

F. A. ETWELL.
MOTOR CYCLE.
APPLICATION FILED DEC. 16, 1914.

1,162,993.

Patented Dec. 7, 1915.

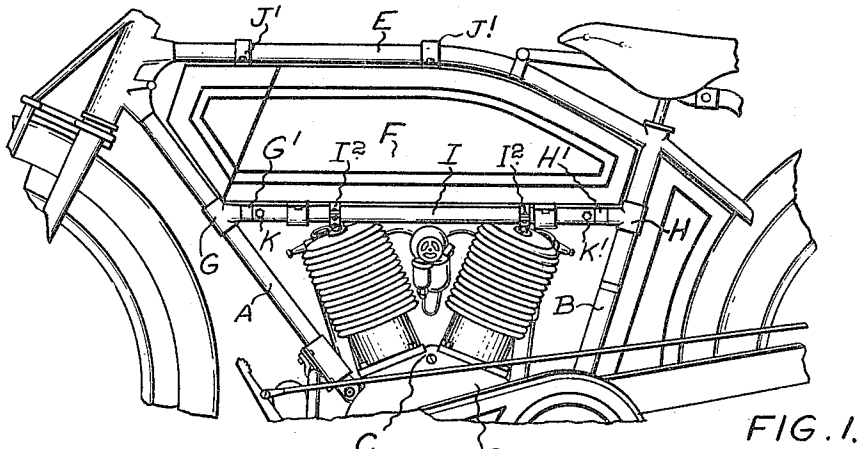


FIG. 1.

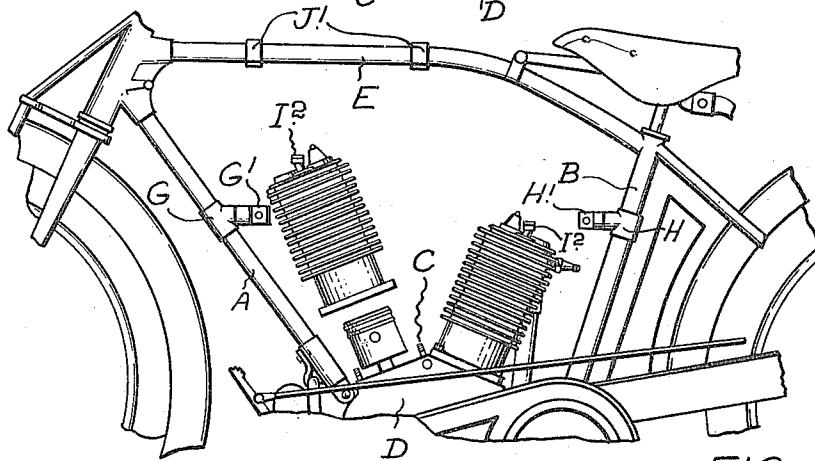


FIG. 2.

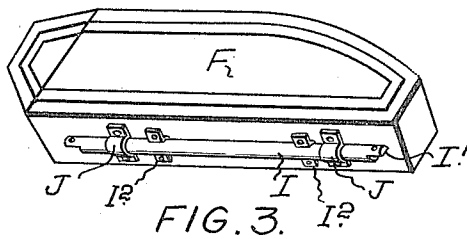


FIG. 3.

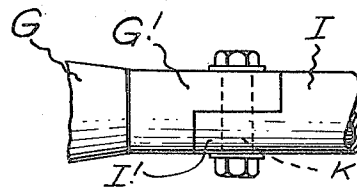


FIG. 4.

WITNESSES

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FRANK ALEXANDER ETWELL, OF TORONTO, ONTARIO, CANADA.

MOTOR-CYCLE.

1,162,993.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK ALEXANDER ETWELL, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Motor-Cycles, of which the following is the specification.

My invention relates to improvements in motor cycles and the object of the invention is to devise an improvement in the construction of the frame whereby, the engine may be repaired and the cylinders cleansed without the trouble and necessity of dropping the engine from the frame and my invention consists of a frame having the intermediate reach thereof detachably connected to the front and rear bars as hereinafter more particularly explained.

Figure 1, is a view of the central portion of a motor cycle frame showing my improvement. Fig. 2, is a similar view showing the intermediate reach removed. Fig. 3, is a detail of the reach when removed with the gasolene tank attached thereto. Fig. 4, is a detail showing the form of detachable connection.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the front and B the rear tubular bar of the frame.

C is the engine which is in this case in tandem form, the cylinders being secured to the crank case D, which is held at the bottom of the tubular front and rear bars A and B respectively by means which it is not necessary here to describe.

E is the upper reach of the motor cycle frame beneath which is located the gasolene tank F. This tank may be of any shape.

G and H are sleeves secured to the front and rear bars A and B respectively and provided with bosses G' and H' as indicated to form one-half of a break joint (see details Fig. 4.) I is the intermediate reach beneath which and in close proximity to which is located its engine. The bar I is provided with notches the same as shown in Fig. 4, at I' to form the other half of the break joint. Bolts K and K' extend through the front and rear break joints formed as de-

scribed above and particularly shown in Fig. 4, which shows the joint in plan.

J are clip brackets which are secured to the bottom of the gasolene tank F and which serve to hold such tank upon the central removable portion I of the intermediate reach I. J' are clip brackets which are employed to secure the tank F to the top reach E. These clip brackets may be used or they may not depending, of course, upon the construction of the tank. I also preferably secure the top of the cylinders of the engine C to the central detachable portion of the reach I by brackets I².

It will now be seen that in order to readily get at the engine as would appear from Fig. 2, that it is merely necessary to remove the bolts K, when the reach I and tank F may be removed and the engine repaired or the cylinders cleansed or generally the engine gotten at for any purpose which may be desired without having to remove or drop the engine from the frame of the machine and necessitate the work incident thereto.

Although in this description I describe the reach I connected to the sleeves G and H by break joints and bolts as indicated it will be understood that there may be other means employed whereby this reach may be readily detachable and this too without departing from the spirit of my invention.

What I claim as my invention is.

1. The combination in a motor cycle having a substantially triangular frame, tank, and engine, of a supplemental detachable reach between two legs of said frame and intermediate between said tank and said engine and detachable means for connecting said reach to said tank and to said engine.

2. In a motor cycle frame, the combination with the front and rear bars of the central portion of the frame and an engine carried thereby, of a reach located immediately above the engine, a sleeve attached to the front bar and a sleeve attached to the rear bar each provided with an inwardly extending boss having a notched end to form one end of a break joint and an intermediate reach provided with notched ends to form

the opposite portion of the break joints, and bolts extending through the notched ends, as and for the purpose specified.

3. The combination with the front and
5 rear bars, and the engine carried thereby, of the intermediate reach detachably connected to the front and rear bars, a gasoline tank, and means for connecting the detach-

able portion of the reach to the tank and to the engine cylinder as and for the purpose 10 specified.

FRANK ALEXANDER ETWELL.

Witnesses:

B. BOYD,
P. PENNOCK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."