Aug. 31, 1926. 1,598,124

J. EVANS

MOTOR ATTACHMENT FOR CARRIAGES

Filed March 24, 1925

Fig. 1.

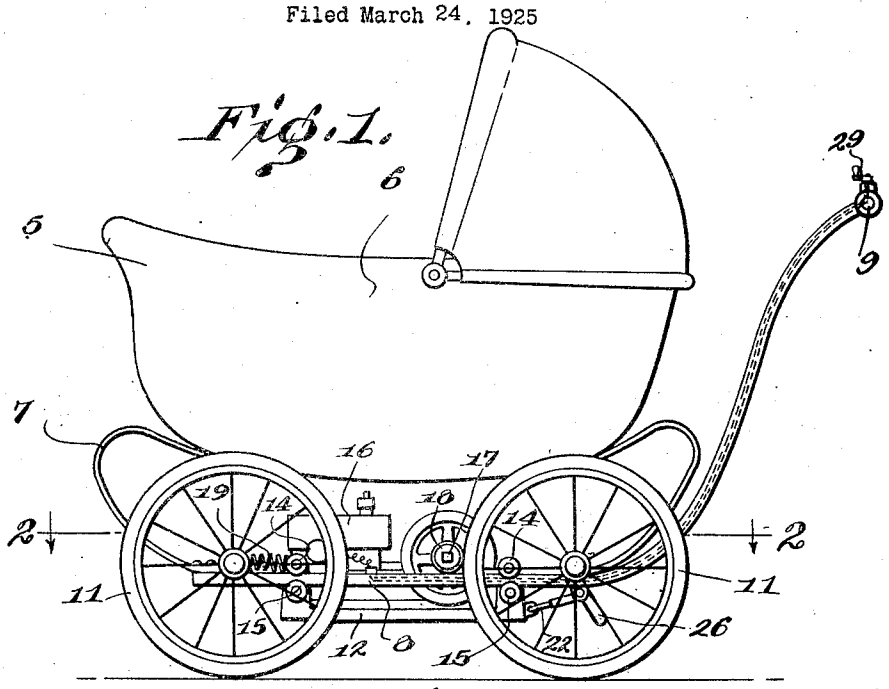



Fig. 2.

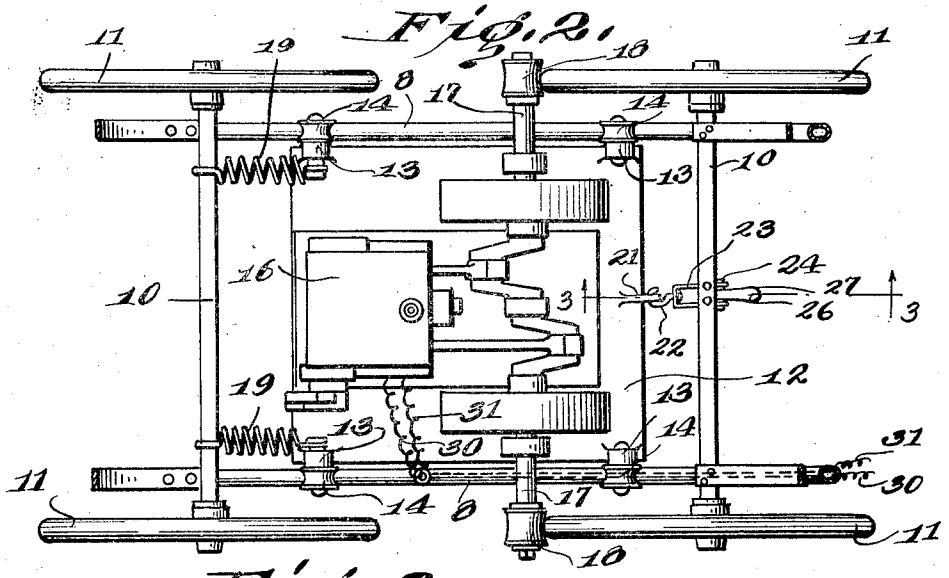
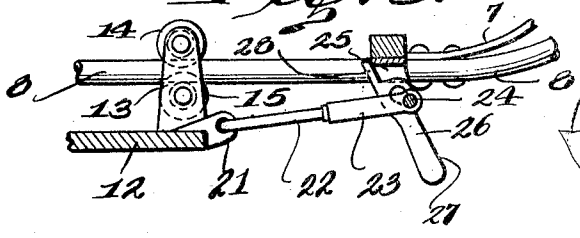



Fig. 3.




Inventor

Joshua Evans

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# UNITED STATES PATENT OFFICE.

JOSHUA EVANS, OF MANCHESTER, CONNECTICUT.

## MOTOR ATTACHMENT FOR CARRIAGES.

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The present invention relates to a motor attachment for baby carriages or other small vehicles, and aims to provide a novel and improved device whereby the motor is positioned in such a manner that the same may be conveniently operated for efficiently propelling the vehicle.

Another object of the invention is to provide a movable motor supporting member arranged under the body of the carriage for changing the position of the motor in order to complete a driving connection between the power shaft of the motor and the wheels of the carriage, said device also having means arranged thereon for holding the motor in such a driving or propelling position.

It is also an object of the invention to provide a device of the kind indicated, which is simple and substantial in construction, which can be manufactured economically, and which will be thoroughly efficient and practical in use.

With the foregoing and other objects in view, which will be apparent as the description proceeds, the invention resides in the construction and arrangement of parts, as hereinafter described and claimed, it being understood that changes can be made within the scope of what is claimed, without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation of a baby carriage showing my improved device applied,

Figure 2 is a horizontal section taken on line 2—2 of Figure 1, and

Figure 3 is a vertical section taken on line 3—3 of Figure 2.

