(No Model.)

J. N. EASTWOOD.

VEHICLE SPRING.

No. 492,788. Patented Mar. 7, 1893.

Fig. 1.

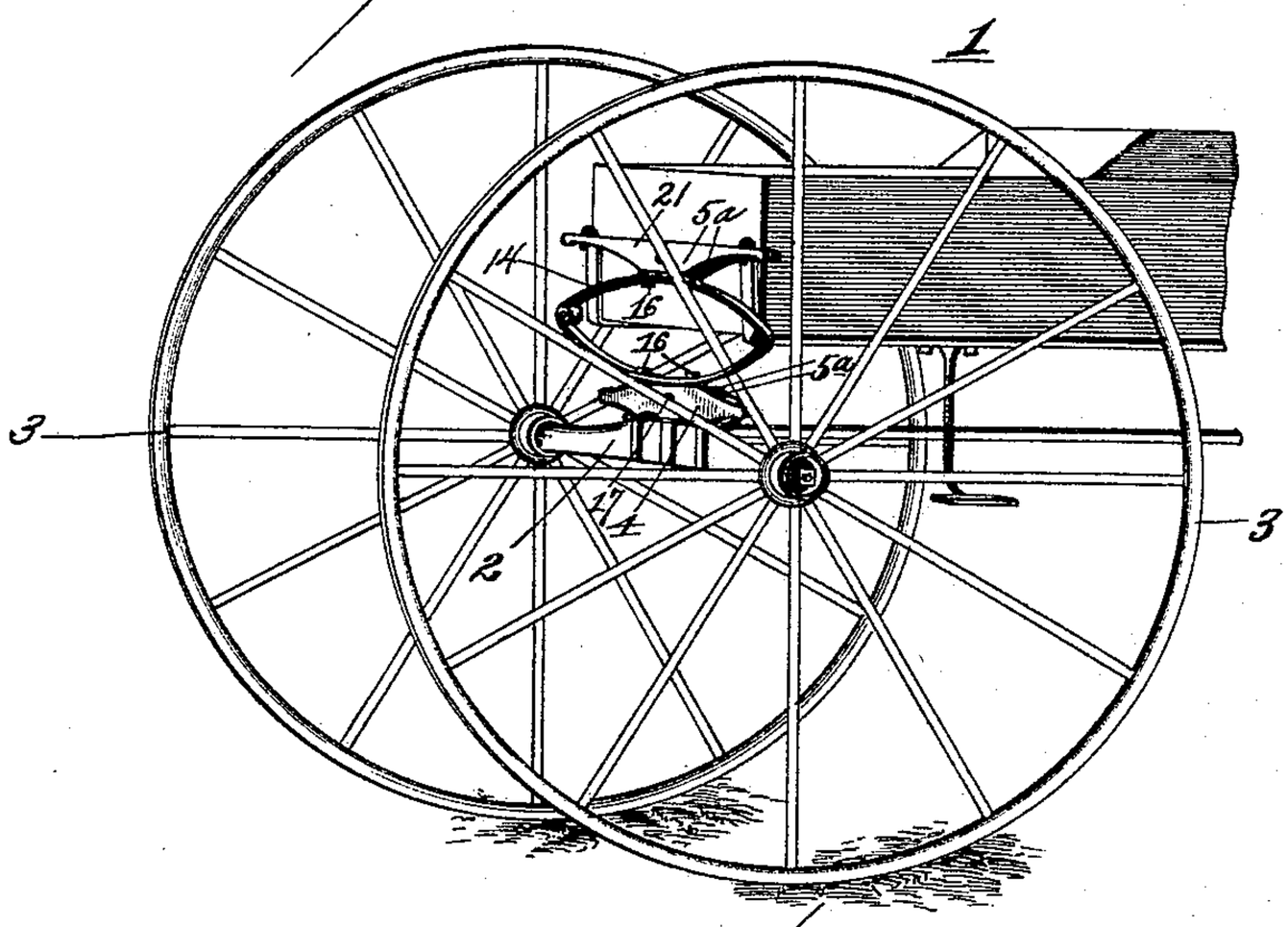


Fig. 2.

