

L. A. WILSON.
REPAIR STAND.
APPLICATION FILED JAN. 2, 1919.

1,415,968.

Patented May 16, 1922.

Fig. 1

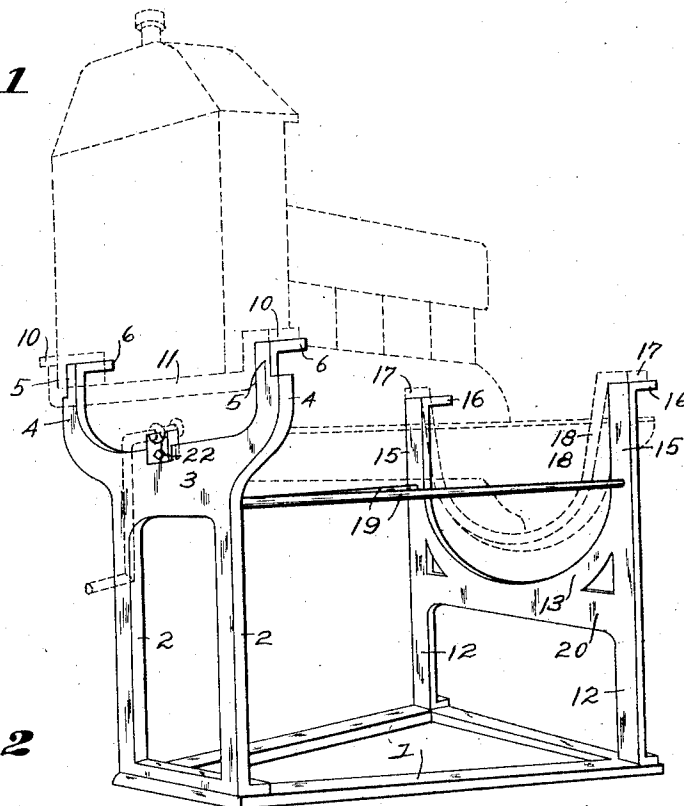
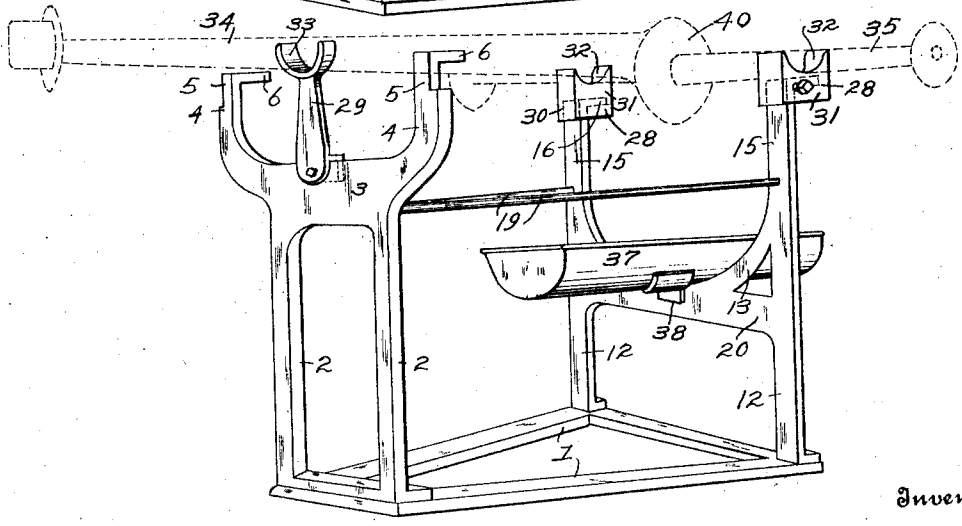


Fig. 2



Inventor

Witness
Facts.

Leslie A. Wilson
By Edwin E. Wheeler
Attorneys

UNITED STATES PATENT OFFICE.

LESLIE A. WILSON, OF BERLIN, WISCONSIN.

REPAIR STAND.

1,415,968.

Specification of Letters Patent. Patented May 16, 1922.

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To all whom it may concern:

Be it known that I, LESLIE A. WILSON, a citizen of the United States, residing at Berlin, county of Green Lake, and State of Wisconsin, have invented new and useful Improvements in Repair Stands, of which the following is a specification.

My invention relates to improvements in repair stands, adapted for use in a machine-shop or garage to facilitate repairing motors, rear axle housings, and other parts of motor driven vehicles.

In the drawings:—

Figure 1 is a perspective view of my invention as it is used for repairing or testing motors, the motor being indicated by dotted lines in the position in which it is supported by the stand.

Figure 2 is a similar view showing the stand as used for supporting an axle housing, the latter being indicated by dotted lines.

Like parts are identified by the same reference characters throughout the several views.

