C. O. HEDSTROM.

MOTOR CYCLE.

APPLICATION FILED APR. 5, 1913.

1,090,477. Patented Mar. 17, 1914.

Fig. 1.

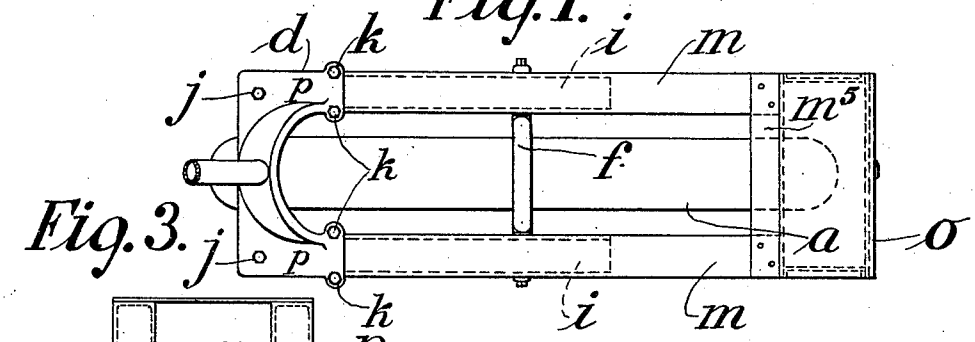


Fig. 3.

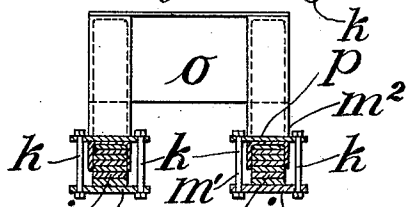
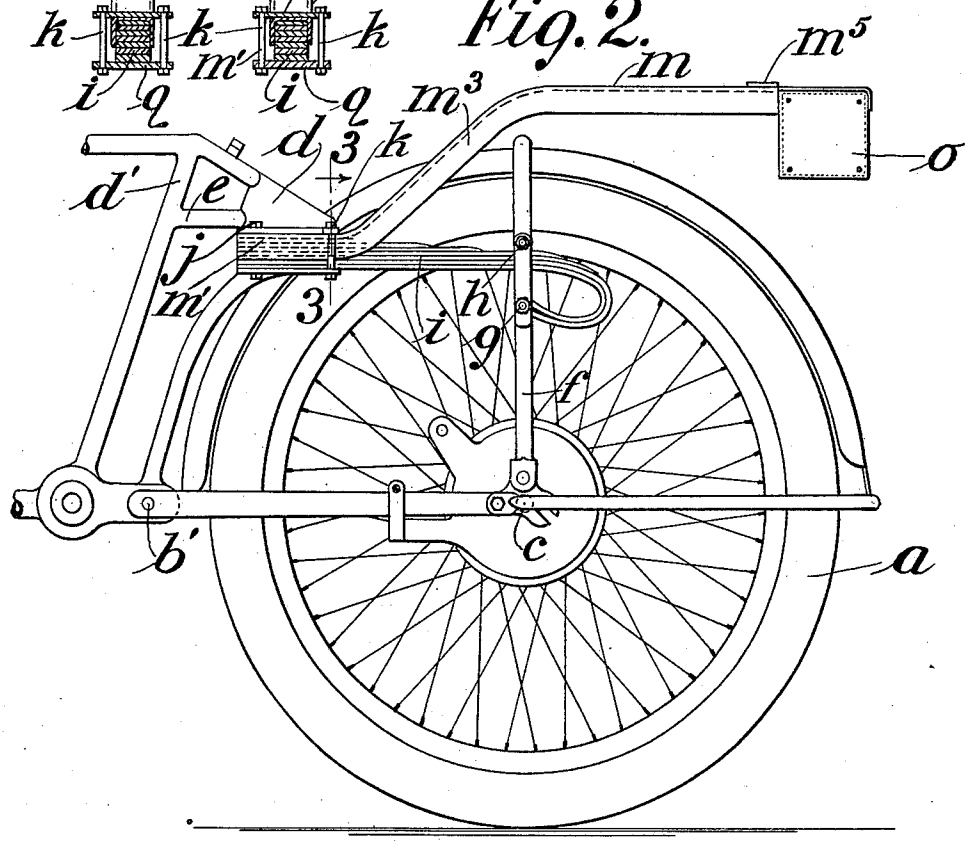


Fig. 2.



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MOTOR-CYCLE.

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To all whom it may concern:

Be it known that I, CARL O. HEDSTROM, a citizen of the United States of America, residing at Portland, in the county of Middlesex and State of Connecticut, have invented new and useful Improvements in Motor-Cycles, of which the following is a specification.

This invention relates to improvements in motor-cycles.

The object of the invention is to provide means or devices for supporting or attaching a rearwardly-extending supplemental frame to the spring-supported main frame for the purpose of affording convenient means for carrying luggage or a passenger. This supplemental frame may be constructed so as to form a part of or be attached to the main frame of the machine. Heretofore, it has been the common practice to attach the supplemental frame directly to the rear axle of the motor-cycle by means of struts or braces, with the result that during the passing of the machine over obstructions in the roadway the shocks and jars incident thereto were directly transmitted to this supplemental frame, resulting in damage to the articles being carried or discomfort to a person riding thereon.

