H. P. FREES.

WORK STAND FOR AUTOMOBILE ENGINES.

APPLICATION FILED SEPT. 19, 1918.

1,311,685.

Patented July 29, 1919.

Fig. 1

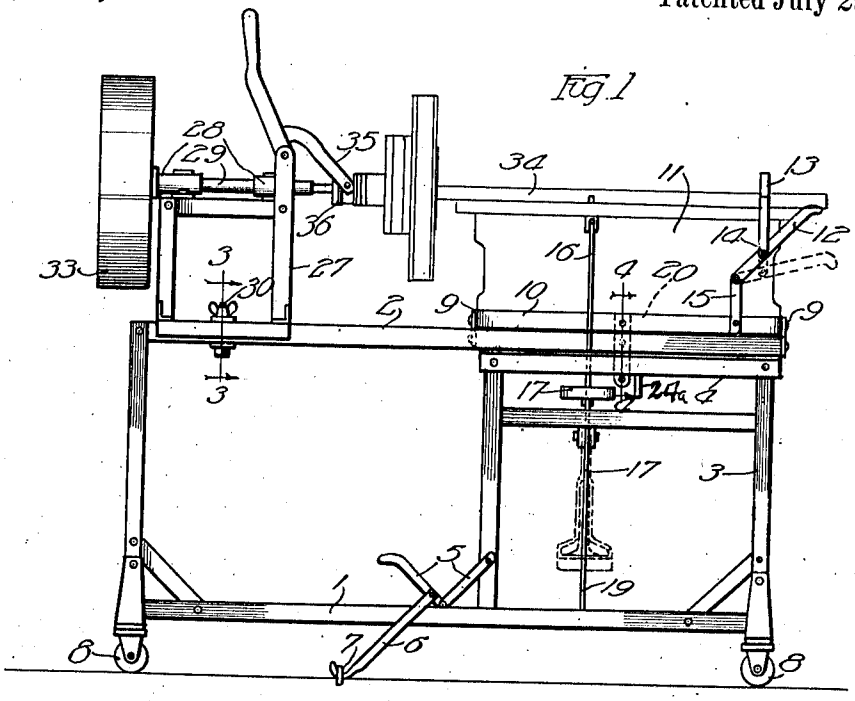


Fig. 2

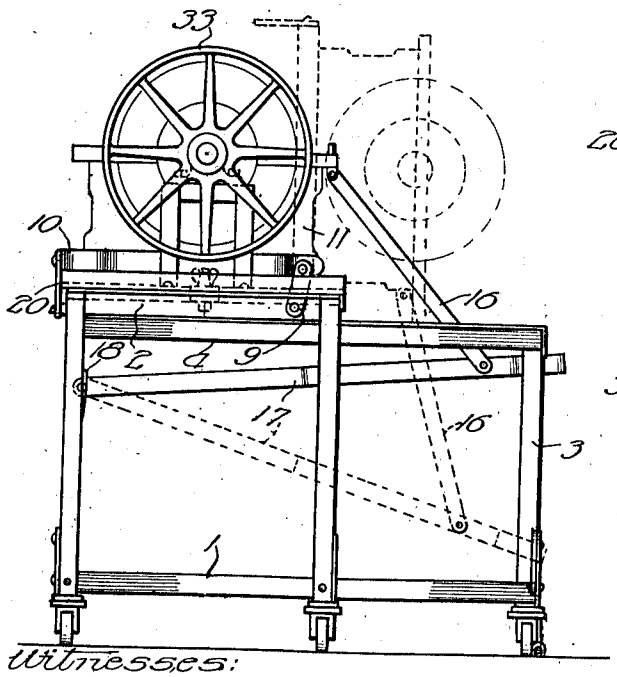


Fig. 4

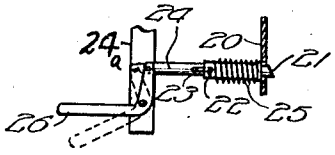
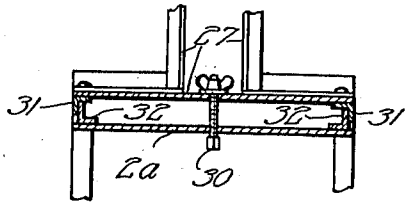


Fig. 3



Witnesses:
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UNITED STATES PATENT OFFICE.

HANS PETER FREES, OF BRAYTON, NEBRASKA.

WORK-STAND FOR AUTOMOBILE-ENGINES.

1,311,685. Specification of Letters Patent. Patented July 29, 1919.

Application filed September 19, 1918. Serial No. 254,798.

To all whom it may concern:

Be it known that I, HANS PETER FREES, a citizen of the United States of America, residing at Brayton, in the county of Greeley and State of Nebraska, have invented certain new and useful Improvements in Work-Stands for Automobile-Engines, of which the following is a specification.

