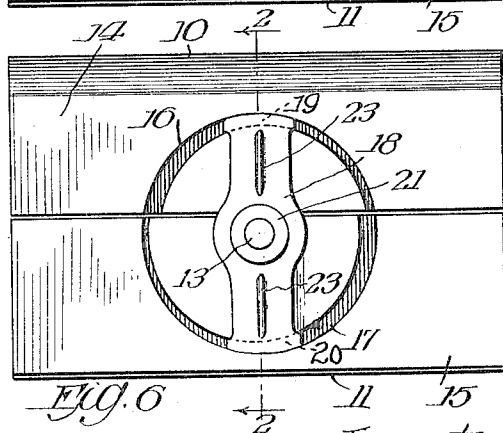
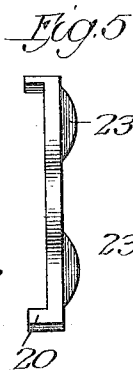
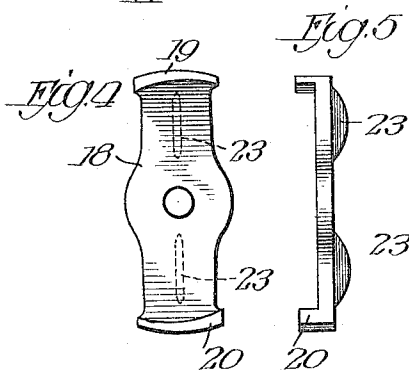
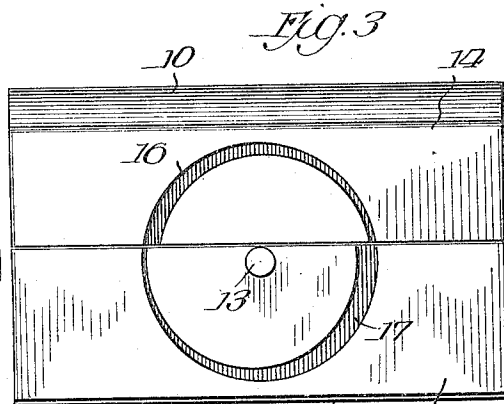
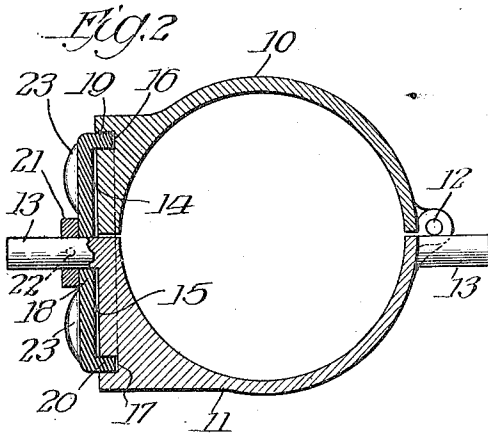
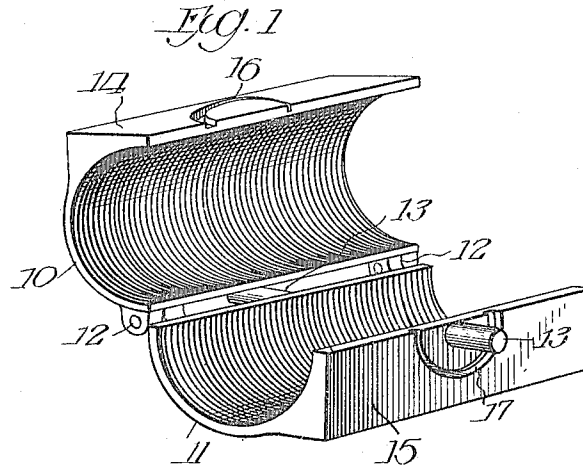


G. GRIFFITH.
FASTENING DEVICE FOR BOXES FOR MINE DRILLING MACHINES.
APPLICATION FILED MAR. 9, 1914.

1,123,731.

Patented Jan. 5, 1915.



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Att'y

UNITED STATES PATENT OFFICE.

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FASTENING DEVICE FOR BOXES FOR MINE DRILLING-MACHINES.

1,123,731.

Specification of Letters Patent.

Patented Jan. 5, 1915.

Application filed March 9, 1914. Serial No. 823,360.

To all whom it may concern:

Be it known that I, GEORGE GRIFFITH, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented certain new and useful Improvements in Fastening Devices for Boxes for Mine Drilling-Machines, of which the following is a specification.

