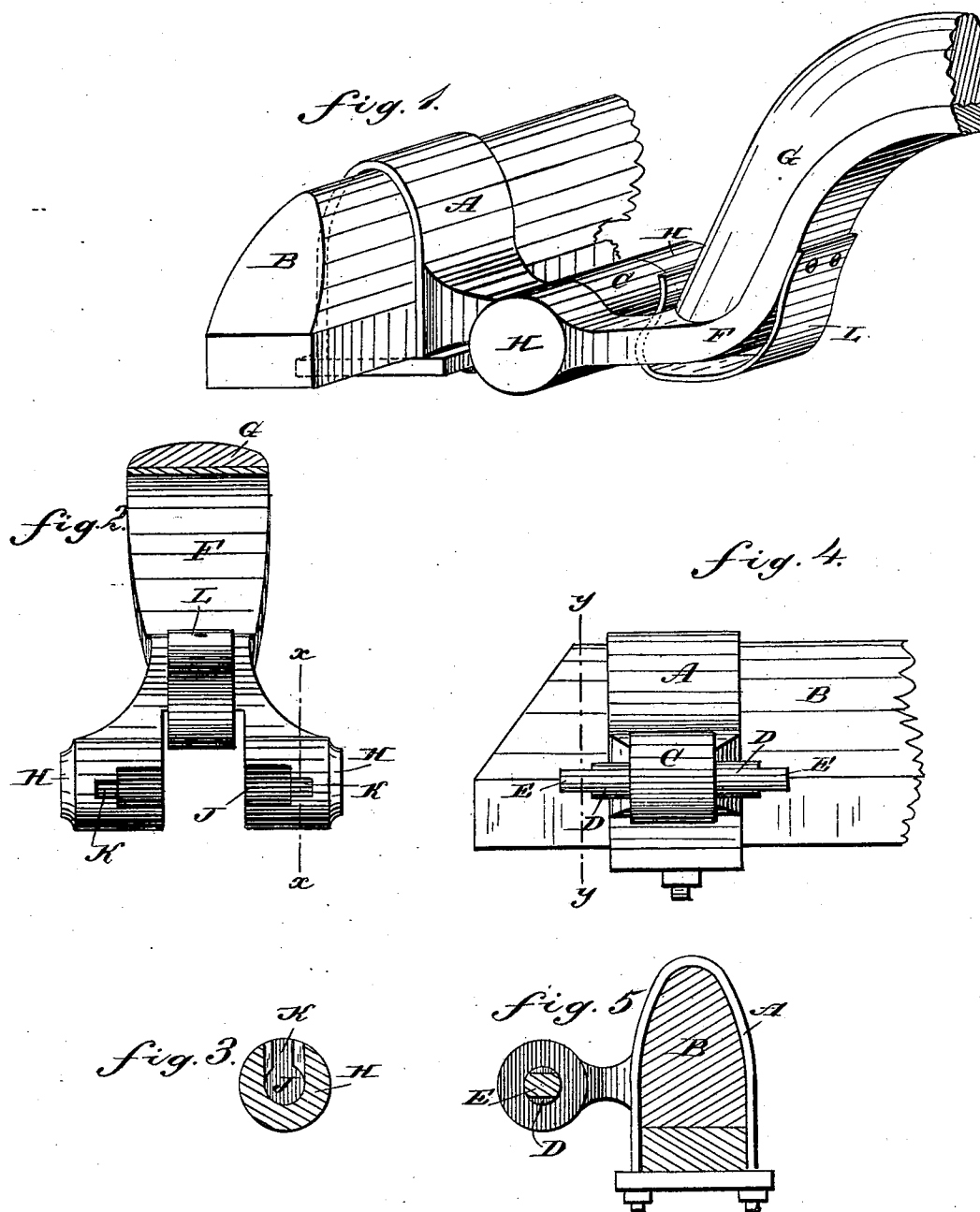


(No Model.)

