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1,826,493

ENGINE HEAD STAND

Filed July 23, 1930

2 Sheets-Sheet 1

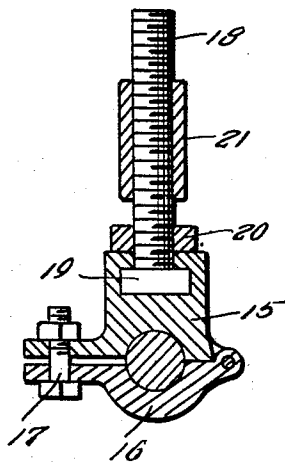
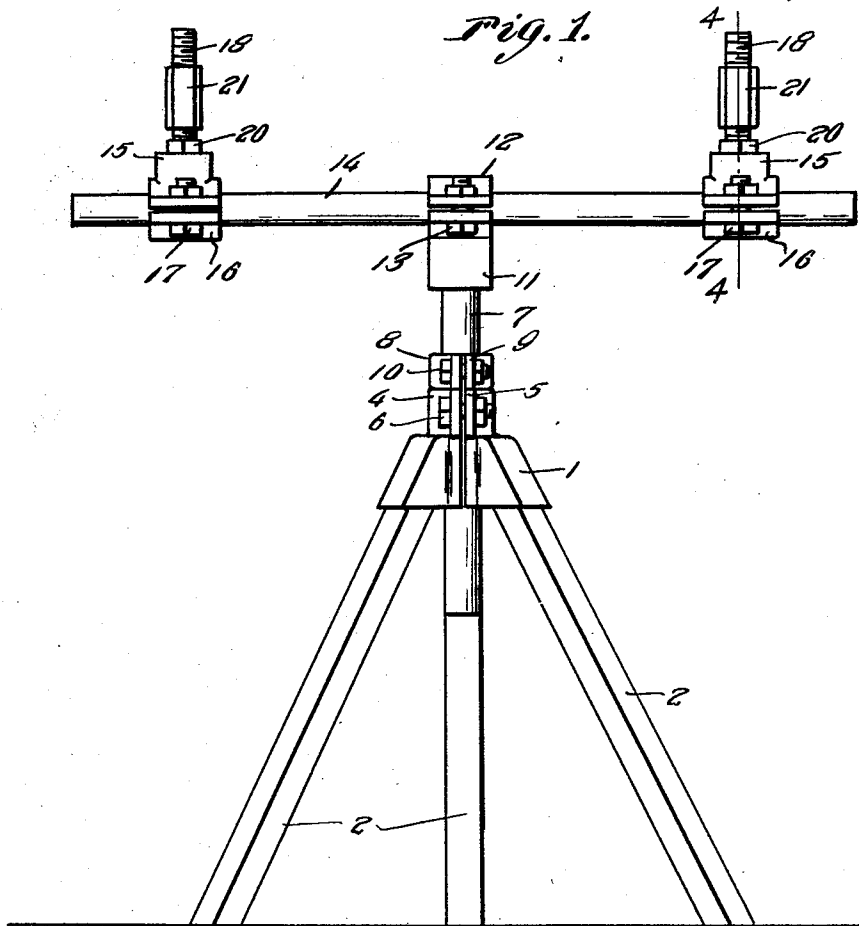


Fig. 4.

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Fig. 2.

