

A. L. ZUCK.
THILL-COUPLING.

No. 177,912.

Patented May 23, 1876.

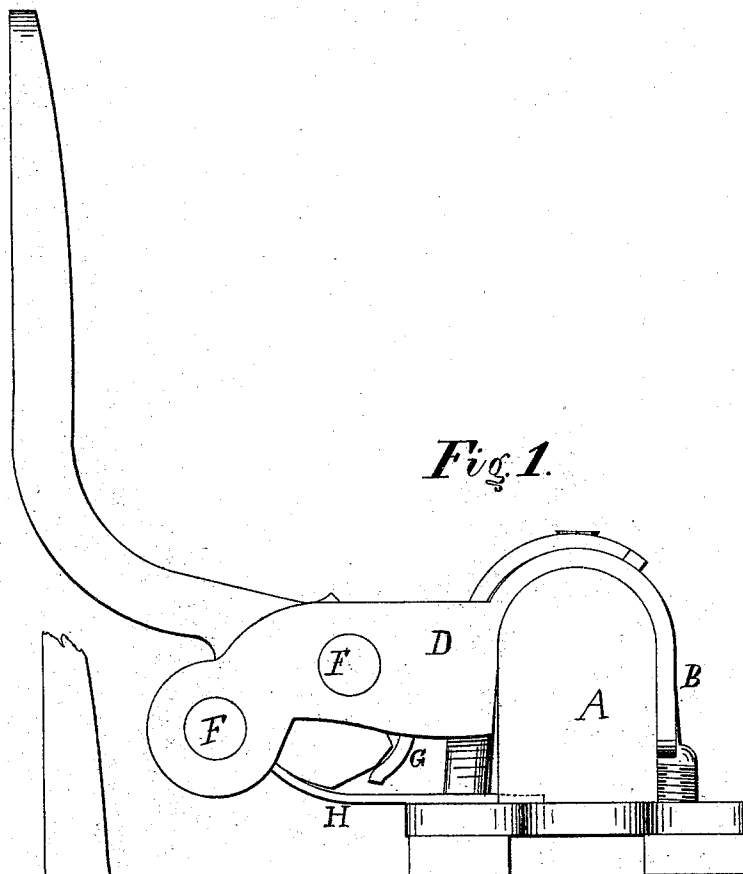


Fig. 1.

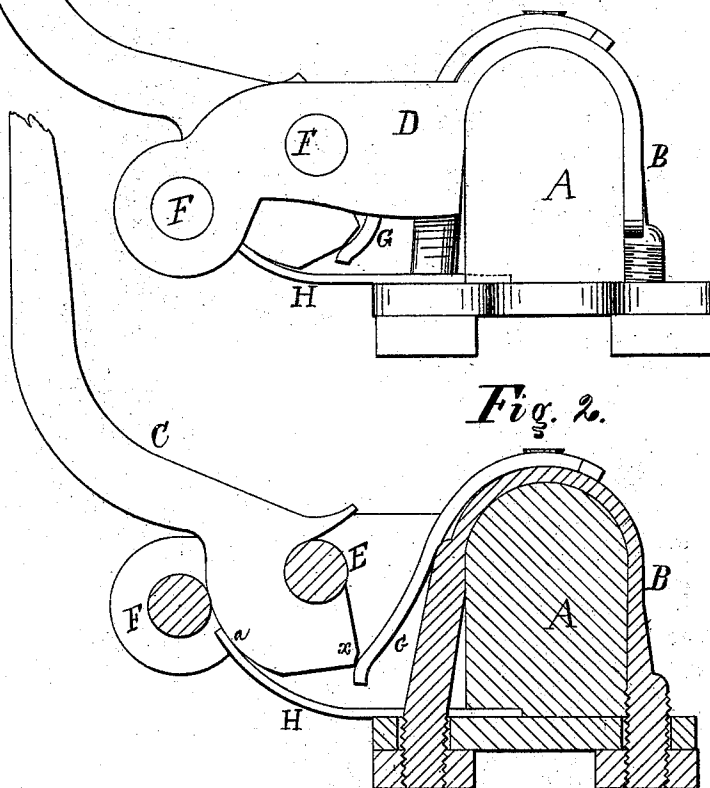


Fig. 2.

WITNESSES

H. Hubrey, Fulminant
A. H. Miller

INVENTOR

A. L. Zuck.

By *Hixson & Mator*
Attorneys

UNITED STATES PATENT OFFICE.

ALVIN L. ZUCK, OF MARION, OHIO.

IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. 177,912, dated May 23, 1876; application filed April 24, 1876.

To all whom it may concern:

Be it known that I, A. L. ZUCK, of Marion, in the county of Marion, and in the State of Ohio, have invented certain new and useful Improvements in Thill-Couplings; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of two springs, together with the shape of the shaft-iron, to form an anti-rattling connection of shafts to the axles of vehicles, as will be hereinafter more particularly described.

In the accompanying drawings, making part of this specification, Figure 1 represents a side view, and Fig. 2 a cross-section.

In the figures, A represents the axle of a vehicle; B, the clip, which holds the shaft-iron, constructed substantially in the usual manner; and C, the shaft-iron. D represents the ears of the clip, which are made somewhat longer than those of the clips in common use. These ears are provided with two riveted bolts, E and F. The bolts are not on a horizontal line, and are a short but suitable distance apart. The shaft-iron C has a forked end, the crotch of said fork being half-round, so that the bolt E will fit snugly in it. The under

side of the iron, near its end, is made in peculiar cam shape, as seen.

When the shaft-iron is raised to a perpendicular position, so that its forked end can straddle the bolt E, the lower fork of the iron passes between the two bolts E and F, and its forward point strikes a spring, G, at *x*, and its under side a spring, H, at *a*. When the iron is lowered in position for use, the springs G and H bear against it, and keep it snugly against the bolts, and thus prevent any rattle. The spring G has its upper end secured upon top of the clip, while the other spring, H, is held between the cross-bar of the clip and the under side of the axle. When the iron is lowered as far as it will go its under side rests upon the bolt F.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The shaft-iron C, constructed substantially as set forth, in combination with the bolts E and F and the springs G and H, for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of April, 1876.

ALVIN L. ZUCK.

Witnesses:

W. H. MOHR,
E. DOUGHERTY.