

C. E. THOMPSON.
SELF OILING ROCKER BEARING.

APPLICATION FILED MAY 15, 1919. RENEWED DEC. 22, 1921.

1,406,780.

Patented Feb. 14, 1922.

Fig. 1.

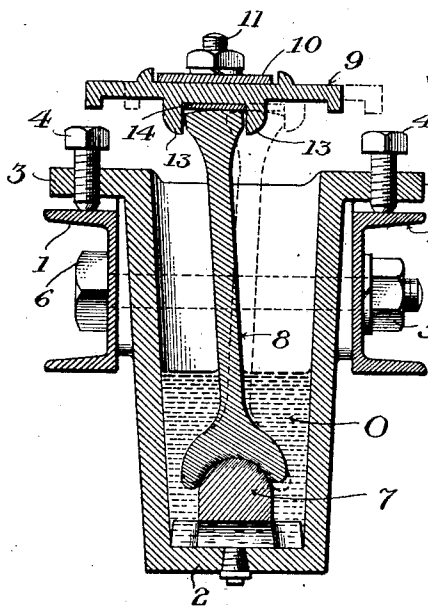


Fig. 2.

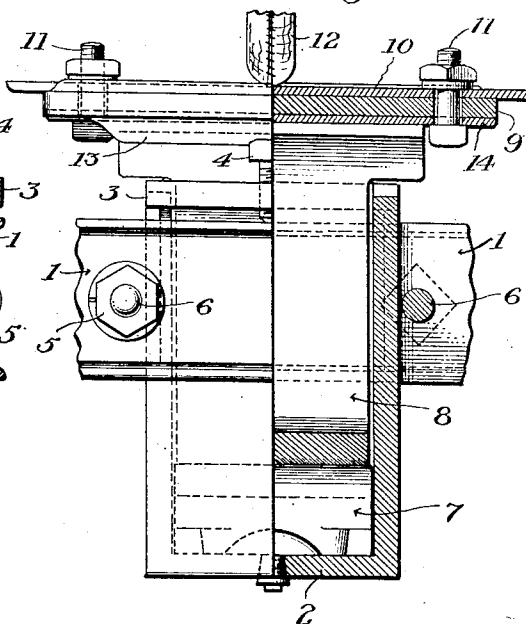


Fig. 3.

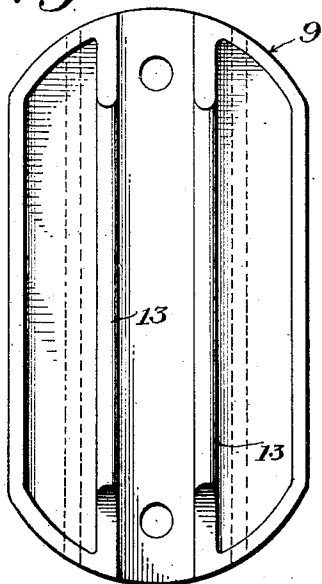


Fig. 4.

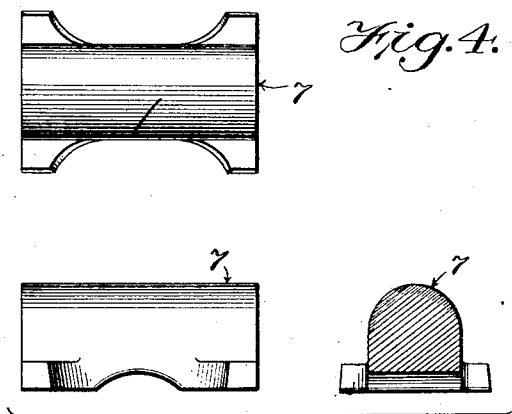


Fig. 5.

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UNITED STATES PATENT OFFICE.

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SELF-OILING ROCKER BEARING.

1,406,780.

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To all whom it may concern:

Be it known that I, CHARLES E. THOMPSON, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Self-Oiling Rocker Bearings, of which the following is a specification.

My invention relates to an improvement in a self-oiling rocker-bearing.

The purpose of this invention is, as the name implies, to provide a self-lubricating rocker-bearing especially adapted for reciprocating machinery, such as ore-concentrators. A bearing of this sort is nearly frictionless, which is one of the desiderata, and one of the features of my present invention is the provision of a rocker-seat or die with the arc upward in order to keep grit out of the rocker-die.

