J. O'BRIEN.

ENGINE SUPPORTING BRACKET.

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1,274,074. Patented July 30, 1918.

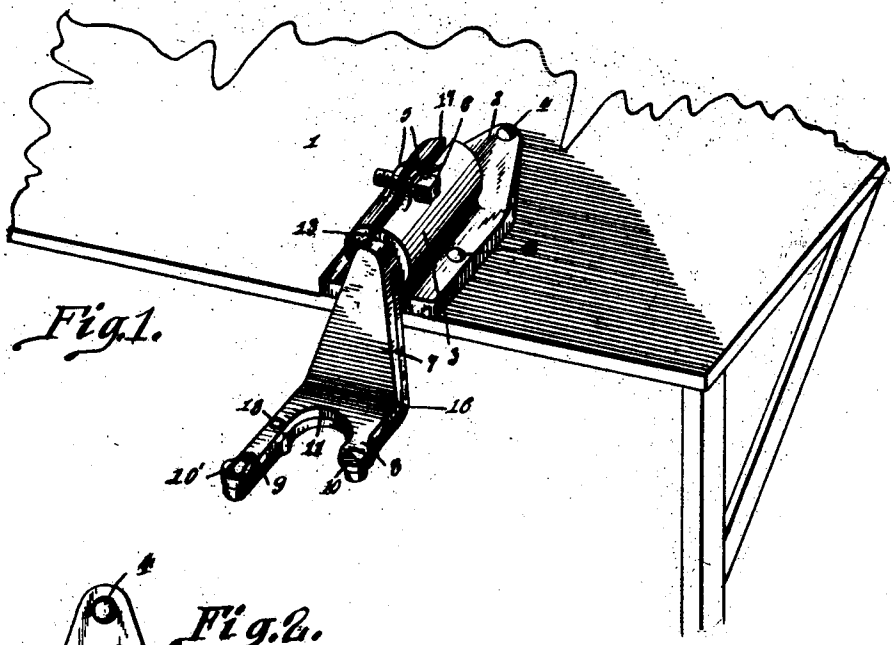


Fig. 1.

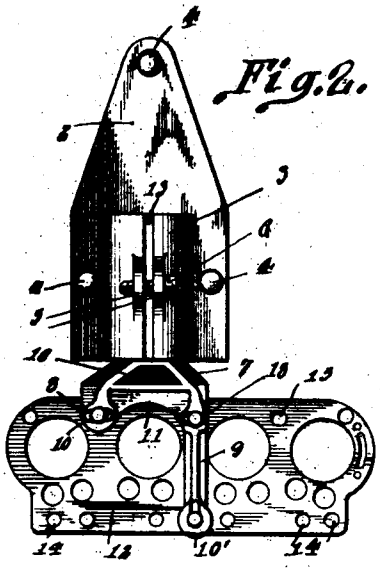


Fig. 2.

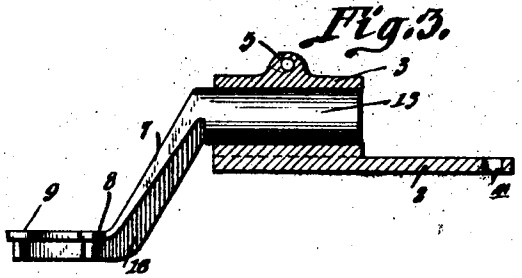


Fig. 3.

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ENGINE-SUPPORTING BRACKET.

1,274,074. Specification of Letters Patent. Patented July 30, 1918.

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To all whom it may concern:

Be it known that I, JOSEPH O'BRIEN, a citizen of the United States, residing at Lucas, in the county of Russell and State of Kansas, have invented certain new and useful Improvements in Engine-Supporting Brackets, of which the following is a specification.

This invention relates to new and useful improvements in supporting brackets, and more particularly to a bracket for holding gas or similar types of engines.

The object of this invention is to provide a bracket for securely holding an engine unit and positioning the same, so that the cylinders may be readily accessible for cleaning, reboring, etc.

With the above and other objects in view, the invention embodies certain novel features of construction and arrangement of parts which are more clearly brought out in the specification and shown in the drawings attached hereto.

In the drawings:—

Figure 1 is a perspective view showing the support as it is attached to a work bench.

