

No. 874,288.

PATENTED DEC. 17, 1907.

F. M. BELDEN.
COMBINED SHAFT AND CROSS BAR BRACE.

APPLICATION FILED SEPT. 20, 1907.

Fig. 1.

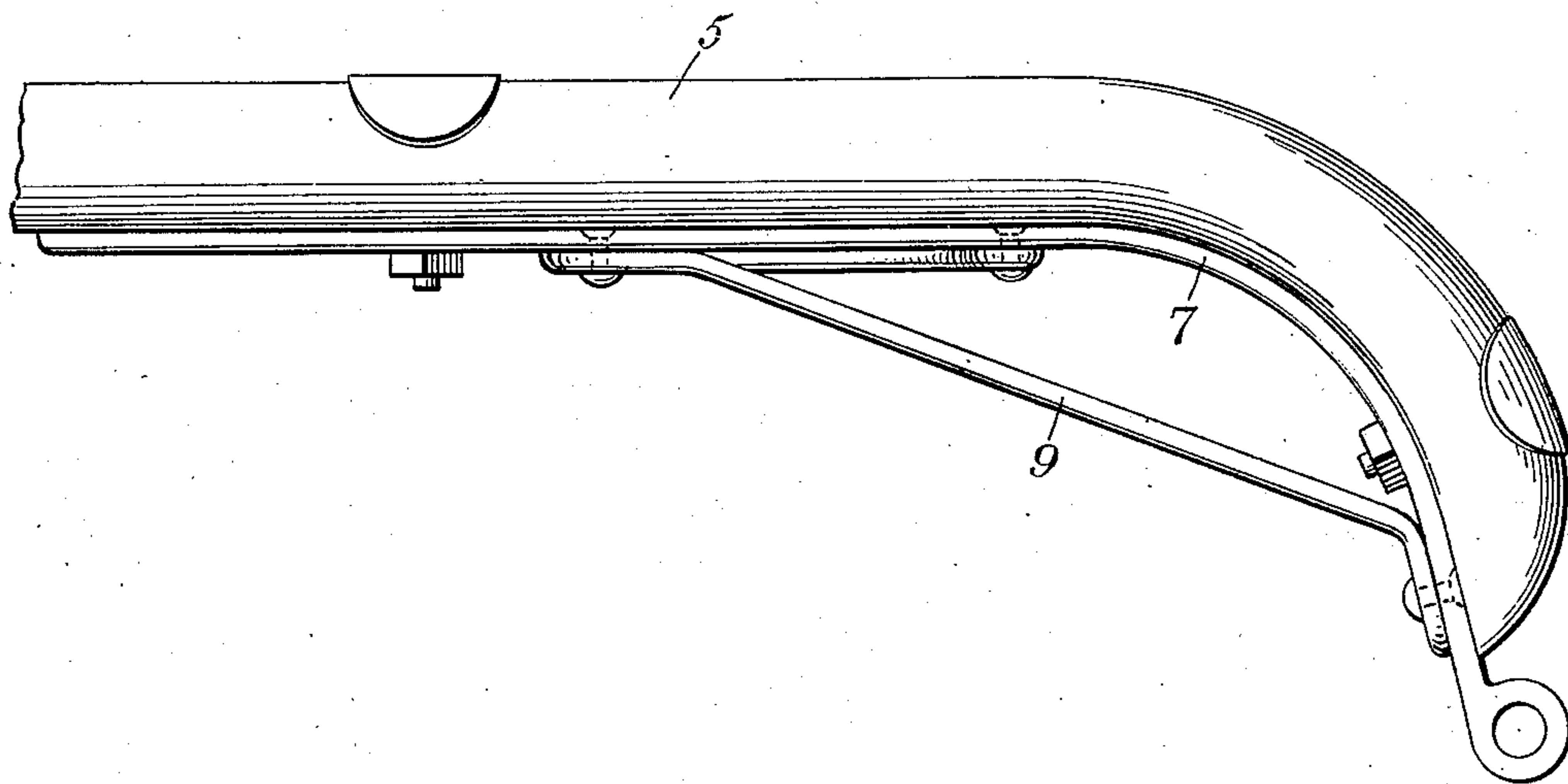
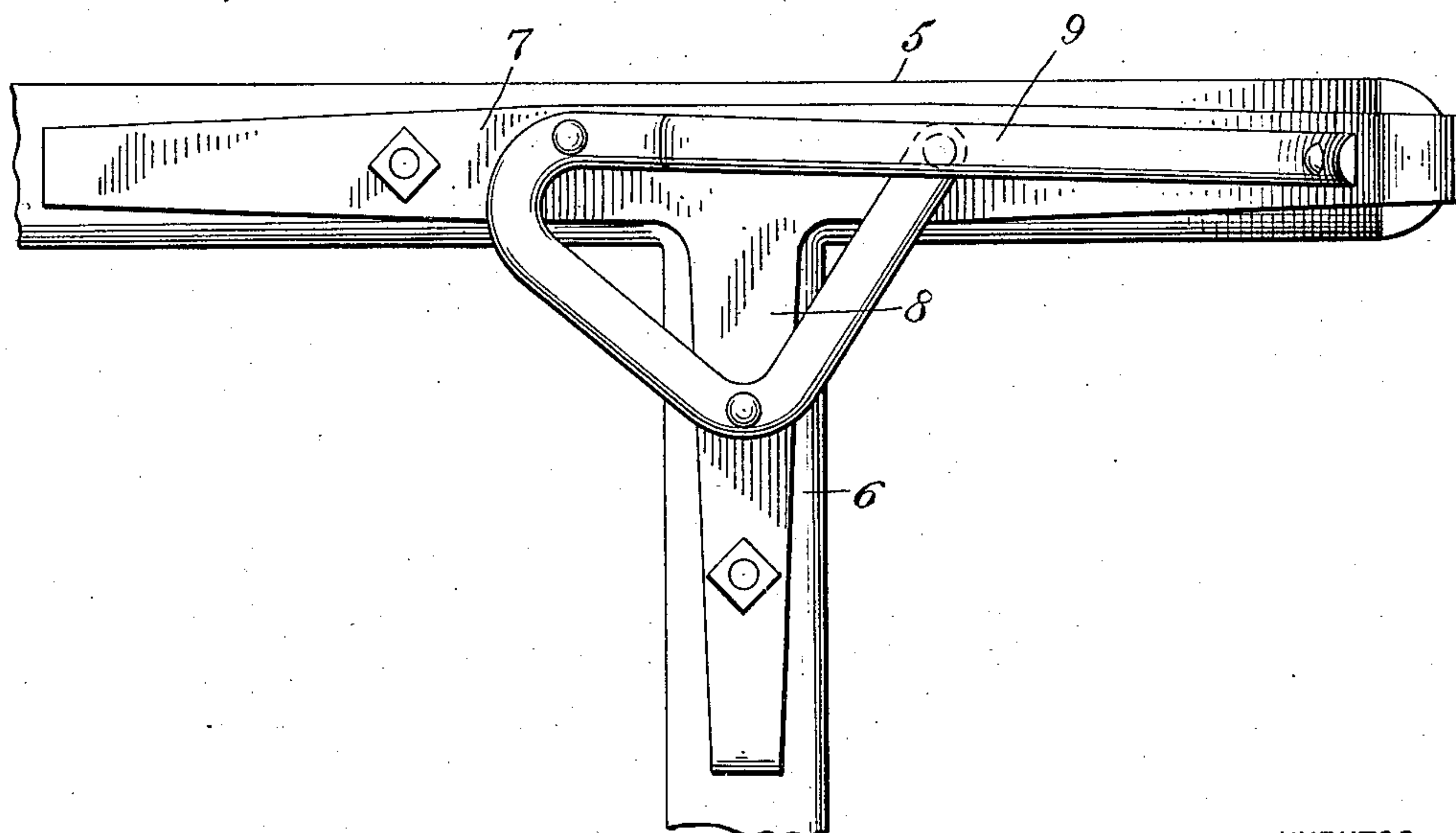


Fig. 2.