This invention relates to improvements in fastening devices for joint bearings or boxes, particularly adapted, though not necessarily limited in its use with mine drills, and one of the objects of the invention is to provide an improved device of this character where- by the ordinary fastening pin heretofore used, may be dispensed with, and at the same time produce a more satisfactory and efficient fastening.

To the attainment of these ends and the accomplishment of other new and useful objects as will appear, the invention consists in the features of novelty in substantially the construction, combination and arrangement of the several parts hereinafter more fully described and claimed and shown in the accompanying drawing illustrating the invention, and in which,

Figure 1 is a perspective view of a mine drill box, showing the box open and constructed in accordance with the principles of this invention. Fig. 2 is a vertical sectional view taken on line 2—2, Fig. 6. Fig. 3 is a front elevation of the fastening end of the box, with the catch device removed. Fig. 4 is a front elevation of the catch. Fig. 5 is an end elevation of the catch. Fig. 6 is a view similar to Fig. 3 showing the catch in position.

Referring more particularly to the drawing and in the present form of the invention, the drill box consists of two sections 10 and 11 which are hinged together as at 12 in the ordinary and usual manner, and the section 11 is provided with the trunnions 13 which are journaled in the ordinary bearing to support the boxing.

The lateral faces 14 and 15 of the respective sections 10 and 11 are preferably flat as shown, and in the section 14 there is provided an eccentric groove 16 while in the face 15 is provided an eccentric groove 17, and these grooves are arranged to coöperate with each other, so that the smaller portion of one groove, or the smaller opening through the end of one groove, is adjacent the

larger opening of the other groove, when the members 10 and 11 are in a closed position with respect to each other.

Rotatively supported by the trunnion 13 adjacent the faces 15, 16 of the box members, is a catch 18, which is provided adjacent its extremities with cam shaped projections 19, 20, disposed in opposite direction with respect to each other, and are so arranged that when the catch 18 is mounted upon the trunnion 13, and is rotated in the proper direction, the cam 19 will enter the groove 16, while the cam 20 simultaneously enters the groove 17, to effectively secure the box members together.

In order to hold the catch against movement longitudinally on the trunnion 13, any suitable holding device may be provided, such for instance as a collar or sleeve 21 to stand adjacent the outer face of the catch, and which collar may be held on the trunnion in any suitable manner such as by means of a fastening device 22. To rotate the catch, wing shaped projections 23 are provided on the outer face thereof.

Thus it will be manifest that with this improved construction, all that is necessary, is to close the two members 10 and 11 against each other, when the grooves 16, 17 will be properly positioned, to receive the respective cam or eccentric projections 19, 20 on the catch 18. To open the box, the catch 18 is rotated in the opposite direction. It will also be noted that with this improved fastening device an effective lock is secured, and the movement of the boxing in its supporting bearings will not be interfered with.

While the preferred form and construction have been herein shown and described, it is to be understood that many changes may be made in the details of construction, and in the combination and arrangement of the several parts, without departing from the spirit of this invention.

What is claimed as new is:—

1. In a device of the character described, the combination of a hinged sectional drill bearing, one of said sections provided with laterally projecting supporting trunnions for the sections, and a catch carried by the said section and rotatably mounted upon one of the trunnions to extend across both sections, said catch having lateral projecting opposed eccentric cam shaped portions,

the adjacent lateral faces of the sections being provided with opposed eccentric shaped grooves opening through the edges of the sections for receiving the respective cam portions.

2. In a device of the character described, the combination of a hinged sectional drill bearing, one of said sections provided with laterally projecting supporting trunnions for the sections, a catch carried by the said section and rotatably mounted upon one of the trunnions to extend across both sections, said catch having lateral projecting opposed eccentric cam shaped portions, the adjacent lateral faces of the sections being provided with opposed eccentric shaped grooves opening through the edge of the sections for receiving the respective cam portions, and a fastening device connected with the trunnion for securing the catch against displacement.

3. In a device of the character described,

the combination of a hinged sectional drill bearing, one of said sections provided with laterally projecting supporting trunnions for the bearing, a catch carried by the said section and rotatably mounted upon one of the trunnions to extend across both sections, said catch having lateral projecting opposed eccentric cam shaped portions, the adjacent lateral faces of the sections being provided with opposed eccentric shaped grooves opening through the edges of the sections for receiving the respective cam portions, and projections arranged on opposite sides of the pivot of the catch for manipulating the latter.

In witness whereof, I hereunto subscribe my name to this specification in the presence of two witnesses.

GEORGE GRIFFITH.

Witnesses:

MARION E. SCHROCK,
E. W. JOHNSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."