

C. S. LOCKWOOD.
 DOUBLE CASING LOCK FOR ROLLER BEARINGS.
 APPLICATION FILED JULY 1, 1912.

1,058,768.

Patented Apr. 15, 1913.

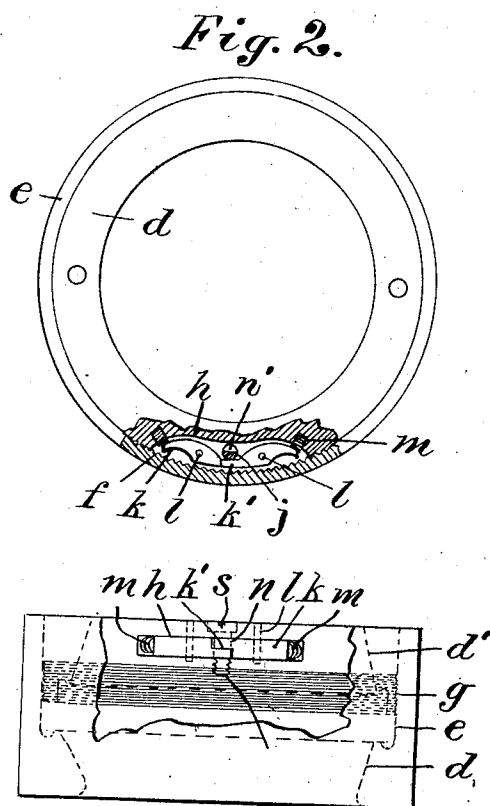
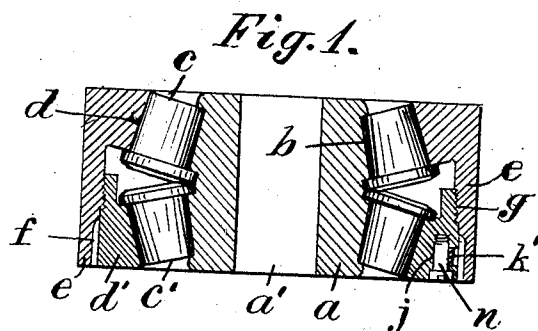


Fig. 3.

Witnesses
 L. Lee.
 J. Walter Drenthman.

Inventor
 Charles S. Lockwood,
 per Thomas S. Crane, atty.

UNITED STATES PATENT OFFICE.

CHARLES S. LOCKWOOD, OF NEWARK, NEW JERSEY. ASSIGNOR TO HYATT ROLLER BEARING COMPANY, OF HARRISON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

DOUBLE-CASING LOCK FOR ROLLER-BEARINGS.

1,058,768.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Original application filed January 4, 1912, Serial No. 669,450. Divided and this application filed July 1, 1912. Serial No. 706,927.

To all whom it may concern:

Be it known that I, CHARLES S. LOCKWOOD, a citizen of the United States, residing at 289 Market street, Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Double-Casing Locks for Roller-Bearings, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to self-contained roller bearings having a hub for application to a shaft, a casing inclosing a set of tapering rolls upon the hub, and having an inner section fitted adjustably within one end of the casing with a tapering roll-seat to embrace the outer sides of the rolls.

In this invention the adjustable section is threaded externally and fitted to an internal thread in the shell of the casing; and such shell in the present invention is also provided with a series of ratchet-teeth; and with the removable section, with two pawls located in a slot therein and projected in opposite directions, so as to engage the ratchet-teeth and resist the displacement of the adjustable section in either direction.

This application is a division of my application No. 669,450 filed January 4, 1912 for patent on casing lock for roller bearing.

The invention will be understood by reference to the annexed drawings, in which—

Figure 1 is a longitudinal section of a bearing containing the improvement; Fig. 2 is an end view of the inner and outer sections with a portion of each broken away to expose the slot and two hinged pawls pivoted therein; and Fig. 3 is an edge view of the bearing with the shell broken away to expose the perforation of the adjustable section.

a designates the hub having double conical seat *b* with rolls *c* and *c'* fitted thereto; the hub having a bore *a'* for securing it upon a shaft.