Fig. 2 is a top plan view of the support with the bracket reversed, and showing an engine unit bolted thereto.

Fig. 3 is a sectional view showing the manner in which the bracket is fastened in the clamp.

Referring to the drawings in which like numerals designate like parts in each of the several views, the numeral 1 designates an ordinary work bench, to which the base 2 is secured by means of bolts 4.

The engine unit bracket proper 7 has a spindle 13, which engages a clamping means 3 formed on the base plate 2, said means consisting of a hollow cylinder, of spring steel, being split as at 17. A pair of oppositely disposed ears 5 are formed on the upper face of this cylinder, having a screw threaded bore for receiving a clamping bolt 6 passing transversely therethrough and which draws the cylinder together, thus reducing the size of the bore and holding the spindle from revolving therein.

The bracket 7 has a depending portion which is slightly at an angle, to allow for the clearance of the work bench, and has a reinforcing web 16 to withstand the heavy weight of the engine unit. The lower portion of the bracket forms a holding means for the engine unit, being disposed in substantially parallel relation to the longitudinal axis of the spindle 13, and terminating in two arms 8 and 9 having bolt openings 10 and 10′ bored in the outer ends thereof. The central portion between the two arms is cut away, as shown at 11, for a purpose to be described later. At the inner end of the long arm 9 and in a line parallel with the bolt opening 10, is a third bolt opening 18.

Fig. 2 of the drawings shows clearly the manner in which the engine unit is secured to the bracket. When it is desired to rebore the cylinders of the engine, or clean them, the cylinder head is removed, and the unit is then placed in position in the bracket in the manner shown, so that the attaching arms will lie in a plane between approximate cylinder bores, and the openings 10, 10′ and 18 register with the corresponding openings 14 and 15 in the unit, and the engine unit is then secured to the bracket by means of bolts screwed into these openings.

Thus, it will be seen that with this arrangement, the unit is securely held, and by the particular shape of the bracket there are no obstructions to prevent free access to the cylinders. By the use of the clamp as above described, the bracket can be revolved to place it at an angle which is most convenient to the operator.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a device of the character set forth, the combination with a support comprising a base, means for securing the same in place, a split clamping sleeve on the base, and means for contracting the sleeve, of a work holder comprising a spindle journaled in the sleeve and adapted to be clamped thereby upon its contraction, said holder having outwardly extending arms sufficiently spaced apart to straddle the bore of an engine cylinder and having bolt receiving

openings adapted to aline with the bolt openings of such engine cylinder.

2. In a device of the character set forth, the combination with a support, of a bracket movably mounted thereon and having spaced work engaging arms provided with openings for alinement with the ordinary bolt openings of the work and for the reception of bolts passed through the latter to secure the work to the bracket.

3. In a device of the character set forth, the combination with a support, of a bracket having a spindle rotatably mounted therein and having work engaging arms of different lengths, spaced apart to leave the bore of an ordinary engine cylinder connected to said arms unobstructed, said arms having openings for alinement with the ordinary bolt openings of such engine and for the reception of bolts passed through the latter to secure the engine to the bracket.

4. In a device of the character set forth, the combination with a base plate having means for securing it to a work bench or other support, and a split sleeve on the upper side of and integral with said base, of means for contracting the sleeve, a spindle journaled in the sleeve and adapted to be clamped thereby upon its contraction, said spindle having offset spaced arms of different lengths arranged substantially parallel to the axis of the spindle and sufficiently spaced apart to straddle the bore of an engine cylinder, said arms both having bolt receiving openings adapted to aline with the openings in the engine cylinder.

5. In a device of the character set forth, the combination with a support, of a bracket rotatably mounted thereon, means for clamping the bracket against rotary movement and in different positions, said bracket having an extended portion disposed transversely to its axis of rotation and provided with a plurality of openings for alinement with the ordinary bolt holes of an engine cylinder block on one side of the piston bores thereof and adapted to receive bolts placed in said openings, and said bracket furthermore including an arm projecting outwardly from the transverse portion and adapted to extend across such cylinder block between adjacent bores, said arm having an opening in its free terminal portion adapted to aline with a bolt hole of the block on the opposite side of the bores to the transverse portion and adapted to receive a bolt placed therein.

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

JOSEPH O'BRIEN.

Witnesses:
R. A. WALKER,
FRANK N. BANCROFT.