(No Model.)

A. M. STEWART.

ANTIRATTLER AND THILL SUPPORT.

No. 575,044. Patented Jan. 12, 1897.

Fig. 1.

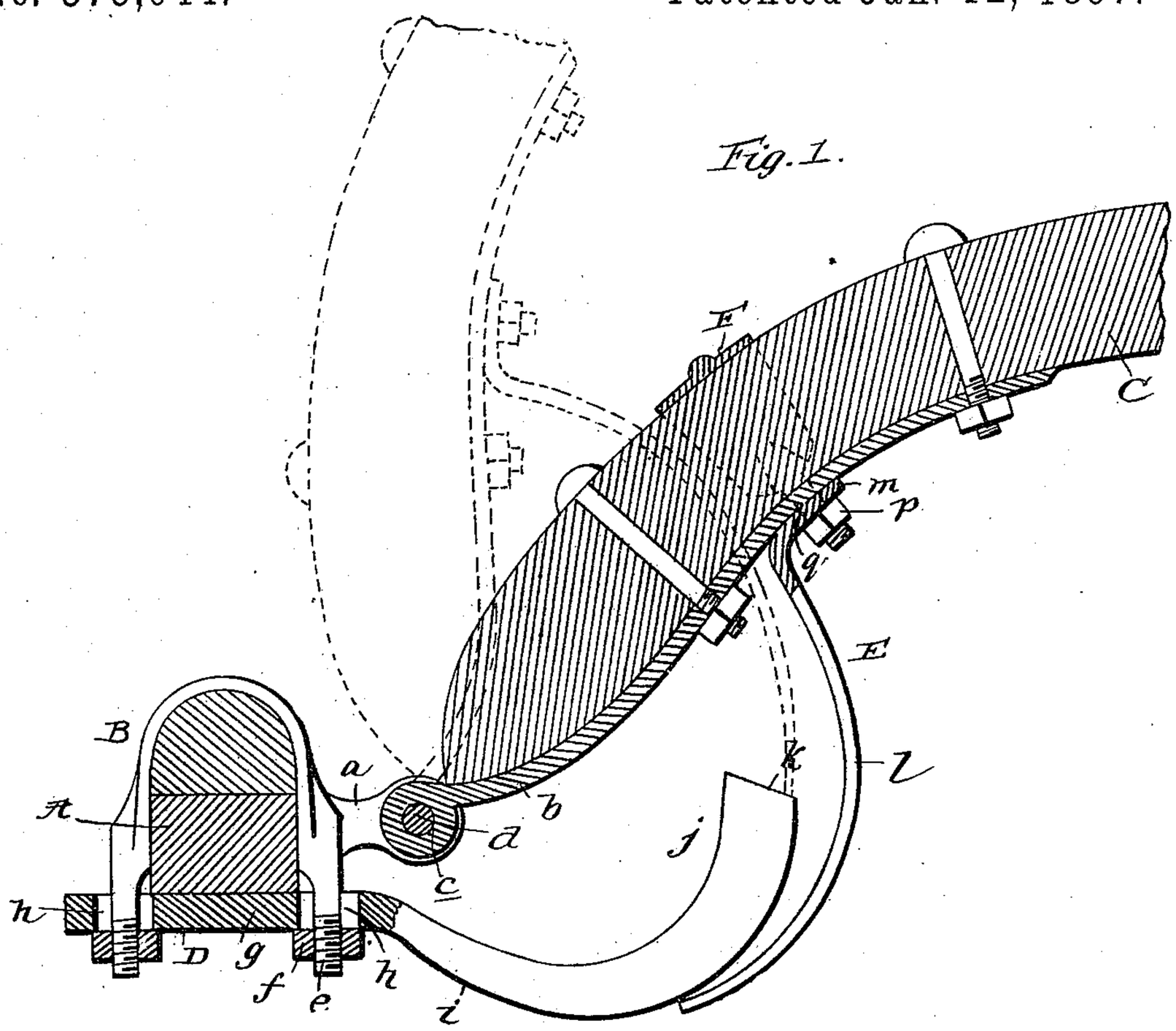
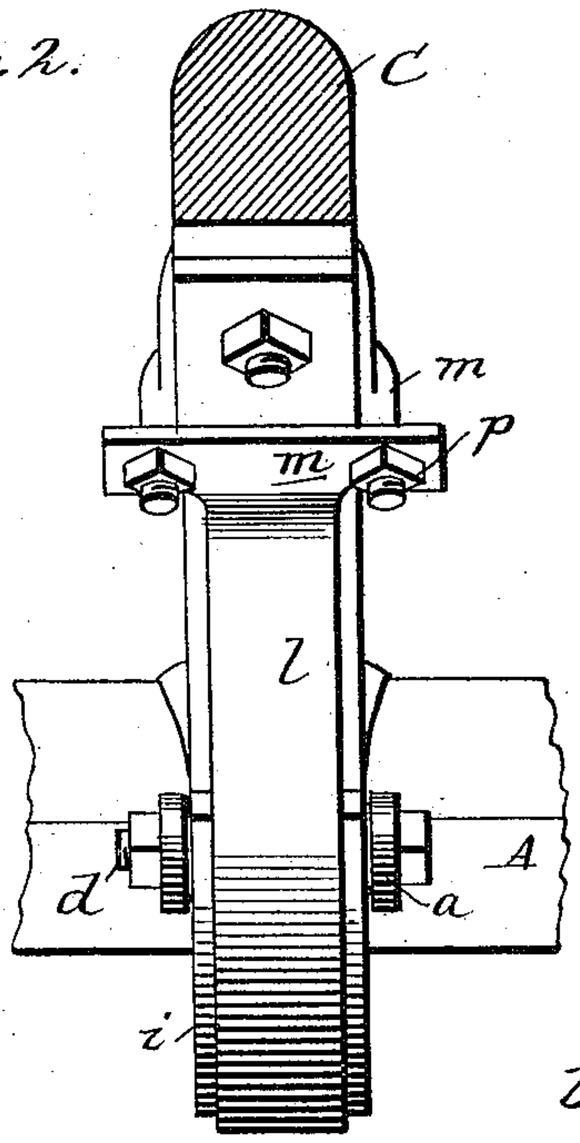


Fig. 2.



