

N. BERTRAND.
ADJUSTABLE JOURNAL BOX FOR DRIVEN SHAFTS.
APPLICATION FILED APR. 26, 1910.

967,313.

Patented Aug. 16, 1910.

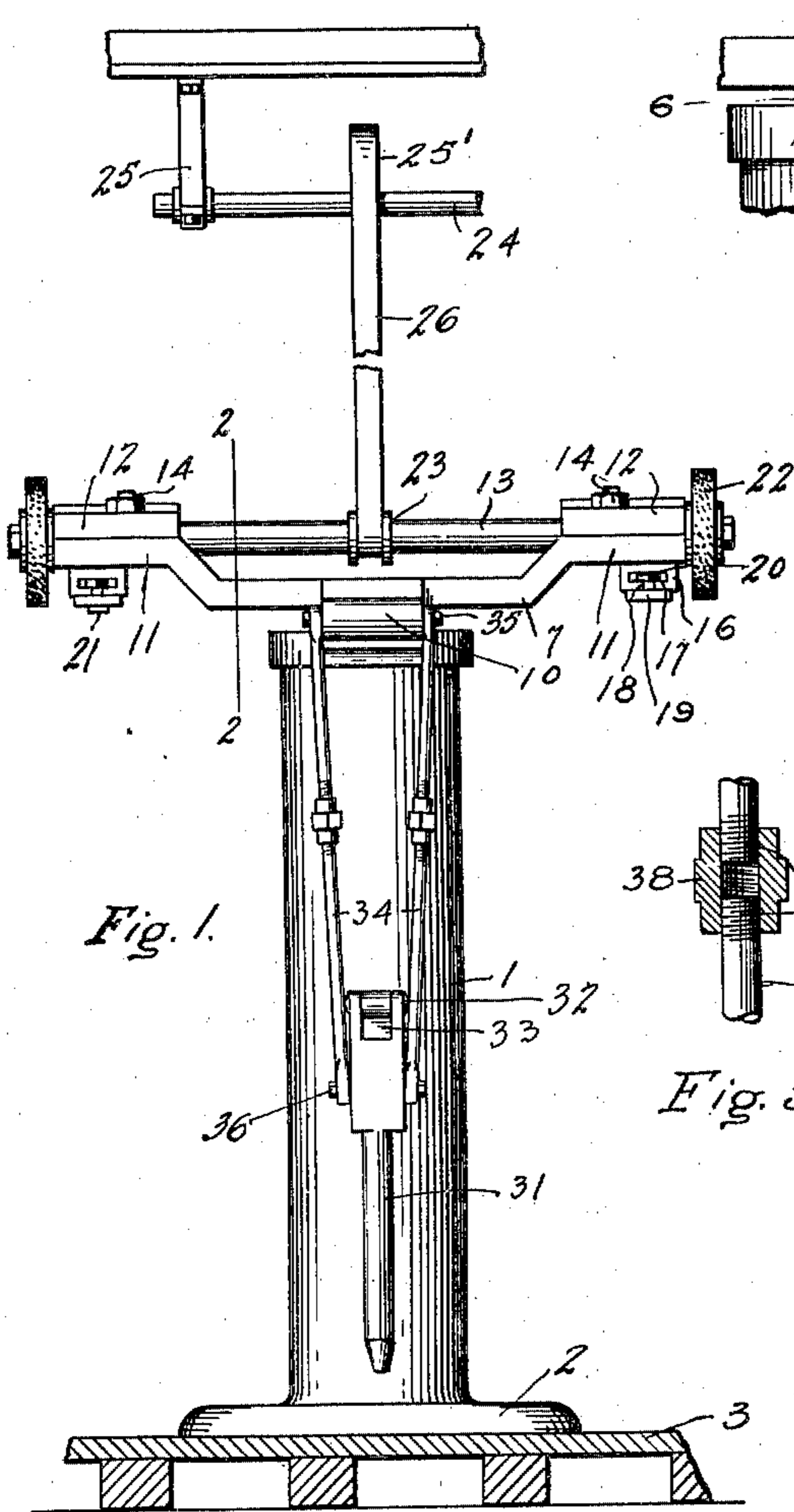


Fig. 1.