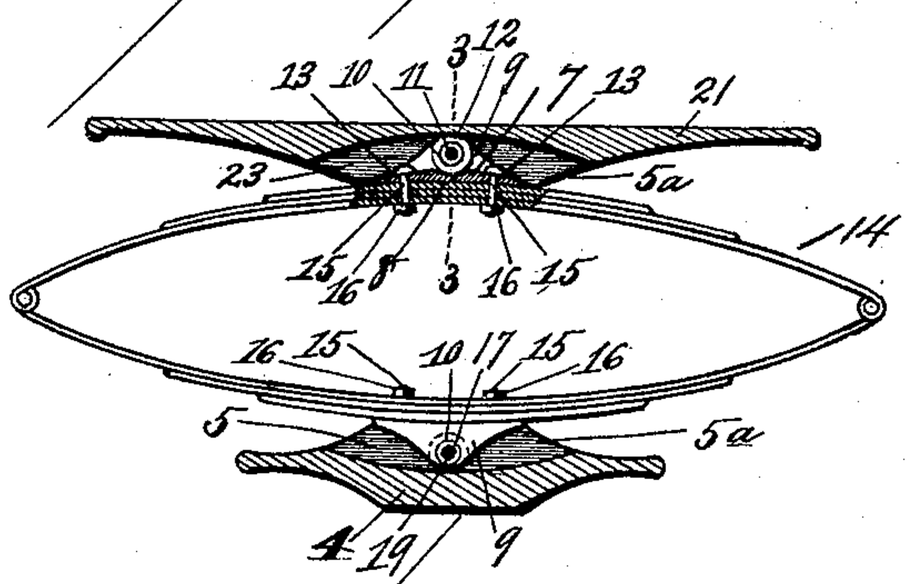


Fig. 3.

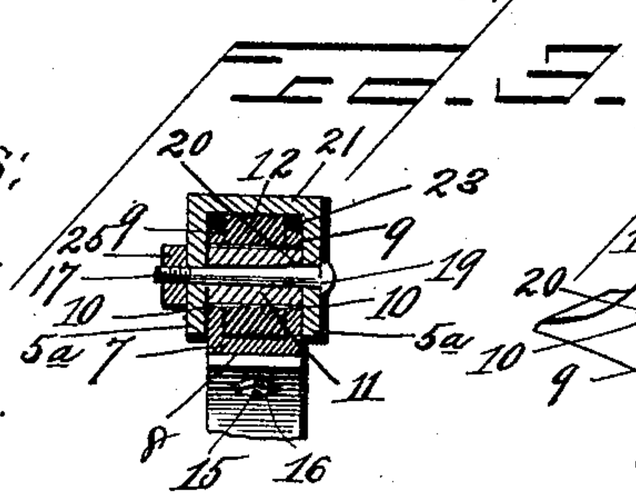
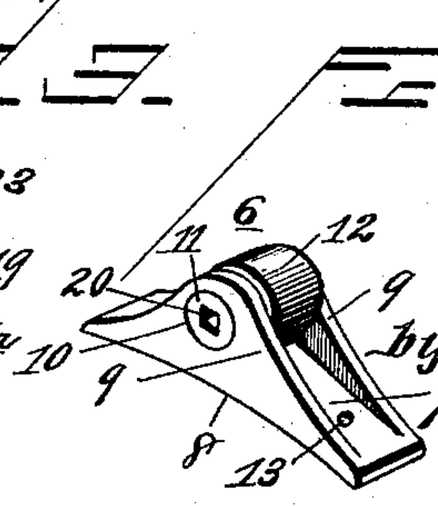


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES N. EASTWOOD, OF KANSAS CITY, MISSOURI.

VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 492,788, dated March 7, 1893.

Application filed November 12, 1892. Serial No. 451,744. (No model.)

To all whom it may concern:

Be it known that I, JAMES N. EASTWOOD, of Kansas City, Jackson county, Missouri, have invented certain new and useful Improvements in Oscillating Adjustment-Blocks for Springs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in oscillatory adjustment blocks and bars or blocks to which they are attached, for elliptic or semi-elliptic springs, and my objects are to provide adjustment blocks pivotally supported by a spring bar and a head block, as illustrated, or which may be only attached to the spring bar or to the head block as desired, which will adjust itself automatically to the movements of the spring, and thus prevent the jolting and tilting of the body of the vehicle, and also to provide a self-adjustment block, that is simple and inexpensive of construction and easy to attach to or detach from the spring bar or head block of the vehicle, when desired or necessary.

To the above purposes my invention consists in certain peculiar and novel features of construction and arrangement, as will be hereinafter fully described and claimed.

In order that my invention may be fully understood, I will proceed to describe it, reference being had to the accompanying drawings, in which,—

Figure 1. is a perspective view of the front end of a buggy, with my improvement attached thereto in operative position. Fig. 2. is a central longitudinal section taken through the spring-bar and head-block, and showing the adjustment blocks therein and secured to the spring. Fig. 3. is a vertical section taken on the line 3—3 of Fig. 2. Fig. 4. is a detail perspective view of the adjustment block.