Referring to the drawings, the numeral 5 designates a baby carriage having the usual body 6, springs 7 for supporting said body, horizontal bars 8 positioned below the body and extending upwardly and rearwardly to provide a handle 9, a pair of axles 10 extending across said bars, and wheels 11 mounted upon said axles, all of which is the usual construction of an ordinary baby carriage, and does not form a part of my invention.

In carrying out the invention, the numeral 12 designates a rectangular plate positioned between the horizontal bars 8 and under the body 6, said plate having an upright standard 13 formed integral therewith at each corner thereof. Arranged upon each of said upright standards are a pair of concaved rollers 14 and 15 for engaging the upper and lower sides of the horizontal bars 8 so that said supporting plate may be moved forwardly or rearwardly with relation to the carriage.

Positioned on the plate 12 and secured thereto is a small motor 16 arranged with its power shaft extending crosswise of the carriage, as indicated by the numeral 17. On each end of the power shaft 17 is secured a friction roller 18, slightly concaved, and arranged for engagement with the rear wheels 11 of the carriage. While I have shown a two cylinder gasoline motor for propelling the carriage, it is to be understood that any improved type of motor may be used without departing from the spirit of the invention.

Attached to the two forward upright standards 13 is a pair of coil spring 19, which also have connection with the forward axle 10 of the carriage for normally holding the motor in a forward position with the friction rollers 18 out of engagement with the rear wheels 11.

At the rear end of the plate 12 is arranged an eye 21 having received therein one end of a link 22, which in turn has its opposite end forked, as at 23, and connected to a crank shaft 24 pivotally mounted in a bracket 25 rigidly carried by the rear axle 10. Secured to the crank shaft 24 is a manually operated lever 26 having a foot engaging portion 27 arranged on one end thereof and a lug 28 on the opposite end thereof for limiting the turning movement of said lever in one direction. As the lever 26 is secured to the crank shaft, it will be noted that upon movement of said lever the crank shaft will be turned, which will cause either a forward or rearward movement of the plate 12 due to the fact that said plate is connected to said crank.

In order that the motor may be readily stopped or conveniently started, I have attached to the handle 9 of the carriage a switch 29 connected to the motor by a pair of electric wires 30 and 31, said wires being arranged to extend through one of the hollow horizontal bars 8 from said switch to the motor.

In operation, the motor is first started with the rollers 18 out of engagement with the wheels 11. When it is desired for the carriage to be propelled in a forward direc-

tion, the lever 26 carried by the rear axle 10 of the carriage is pressed downwardly, which will move the motor supporting plate and motor rearwardly due to the fact that the crank 24 is swung on its pivot which in turn is connected to the plate 12, such rearward movement causing the friction rollers 18 to engage the wheels 11 in order to rotate said wheels. It will be noted that the friction rollers 18 are of a small size and that it will be necessary for the same to rotate several times in order to cause a single revolution of the wheels 11, thus it can be seen that the carriage will be propelled at a slow speed with relation to the speed of the motor. The friction rollers will be held in engagement with the wheels 11 after the foot of the operator has been disengaged from the lever 26 due to the fact that the crank 24 has been swung past its dead center and the lug 28 carried by the lever has been brought into engagement with the bracket 25.

When it is desired to disconnect the driving connection between the motor 16 and wheels 11, the operator engages the toe of his foot under the lever 26 and swings the same in an upward direction until the crank has passed its dead center so that the coil springs 19 will move the motor 16 and supporting plate 12 in a forward direction.

Having thus described my invention, what I claim as new is:—

1. A motor attachment for carriages, comprising a motor, a movable supporting member carried by said carriage and arranged for supporting said motor, friction rollers carried by the drive shaft of said motor, means for moving said motor supporting member to bring said friction rollers in engagement with the wheels of the carriage, and spring means for returning said motor supporting member to its initial position.

2. A device of the character described in combination with a baby carriage having a pair of spaced horizontal bars extending from the axles thereof, comprising a motor, a member arranged for supporting said motor, rollers carried by said member for supporting said motor and arranged for engaging said horizontal bars of the carriage so that said motor may be moved in either a forward or rearward direction with relation to the carriage, said motor having a power shaft extending crosswise of the carriage, friction rollers carried on the opposite ends of said power shaft, and means for moving said motor supporting member in a rearward direction upon the horizontal bars to bring said friction rollers in engagement with the rear wheels of the carriage.

3. A device of the character described in combination with a baby carriage having a pair of spaced horizontal bars extending between the axles of the carriage, comprising a motor, a member arranged for supporting said motor, uprights carried by said member for supporting said motor, a pair of concaved rollers arranged upon each of said uprights for engaging the opposite sides of said horizontal bars so that said motor and motor supporting member may be moved either forwardly or rearwardly with relation to the carriage, said motor having a power shaft extending crosswise of the carriage, friction rollers carried by the opposite ends of said power shaft, spring means for normally holding said motor and motor supporting member in a forward direction with relation to the carriage, a foot operated lever carried by the rear axle of the carriage, and means connecting said foot operated lever with the motor supporting member so that said motor may be moved rearwardly against tension of said spring means for bringing said friction rollers into engagement with the rear wheels of the carriage, said foot lever being so arranged as to hold said friction rollers and wheels in engagement after the foot of the operator has been removed therefrom.

In testimony whereof, I have affixed my signature.

JOSHUA EVANS.