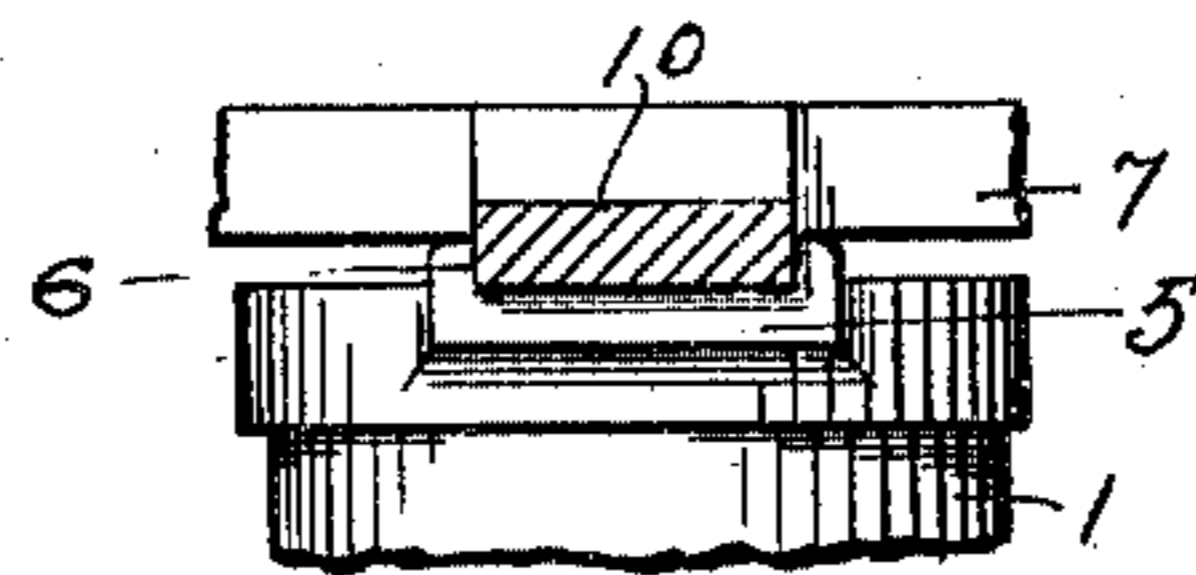


Fig. 3.

