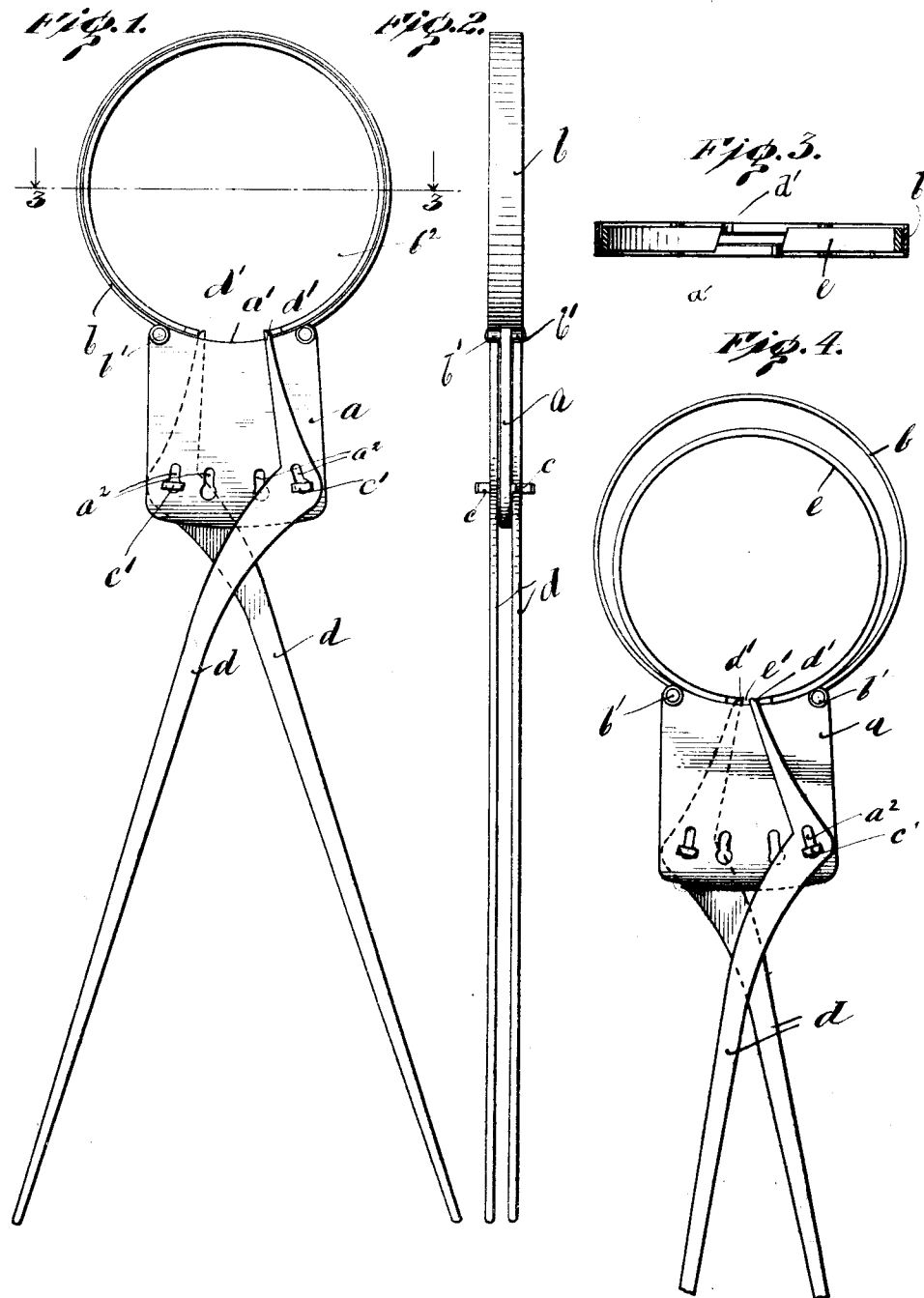


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 TOOL FOR REMOVING OR INSERTING PISTON PACKING RINGS OR THE LIKE.
 APPLICATION FILED NOV. 8, 1912.

1,079,564.

Patented Nov. 25, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH KOMANCSEK, OF NEW YORK, N. Y.

