J. S. CARSWELL AND A. R. HAMMOND.

MOTOR BLOCK STAND.

APPLICATION FILED NOV. 6, 1917. RENEWED MAY 20, 1919.

1,326,147. Patented Dec. 23, 1919.

Fig. 4.

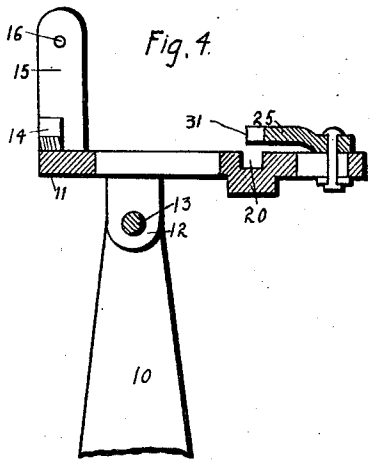


Fig. 3.

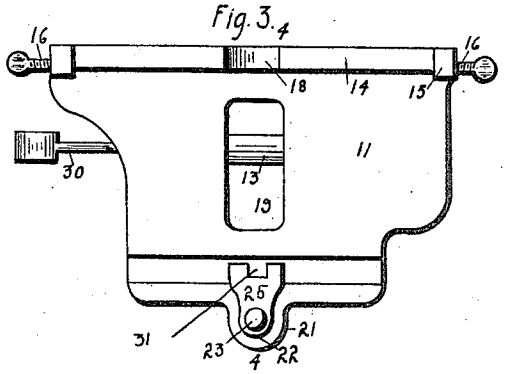


Fig. 1.

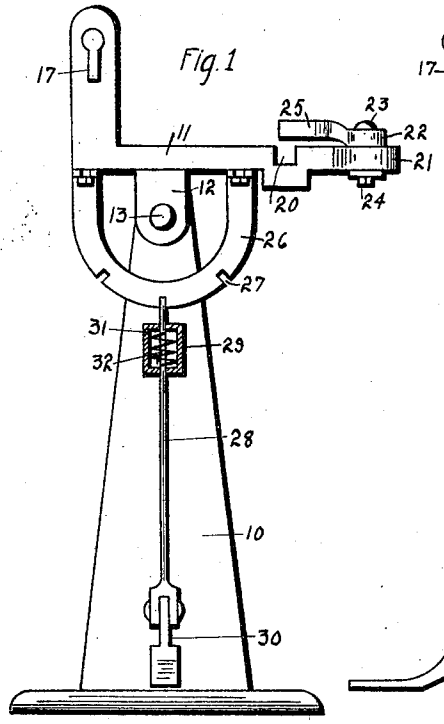
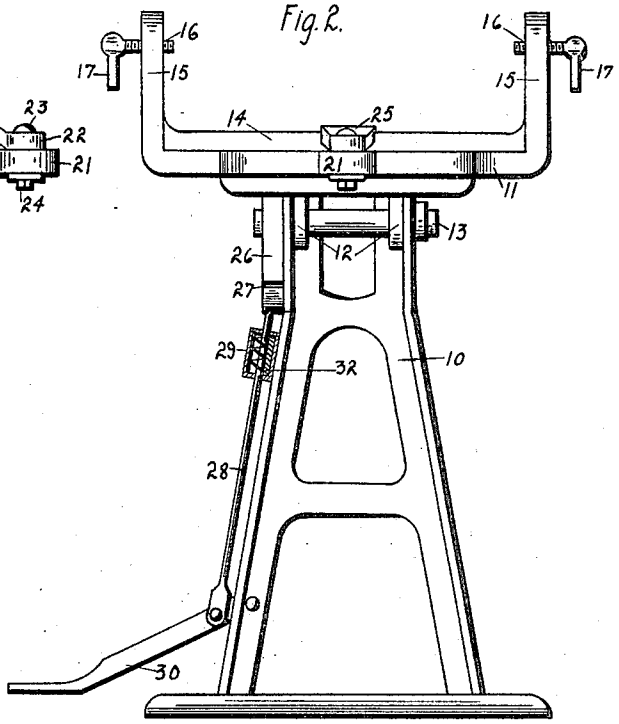


Fig. 2.



Witness

E. H. Buchanan.

Inventors.

Joseph S. Carswell

Amil R. Hammond

By Orwig & Bair ATTYS.

UNITED STATES PATENT OFFICE.

JOSEPH S. CARSWELL AND AMIL R. HAMMOND, OF BOONE, IOWA.

MOTOR-BLOCK STAND.

1,326,147. Specification of Letters Patent. Patented Dec. 23, 1919.

Application filed November 6, 1917, Serial No. 200,619. Renewed May 20, 1919. Serial No. 298,546.