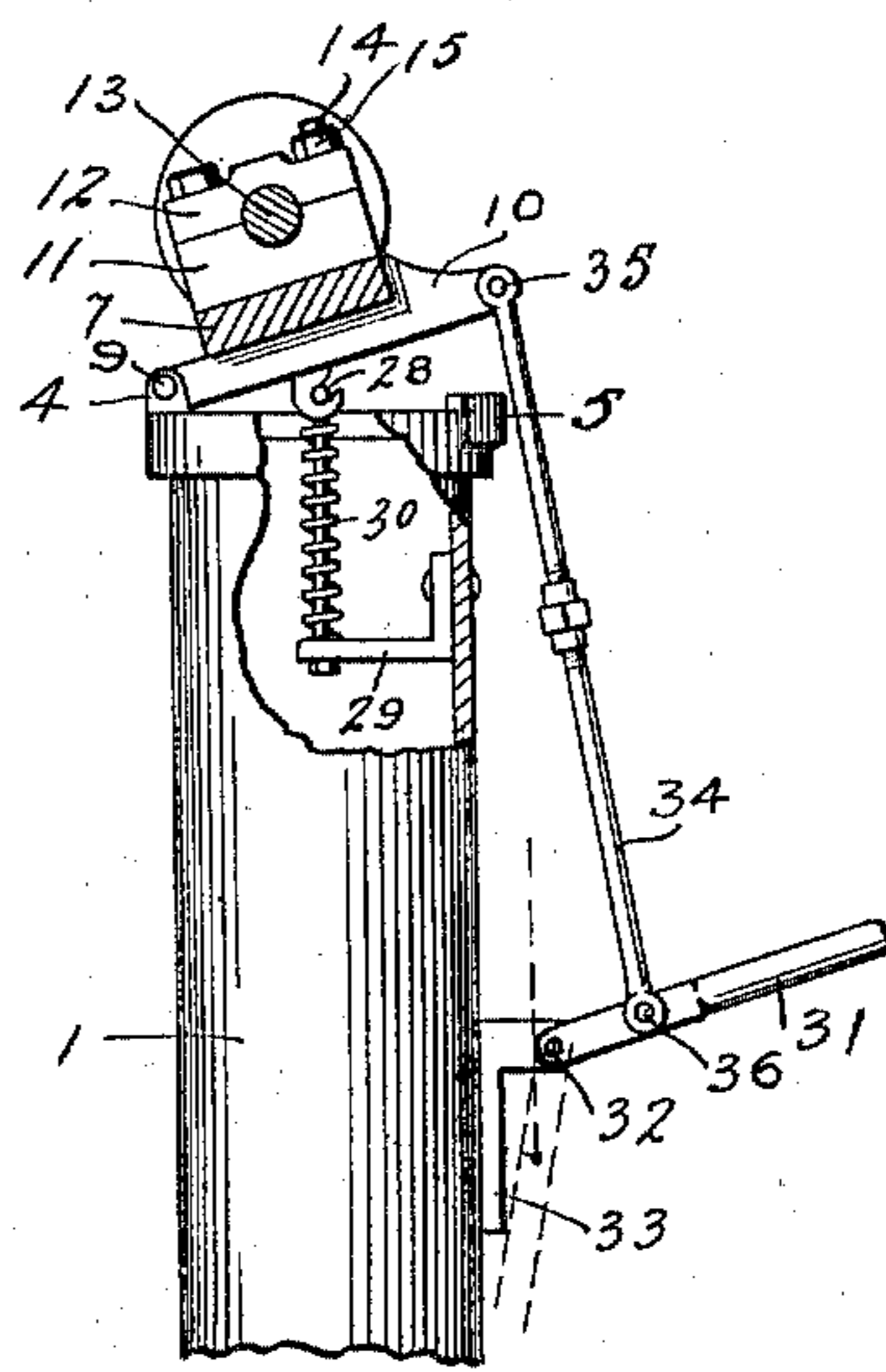


Fig. 2.

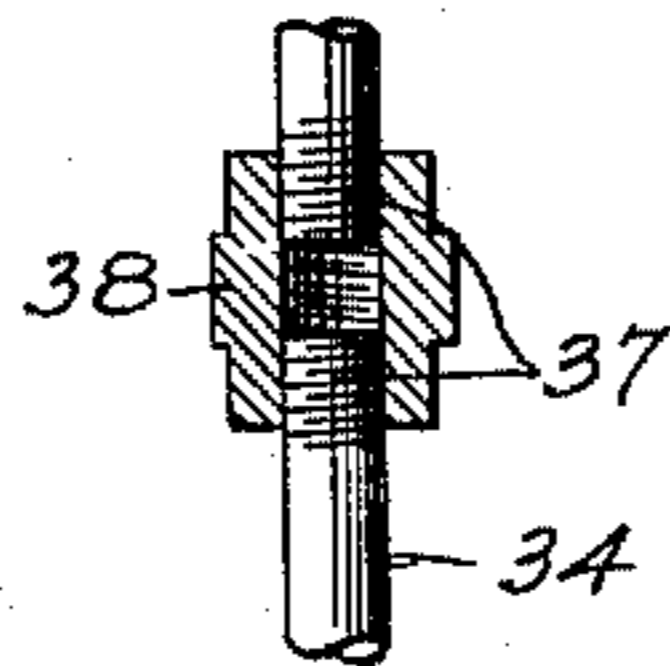


Fig. 5.