In many motor-cycles as now constructed, the main frame is supported by springs at the front and rear ends thereof, whereby practically all of the shocks and jars are absorbed thereby during travel.

Broadly stated, the present invention consists in attaching a supplemental frame directly to the spring-supported main frame, whereby the supplemental frame will not be subjected to the shocks and jars incident to travel, especially at high speeds.

Referring to the drawings,—Figure 1 is a plan view of the invention showing the rear wheel only of the motor-cycle, the supplemental frame, which may, if desired, include a tool-box; also the casting or saddle-supporting bracket-member of the main frame; Fig. 2 is a side elevation of the construction shown in Fig. 1, illustrating the rear wheel, a portion of the main frame, the supplemental frame; also the rear spring support or connection between the main frame and the rear axle; and Fig. 3 is a transverse sectional detail view on the line 3—3 of Fig. 2, showing the rigid connection between the supplemental frame and the main frame of the motor-cycle, and in the construction shown this connection comprises a pair of channel-irons the forward ends of which are attached to the spring-supporting means.

Referring to the drawings in detail,—

a designates the rear wheel of the motor-cycle, *b* the usual or ordinary rear portion of the main frame that connects the front and rear wheels together and which extends to and is attached to the rear axle *c*.

b' designates the pivotal connection between the front and rear portions of the main frame for the purpose of permitting the front and rear wheels to move relative to each other and independent of the spring-supported frame on which the saddle is mounted. The saddle is connected to the casting *d* by means of a saddle-post which is connected to the post *d'* that extends from the part *b'*.

e is a strut or brace-rod that extends from the casting *d* forward to the post *d'*. Attached to the rear axle is an upright *f* and located midway between the upper and lower ends of this upright are pins *g* and *h*. The pin *g* serves to attach the rear end of the spring *i*, while the pin *h* serves to limit the upward movement of the spring relative to the frame of the machine when in use. The forward end of the spring *i* is rigidly clamped or secured to the bracket casting *d* by means of the bolts *j* and *k*. Engaging the sides and adjacent the forward ends of the spring *i* are channel-irons *m*. These irons extend rearward from the bracket *d* and on the outer end portions there may be attached a tool-box *o*. These channel-irons *m* comprise what I term a "supplemental" frame, which may serve as a luggage-carrier, or, if desired, a supplemental seat or saddle may be placed thereon for the purpose of providing means for carrying another person. It will be noticed that the flanges *m'* of the channel-irons extend down over the sides of the springs *i* and that the webs m^2 of the channel-irons extend across the upper leaves of the springs *i*. The springs and channel-irons are rigidly secured together by means of the bolts *j* and *k* which pass through the flat portion *p* of the bracket *d* and the plates *q* on the lower sides of the springs *i*. The channel-irons *m* extend upward at the point m^3 in order to afford plenty of space for the upright *f* to move up and down.

From this construction it will be seen that when the vehicle is in use the shock and

jars incident to the roadway will be absorbed by the springs *i* of the spring-supported frame and that the supplemental frame, which is composed of the channel-irons *m* that are connected to the springs *i* of the spring-supported frame, will not receive the shocks and jars from the wheels of the vehicle.

It is to be understood that I do not limit myself to the construction herein shown, but that the supplemental frame may be formed integral with and as part of the main frame, instead of being attached thereto. The movements of the supplemental frame, as herein described and shown, will be the same as those of the spring-supported main frame to which it is attached or made a part of. The rear ends of the rigid members *m* are connected together, as shown at m^5.

What I claim, is,—

1. In a motor-cycle, the combination, a main frame, front and rear supporting springs therefor, of a supplemental frame, means to attach the forward ends only of the supplemental frame to the forward ends of the rear supporting springs of the main frame, and comprising a pair of channel-iron members having their flange portions engaging the sides of the rear supporting springs of the main frame and their webs engaging the upper sides of said springs, and means to secure the channel-irons to the springs, as described.

2. In a two-wheeled vehicle, the combination, a main frame including a saddle support and an upright at the rear, the upright and axle of the rear wheel having a pivoted connection with the main frame, a supplemental frame formed with an upwardly extending bent portion over the rear wheel, and rigidly secured at its forward end to the saddle support, and a spring support extending from the saddle support to the upright, whereby said rear wheel and upright is permitted to have free vertical movements below the supplemental frame as described.

3. In a motor cycle, the combination, a main frame including a saddle support, the rear wheel of the motor cycle being pivotally connected to the main frame to permit free vertical movements thereof, a rigid supplemental frame, the forward end only of which is secured to the saddle support and its rear end is in a plane that is above its forward end and also above the upper side or edge of the rear wheel, whereby said wheel may have a free and unobstructed vertical movement as described.

4. In a two wheeled vehicle, a main frame including a saddle support, and an upright at the rear, a resilient member rigidly secured at one end to said saddle support and at the other to said upright, a rearwardly extending supplemental load carrier, comprising a frame rigidly fastened to said resilient member at one end and free at the other.

5. In a two wheeled vehicle, a main frame including a saddle support, and a support at the rear, a resilient member rigidly secured at one end to said saddle support and at the other to said support at the rear, a rearwardly extending supplemental load carrier, comprising a frame rigidly fastened to said resilient member at one end and free at the other.

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