WITNESSES

G. R. Thomas
W. H. Holt

INVENTOR

Frank M. Belden

BY Munn & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

FRANK M. BELDEN, OF SHERIDAN, ILLINOIS.

COMBINED SHAFT AND CROSS-BAR BRACE.

No. 874,288.

Specification of Letters Patent.

Patented Dec. 17, 1907.

Application filed September 20, 1907. Serial No. 393,822.

To all whom it may concern:

Be it known that I, FRANK M. BELDEN, a citizen of the United States, and a resident of Sheridan, in the county of Lasalle and State of Illinois, have invented a new and Improved Combined Shaft and Cross-Bar Brace, of which the following is a full, clear, and exact description.

This invention is an improved brace for vehicle shafts and their connecting cross-bar, the brace being more especially designed for shafts having downwardly-curved inner ends, and serving to reinforce the shafts and the cross-bar in a manner that strains brought to bear thereon tending to break or distort them, or tending to loosen or break the connection between the cross-bar and shafts, will be effectively resisted.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a side elevation of the inner end of a shaft embodying my invention; and Fig. 2 is an inverted plan of the same.

The form of shafts for which my improved brace is especially constructed, are shafts having downwardly-curved inner ends as shown in Fig. 1, and rigidly connected together by a cross-bar 6. To the under face of the shaft 5, adjacent to the curved end thereof, a thill-iron 7 is made to conform, having a tongue 8 formed integral therewith adapted to register with the bar 6 when the thill iron is applied.

Riveted or otherwise rigidly secured to the thill-iron, adjacent to the end of the shaft and at a point forward of the tongue 8, is a bar 9. The forward end of this bar is extended and bent across the angles between the tongue and body of the thill iron, and is riveted or otherwise secured thereto directly over the bar 9, and is likewise secured to the tongue 8. By this construction the bar 9 provides a brace under the curved portion of the shaft, and also a substantially triangular brace between the shaft and cross-bar, the last-named brace being located in a plane which is parallel to the plane of the cross-bar and shaft.

The brace is applied to each shaft by bolting the thill-iron to the under face thereof in

the usual manner, with the brace-bar 9 secured thereto. The brace when thus applied serves to reinforce the shafts and cross-bar in a manner that strains brought to bear on the same, tending to break or distort them, or tending to loosen or break the connection between the cross-bar and shafts, will be effectively resisted.

While the construction of my improved brace as shown and described is the preferred practical embodiment of my invention, I nevertheless regard the precise construction as immaterial, and consider myself entitled to such changes as fall within the scope of the annexed claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In combination with vehicle shafts connected together by a cross-bar and having downwardly-curved inner ends, a thill-iron secured to each of the shafts conforming to the curved ends thereof and having a tongue secured to the cross-bar, and a brace attached to the curved portion of the thill-iron at a point beyond the tongue, having the forward end thereof angularly bent and attached to both the tongue and the body of the iron.

2. In combination with a thill-iron having a curved rear end and provided with a tongue intermediate its length, of a bar attached to the curved portion of the iron and at a point beyond the tongue, from whence it is extended and angularly bent in substantially triangular form and attached to both the tongue and the body of the iron.

3. In combination with a thill-iron having a curved rear end and provided with a tongue, of a bar attached to the iron at the opposite sides of the curved portion thereof, said bar being extended at one end and angularly turned across the corners between the iron and tongue and attached thereto.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK M. BELDEN.

Witnesses:

J. A. QUAM,
CLARENCE ROCKWOOD.