The casing is provided at one end with a tapering seat *d* fitted to embrace the rolls *c*, and at the other end with the cylindrical shell *e* having internal ratchet-teeth *f* near its outer end. Adjacent to the ratchet-teeth farther within the shell is a screwthread *g*, and a movable section *d'* having a tapering seat to embrace the rolls *e'* is provided with exterior thread to fit the thread *g*, and with

a peripheral slot *h* whose outer wall is formed at the middle of its length with a hole or perforation *j*. The slot is closed at both sides and both ends, and two pawls *k* are pivoted in the slot upon fulcrum-pins *l* and their outer ends formed to engage the ratchet-teeth *f* in opposite directions. Spiral-springs *m* are seated in the bottom of the slot beneath such outer ends to press them normally toward the ratchet-teeth. The tails *k'* of the pawls are formed to overlap one another at the middle of the slot adjacent to the perforation *j*, and a rotatable releasing-pin *n* is shown extended through the perforation and across the slot *h* and formed upon one side with a notch *n'* to clear the tails of the pawls when it is desired for them to engage the ratchet-teeth.

Fig. 2 shows the pin *n* turned with its convex side against the tails *k'*, thus drawing the free ends of the pawls out of the ratchet-teeth in opposition to the springs *m*. When the pin is turned in the opposite direction the pawls are free to engage the ratchet-teeth.

The head of the releasing-pin *n* is formed with a notch *s* for the insertion of a screw-driver or tool to rotate the pin, when setting the pawls in their operative or inoperative position.

To retain the releasing-pin in the perforation *j*, the inner end of the perforation is preferably threaded as shown in Fig. 3, and the inner end of the releasing-pin threaded to fit the same, so that several complete rotations of the pin are required when inserting it in its place to bring the head of the turning-pin flush with the outer side of the section *d'*, as shown in Fig. 3. The pin is thereafter held in the perforation by the engagement of the screw-threads.

It is immaterial whether a pin be located permanently in the perforation *j*, as the tails of the pawls can be reached temporarily by a pin at any time that it is desired to retract the pawls from the ratchet-teeth.

Having thus set forth the nature of the invention what is claimed herein is:

1. In a roller bearing, an adjustable self-locking casing having an outer section with a tapering roll-seat *d* in one end and a shell *e* upon the other end, and the shell provided internally with a series of ratchet-teeth *f* and an adjacent screw-thread *g*, an

inner section d' fitted adjustably to such screw-thread and having a tapering roll-seat upon its inner side and provided with a peripheral slot h inclosed upon both ends and sides and having a transverse hole j through its outer wall, two fulcrum-pins l extended across the slot, two pawls k pivoted thereon with their outer ends adapted to engage the ratchet-teeth in opposite directions and their tails k' overlapping adjacent to the hole j , springs m to press the pawls outwardly, and the tails k' thus accessible through the perforation for pressing them outwardly to detach the pawls from the ratchet-teeth.

2. In a roller bearing, an adjustable self-locking casing having an outer section with a tapering roll-seat d in one end and a shell e upon the other end, and the shell provided internally with a series of ratchet-teeth f and an adjacent screw-thread g , an inner section d' fitted adjustably to such screw-

thread and having a tapering roll-seat upon its inner side and provided with a peripheral slot h inclosed upon both ends and sides and having a transverse hole j through its walls with threaded socket in the inner wall, pawls k pivoted across the slot with their outer ends adapted to engage the ratchet-teeth in opposite directions and having their tails overlapping adjacent to the hole j , springs to press the pawls outwardly, and the rotatable releasing-pin n extended across the slot and into the threaded socket and formed with a notch n' to clear the tails of the pawls during their engagement with the ratchet-teeth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES S. LOCKWOOD.

Witnesses:

G. C. STULTS,
E. WILLIAMS.