

E. W. BEDINGER, JR.
SHOCK ABSORBER FOR CARRIAGE BOWS.
APPLICATION FILED MAY 20, 1908.

953,190.

Patented Mar. 29, 1910.

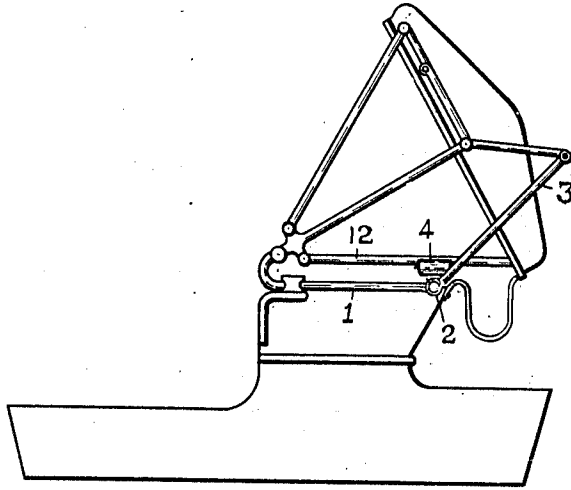


Fig-1-

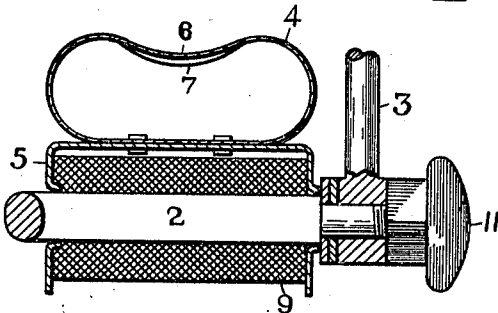


Fig-2-

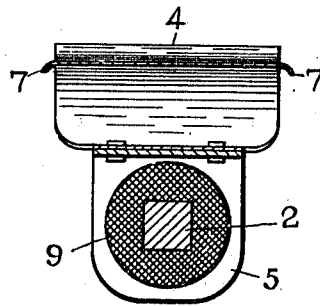


Fig-3-

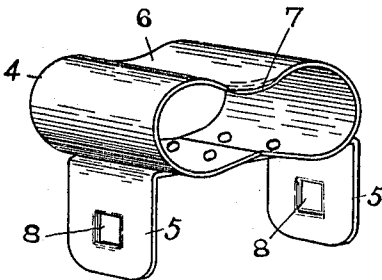


Fig-4-

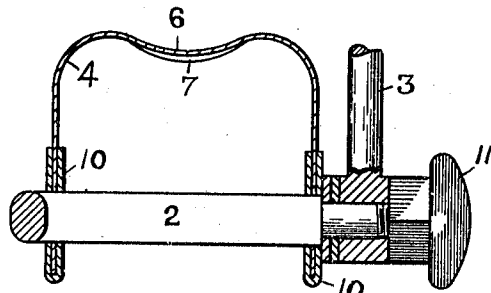


Fig-5-

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SHOCK-ABSORBER FOR CARRIAGE-BOWS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EVERETT W. BEDINGER, Jr., a citizen of the United States, residing at Anchorage, in the county of Jefferson and State of Kentucky, have invented a new and useful Shock-Absorber for Carriage-Bows, of which the following is a specification.

This invention relates to carriage-bow supports, and the objects of my improvement are, to provide a support for the bow of a buggy or carriage top in such a manner as to absorb the shocks incident to travel of the vehicle over rough roads and inequalities and obstructions in the roadway and the shocks occasioned by careless or sudden lowering of the top; to provide a support which will be resilient, durable, will readily conform to the surface of the bow in contact therewith in its angular variations, has an extended supporting surface, and will not chafe the surface of the bow; and to provide a spring support which comprises no sliding parts and hence is free from "birds" or squeaks. These objects I attain by means of the device illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the device in position for use; Fig. 2, a central vertical longitudinal section; Fig. 3, a transverse section; Fig. 4, a perspective view; and, Fig. 5, a sectional view of a modification.

Similar reference numerals refer to similar parts throughout the several views of the drawing.