In the drawings,—1 designates the front end of a carriage, *a* the front axle thereof, having the usual wheels 3 at each end of the axle. Supported above the fifth wheel in the usual manner is the head-block 4, which may be of the usual construction, having the spring secured thereon in the usual way if desired, but which I have shown with a recess or groove 5 in its upper side extending longitudinally of said head block, to leave the parallel side walls 5^a. An adjusting oscillatory block 6, comprises a tri-angular shaped casting, having body-portion or plate 7, which is concaved or segmental as at 8, at its outer side, and is provided with two parallel ears 9—9 projecting perpendicularly from the inner side margins of said plate. These ears 9 are provided with aligned openings 10, in which is supported at its opposite ends the tubular sleeve 11, on which is loosely journaled between the ears of the adjustment block the friction roller 12, which bears against the inner surface of the body-portion or plate of the adjustment block, which is further provided with holes or apertures 13. One of these blocks is located at the top and one at the bottom of the elliptic spring 14, having their concaved or segmental faces arranged to bear against the outer side of the spring, and bolts 15 are then passed through the holes or apertures 13 of the adjustment blocks and also through aligned apertures in the spring, and have their projecting ends engaged by retaining nuts 16. The spring is then arranged in proper manner over the head-block, and the adjustment block, at the lower side of the spring is inserted in the recess or groove of the head block, until the roller rests upon the bottom wall of said recess, and between the side walls thereof, which side walls 5^a are provided with transverse openings in alignment with the openings of the ears of the adjustment block. A bolt 17 is now passed through the openings of the side walls 5^a and the sleeve and a retaining nut engages its projecting end. The bolt 17 is squared as at 19 for a slight distance from its head to register with the adjacent squared end 20 of the passage of the hollow sleeve, to prevent the sleeve from revolving. The adjustment block, at the top or upper side of the spring, is also inserted between the side walls 5^a of a recess or groove 23 in the under side of the spring bar 21, so that the roller comes in contact with the horizontal wall of said recess or groove. A bolt 17 and retaining nut 25 pivotally secure the block within the recess or groove of the spring bar, in the manner formerly described. The opposite ends of the spring bar are secured in the usual or any preferred manner.

It is to be understood that I do not confine myself to the precise arrangement of parts

shown, as I may with equal advantage, apply the adjustment block to side springs and also to rear springs, and also in the great majority of cases it will only be necessary and desirable to apply the block to the spring-bar alone, or to the head block, as preferred.

In operation, whenever the wheels or one of the wheels at one side of the vehicle, come in contact with roughened ground or pass over a rock in the road way, the wheel or wheels are raised at that side and the axle or axles elevated at the end adjacent to said wheel or wheels, causing the adjacent end of the spring to be elevated, which secured to the pivoted adjustment blocks, causes the oscillation of the same, without affecting the horizontal position of the spring-bar, and therefore of the vehicle body.

From the above description, it will be seen that I have produced a simple and inexpensive block, that will adjust itself automatically to the different movements of the spring, and will effectively maintain the horizontal position of the body of the vehicle to which it is applied, and prevent the jolting of the same, and thus tend to lengthen the life of the entire vehicle, and also being nearly hid from sight in the recess of the spring bar or head-block to which it is pivotally connected, will be in little danger of breakage, and further the appearance of the connection between the bar 21, the head-block 4, and the spring 14, will apparently be unchanged, from the usual method of connecting these parts.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A spring adjustment block, comprising a body-portion or plate, and ears extending from said body-portion or plate and a friction roller, journaled between said ears, substantially as described.

2. An adjustment block, comprising a body-portion or plate, parallel ears extending from said body-portion or plate, aligned openings in said parallel ears, a sleeve journaled in said openings, and a friction roller journaled on said sleeve and between said ears, substantially as described.

3. An adjustment block, comprising a body-portion or plate concaved or segmental at its under side, parallel ears projecting from the inner side of said body-portion, and a friction roller journaled between said ears, substantially as described.

4. An adjustment block and bar, comprising a bar or block having a recess therein, and parallel walls at each side of said recess, having aligned openings there through, and a block, having a body portion or plate, a pair of parallel walls projecting from its inner side, having aligned openings there through, a sleeve supported at each end in said openings, having one end of its passage squared, a friction roller journaled loosely upon the sleeve between the side walls, and a bolt squared near the head and passing through the side walls of the bar and the sleeve carried by the block, and a retaining nut engaging the projecting end of the bolt, substantially as described.

5. A spring adjustment block and bar, comprising a bar having a segmental recess 23 therein, and vertical walls 5^a upon each side of said recess, and a block pivoted in said recess and between said walls so that said block shall be practically hid from view, in its normal position, substantially as set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

JAMES N. EASTWOOD.

Witnesses:

MAUD FITZPATRICK,

M. P. SMITH.