

No. 670,108.

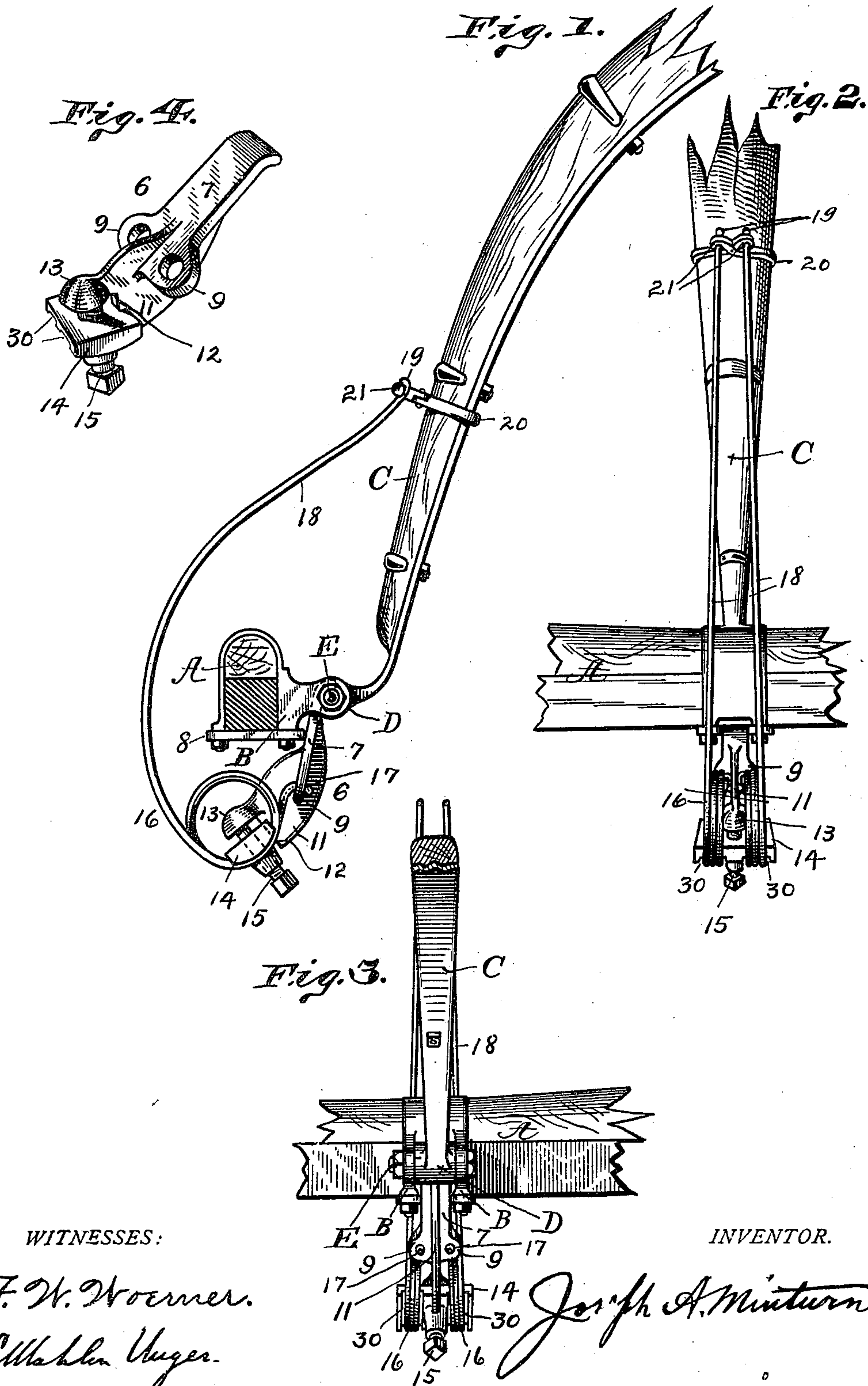
Patented Mar. 19, 1901.

J. A. MINTURN.

COMBINED ANTIRATTLER AND SHAFT SUPPORTER.

(Application filed Jan. 28, 1901.)

(No Model.)



WITNESSES:

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COMBINED ANTIRATTLER AND SHAFT-SUPPORTER.

SPECIFICATION forming part of Letters Patent No. 670,108, dated March 19, 1901.

Application filed January 26, 1901. Serial No. 44,908. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. MINTURN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in a Combined Antirattler and Shaft-Supporter, of which the following is a specification.