TOOL FOR REMOVING OR INSERTING PISTON PACKING-RINGS OR THE LIKE.

1,079,564.

Specification of Letters Patent.

Patented Nov. 25, 1913.

Application filed November 8, 1912. Serial No. 730,243.

To all whom it may concern:

Be it known that I, JOSEPH KOMANCSEK, citizen of the United States of America, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Tools for Removing or Inserting Piston Packing-Rings or the like, of which the following is a specification.

The tensile force of split metal packing rings is so great that it is very difficult to expand the rings in order to allow of their being placed on the pistons or removed therefrom.

The present invention has for its object to provide a tool whereby such split metal packing rings can be readily and easily expanded.

To make my invention more clear the same is illustrated in the accompanying drawing in which similar reference characters denote corresponding parts and in which—

Figure 1 is a side elevation of the instrument or tool showing the packing ring extended; Fig. 2 an end elevation thereof; Fig. 3 is a section through the split packing ring on line 3—3 of Fig. 1; and Fig. 4 is a similar view as Fig. 1 showing the nippers in engagement with the packing ring prior to its expansion.

In the drawing *a* denotes the rigid piece or plate which has a concaved upper edge *a'* and to its upper corners the ends of a circularly curved band *b* are secured. This band projects beyond the curved edge *a'* of the plate and forms with said edge a complete circle. The attachment of the band *b* to the plate *a* may be made by pins *b'* or other suitable means permitting the said band to be easily removable and to be replaced by a band of a different size in accordance with the size of the piston for which the packing ring is to be used. At the lower portion of the plate *a* a series of key-hole shaped slots *a''* is provided which notches serve for the passage of pins *c* whereby two jaws are removably or adjustably attached to the plate *a*. Each of these jaws *d*, *d'* is made of an angular piece, the downwardly projecting part of which serves as a grasp or handle, while the upper part serves as the bit or the operating end of the tool. The two jaws which are of uniform construction are adapted to be so attached

to the plate *a* that their handles cross and are arranged at opposite sides of the plate *a*. Each of the pins *c* is formed at one end with an oblong head *c'* capable, when extending in longitudinal direction of the key-hole notch, of being freely passed therethrough and when turned at a right angle to the notch of fastening the jaw to the plate *a*. The upper parts or bits *d'* of the jaws are adapted to project somewhat beyond the curved edge *a'* of the plate *a* into the circular space *b''* formed by the band *b* and are sharpened or pointed so as to easily enter the narrow space *e'* separating the ends of the split packing ring *e*. The two jaws are thus arranged in two parallel planes which are separated from one another by a space equal to the thickness of the plate *a*. Owing to this arrangement the bits *d'* of the tool will engage the space separating the ends of the packing ring at two opposite points whereby the expansion of the ring will be greatly facilitated (Fig. 4).

The jaws may be arranged nearer to or farther from one another in the plate *a* according as the cut in the packing ring is arranged.

When the packing ring *e* is expanded by the bits *d'* of the jaws *d* it will bear against the inner circumference of the supporting band *b* and thereby prevented from bursting and jumping off the ends of the bits (Fig. 1).

What I claim and desire to secure by Letters Patent is:

1. A tool comprising a rigid member, two intersecting jaws pivotally secured in said member and a circularly curved member, the bits of said jaws projecting into the space surrounded by said circularly curved member having its ends secured to said member.

2. A tool comprising a rigid member, two intersecting jaws pivotally secured in said member and a circularly curved member removably secured to the first named member, the bits of the two jaws slightly projecting into the space surrounded by said circularly curved member.

3. A tool comprising a rigid member, two intersecting jaws adjustably and pivotally secured in said member and a circularly curved member removably secured to the

first named member, the bits of the two jaws projecting into the space surrounded by said circularly curved member.

4. A tool comprising a plate having a concave edge, a circularly curved member secured to said plate and projecting beyond said concave edge to form with the latter a complete circle and two intersecting jaws pivotally secured to said plate and arranged

at opposite sides of said plate, the bits of said jaws projecting into the space surrounded by said member.

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

JOSEPH KOMANCSEK.

Witnesses:

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MAX D. ORDMANN.