To all whom it may concern:

Be it known that we, JOSEPH S. CARSWELL and AMIL R. HAMMOND, citizens of the United States, and residents of Boone, in the county of Boone and State of Iowa, have invented a certain new and useful Motor-Block Stand, of which the following is a specification.

The object of our invention is to provide a stand for supporting motor blocks in shops for working on said motor blocks, which stand is of simple, durable and inexpensive construction, and has parts peculiarly adapted for holding the motor block and for shifting the block to a variety of positions.

With this and other objects in view, our invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in our claim, and illustrated in the accompanying drawings, in which:

Figure 1 shows a front elevation of a motor block stand embodying our invention.

Fig. 2 shows an end elevation of the same.

Fig. 3 shows a top or plan view of said stand, and

Fig. 4 shows a vertical sectional view taken on the line 4—4 of Fig. 3.

In the accompanying drawings we have used the reference numeral 10 to indicate generally the supporting frame of our improved motor block stand.

At the top of the stand 10 is a platform 11, having spaced, downwardly extending ears 12. The ears 12 are rotatably mounted on short shafts or pins 13, at the top of the frame 10.

Near its rear edge the platform 11 is provided with an upwardly extending flange 14, on the ends of which are upwardly projecting arms 15. Mounted in the arms 15 are set screws 16, having pivoted to their outer ends handles 17. The flange 14 is formed with a central notch 18 in its upper edge. The platform 11 is also formed with a central opening 19 to permit access to the engine parts from below the platform.

Near its front edge the platform 11 is formed with a transverse slot or groove 20 to receive the flange found at the lower end of many engine blocks. Projecting forwardly from the portion of the platform 11 which has the slot 20, is an extension 21. Pivotally mounted on the extension 21 is a locking member 22 which is held in position by means of a bolt 23 extended through said locking member and through the extension 21, and which carries on its end a nut 24. By means of the nut 24 the locking member 22 may be securely fixed in any of its adjusted positions. The locking member 22 has a portion 25 which in one position of the locking member extends upwardly and rearwardly to position above a portion of the slot 20.

Secured to the lower surface of the platform 11 is a semi-circular bar or sector 26, having in its lower edge a plurality of notches 27.

Slidably mounted at the front of the frame 10 is an upright rod 28. The rod 28 is slidably mounted near its upper end in a bearing box 29. Pivoted to the forward portion of the frame 10 near the lower end thereof, is a pedal lever 30. The bearing box 29 is hollow, and mounted on the rod 28 within the upper portion of said bearing box is a stop member 31. Mounted on the rod 28 between the stop member 31 and the lower part of the bearing box 29, is a coil spring 32 which normally holds the rod 28 in its upper position where its upper end is in position to enter one of the notches 27. The lower end of the rod 28 is pivoted to the pedal 30.

In the practical use of our improved engine block stand, the platform 11 is arranged in horizontal position and the engine block is placed thereon with the upper portion thereof between the uprights 15. The screws 16 are adjusted to grip the engine block. The flange at the lower portion of the engine block to which the crank case is ordinarily secured, is placed in the slot 20 and the portion 25 of the locking member is swung around above the lower part of the engine block and locked in position by means of the bolt 23 and nut 24. Frequently the device is used without any adjustment of the nut 24 where engine blocks of the same kind are being repaired or worked on.

If it is desired to tilt the engine block to different positions for working on different parts or for making the various parts readily accessible, the operator steps on the pedal 30 for withdrawing the upper end of the rod 28 from the central notch 27, and can then tilt the platform 11 to any desired position and lock it in its adjusted position

by causing the upper end of the rod 28 to selectively enter the proper notch 27.

It will be noted that the portion 25 of the locking member 22 is shown with a notch at the central portion of its end and it is suggested that it has been found desirable where an engine block has a brace extending across its central portion to support the central crank shaft bearing. The notch may then be fitted around said brace to more securely hold the block from movement. When the engine block is secured in this way, the locking member 22 is merely reciprocated by the coöperation of the slot 20 and the bolt 23.

Some changes may be made in the construction and arrangement of the various parts of our improved engine block stand, without departing from the essential features and purposes thereof, and it is our intention to cover by our present application any such modified forms of structure or use of mechanical equivalents as may be reasonably included within the scope of the claim of the patent to be issued upon said application.

We claim as our invention:

In a device of the class described, a supporting stand, a platform mounted thereon, means for permitting said platform to rotate around a horizontal axis above said stand, means for locking said platform in various adjusted positions, a pair of spaced parallel arms extending upwardly from said platform at the back thereof, coacting locking members mounted at the upper ends of said arms, said platform having a groove adjacent to one edge, a movable retaining member adapted in one position to engage an engine block to hold the latter into said groove, and means for locking said movable member against movement relative to said platform.

Des Moines, Iowa, August 13, 1917.

JOSEPH S. CARSWELL.
AMIL R. HAMMOND.