The objects of this invention are, first, to provide means whereby the rattling of parts of the thill-couplings of vehicles when they become worn and loose will be prevented; second, to provide a spring attachment which attached to the thills of vehicles will elastically support the shafts, and, third, to provide an adjustment whereby the tension of a spring-support for vehicle-shafts may be adjusted to compensate for the weakening of the spring by use.

I accomplish the objects of the invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a detail of shaft and cross-section of vehicle-axle and clip-bolt with my device attached; Fig. 2, a rear view of parts shown in Fig. 1; Fig. 3, a front view of same, and Fig. 4 a perspective of my antirattler and support.

Like letters and numerals of reference indicate like parts throughout the several views of the drawings.

A represents the axle; B, the clip-bolt; C, the rear end of a vehicle-shaft; D, the eye of the shaft, and E the eyebolt.

6 is the combined antirattler and support for spring shaft-supporter. The shank or upper end of same is slightly hooked to engage the eyebolt E. The flat body or plate 7 of said antirattler and support bears against the front edge of the clip-bar 8, and said body 7 terminates at its lower portion in the eyes 9 9. This plate 7 has the central longitudinal flange 11, which continues intermediate the eyes past the lower end of plate 7. It terminates with the straight edge 12 and cap 13, said cap 13 projecting past said straight edge and being hollowed out on its inner side to form a socket for a set-screw bearing therein.

14 is a bearing-plate separate from the parts

hereinabove described. It has a threaded opening through which takes the set-screw 15. The plate also has a notch on its inner edge, into which takes the straight edge 12. The inner end of set-screw 15 bears in socket of cap 13, and the distance of the plate 14 from the cap is regulated by said screw. The straight edge acts as a guide to direct the movement of the plate 14. The under surface of the plate 14 is oval and has transverse grooves 30 as seats for springs. The coiled spring 16 has one of its ends bent outwardly, as at 17, which end is inserted in one of the eyes 9 of the plate, and the opposite end of such spring is extended to form an arm 18, the end of which is curved to form a hook 19. A two-part loop 20 encircles the vehicle-shaft. The two parts of the loop are pivoted together like a tongs, the lower jaws encircling the shaft and the upper jaws being formed into hooks 21, under which the hooks 19 of springs 16 are secured. In the construction of my device I prefer to use two springs having the coils on the inner sides of arms 18, as shown in Fig. 1.

In using my device I open the tongs-loop 20 and pass it over the shaft. I then pass the curved upper end of the device 6 between the eye of the shaft and the shackle without removing the eyebolt E. I then insert one of the ends 17 of each spring in one of the perforations 9 of the plate and place the lower part of the interior of the coiled spring against the lower surface of the bearing-plate 14, in the grooves thereof, placing a coiled spring on either side of the flange 11. I force the arms 18 of the two coiled springs around the rear of the clip-bolt and axle and over and forward of the same and hook their respective ends to the tongs-loop 20. The proper tension of the springs is obtained by moving the plate 14 in or out by means of the set-screw 15. It will be noted that the head of the screw 15 projects out of the coils in easy access. As the springs by constant use lose their strength I am able to compensate for same by forcing the plate 14 out against the coils of the springs. This is a very valuable and important feature of my invention.

I do not broadly claim the use of a loop and coiled springs for balancing or supporting vehicle-shafts; but

What I claim as new, and desire to secure by Letters Patent, is—

1. In a combined antirattler and shaft-supporter, the combination with a thill-coupling and shaft having a recess between the shaft-eye and clip-bolt of such coupling, of the plate having its top curved into a hook and having eyes at its opposite lower end, the plate provided with a central longitudinal flange having a cap extension and a straight edge under said cap, an adjustable bearing-plate having a set-screw acting against the cap, the coiled springs each provided with an outwardly-bent end, and an arm and hook, and the loop encircling the shaft, substantially as described.

2. In a combined antirattler and support for vehicle-shafts, a plate having a hooked top, eyelets below said top and a projecting cap, a bearing-plate separate from the hooked plate and having a set-screw to bear against

the cap to regulate the distance of the bearing-plate therefrom, the coiled springs each provided with an outwardly-bent end and an arm and hook and the loop encircling the shaft, substantially as described.

3. A combined antirattler and support for vehicle-shafts consisting of the plate having a hook-shaped upper end and a pair of eyelets at its lower end, a longitudinal central flange, having a projecting cap and a straight edge under the cap and a separate bearing-plate having a notch in one edge to engage the said straight edge, and having a set screw or bolt taking against the projecting cap, the said bearing-plate having a curved outer face with transverse grooves thereon, substantially as described and shown.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 21st day of January, A. D. 1901.

JOSEPH A. MINTURN. [L. S.]

Witnesses:

S. MAHLON UNGER,

L. A. MINTURN.