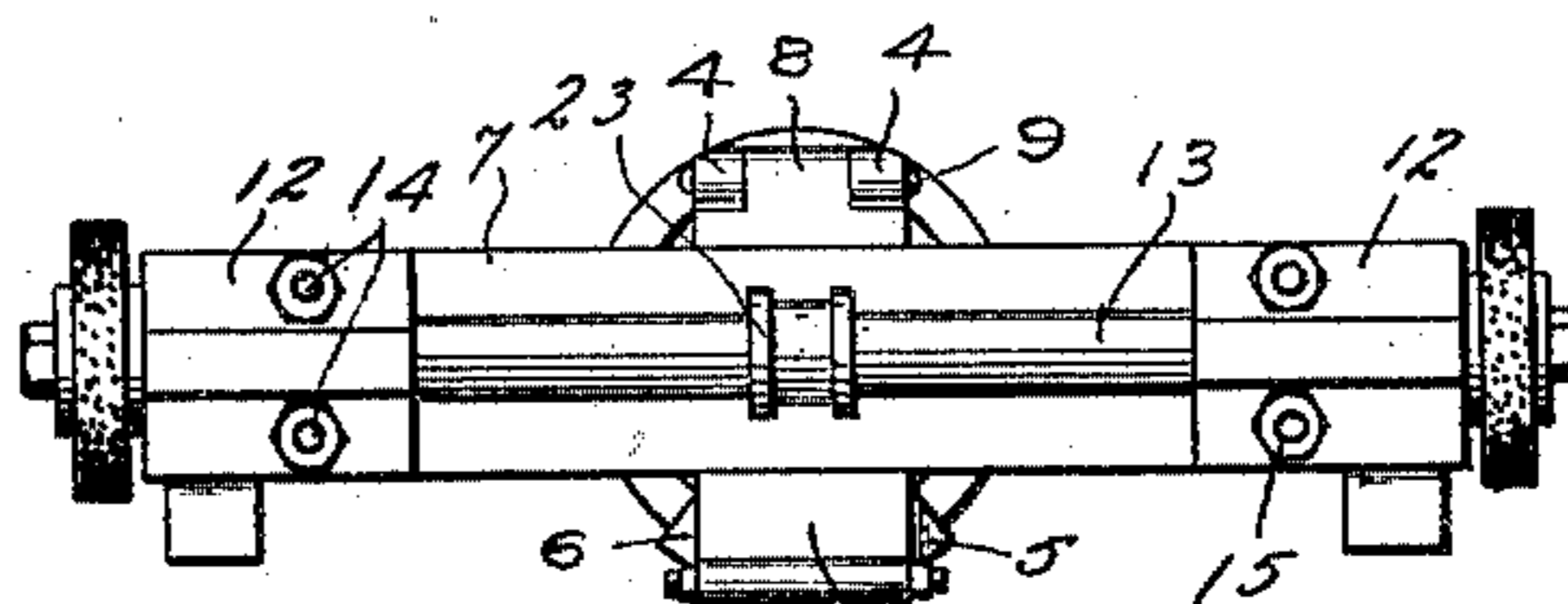


Fig. 4.

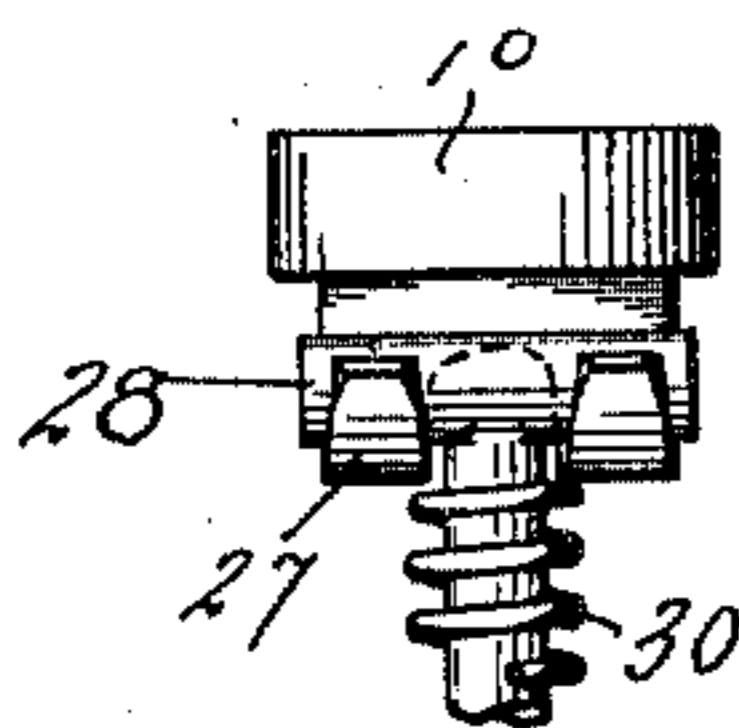


Fig. 6.

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ADJUSTABLE JOURNAL-BOX FOR DRIVEN SHAFTS.

967,313.

Specification of Letters Patent.

Patented Aug. 16, 1910.

Application filed April 26, 1910. Serial No. 557,668.

To all whom it may concern:

Be it known that I, NAZAIRE BERTRAND, a citizen of the United States, residing at St. Anne, in the county of Kankakee and State of Illinois, have invented certain new and useful Improvements in Adjustable Journal-Boxes for Driven Shafts, of which the following is a specification.

My invention relates to a machine for operating grinding stones, such as emery stones.

The object of this invention is to provide a machine of the above character, which is so constructed that the actuating shaft of the same may be started or stopped without the shifting of a belt.

A further object of this invention is to provide a device of the above character which is simple in construction, positive in its operation and cheap to manufacture.

In the accompanying drawings, forming a part of this specification, and in which like numerals are used to designate like parts throughout the same, Figure 1 is a front view of my machine. Fig. 2 is a side view of the same, parts being shown in section taken on line 2—2 of Fig. 1. Fig. 3 is a fragmentary enlarged detailed view of the body casting and supporting frame. Fig. 4 is a top plane view of the device, Fig. 5 is an enlarged detail view, showing one of the turn buckles in cross-section, and Fig. 6 is an enlarged front elevation of the tongue, and its claws, other parts being removed.