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UNITED STATES PATENT OFFICE.

ALEXANDER M. STEWART, OF WINNIPEG, CANADA.

ANTIRATTLER AND THILL-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 575,044, dated January 12, 1897.

Application filed April 20, 1896. Serial No. 588,337. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER M. STEWART, traveler, a British subject, residing at the city of Winnipeg, in the Province of Manitoba and Dominion of Canada, have invented certain new and useful Improvements in Antirattlers and Shaft-Holders; and I do 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.

This invention relates to improvements in that class of antirattlers for thill-couplings which are designed to serve the additional function of supporting the shafts in a raised position; and its novelty and advantages will be fully understood from the following description and claim, when taken in conjunction with the annexed drawings, in which—

Figure 1 is a longitudinal vertical sectional view of a thill and coupling on an axle with my improvement applied, and Fig. 2 is a front elevation showing the shaft or thill in cross-section.

Referring by letter to said drawings, A indicates an axle, which may be of any suitable construction, and B indicates the shackles or yokes, which may be also of the construction usually employed. These yokes have the usual lug-journals *a*, to receive between them the thill-iron *b*, having the usual eye *c*, which coincides with the eyes in the lugs *a* to receive the bolt *d*. The thill-iron is secured to the shaft or thill C in the usual manner. The yokes B are screw-threaded at the lower ends of the branches, as shown at *e*, to receive nuts *f*.

D indicates a bar, which may be composed of steel, cast-iron, or other suitable material. This bar is provided with a straight portion *g*, which is slotted longitudinally at two points, as shown at *h*, to receive the threaded depending branches or lower ends of the yoke B. This bar, which is of a sufficient length, extends forwardly from the axle, as shown, being curved downwardly, as at *i*, and thence upwardly, as at *j*, and its free end terminates abruptly, so as to present a broad bearing *k*, which is beveled or inclined downwardly, as shown, for a purpose presently described. This bar, which coöperates with a spring in forming the antirattler, as will be presently described, serves the additional functions of a clip-plate for the yokes B.

It will be seen that the plate is held in position below the axle and to the yokes by means of the nuts *f*, and by reason of the slots in said plate or bar the connection to the yoke and with respect to the axle is made adjustable, so as to increase or decrease the frictional contact of the spring with the curved portion of the bar, as may be desired.

E indicates a spring, which may be composed of flat steel or other suitable material. This spring is of a form substantially as shown, having the downwardly and rearwardly curved branch *l*, and its upper end terminates in a T-head *m*. The spring is adjustably secured to the shaft or thill at its upper end by means of a clip F, which straddles said thill, as shown, and has its depending branches threaded to receive nuts *p* or the like. The head *m* is provided with holes *q* to receive the threaded branches of the clip.

It will be seen that when it is desired to change the point of attachment on the thill it is simply necessary to loosen the nuts *p*, so that the clip may be moved, and by then tightening the nuts the spring will be secured at the point desired.

The spring, as shown, is secured to the under side of the thill, and the curved end of said spring is normally in engagement with the under side of the curved part of the bar D. The spring is attached to the thill at such a point with respect to the curved bar that when said thills have been thrown upwardly in the position shown in dotted lines the free end of the spring will bear upon the blunt upper end *k* of said bar, the spring being of sufficiently thick or stiff material to hold the thills in the elevated position.

The shafts or thills are coupled to the axle in the usual manner. When it is desired to place the vehicle away, such as when not in use, by raising the shafts to the position shown in dotted lines the spring will engage the ends *k* of the curved bars, (there being, of course, one of these bars for each shaft or thill,) so as to hold the shaft in such raised positions. It being now desirable to use the vehicle, the attendant should grasp the shaft and draw the springs from engagement with the ends *k* of the curved bars until the ends

of the springs pass under said bars, holding frictional contact therewith. When the thills are let down into their normal positions, the springs will hold contact with the curved bars, so as to prevent any rattling or noise at the couplings. By having the ends *k* of the curved bars arranged on an incline or oblique, as shown, the ends of the springs will readily pass on and off of the parts *k* without undue strain, and yet casual disengagement of the said springs from the bars will be prevented, it being noticeable that by reason of the curvature of the springs they have no tendency to move downwardly and forwardly on the ends *k* of the bars.

Having described my invention, what I claim is—

In the combined thill-support and antirattler described the combination of the axle, the shackle arranged on the axle and having its lower ends threaded and provided with nuts, the thill pivotally connected with the shackle, the bar D, having the horizontal portion arranged below the axle and provided with the longitudinal slots *h*, receiving the ends of the shackle, and also having the portion extending forwardly from the axle and curved downwardly and upwardly and having the broad downwardly and forwardly inclined free end *k*, the clip arranged on the thill and having the threaded ends and the nuts thereon and the spring having the head *m*, at its forward end secured by the nuts to the ends of the clip; said spring being curved in conformity to the curved portion of the bar D, and adapted to bear against the under side of said bar to prevent rattling and also adapted to bear at its free end upon the broad inclined end *k*, of said bar to support the thill in its raised position, all as and for the purpose set forth.

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

ALEXANDER M. STEWART.

Witnesses:
THOMAS K. METCALFE,
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