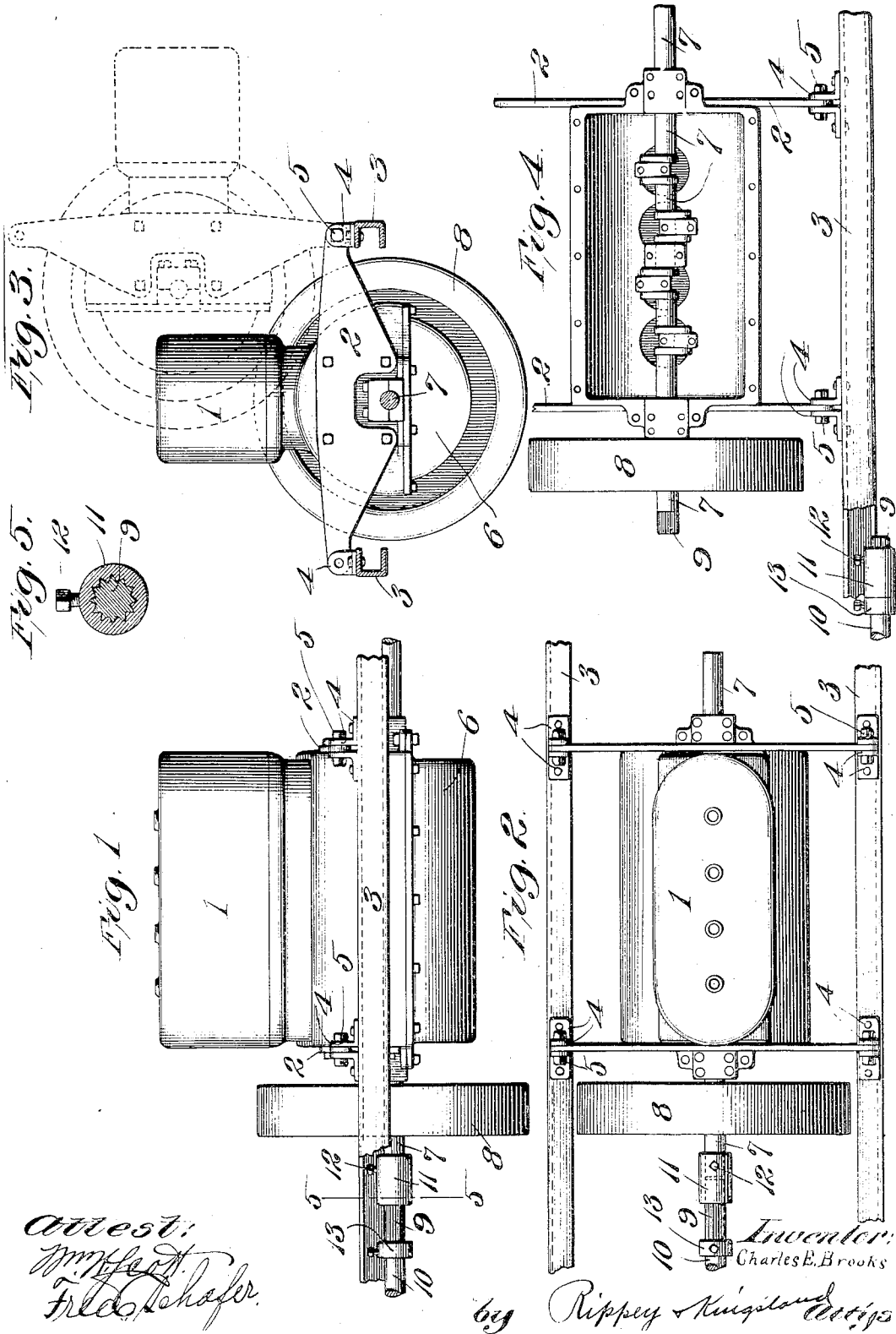


C. E. BROOKS.
ENGINE MOUNTING.
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1,056,253.

Patented Mar. 18, 1913.



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UNITED STATES PATENT OFFICE.

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ENGINE-MOUNTING.

1,056,253.

Specification of Letters Patent.

Patented Mar. 18, 1913.

Application filed May 29, 1911. Serial No. 630,212.

To all whom it may concern:

Be it known that I, CHARLES E. BROOKS, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have
5 invented a new and useful Engine-Mounting, of which the following is a specification.

This invention relates to mountings for engines, and more particularly for engines
10 on automobiles and the like, and consists in the novel combination and arrangement of parts hereinafter shown, described and claimed.

Heretofore considerable difficulty has
15 been experienced in adjusting, repairing and cleaning the working parts of engines on automobiles, by reason of their inaccessible position.

An object of the present invention, therefore, is to overcome this difficulty, and to provide an improved mounting for the engine, whereby the working parts thereof
20 may be brought to a convenient and readily accessible position, in order that the same
25 may be conveniently adjusted, repaired or cleaned.

Another object is to provide means for readily disconnecting the crank shaft of the engine from the transmission shaft; other
30 objects will be apparent from the following description, taken with the drawings in which—

Figure 1 is a side elevation of the engine and support, showing the connection between the crank shaft of the engine, and the transmission shaft. Fig. 2 is a plan
35 view of the same parts. Fig. 3 is a front view of the engine and supporting yoke, the engine in vertical position being shown in dotted lines. Fig. 4 is a side view, showing the engine in vertical position, with the bottom plate removed, and the crank shaft exposed. Fig. 5 is a sectional view on the line
40 5—5 of Fig. 1 showing the detail of the coupling device.

