

O. L. ADAMS.
SADDLE SUPPORT FOR MOTOR CYCLES.
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Fig. 1.

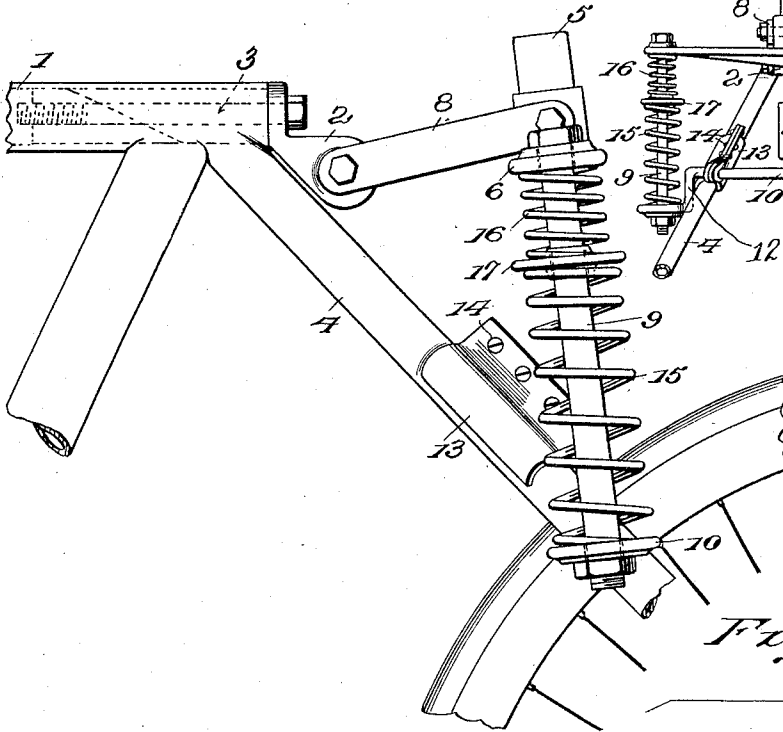


Fig. 2.

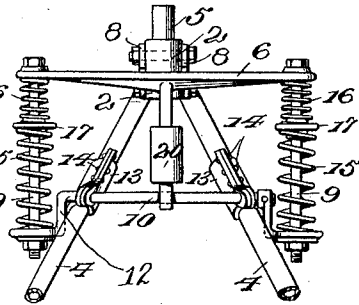


Fig. 4.

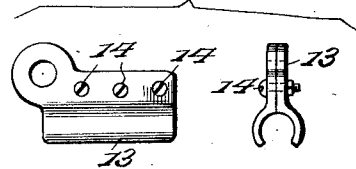
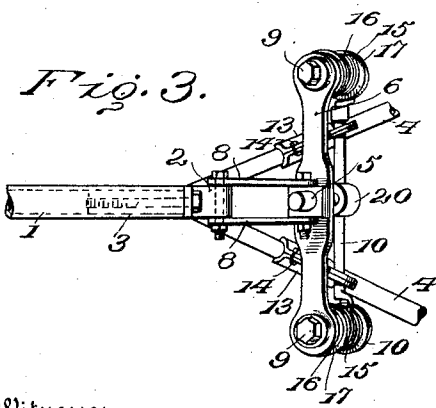


Fig. 3.



Witnesses

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SADDLE-SUPPORT FOR MOTOR-CYCLES.

1,003,311.

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To all whom it may concern:

Be it known that I, ORA L. ADAMS, of Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Saddle-Supports for Motor-Cycles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The primary object of this invention is to so construct the saddle support for a motor-cycle as to provide an easy movement for the rider, the saddle and its support being permitted to move backward as well as downward in absorbing shocks.

A further object is to enable light jars to be readily taken up independently of the cushioning which is called into play by heavy shocks.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation showing one form of embodiment of my present improvement. Fig. 2 is a rear elevation. Fig. 3 is a plan view. Fig. 4 shows one of the clamps in side and end elevation.

In the drawings I have shown only a fragmentary portion of the frame or tubing of a motor-cycle, but sufficient thereof has been indicated to enable my invention to be readily understood.

1 designates the horizontal bar of the frame; 2 a bracket at the rear end of said bar; 3 a bolt for attaching the bracket to the bar; and 4 the rear fork above the upper end of which bracket 2 is located.

5 is the post to which the seat or saddle is secured by any suitable means. The base of this post is shown as extending upwardly from a bridge 6 which occupies an approximately horizontal position, but is normally turned at a slight angle, as shown in Fig. 1. The post-carrying bridge is pivotally connected to the horizontal bar of the frame by means which will allow the rider to have a backward as well as downward movement in absorbing shocks. The means shown for forming this connection comprises two rearwardly and upwardly extending links 8, pivoted at their opposite ends to bracket 2 and to the base of post 5, respectively. While various means may be employed for forming the pivot

connections for the links I preferably use nutted bolts which are passed through co-incident openings in the adjacent portions in such manner that they may be readily adjusted to compensate for wear. The means shown for guiding the post-carrying bridge in its movements comprises two parallel rods 9, depending from the ends of the bridge, and at their lower ends passed through openings in a guiding member 10. The latter is shown in the form of a freely-movable rod having dropped cranks 12 at its opposite ends formed with openings through which rods 9 are passed and wherein they may travel with but little friction. The lower ends of the rods, after being passed through the guides, are equipped with nuts. This freely-movable guide is adjustably supported by the rear fork 4, the particular means shown for that purpose consisting of two sets of corresponding clamping plates 13 having bearings for the guide rod, such plates being adjustably held to the fork members by binding screws 14 passed through upwardly-extending flanges. The bearings for the guide-rod are formed in these flanges. By the means described the position of the guiding member 10 may be adjusted so as to control the normal position of the saddle. The latter always occupies a comparatively low position.