The device is adapted to be attached to the conventional rail 1, being provided with perforations, so that it may be slipped over the rail bolt 2, the break down brace 3 having been previously removed.

The main feature of my improvement is the bow-supporting spring 4, rigidly attached to the inverted U-shaped piece 5. The spring 4 is preferably made of sheet steel or other springy sheet material and made in elliptical form, with a groove or trough 6 in its top, adapted to receive the bow 12 and conform somewhat to its under surface. I have shown the spring 4 attached to the attaching-piece 5 by means of rivets, the ends of the spring being butted between the rivets. At each end of the groove 6 the metal of the spring is somewhat extended and curved downward, to form a lip, 7, thus presenting a rounded

surface to the surface of the bow, and avoiding the sharp edges which would otherwise obtain and chafe or cut the bow. The material of spring 4 being hard and smooth, a bow covered with leather or other soft material will not be chafed thereby. It will be readily understood, also, that the spring 4, thus formed, may be pressed down at one end more than at the other, and thus its upper surface will conform to the angular variations due to the motion of the bow which is pivoted at its front end. Thus the bow is supported constantly by the entire upper surface of the spring, as in a resilient bed, and will therefore ride over rough surfaces without shock or strain. A spool 9, which may be the ordinary spool now in use, made of rubber or composition, may be placed between the depending legs of the U-shaped attaching-piece 5, although it is not necessary, since the attaching-piece will carry the spring in proper position without it. The spool may be compressed somewhat by the adjacent parts and prevent rattle, but if the depending parts of the attachment-piece 5 are formed in such a manner that they spread somewhat when compressed to the parallel position relative to one another, they will press against the adjacent parts, so as to prevent rattle, without the spool.

In Fig. 5, I have illustrated a modification of the device which dispenses with the attachment-piece 5, the aperture 8, for slipping over rail bolt 2, being formed in the ends of the spring 4, so that the spring is carried immediately by the rail bolt. The ends of the spring may be reinforced by a U-shaped sheet metal reinforcement 10, pressed tightly over the ends of the spring, thus giving greater wearing surface and strength at the rail bolt. In this case, the spring 4 may also be formed in such a way that the depending legs spread, and, when forced upon the rail bolt and confined by the adjacent parts, they will spread apart with sufficient force to prevent rattle. The weight of the bow in groove 6 will have an additional tendency to spread the depending legs when the carriage top is down. The securing nut 11 is of the ordinary type.

It will be understood that this device is very simple in construction, has no sliding parts or any parts that produce friction, and hence will be entirely noiseless and must be durable.

Having thus described my invention so

that any one skilled in the art pertaining thereto may make and use it, I claim—

1. A carriage-bow support, comprising a base plate, having depending legs provided with perforations, and an elliptical spring rigidly attached to said base plate.

2. A carriage-bow support, comprising a base, having depending legs provided with perforations, an elliptical spring rigidly attached to said base, said spring adapted to conform to the under surface of the bow.

3. In a carriage bow support, a base plate having depending legs provided with perforations, and an elliptical spring attached to said base plate in longitudinal relation thereto, said spring provided with a transverse groove adapted to conform to the under surface of the bow.

4. A carriage bow support, comprising means for attaching to a vehicle, an elliptical spring rigidly attached to said means arranged in longitudinal relation thereto, said spring provided with a groove transverse thereof and longitudinal relative to the bow.

5. In a carriage bow support, a base plate having depending legs provided with per-

forations, an elliptical spring secured to said base plate arranged in longitudinal relation thereto, a groove in said spring transverse thereof, and depending lips at the ends of said groove.

6. The combination with the rail-bolt of a vehicle, of a carriage bow support, comprising a spring arranged in longitudinal relation to said rail-bolt, legs depending from said spring, said legs being provided with perforations adapted to fit on said rail-bolt, said spring provided with a transverse groove adapted to conform to the under side of the carriage-bow, and a depending lip at each end of said groove.

7. A carriage bow support comprising a U-shaped base, having perforations in the depending portions thereof, an elliptical spring secured to said base, said elliptical spring being provided with a transverse groove having a depending lip at each end thereof.

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Witnesses:

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