Other advantages of this invention are the movement in approximately a straight line, and the ease of adjustment of the parts of the rocker.

With the foregoing in view, this invention consists of an adjustable rocker pocket which contains a supply of oil, and in the bottom of which is located a removable convex rocker-die or seat that fits into the lower concaved bearing surface of the rocker, the curvature of the rocker-bearing seat enabling the upper end of the rocker-arm to oscillate the distance it has to travel in approximately a straight line.

In the accompanying drawings:

Fig. 1 is a longitudinal sectional view through the rocker-pocket, rocker and rocker-plate, and a frame upon which the pocket is adjustably supported;

Fig. 2 is a fragmentary view at right-angles to Fig. 1, and one-half of which is in section;

Fig. 3 is a bottom plan view of one of the rocker-plates;

Fig. 4 is a top plan view of the rocker-seat or die;

Fig. 5 is a side view of the same.

The numerals 1 represent two channel-irons forming the framework for the support of the other parts of the mechanism.

2, is the rocker-pocket which fits between the channel-irons 1, and the rocker-pocket is provided with overhanging flanges 3, which extend over the channel-irons and the set-screws 4 screw into threaded holes in

these flanges and are employed for adjusting and refilling the rocker-pocket, after which the pockets are clamped solidly in place by screwing up the nuts 5 on the clamping bolts 6 located in pairs, one of which is on either side of each pocket.

In the bottom of the pocket, the rocker-seat or die 7 is detachably fitted. This rocker-seat or die is in the form of an upwardly extending arc, the wear surface of which is preferably chilled. The rocker 8 has a concaved chilled lower surface, which fits and bears upon the rocker-seat or die, as clearly shown in Fig. 1. The rocker-plate 9 is adapted to be secured to the deck trace core 10 by bolts 11, which core in turn is secured to the deck stringer 12, as shown in Fig. 2. The lower surface of the rocker-plate is provided with parallel flanges 13, which receive the steel wearing plate 14 and also the upper end of the rocker between them.

This wearing plate is secured in place by the same bolts 11 which secure the rocker-plate and deck trace core together.

The pocket is filled or partially filled with oil O, as shown in Fig. 1, which keeps the parts well lubricated, as the rocker is oscillated, and as the stroke is limited, and the rocker is of considerable length, and its bearing is arcuate or convex, the movement of the upper end which supports the table is approximately in a perfectly straight line.

The rocker-bearing has the new and useful function of rocking the table deck with little or no friction when compared to a slipper bearing with friction, and because of its construction does not impart additional inertia shock to the table deck, the result being that "pause" and differential as delivered by the head-motion intended to be employed for this bearing are not interfered with.

I claim:

1. The combination of a suitable support, a rocker-pocket detachably held by the support, means for adjusting the pocket with respect to the support, and means for securing the pocket rigidly with respect to the support, when the pocket otherwise shall have been adjusted.

2. The combination of a suitable support, a rocker pocket entirely closed except at the top and detachably held by the support and adapted to contain a lubricant, a

rocker, a rocker-plate resting on the rocker, and set-screws connected with the pocket and resting on the support for adjusting the pocket.

- 5 3. The combination of a suitable support, a rocker pocket entirely closed except at the top and detachably held by the support and adapted to contain a lubricant, a rocker, a rocker-plate resting on the rocker, set-
10 screws connected with the pocket and resting on the support for adjusting the pocket, and clamping means for securing the pocket rigidly to the support.

- 15 4. The combination of a suitable support, a rocker pocket entirely closed except at the top and detachably held by the support and adapted to contain a lubricant, a rocker, and a rocker-plate resting on the rocker, a rocker-seat or die detachably rest-

ing in the bottom of the pocket, and hav- 20
ing a convex upper surface upon which the rocker swings, and means for adjusting the pocket with respect to its support.

5. The combination of a channel-iron frame, a rocker-pocket inserted therebe- 25
tween, screws connected with the pocket and adapted to bear on the frame, and clamp-bolts for securing the pocket between the members of the frame.

6. The combination of a frame and a 30
rocker-pocket adjustably secured therein, of a rocker, a detachable rocker-seat or die upon which the rocker oscillates, a rocker-plate, a wear-plate, and a deck trace core secured together, the latter being adapted 35
to be secured to the machine to be rocked.

In testimony whereof I affix my signature.

CHARLES E. THOMPSON.