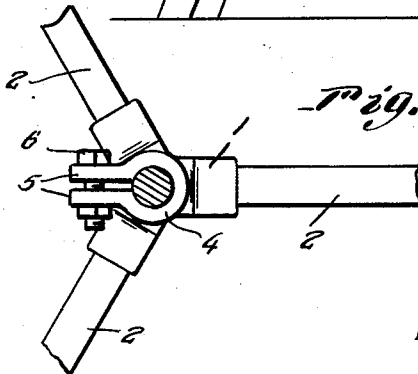
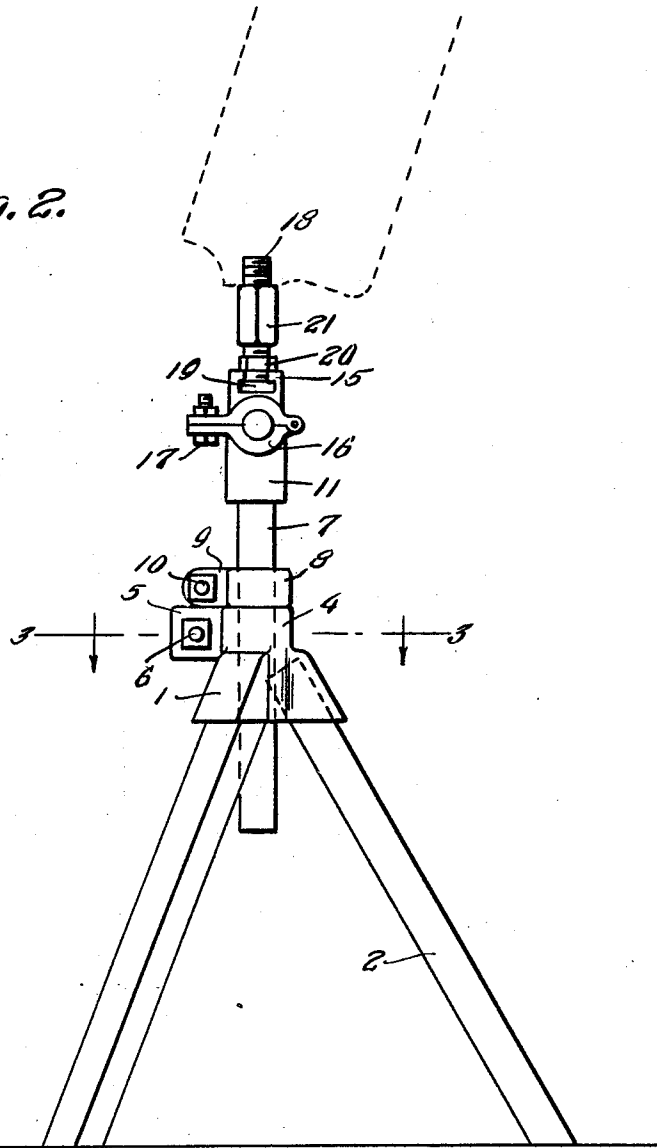


Fig. 3.

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UNITED STATES PATENT OFFICE

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ENGINE HEAD STAND

Application filed July 23, 1930. Serial No. 470,129.

This invention relates to new and useful improvements in engine head stands particularly for use in garages or other repair shops and has for one of its important objects to provide, in a manner as hereinafter set forth, an engine head stand which is adapted for use with different sizes and types of engine heads.

Another important object of the invention is to provide an engine head stand of the character described which is adapted to be expeditiously adapted and secured in adjusted position for supporting the engine head in any desired position when working thereon.

Other objects of the invention are to provide an engine head stand which will be simple in construction, strong, durable, efficient in its use and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention may become apparent from a study of the following specification, taken in connection with the accompanying drawings wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a view in elevation of a stand constructed in accordance with this invention.

Figure 2 is a view in elevation taken substantially at right angles to Figure 1.

Figure 3 is a horizontal sectional view taken substantially on the line 3—3 of Figure 1 looking in the direction indicated by the arrows.

Figure 4 is a sectional view taken substantially on the line 4—4 of Figure 1.

Referring to the drawings in detail, it will be seen that the reference numeral 1 designates a split metallic base which is socketed to receive the upper end portions of the three downwardly diverging supporting legs 2. The base 1 includes the integral split sleeve 4 from which the integral apertured ears 5 project and through which the clamping bolt 6 passes.

A post 7 of circular cross section is disposed for rotary and vertical adjustment in the sleeve 4 and extends downwardly through the

base 1 between the upper portions of the supporting legs 2. The post 7 is secured in adjusted position by the clamping bolt 6 which, as will be apparent, is adapted to draw the ears 5 together in a manner to contract the sleeve 4 on the post 7. A split ring 8 is adjustably mounted on the post 7 and adapted to rest on the sleeve 4 for supporting the post 7 when the sleeve 4 is loosened to adjust the stand. The ring 8 is provided with the opposed, integral, apertured ears 9 through which the clamping bolt 10 passes. The ring 8 is adapted to be secured in any desired position on the post 7.

A clamping head 11 is mounted on the upper end of the post 7 and includes the hinged cap or jaw 12 and the securing bolt 13. A horizontally disposed bar 14 is adjustably clamped on the head 11. Clamps 15 are mounted for longitudinal adjustment on the bar 14 on opposite sides of the head 11 and, as best seen in Figure 4 of the drawings, include the hinged caps 16 which are secured in clamping position by the bolts 17. Threaded bolts 18 are rotatably mounted on each of the clamps 15 through the medium of the circular heads 19 which are rotatably disposed in sockets provided therefor in said clamps 15. The bolts 18 are secured against rotation through the medium of the lock nuts 20 which are threaded thereon for engagement with the clamps 15. Elongated nuts 21 are fixed on intermediate portions of the bolts 18 to receive a wrench or other actuating tool for rotating said bolts 18.

