

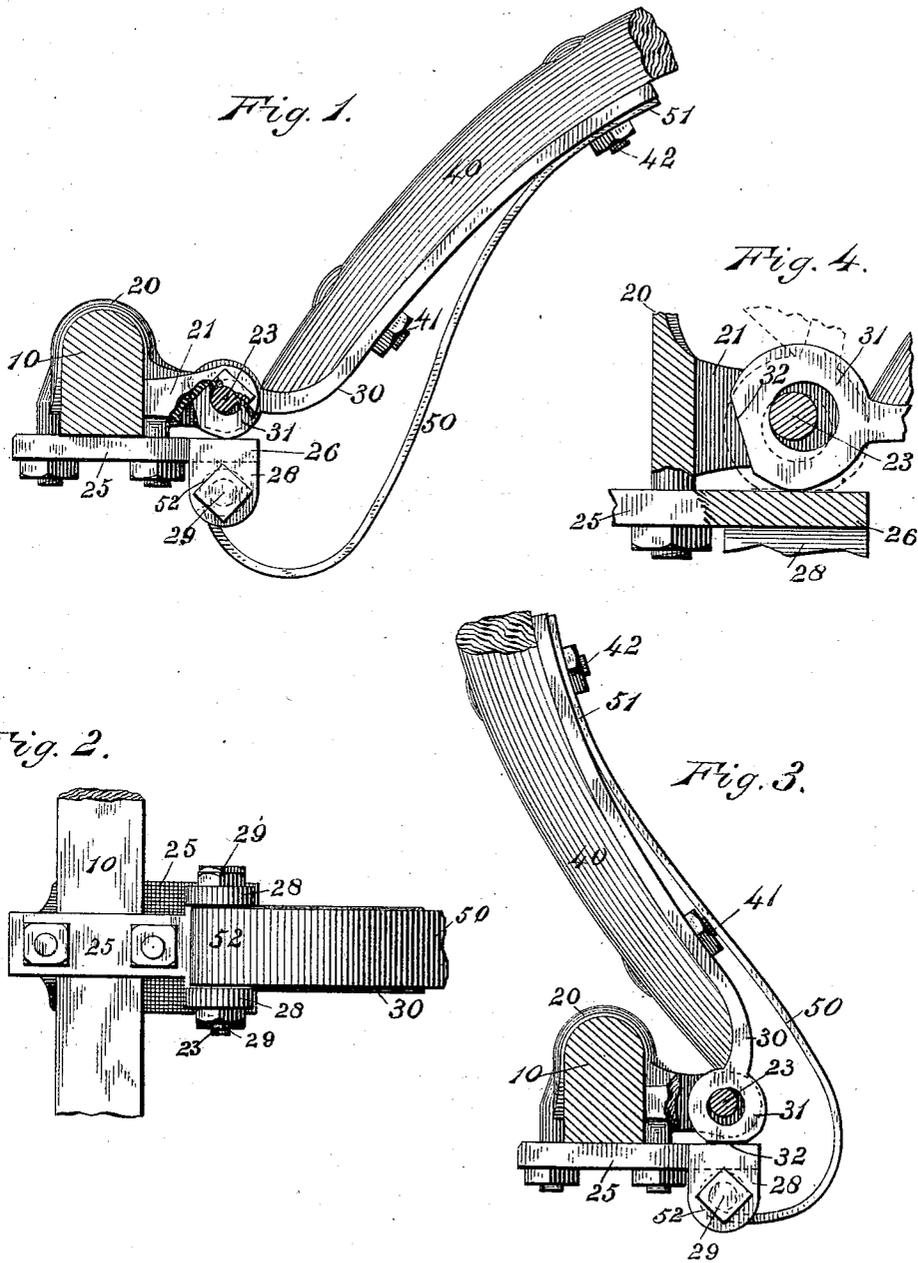
(No Model.)

S. A. BAILEY.

COMBINED ANTIRATTLER, SHAFT SUPPORT, AND SAFETY STRAP.

No. 591,318.

Patented Oct. 5, 1897.



WITNESSES

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UNITED STATES PATENT OFFICE.

SELDEN A. BAILEY, OF NEW YORK, N. Y.

COMBINED ANTIRATTLER, SHAFT-SUPPORT, AND SAFETY-STRAP.

SPECIFICATION forming part of Letters Patent No. 591,318, dated October 5, 1897.

Application filed April 26, 1897. Serial No. 633,990. (No model.)

To all whom it may concern:

Be it known that I, SELDEN A. BAILEY, a citizen of the United States of America, residing in New York, in the county of New York, in the State of New York, have invented a new and useful Combined Antirattler, Shaft-Support, and Safety-Strap for Thill-Couplings, of which the following is a specification.

The object of this invention is to provide for buggies and other vehicles a combined shaft-support, antirattler, and safety-strap which is simple in construction, effective in operation, and cheap to manufacture and which may be readily applied to wagons already in use as well as to those in process of construction.

Figure 1 of the accompanying drawings represents a side elevation of a thill-coupling embodying this invention, including a cross-section of the axle and a fragment of a thill, a portion of a jaw of the axle-clip being broken away and the parts being in the position which they assume when the thills are elevated in horizontal position for use. Fig. 2 represents a plan view of the under side thereof. Fig. 3 represents a side elevation of the device shown in Fig. 1, the parts being in the position which they assume when the thills are swung upright out of use, one jaw of the axle-clip being broken off to show the position of the eye of the thill-iron relative to its bolt and the extended axle-plate when the thill is so elevated. Fig. 4 represents, on an enlarged scale, a fragment of the axle-clip in section and the eye of the thill in elevation, showing the position of the latter relative to the bolt and plate when the thill is in horizontal position for use.

