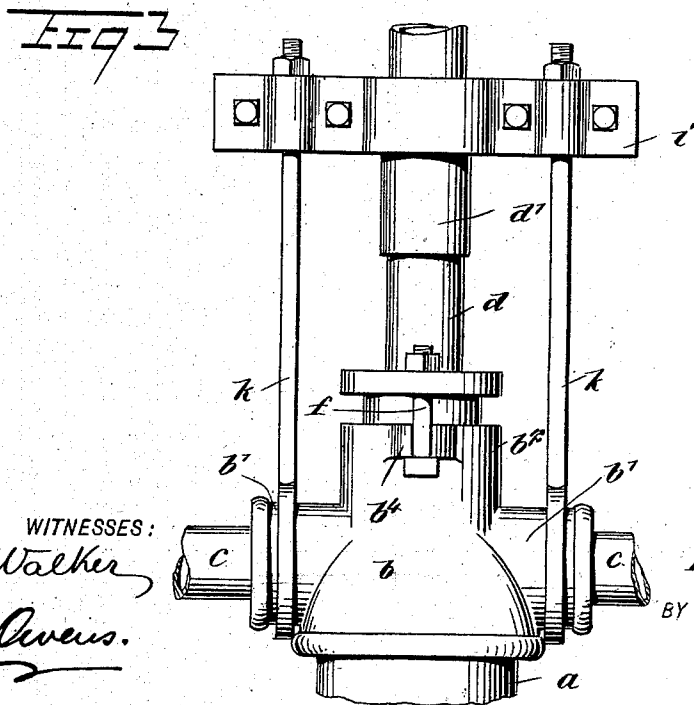
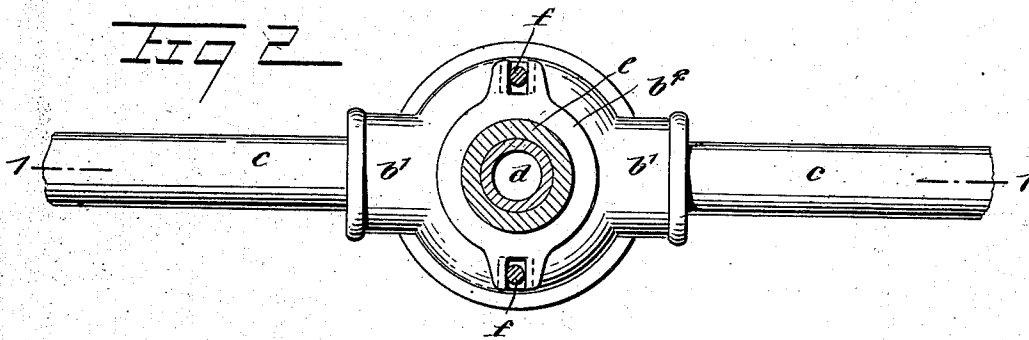
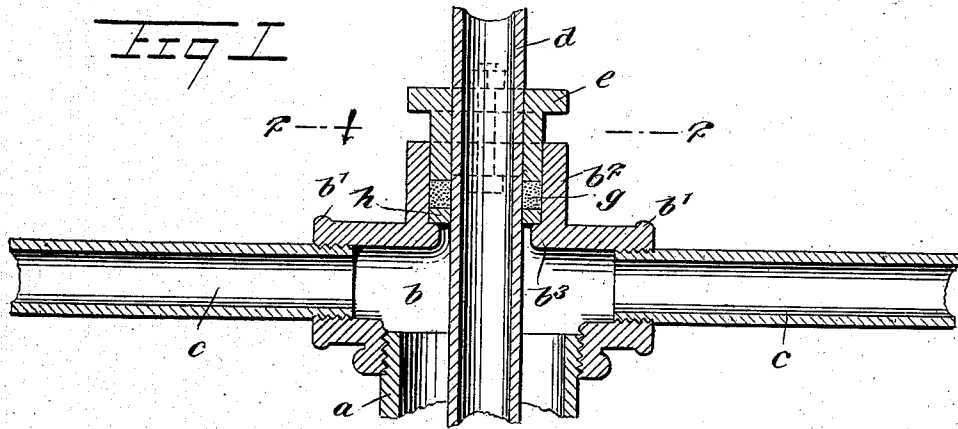


F. J. MOSER.  
HEAD FOR OIL WELLS.

(Application filed Nov. 11, 1901.)

(No Model.)



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

FRED JOSEPH MOSER, OF KANE, PENNSYLVANIA.

## HEAD FOR OIL-WELLS.

SPECIFICATION forming part of Letters Patent No. 714,508, dated November 25, 1902.

Application filed November 11, 1901. Serial No. 81,857. (No model.)