In use, the clamps 15 are secured in the desired adjusted positions on the bar 14 and the lock nuts 20 are threaded away from the clamps 15 on the bolts 18.

The device is connected to the engine head by removing the bar 14 from the head 11 by swinging the cap or jaw 12 to open position and threading the bolts 18 into the spark plug holes of the head while said head is still disposed on the engine block. In this manner the bar 14 may be utilized as a handle for lifting the head from the block and replacing same. When the head is removed from the block the bar 14 is again mounted on the clamping head 11 and secured in the desired

position by the cap 12 in an obvious manner. The removability of the bar 14 constitutes an important feature of this invention.

After the bolts 18 are engaged with the head the lock nuts 20 are again engaged with the clamps 15 for securing the bolts 18 against rotation. The bar 14 may be expeditiously adjusted vertically through the medium of the clamping sleeve 4 which encircles the post 7, as before explained. When the clamping sleeve 4 is loosened, the bar 14 may be rotated in a horizontal plane to any desired position and said bar 14 and the post 7 are rotatably supported by the ring 8. The ring 8 may be secured in any desired position on the post 7 for rotatably supporting said post in any desired position when the clamping sleeve 4 is loosened. The bar 14 may be shifted longitudinally relative to the head 11 by simply loosening the hinged cap 12, as will be apparent.

It will thus be seen that an engine head stand has been provided which may be expeditiously adjusted to adapt same for connection with different sizes and types of heads and which may also be adjusted to support the head in any desired position for rendering it convenient to work thereon.

It is believed that the many advantages of an engine head stand constructed in accordance with this invention will be readily understood, and although the preferred embodiment of the invention is as illustrated and described, it is to be understood that changes in the details of construction may be had which will fall within the scope of the invention as claimed.

What is claimed is:

1. An engine head stand of the character described comprising a base, a post mounted for vertical adjustment on the base, a clamping head on the upper end of the post, a horizontally disposed bar adjustably mounted transversely on the clamping head, a pair of clamps mounted for longitudinal adjustment on the bar, a threaded bolt rotatably mounted in each clamp and projecting therefrom and adapted for threaded engagement with an engine head, means for securing the bolts against rotation, and means on the bolts for manually rotating the same.

2. An engine head stand of the character described comprising a base, downwardly diverging supporting legs for the base, a post mounted for vertical sliding adjustment in the base, means on the base for securing the post in adjusted position, a ring adjustably mounted on the post for rotatably supporting the same on the base, a clamping head on the upper end of the post, a horizontally disposed bar adjustably mounted transversely on the clamping head, a pair of clamps mounted for longitudinal adjustment on the bar on opposite sides of the clamping head, a bolt projecting from each clamp and rotat-

ably secured thereon, said bolts adapted for threaded engagement with the engine head, a lock nut threaded on each bolt for engagement with the respective clamp for releasably securing the bolts against rotation, and a nut fixed on each bolt at an intermediate portion thereof for manually rotating said bolts.

3. An engine head stand of the character described comprising a split socketed base, downwardly diverging supporting legs depending from the base, an integral split clamping sleeve on the base, a post mounted for vertical adjustment in the sleeve, means for clamping the sleeve on the post, a ring adjustably mounted on the post for rest on the sleeve for rotatably supporting the post in the sleeve when said sleeve is loosely disposed around the post, and means for supporting the engine head on the post.

4. An engine head stand of the character described comprising a split socketed base, downwardly diverging supporting legs depending from the base, an integral split clamping sleeve on the base, a post mounted for vertical adjustment in the sleeve, means for clamping the sleeve on the post, a ring adjustably mounted on the post for rest on the sleeve for rotatably supporting the post in the sleeve when said sleeve is loosely disposed around the post, and means for supporting the engine head on the post, said means comprising a clamping head on the upper end of the post, an elongated bar mounted for horizontal adjustment transversely in the head, a pair of clamps mounted for longitudinal adjustment on the bar on opposite sides of the clamping head, a bolt rotatably mounted in each of the clamps and projecting therefrom for threaded engagement with the head, a lock nut threaded on each bolt for engagement with the respective clamp for securing said bolt against rotation, and a nut fixed on an intermediate portion of each bolt for manually rotating said bolt.

In testimony whereof I affix my signature.
S. LEONARD BAHRMAN.