This invention relates to improvements in work stands for engines and more particularly to a stand adapted primarily for Ford engines. One object is to provide a stand of this kind that can readily be moved from place to place as from one room in a work shop to another, readily clamped to the floor in the position desired and instantly connected up to the shop power. With the foregoing and other objects in view the invention consists in the combination and arrangement of parts to be hereinafter fully described, pointed out in the appended claims and illustrated in the accompanying drawing which forms a part of this specification and in which—

Figure 1 is a front view of my improved work stand illustrating its use.

Fig. 2 is an end view of Fig. 1.

Figs. 3 and 4 are sections taken, respectively, on the lines 3—3 and 4—4 of Fig. 1.

Like reference characters denote corresponding parts throughout the several views.

I provide a frame composed of the lower bars 1, upper bars 2, table 2^a and brace bars 3, one end of the frame being disposed immediately above or upon a table 4. Links 5 connecting bars 3 and 1 carry a depending link 6 adapted for engagement with a floor hook 7 whereby the frame may be anchored when desired. The machine is carried upon rollers 8 carried terminally by certain of the bars or legs 3. Secured to the upper bars 2 pivotally by the terminal links 9 is the motor block 10 adapted to receive the Ford motor 11 which is retained in position by the resilient levers 12, 13 which are pivotally connected by pin 14, the lever 12 being pivotally connected to the leg 15 rigidly carried by the said lever block. A pitman 16 pivotally connects the motor block to a slotted hand lever 17 fulcrumed to a cross piece 18 connecting two of the vertical bars 3 and a guide bar 19 secured in the frame extends through the slot in said hand lever and prevents lateral movement of the same. To one edge of the motor block remote from the links 9 a latch 20 is pivotally secured and adapted for engagement with the beveled free end of a bolt 21 which bolt is connected by pin 22 to the slotted portion 23 of a hand lever 24 which is fulcrumed to a piece 24^a secured to the table 4.

Normally a spring 25 encircling the bolt 21 and connecting the same and lever 24 retains the end of said bolt in engagement with a perforated portion of the latch 20. By depressing the handle 26 of said lever, however, the bolt is retracted and the latch freed, when the hand lever 17 may be depressed into the position shown dotted in Figs. 1 and 2 to tilt the motor and motor block into the position shown dotted in Fig. 2 to permit access to certain parts of the motor. A pulley block 27 carrying bearings 28 having journaled therein a transmission shaft 29 is adjustably secured by bolt 30 to the table 2^a, said bolt extending through a longitudinal slot formed in said table, said block being provided with angle irons 31 adapted to ride over similar angle irons 32 of table 2^a. The said pulley block is moved over the table 2^a to permit its pulley 33 at one end of shaft 29 to be moved into engagement with a power belt in the shop, and to permit the engine crank shaft 34 to be operatively connected by lever 35 to the said transmission shaft 29 to run the engine, said lever 35 being adapted for engagement with the motor clutch 36 to throw same into or out of engagement with shaft 29. In this manner a perfect running motor is provided upon the frame or bench in the shortest possible time. After the bearings have been adjusted the magneto may be tested out by taking amperage while the engine is running.

What is claimed is:—

1. In a work stand for automobile engines, a wheeled frame, locking means for said frame, a pulley block adjustably carried by said frame, a shafted pulley carried by said pulley block, a lever carried by said pulley block, a motor block carried by said frame and adapted for adjustment at right angles to the plane of adjustment of said pulley block, and manually operable means for adjusting said motor block upon said frame.

2. In a work stand for automobile engines, a wheeled frame, locking means for said frame, a pulley block adjustably carried by said frame, a shafted pulley carried by said pulley block, a lever carried by said pulley block, a motor block, links connecting

one side of said motor block to said frame, and manually operable means connecting said motor block and frame for moving said motor block relatively to said frame.

3. In a work stand for automobile engines, a wheeled frame, locking means for said frame, a pulley block adjustably carried by said frame, a shafted pulley carried by said pulley block, a lever carried by said pulley block, a motor block, motor fastening means carried by said motor block, links connecting one side of said motor block to said frame, and manually operable means connecting said motor block and frame for moving said motor block relatively to said frame.

4. In a work stand for automobile engines, a wheeled frame, locking means for said frame, a pulley block adjustably carried by said frame, a shafted pulley carried by said pulley block, a lever carried by said pulley block, a motor block, motor fastening means carried by said motor block, links connecting one side of said motor block to said frame, a latch pivotally carried at the opposite side of said motor block, a manually operable bolt carried by said frame and yieldingly engaging said latch, and manually operable means connecting said motor block and frame for moving said motor block relatively to said frame.

5. In a work stand for automobile engines, a wheeled frame, locking means for said frame, a pulley block adjustably carried by said frame, a shafted pulley carried by said pulley block, a lever carried by said pulley block, a motor block, motor fastening means carried by said motor block, links connecting one side of said motor block to said frame, a latch pivotally carried at the opposite side of said motor block, a manually operable bolt carried by said frame and yieldingly engaging said latch, a hand lever fulcrumed to said frame, and connection between said hand lever and said motor block.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two subscribing witnesses.

HANS PETER FREES.

Witnesses:
R. V. BROWN,
E. R. CLARY.