The engine 1 is supported by yokes 2, preferably removably connected to the engine, and having their ends extending above the longitudinal beams 3, said beams 3 constituting the sides of the automobile frame or chassis. On the upper face of said beams
50 3 is secured sets of ears 4, spaced so as to receive the ends of the supporting yokes 2. Each set of ears 4 have holes therein, which
55 register with a hole near the outer ends of

each yoke, through which hole a hinge pin or bolt 5 is passed, securely holding the engine in normal position. It will be apparent that the bolts or hinge pins 5 on
60 either side may be removed, and that the yokes and carried parts may be raised to vertical position, and are supported by the beam on the opposite side of the frame or chassis, the ears and bolts or hinge pins 5
65 constituting hinges or pivots, on which the engine yokes operate in the manner illustrated in Fig. 3. Thus it will be observed that the engine may be raised either to the right or to the left, bringing the working
70 parts of the engine to the most convenient and accessible position for either a right or left hand operator.

The lower plate 6 of the engine crank case or housing is removable, in order that the crank shaft and working parts may be exposed
75 for purposes of repair, adjustment or cleaning.

The crank shaft 7 of the engine extends rearwardly through the crank case and terminates a short distance beyond the fly
80 wheel 8. The end of said shaft 7 may be channeled or grooved as shown at 9. The transmission shaft 10 terminates adjacent thereto and may be correspondingly channeled or grooved. A collar or sleeve 11 is
85 slidably mounted on the end of said transmission shaft 10, and is channeled or grooved complementary to the formations on the abutting extremities of the crank shaft 7 and the transmission shaft 10. The said
90 collar or sleeve 11 is provided with a set screw 12, and has its rearward movement on the shaft 10 arrested by a collar 13, constituting an adjustable abutment. When the
95 collar or sleeve 11 is set by means of the set screw 12, a rigid connection or coupling is effected between the two shafts 7 and 10. It is apparent that the set screw may be readily released and the collar or sleeve 11
100 moved rearwardly on the transmission shaft 10, thus disconnecting the shafts 7 and 10, permitting the engine to be raised to vertical position. It will be apparent that other means for connecting the shafts 7 and
105 10, which will readily suggest themselves may be used. I have merely shown an effective means for this purpose, but do not limit myself to the construction shown.

Other changes in the arrangement and combination of parts than those herein 110

shown and described will readily suggest themselves to those skilled in the art to which this appertains, which changes may be made without departure from the spirit and scope of the present invention.

I do not restrict myself to details except as pointed out in the appended claims.

What I claim and desire to secure by Letters Patent of the United States is—

1. In an automobile, an engine casing, a longitudinally disposed main shaft journaled in said casing, removable yokes attached to said casing and supporting said casing, said yokes being provided with holes adjacent to their extremities, supporting members for said yokes, four sets of ears spaced so as to receive the ends of the supporting yokes and provide a brace at each side of the ends of each yoke, said ears being provided with holes arranged to register with the holes in the extremity of the yokes, bolts passing through said registering holes and constituting horizontal hinge pins, a separately supported transmission shaft in alinement with said main shaft when said yokes are fastened to said ears, a sleeve slidably mounted on said transmission shaft adjustable to effect a rigid connection or coupling between said transmission shaft and said main shaft, and an adjustable collar on said transmission shaft limiting movement of said sleeve, substantially as specified.

2. In an automobile, an engine provided with a longitudinally disposed main shaft, transversely disposed yokes removably attached to said engine for supporting the same, brackets carried on each of the longitudinally supporting means of the chassis of the automobile, removable hinge pins constituting pivot connections between the ends of the yokes and the brackets, a transmission shaft normally in alinement with the main shaft of the engine, a sleeve slid-

ably mounted on said transmission shaft adjustable to connect and disconnect said main shaft and said transmission shaft, means for preventing said sleeve from rotating, means for binding said sleeve in any desired adjustment, and an adjustable abutment carried by said transmission shaft to arrest the rearward movement of said sleeve, substantially as specified.

3. In an automobile, the combination with an engine provided with a longitudinally disposed main shaft and a removable crank case, of removable supporting yokes for said engine mounted transversely of the frame of the automobile, four sets of angle plates secured to the longitudinal beams of the frame of the automobile arranged to receive the ends of the yokes, and provide a brace at each side of the ends of each yoke, removable hinge pins constituting pivot connections between said longitudinal beams and the extremities of said yokes, a transmission shaft arranged to be normally in alinement with the main shaft of the engine, longitudinal grooves or channels on the end of said transmission shaft, matching longitudinal grooves on the main shaft of the engine, a sleeve slidably carried by said transmission shaft, internal grooves or channels in said sleeve corresponding to said grooves or channels on the transmission shaft and main shaft, a binding device for holding said sleeve to effect a rigid coupling between said transmission shaft and said main shaft of the engine, and an adjustable abutment for said sleeve on said transmission shaft, substantially as specified.

In witness whereof, I have signed this specification in the presence of two subscribing witnesses.

CHARLES E. BROOKS.

Witnesses:

CHARLES LATTA,
B. KRAMER.