The stand comprises a base frame 1, having posts 2, at its front end, which support a head yoke 3 from which fork arms 4 project upwardly, and at their upper ends are provided with extensions 5, having rearwardly projecting lips 6, adapted to receive the end flanges 10 of the radiator base 11, these flanges being in common use to support the radiator and the front end of the motor from the main frame of a motor driven vehicle.

At the rear end of the base 1, a set of posts 12 support a yoke 13 having upwardly projecting fork arms 15 similarly provided at their upper ends with rearwardly extending rests or lips 16, adapted to receive the flanged upper ends 17 of the motor hangers 18, which are commonly used to support the rear end of the motor from the main frame of a motor driven vehicle.

The base of each fork arm 15 is connected with the head piece 3 substantially at the upper ends of the posts 2 by stay rods 19. The legs 12 are also preferably connected by a cross bar 20 with the middle portion of the yoke 13, these parts being preferably formed integrally.

The bow of the yoke 13 is of sufficient dimensions to receive the fly wheel case of the motor, and allow sufficient clearance for free access thereto from all sides. The cen-

tral portion of the yoke 3 is provided with an arcuate rest 22, adapted to receive the forward crank shaft bearing of the motor, whereby the motor at its front end may be supported at three points, i. e., by the flanges 10 of the hanger extensions of the radiator base, received by the lips 6, and the crank shaft bearing received by the rest 22. The rear end of the motor is supported at two points by the hanger lips 17 resting upon the fork lips 16.

It will be observed that the entire stand is organized in such a manner as to permit access to the motor and radiator from all sides, and to allow the motor to be started and tested while supported upon the stand.

In Figure 2, it will be observed that by applying a few simple attachments, my improved stand can be utilized to support an axle housing, or the housing of a transmission case. In Figure 2, the rear axle housing is supported by the rear fork, the transmission casing being supported in part by the rear axle housing, and in part by the front fork. To adapt the stand for this purpose, I provide the rear fork arms with detachable rests 28, and I also provide the yoke 3 with a detachable rest 29. Each of the rests 28 is provided with a recess in its under-surface, adapted to receive the fork arm 15, and at the upper end of this recess a rearward extension 31 thereof is adapted to receive the lip 16 carried by the upper end of the fork arm, whereby the rest may be securely held in interlocking engagement with the upper end of the fork arm, when manipulated into position thereon. The upper surface of the rest is concave in form, as indicated at 32, and is adapted to receive the rear axle housing.

The bearing member 22 on the head yoke 3 is preferably made removable, this member being formed with a channel in its lower surface, adapted to receive the upper margin of the yoke, whereby the bearing member may be loosely mounted on the yoke when in use. When it is desired to use the stand for the rear axle and transmission case, the attachment 29 is similarly mounted upon a head yoke, this attachment having a recess in its lower end which forms a fork, adapted to fit over the margin of the head yoke. The upper end of the attachment is provided with a concave bearing member 33, adapted to receive the cylindrical under-surface of the housing or casing 34, when the rear axle

housing 35 is in position on the attachment blocks 28.

A drip pan 37 is provided with a concave bottom conforming in curvature to the curvature of the rear yoke 13, and this drip pan is also provided with forked arms 33, adapted for interlocking engagement with the frame, whereby the drip pan will be held in position. It will be observed that this drip pan will be located directly below the differential gear casing 40, when the stand is being used as shown in Figure 2. The pan is of sufficient length so that it will also receive the drippings from the crank case of the engine when the device is being used as shown in Figure 1.

I claim:—

1. A repair stand for garage work, comprising a skeleton frame having upwardly extending supporting members at the front and rear of said frame, yokes integral with said supporting members and having upwardly projecting arms provided with rests for the hanger flanges of an engine body.
2. A repair stand for garage work, comprising a skeleton frame having upwardly extending supporting members at the front and rear of said frame, yokes integral with said supporting members and having upwardly projecting arms provided with rests for the hanger flanges of an engine body, and a bearing member supported from one of said yokes.
3. A repair stand for garage work, in-

cluding the combination of a skeleton frame provided with head and tail yokes, having upwardly extending arms adapted to support an engine body in position for operation, of a set of detachable members adapted for interlocking engagement with the arms of the tail yoke, and having concave upper surfaces adapted to receive and support a rear axle housing, and a member provided with a concave supporting surface, said member being mounted upon the head yoke substantially midway between its supporting arms.

4. A repair stand for garage work, including the combination of a skeleton frame provided with head and tail yokes, having upwardly extending arms adapted to support an engine body in position for operation, of a set of detachable members, adapted for interlocking engagement with the arms of the tail yoke and having concave upper surfaces adapted to receive and support a rear axle housing, a member detachably engaging a front yoke and extending upwardly therefrom and provided with a concave upper supporting surface, and a drip pan detachably mounted adjacent the central portion of the tail yoke.

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

LESLIE A. WILSON.

Witnesses:

A. A. WAWRZYNIAK,
FRIEDA ALBRECHT.