To all whom it may concern:

Be it known that I, FRED JOSEPH MOSER, a citizen of the United States, and a resident of Kane, in the county of McKean and State of Pennsylvania, have invented a new and Improved Head for Oil-Wells, of which the following is a full, clear, and exact description.

This invention relates to a means for packing the tubing of an oil-well in the casing-head so as to prevent leakage of the gas.

The invention involves certain other improvements in various points of detail, as will be fully brought out hereinafter.

This specification is a specific description of one form of the invention, while the claims are definitions of the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional view of the invention on the line 1 1 of Fig. 2. Fig. 2 is a sectional plan view on the line 2 2 of Fig. 1; and Fig. 3 is a side elevation of the invention, also showing the means for anchoring the tubing to the casing-head.

$a$  indicates the well-casing, and  $b$  the head, which is screwed or otherwise fastened on the top of the casing. This head has nipples  $b'$ , to which the gas-pipes  $c$  are connected by screwing them thereinto or by any other means desired, these gas-pipes passing horizontally the horizontal nipples.

$d$  indicates the tube, which passes vertically through the head and into the casing. At the top of the head  $a$  is a stuffing-box  $b^2$ , which is concentric to the tube  $d$ , but separated therefrom, so that the tube, as well as the tube-coupling, may freely pass through the stuffing-box, as is necessary in the adjustment of the tube in one manner or another, as will be readily understood by persons skilled in the art. At the base of the stuffing-box  $b^2$  is an internal annular shoulder  $b^3$ , which is rounded on its edges, so as to prevent the binding of the coupling of the tube  $d$  against the shoulder as the coupling moves through the stuffing-box.

$e$  indicates the packing-gland, which is fitted in the stuffing-box  $b^2$  and which is held in place by bolts  $f$ , engaged with the gland

and fitted between lugs  $b^4$  on the stuffing-box  $b^2$  at the outside thereof.

$g$  indicates the packing, and  $h$  indicates a metallic packing-ring which is removably fitted within the box  $b^2$  and bears removably on top of the annular rib or shoulder  $b^3$  to support the packing  $g$ .

Now it will be observed that by means of the devices above described the tube  $d$  is held in the head  $b$  so that the tube may be removed when desired. The tube may be removed from the well by displacing the parts  $e$ ,  $g$ , and  $h$  and drawing the tube and its couplings through the head  $b$ . The annular rib or shoulder  $b^3$  is so arranged as to permit the passage of the couplings, and by means of its rounding edges the couplings are not liable to bind against it. The packing devices  $e$ ,  $g$ , and  $h$  effectively prevent the escape of gas around the tube  $d$ , notwithstanding this tube may from time to time be adjusted vertically in the head  $b$ .

Fig. 3, in addition to illustrating the parts above described, shows the means for anchoring down the tube  $d$ , which operation is sometimes performed, as will be fully understood by persons skilled in the art.

$i$  indicates a cross-head of any suitable form, which is mounted on the tube  $d$  and adapted to be engaged with one of its couplings  $d'$ , so as to prevent movement of the cross-head on the pipe in the direction toward the head  $b$ .

$k$  indicates eyebolts, the eyes of which are engaged with the nipples  $b'$ , and these bolts extend up to and into connection with the ends of the cross-head  $i$ . By tightening the nuts of the bolts  $k$  the cross-head  $i$  may be forced down, and thus the tube  $d$  held against any pressure developed within the casing or tube. When the parts  $i$ ,  $k$ ,  $e$ , and  $f$  are removed, the box  $b^2$  is left unobstructed, so that a tool for raising or lowering the tube may be placed and worked on the box.

Various changes in the form and details of my invention may be resorted to at will without departing from the spirit of my invention. Hence I consider myself entitled to all forms of the invention as may lie within the intent of my claims.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. The combination of a casing-head having means for permitting the passage of the tube therethrough and also having oppositely-disposed nipples adapted for connection with the gas-line, a cross-head engaged with the tube, and eyebolts, the eyes of which are connected with the nipples, said bolts extending up to the cross-head, for the purpose specified.

2. A casing-head, comprising a stuffing-box with an unobstructed upper end and lugs on its outer sides, a packing-gland fitted in the stuffing-box, tie-bolts connected with the gland and extending down to and removably engaged with the lugs, for the purpose specified, horizontal nipples projecting from the

casing-head, a cross-head adapted to engage the well-tube, and eyebolts connected to the cross-head and having their eyes engaged with the said nipples.

3. The combination with the casing-head and with the well-tube extending therethrough, of a member attached to the well-tube above the casing-head, and a removable connection between said member and the casing-head, to hold the well-tube in place.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRED JOSEPH MOSER.

Witnesses:

E. C. ANDERSEN,  
J. H. THOMAS.