The same reference-numbers indicate corresponding parts in all the figures.

The axle 10 has two axle-clips, to which the thills are shackled. The axle-clip 20 (shown in the drawings) has the usual jaws 21 and 22, through which the shackle-bolt 23 is passed.

The thill-iron 30 is attached to the thill 40 by bolts 41 and 42 or by other means. The eye 31 of this thill-iron has an opening somewhat larger than the shackle-bolt 23, on which it is pivoted, in order that it may have some lateral play on said bolt. This eye is preferably provided on its exterior rear portion with a flat face 32.

The clip-yoke 25, which passes under the axle and connects the ends of the clip spanning the axle, has a forward extension 26, which projects under the shackle-joint of the thill and serves as a bearing-surface for the eye of the thill, as hereinafter described. This extension is provided with dependent lugs 27 and 28. A curved spring 50, constructed of stiff plate-steel, connects the axle-clip with the thill and serves in such connection as an antirattler, shaft-support, and safety-strap. This spring has an approximately straight portion 51 at its front end, adapted to fit the under side of the thill or thill-iron, and an eye 52 at its rear end. It is rigidly fastened at its front end to the thill by any suitable means—as, for instance, by the bolt 42, which also serves to hold the thill-iron—and it is pivoted or shackled at its rear end to the axle-clip by means of a bolt 29, which passes through the eye 52 and through the shackle-jaws 27 and 28 of the yoke of the axle-clip. From its point of pivotal connection with the axle-clip the spring 50 bows outward and thence curves slightly inward toward the thill, being approximately of ogee shape in its preferable form. The shackle of the spring is disposed adjacent to and substantially in line vertically with the shackle of the thill to the axle-clip, and this arrangement of the shackle-joints in connection with the two opposite curves of the spring permits the thill to be swung downward so that its free end will touch the ground, and upward into vertical position when not in use.

When the horse is harnessed to the vehicle, the tension of the springs, as 50, is such as to hold the eyes, as 31, of the thill-irons, as 30, firmly in contact with the clip-yoke extension, as 26, so that rattling is prevented.

When the vehicle is not in use, the thills are preferably swung into upright position, and the flat faces, as 32, of the thill-irons engage the extended clip-yokes, as 25, and assist the springs, as 50, in holding the thills in this position.

The spring 50 being fastened at one end to the thill and at its opposite end to the axle-clip serves also as a safety-strap for preventing an accident in case a shackle-bolt which secures the thill to the axle-clip should break. In such an emergency the spring acts in the

capacity of a shaft-iron and all danger of the shaft falling and striking the horse on the heels is avoided.

5 It will thus be observed that my device performs the triple function of an antirattler, a shaft-support, and a safety-strap.

I claim as my invention—

10 1. In a thill-coupling the combination of an axle-clip, a thill shackled thereto, a metallic spring rigidly fastened at one end to the thill and shackled at the other end to said clip at a point adjacent to and vertically in line with the shackle of the thill, said spring being bowed outward permitting the thill to rest on
15 the ground or in upright position and serving as a support, as a safety-strap, and as an anti-rattler.

20 2. In a thill-coupling, the combination of an axle-clip, a thill shackled thereto, a metallic spring rigidly fastened at one end to the thill and shackled at the other end to said clip at a point adjacent to and vertically in line with the shackle of the thill, said spring being curved inward near its point of connection
25 with the thill and bowed outward in its rear portion, permitting the thill to rest on the ground or in upright position and serving as a support, as a safety-strap and as an anti-rattler.

30 3. In a thill-coupling, the combination of an axle-clip having shackle-jaws, and a clip-yoke extending under said shackle-jaws and also provided with shackle-jaws, a thill having a thill-iron shackled to the jaws of the axle-clip, the eye of said thill-iron having a flat
35 face for engaging said yoke, and a metallic spring fastened to the thill and shackled to said clip.

4. In a thill-coupling, the combination of an axle-clip, a clip-yoke thereon, a thill-iron 40 shackled to said clip, the eye of said thill-iron having a flat face for engaging said yoke, and a spring fastened at one end to the thill and at the other end to the axle-clip.

5. In a thill-coupling, the combination of an 45 axle-clip, the bow thereof having shackle-jaws, and the yoke having a front extension projecting under said jaws and provided with shackle-jaws, a thill-iron, the eye of which is pivoted to the jaws of said bow and adapted 50 to bear on said front extension, and a spring connected at one end to said thill-iron and shackled at the other end to the shackle-jaws of said yoke, said spring operating to hold the eye of said thill-iron in contact with said front 55 extension and thereby serving as an antirattler.

6. In a thill-coupling, the combination of an axle-clip, a thill shackled thereto, a spring 60 rigidly fastened at one end to the thill and shackled at the other end to said clip at a point directly under and vertically in line with the shackle of the thill.

7. In a thill-coupling, the combination of an axle-clip, a thill shackled thereto, a spring 65 rigidly fastened at one end to the thill and shackled at the other end to said clip at a point directly under and vertically in line with the shackle of the thill, said shackles forming a close joint whereby the eye of the thill-iron 70 is adapted to bear firmly against the clip-yoke.

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Witnesses:

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