For the purpose of absorbing shocks, the means employed may be varied widely. It is essential that spring action be obtained, and preferably one having the capacity to take up slight shocks without calling into play the means for absorbing heavy shocks. In the arrangement shown I use two heavy coil springs 15 which encircle the two depending guide-rods 9. These springs are comparatively heavy, and to enable slight jars to be absorbed before calling these heavy springs into play, I also use two lighter springs 16, likewise mounted on rods 9 and separated from the heavier springs by washers 17. The tension of the springs may be readily fixed by adjusting the nuts on rods 9. While I prefer this arrangement of the springs, yet I do not mean to be understood as confining myself thereto, as the spring cushions may be differently arranged and the same results obtained.

In some instances it may be desired to employ means for eliminating the rebound of the saddle and thereby avoid all danger of throwing the rider in the event of heavy

shocks. For this purpose a dash-pot conventionally indicated at 20, Figs. 2 and 3 may be employed. It is desired in such dash-pot to allow free access of air on the down stroke, the inlet of air being controlled on the return stroke by an adjustable valve, thus allowing the slow return of the springs to their normal positions.

The advantages of my invention will be readily appreciated by those skilled in the art. It will be noted that the saddle post occupies a comparatively low position when at the upward limit of movement. Users of motor-cycles require that the saddle be as low as possible. It will be noted also that upon striking an obstruction the saddle will have an easy backward and downward movement; and that slight jars are taken up by lighter springs, the heavier shocks being absorbed by the heavier springs. The depending rods by being passed through eyes in the freely-movable guide encounter but little friction, thereby enabling the springs to freely perform their function.

It will be understood that changes may be made without departing from the spirit of the invention. The means shown and described by me I believe to be best adapted for carrying out the purposes of my invention. I claim as my invention:—

1. In combination with a cycle-frame having an upper horizontally-disposed bar and a rear fork, a seat-support, links pivotally connected to the rear end of said bar and to said seat-support, guiding means depending from said seat-support, a freely-movable guide mounted on said rear fork and with which said guiding means engages, and a spring-cushion for said seat-support.

2. In combination with a cycle-frame having an upper horizontally-disposed bar and a rear fork, a seat-support, links pivotally connected to the rear end of said bar and to said seat-support, guiding means depending from said seat-support, a freely-movable guide mounted on said rear fork and with which said guiding means has a sliding engagement, and a spring-cushion for said seat-support comprising light and heavy springs.

3. In combination with a cycle-frame having an upper horizontally-disposed bar and a rear fork, a seat-support, links pivotally connected to the rear end of said bar and to said seat-support, said seat-support having an approximately horizontal bridge, parallel rods depending from said bridge, a freely-movable guide for said rods, and springs between said guide and said bridge.

4. In combination with a cycle-frame hav-

ing an upper horizontally-disposed bar and a rear fork, a seat-support, links pivotally connected to the rear end of said bar and to said seat-support, said seat-support having an approximately horizontal bridge, parallel rods depending from said bridge, a freely-movable guide for said rods, and light and heavy springs between said guide and said bridge.

5. In combination with a cycle-frame having an upper horizontally-disposed bar and a rear fork, a seat-support, links pivotally connected to the rear end of said bar and to said seat-support, said seat-support having an approximately horizontal bridge, parallel rods depending from said bridge, a freely-movable guide for said rods comprising a rod having cranked portions through openings in which said rods are passed, and springs on said rods between said bridge and cranked portions.

6. In combination with a cycle-frame having an upper horizontally-disposed bar and a rear fork, a bracket secured to the rear end of said bar, a seat-support having an approximately-horizontal bridge, links pivoted to said bracket and to said seat-support, rods depending from said bridge, a freely-movable guide-rod mounted on said rear fork and having openings for said depending rods, and springs mounted on said depending rods between said guide rod and the bridge.

7. In combination with a cycle-frame having an upper horizontally-disposed bar and a rear fork, a seat-support, links pivotally connected to the rear end of said bar and also pivotally connected to said seat-support, rods depending from said seat-support, a freely-movable guide mounted on said rear fork and with which said rods engage, a spring cushion for said seat-support, and a dash-pot mounted on the frame and designed to be actuated by said seat-support.

8. In combination with a cycle-frame, a seat support, means pivotally connecting such seat support to the rear end of the upper portion of the frame, rods depending from said support, a guide mounted on said frame and with which said rods have a sliding engagement, and a spring cushion for said seat support.

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

ORA L. ADAMS.

Witnesses:

M. H. WHITE,
J. F. TINKER.