G. W. BEEBE.
THILL COUPLING.

No. 272,628.

Patented Feb. 20, 1883.



WITNESSES:
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UNITED STATES PATENT OFFICE.

GAYLORD W. BEEBE, OF SWANTON, VERMONT.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 272,628, dated February 20, 1883.

Application filed July 31, 1882. (No model.)

To all whom it may concern:

Be it known that I, GAYLORD WARREN BEEBE, of Swanton, in the county of Franklin and State of Vermont, have invented a new and Improved Thill-Coupling, of which the following is a full, clear, and exact description.

The object of the invention is to improve thill-couplings, as hereinafter described and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my improved thill-coupling. Fig. 2 is a view of the under side of the socket-piece attached to the end of the thill. Fig. 3 is a cross-sectional view of the same on the line *xx*, Fig. 2. Fig. 4 is a front elevation of the axle-clip provided with the transverse pin. Fig. 5 is a cross-sectional elevation of the same on the line *yy*, Fig. 4.

The axle-clip A, which is secured to the axle B in the usual manner, is provided with an arm, C, projecting from the front of the clip, and in the outer end of this arm a transverse horizontal pin, D, is secured, which is recessed or flattened at the top and bottom at each end, so that a flat horizontal lug, E, will be formed at each end of the pin D. A fork, F, attached to the end of the thill G, has a transverse cylindrical enlargement, H, formed at the end of each shank, and in the under side each enlargement H is provided with a partly-cylindrical recess, J, extending to the inner ends of the enlargements. At their ends these recesses are provided with apertures or cavities K, adapted to receive the flat lugs E. A flat spring, L, attached to the thill G, has its outer end bent upward between the shanks of the fork F.

The operation is as follows: In order to uncouple the thills, they must be turned upward until they almost touch the dash-board—that is, until the cavities K will be parallel with the flat lugs E. Then the lower ends of the thills are pushed toward the dash-board, thereby causing the lugs E at the ends of the transverse pin D to leave the cavities K. To couple the thills they are raised until the lugs E and the cavities K are parallel. Then the lower ends of the thills are moved from the dash-board and the lugs E enter the cavities K.

Then the thills are swung down, and when in this position will be coupled, and they cannot become disconnected, as the pin D can only be removed from the recesses J when the lugs E and the cavities K are parallel—that is, when the thills are raised.

The lower upwardly-bent end of the spring L rests against the end of the arm C and prevents rattling of the coupling.

The coupling is safe and reliable, and permits of coupling and uncoupling the thills very rapidly.

Single poles can be coupled, as well as thills, by means of my improved coupling. As neither bolts nor nuts are required, a safer and neater coupling is the result, and as there are two bearing-points there is less wear, and consequently more durability of the parts.

The spring L is bent to fit snugly against and over the cylindrical head C of the axle-clip, thereby holding the thill from motion in either direction and preventing all rattling.

I am aware that a thill-coupling has been provided with a plate-spring whose end bears upon the bottom of the clip-arm; but this does not prevent rattling, as its pressure is only upward, and not in a line with or parallel to the draft. Mine takes up the longitudinal displacement of the pin D in the same way that the supporting-springs of a vehicle take up the vertical movement caused by rough roads.

What I claim as new is—

1. In a thill-coupling, the clip A, provided with the front arm, C, in combination with the pin D, having a flat lug, E, at each end, and a thill-fork, F, having enlargements H, with apertures K in the recesses J, as shown and described.

2. In a thill coupling, the combination, with the axle B and the thill G, of the axle-clip A, provided with an arm, C, having a transverse pin, D, with flattened ends E, secured thereon, the fork F, having its ends provided with cylindrical recesses J, terminating in cavities K, and the spring L, attached to the thill, and having its ends bent up between the shanks of the fork F, substantially as herein shown and described, and for the purpose set forth.

GAYLORD W. BEEBE.

Witnesses:

DAVID LAWRENCE,
EZRA H. BEEBE.