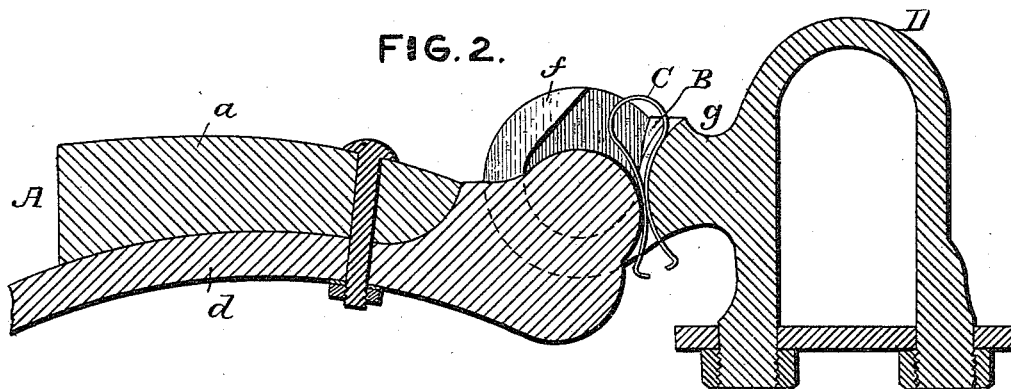
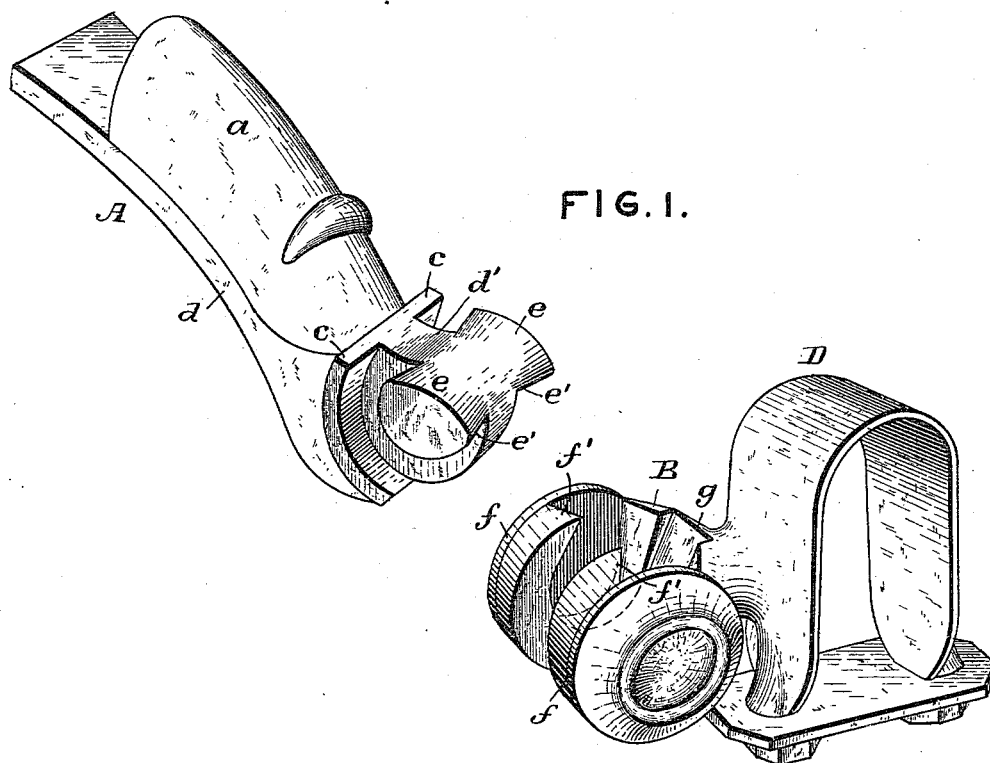


(No Model.)

C. R. MOORE.
THILL COUPLING.

No. 420,015.

Patented Jan. 21, 1890.



ATTEST.

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CHARLES R. MOORE, OF NEWPORT, VERMONT, ASSIGNOR TO HIMSELF AND
HERBERT W. MERRILL, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 420,015, dated January 21, 1890.

Application filed December 12, 1889. Serial No. 333,407. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. MOORE, a citizen of the United States of America, residing at Newport, in the county of Orleans and State of Vermont, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The object of my invention is to provide a thill-coupling that will be secure, be easy and rapid in operation in detaching thills or poles from vehicles or in attaching the same, that will not rattle, and at the same time will afford a bearing-surface that will not tend to separate the ear-pieces of the stationary part which is attached to the axle. I attain these ends in the manner hereinafter fully set forth.

Figure 1 is a perspective view of my device, the parts being separated to show it more clearly. The spring C is omitted. Fig. 2 is a vertical section of the same with the parts in position, showing the spring C *in situ*.

The part A is composed of the wooden part 25 a, (the thill or pole end,) the metal tang d, carrying the shoulders c c, the rib or web d', and the beveled bosses e e.

The part B, which is attached by the clip D to the axle, consists of the ear-pieces f f, which are prolongations from the body g, which is made a part of the clip, and is bifurcated to form said ear-pieces. The web d', when in position, occupies the space between the outer end of the ear-pieces f f, and the bearing-shoulders c c bear against the forward-curved ends of the said ear-pieces. In order to insert the bosses e e between the ear-pieces, the thills must stand approximately vertical, in which position the flattened surface e' e' of the bosses e e and web d' will allow of insertion. When once in position, the spring C is compressed and inserted and the thills lowered. The spring C forces the bosses forward in close contact with the inner bearing-surfaces of the ear-pieces, and thus pre-

vents rattling. Before removal of the thills it is necessary to remove the spring which guards against accidental detachment of the thills.

One of the important features of my invention is the form of the bearing-surfaces of the bosses e e and of the ear-pieces f f, as indicated at f' f'. It will be seen by the drawings that the bosses are larger at their outer ends, and that the recesses f' f' in the ears are made to fit this beveled or dovetailed shape of the bosses. When draft is applied to the thills, this dovetail joint tends to draw the ears together and to securely hold the thills to the vehicle. It is clear that if the bevels were made in the opposite direction there would be a strong tendency to draw the bosses out of the ears by wedging the same apart, while if arranged as shown the opposite tendency would result. The dovetail joint also prevents side motion of the thills, which occurs when the bearings are not angular.

Having thus fully described my invention, I claim—

1. In a thill-coupling, the beveled bosses e e, in combination with the beveled recesses f' f' in the ear-pieces f f, substantially as and for the purposes described.

2. In a thill-coupling, the combination of the beveled bosses e e, the beveled recesses f' f' in the ear-pieces f f, and the spring C, substantially as and for the purposes specified.

3. In a thill-coupling, the combination of the clip D, body g, ear-pieces f f, having beveled recesses f' f', the beveled bosses e e, with a portion e' cut away, the spring C, web d', and metal tang d, provided with the shoulders c c, substantially as described.

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

CHARLES R. MOORE.

Witnesses:

H. S. ROOT,
E. C. SKINNER.