(Model.)

G. W. ROSSMAN & J. E. STREVER.

THILL COUPLING.

No. 296,787. Patented Apr. 15, 1884.

Fig. 1.

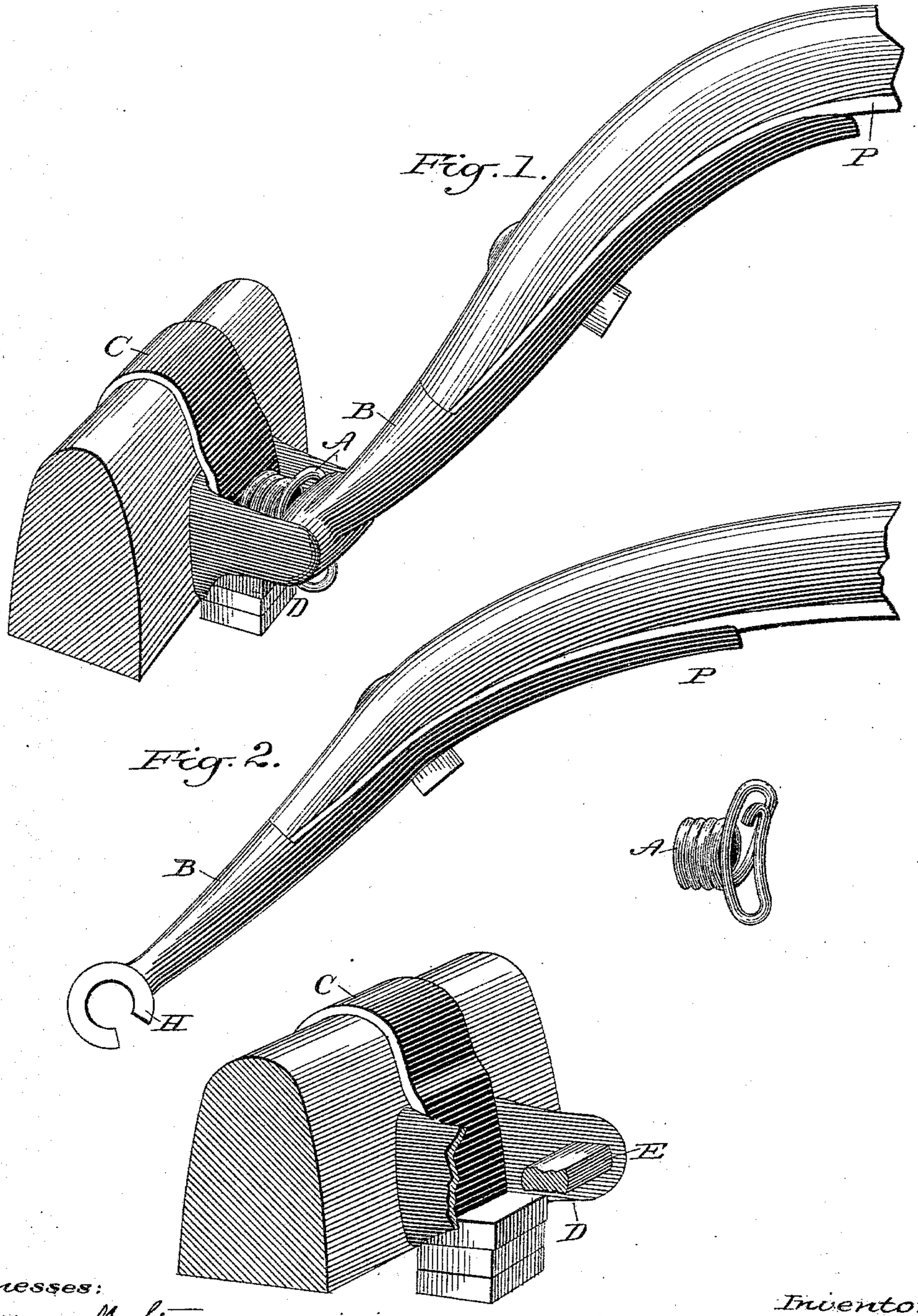

Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE W. ROSSMAN AND JAMES E. STREVER, OF ANCRAM, NEW YORK.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 296,787, dated April 15, 1884.

Application filed January 14, 1884. (Model.)

To all whom it may concern:

Be it known that we, GEORGE W. ROSSMAN and JAMES E. STREVER, citizens of the United States, residing at Ancram, in the county of Columbia and State of New York, have invented a new and Improved Useful Thill-Coupling, of which the following is a specification.

The objects of our improvements are embraced in the following principles: First, we claim an improvement in manner of attaching and detaching thills to a wagon so as to be perfectly secure against accident; second, that it is made of cast-steel with tensile strength of seventy thousand pounds to the inch, rendering it very strong and ornamental, if desired, at much less cost than if made of wrought-iron; third, that we use an easily-adjusted and durable coiled steel spring of novel pattern to prevent rattling and the possibility of accidental uncoupling, an occurrence quite liable with most adjustable couplings; fourth, that it is of itself a dirt-excluder, thereby preventing attrition upon parts liable to wear out; fifth, that it is secured to thill by being bolted thereto, making it very strong and safe. We attain these objects by the mechanism illustrated in the accompanying diagram, in which—

Figure 1 shows parts in position. Fig. 2 shows parts separate represented by letters A B C D.

C and D show method of attaching the steel casting D to axle by means of an ordinary clip secured in the usual way. This casting has a flattened bar at E, which will enter the eye H of steel casting B when the thills are in a vertical position. When thills are turned down in a horizontal position, the flat bar at E will be arranged transversely relative to the narrow slot in H. The slot in eye H is downward when in use, thereby preventing its catching or holding grit, and the vacant space above the flat bar forms a convenient receptacle for a lubricant. Now, by placing the concave portion of the coiled spring A against the back of eye H, with a slight blow from a hammer it will enter in position and effectually prevent all rattling. With this arrangement it will be seen that it is impossible to remove the thills, except by first removing the spring A with a punch and hammer, and again bringing thills into a vertical position and moving them backward. The coil-spring A is fixed in position by placing its peculiar concave parts against the eye-piece, and while it prevents all rattling its pressure is not so great as to cause undue friction of the parts, and its strength can be easily regulated or renewed by opening the coils.

Its parts may be made of Bessemer cast-steel, which cannot be practically welded and extended on the thill-strap and axle-clip, as usual, but by means of the peculiar and novel construction may be bolted securely to the thill-strap and thill and to the axle by passing an ordinary clip through the opening in casting D, and fastened to a clip-bar under the axle in the usual way, although we do not intend to confine ourselves to any special kind of steel or any other metal suitable for the purpose. The cylindrical spring A is held in position solely by the concave portion, and prevents the possibility of uncoupling, therein differing from all other wire springs used for a similar purpose, as substantially described.

The thill is strengthened by an ordinary strap of iron, as seen at P, Fig. 1, the casting B being bolted to it.

We do not claim, broadly, the combination of wire spring with flattened bar and slotted thill-eye; but

What we claim as our invention, and desire to secure by Letters Patent, is—

The combination of two steel castings—one to be bolted to the axle, the other to the thill—constructed substantially as described, with a coiled steel spring terminating at one end in an elliptical concave bearing, as above set forth, forming an improved adjustable thill-coupling of novel design.

GEORGE W. ROSSMAN.
JAMES E. STREVER.

In presence of—
GROVENOR J. ROSSMAN,
ELISHA W. SWEET.