In the drawings, wherein is illustrated a preferred embodiment of my invention, the numeral 1 designates a cylindrical body casting or support, which is provided at its lower end with a circular base 2, which may be rigidly secured to the floor 3 by suitable means. The upper end of the casting 1 is open as shown, and is provided with knuckles 4, and diametrically with relation to these knuckles with an extension 5, provided with a socket 6. A substantially U-shaped frame 7 is provided centrally and upon one side thereof, with a knuckle 8, adapted to fit between the knuckles 4, and be pivotally connected to the same by means of a pintle 9, thus forming a hinged joint. This U-shaped frame is provided upon its opposite side and centrally thereof with a tongue 10, which is adapted to fit snugly within the socket 6. By the construction so far described, it is obvious that the U-shaped frame 7, is capable of being swung in a ver-

tical plane, and positively prevented from being moved in a horizontal plane when in its operative position, by virtue of the tongue 10 and socket 6.

The U-shaped frame 7 is provided with horizontal extensions 11, upon which are arranged caps 12. Each of the caps 12 and its cooperating extension 11, is provided upon their adjacent sides with semi-cylindrical openings to form a bearing for a grinder shaft 13. The caps 12 are held in place by means of bolts 14, which are rigidly secured upon the extensions 11, and are arranged within suitable openings formed through the caps 12, to extend upwardly beyond the same for engagement with nuts 15. Each of the extensions 11 is provided upon its lower side with a bracket 16, provided as shown with an opening 17 and slot 18. A work support 19 is adjustably secured to this bracket, by means of a bolt 20, the head of which is disposed within said opening 17. The bolt 20 carries a nut 21 which clamps said support 19 to the bracket 16, in a desired position. The grinding shaft 13 has rigidly secured to its ends, grinders 22, which may be emery stones, or the like. The grinding shaft 13 is provided at its center with a flanged pulley 23, which is fixedly secured to said shaft. A driving shaft 24 is journaled through fixed brackets 25, and may be driven by any desired form of motor, (not shown). As shown in Fig. 1, the driving shaft 24 is disposed above the shaft 13, and said shaft 24 is provided with a pulley 25' in vertical alinement with the flanged pulley 23. A belt 26 is trained about the pulleys 25' and 23, as clearly shown in Fig. 1.

The tongue 10 is provided near its center and upon its under surface with spaced curved prongs 27, adapted to removably hold one end of a T-shaped bolt 28. This T-shaped bolt extends downwardly within the casting 1 and is slidably mounted within an opening formed through an L-shaped bracket 29, rigidly secured to said casting 1. An expansible coil spring 30 is arranged upon the T-shaped bolt 29 to be compressed between the claws 27 and the L-shaped bracket 29. As shown in Fig. 2, the spring 30 normally holds the U-shaped frame 7 in a tilted position, so that the belt 26 will be slackened and rotation of the shaft 24 accordingly not imparted to the grinder shaft 13. Means are employed to force the U-

shaped frame 7 against the spring 29, to assume a substantially vertical position, which position may be termed its operative position. Such means comprise a lever 31 pivotally connected as at 32 to a bracket 33, which is rigidly secured to the casting 1 near its center, by any desired means. Pairs of connecting rods 34 are pivotally connected to the tongue 10 and the lever 31, by means of bolts 35 and 36 respectively. The rods 34 in each pair, have their adjacent ends screw threaded as shown at 37, for engagement with a turn buckle 38, as shown. By the employment of the turn buckles the proper length of the pairs of rods 34 may be adjusted to compensate for the wear upon parts by friction. When the lever 31 has been moved to its lowermost position, the same may be locked in such position by rotating the turn buckles 37 to draw the ends of the connecting rods 34 in each pair, toward each other.

From the above description and explanation, it is thought that the construction and operation of my machine has been made clear, and all further explanation of the same will be superfluous.

Having fully described my invention, I claim:—

1. In a machine of the character described, a support, a substantially U-shaped frame

pivotally mounted upon said support, a shaft journaled through said frame, said frame being provided with a tongue, said support being provided with a socket to receive said tongue, a lever pivotally connected to said support, pairs of connecting rods pivotally connected to said tongue and lever, and turn buckles connecting the ends of the rods in each pair to cause relative longitudinal movement between said rods in each pair.

2. In a machine of the character described, a support, a frame pivotally mounted upon said support, a shaft journaled through said frame, said frame being provided with a tongue, said support being provided with a socket to receive said tongue, said tongue being provided with spaced curved claws, a T-bolt arranged between said claws, a bracket rigidly connected to said support, and provided with an opening to slidably receive said T-bolt, a compressible coil spring arranged about said T-bolt and between said claws and bracket, and means to swing said frame in a vertical plane.

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

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Witnesses:

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