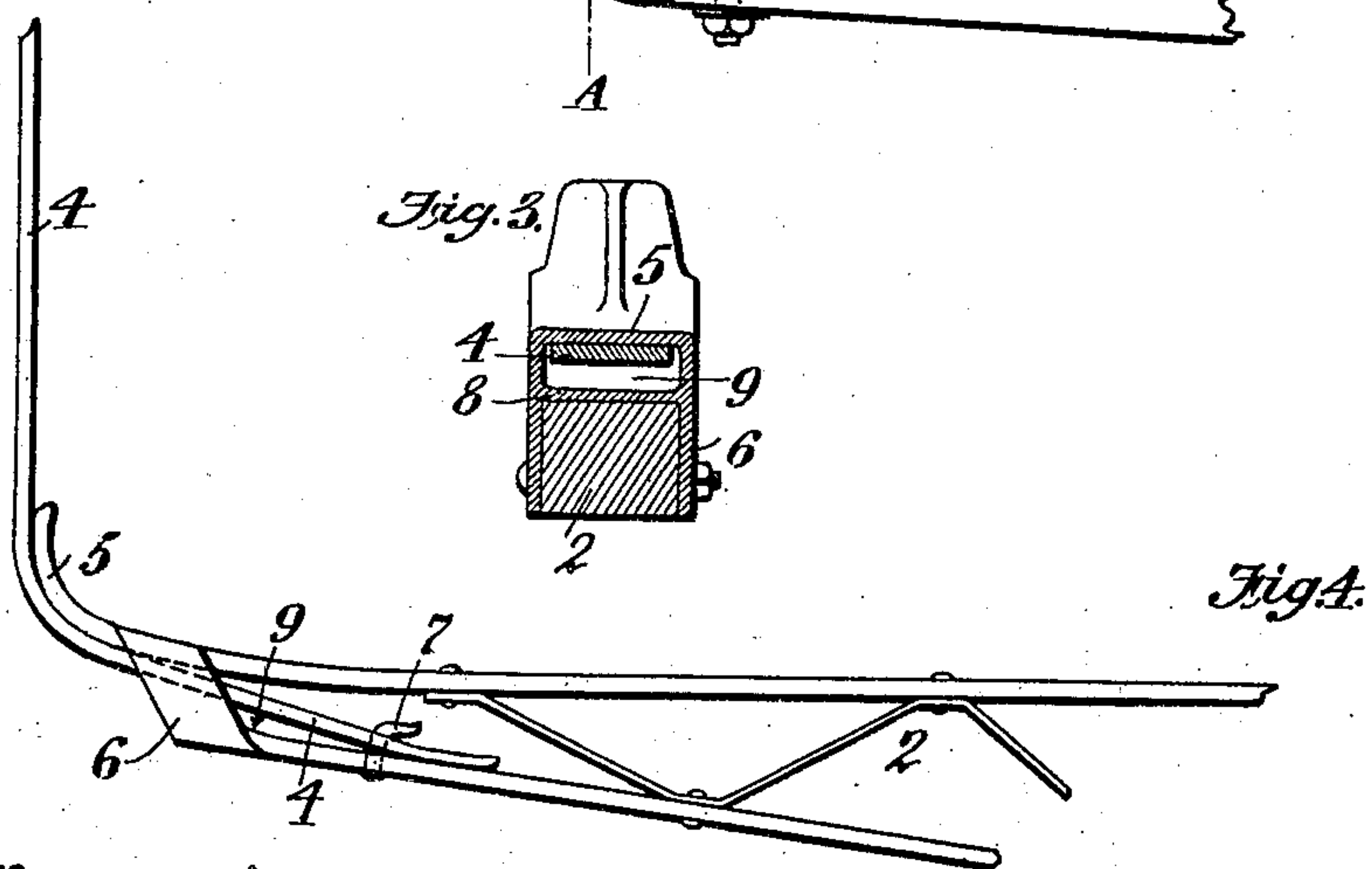
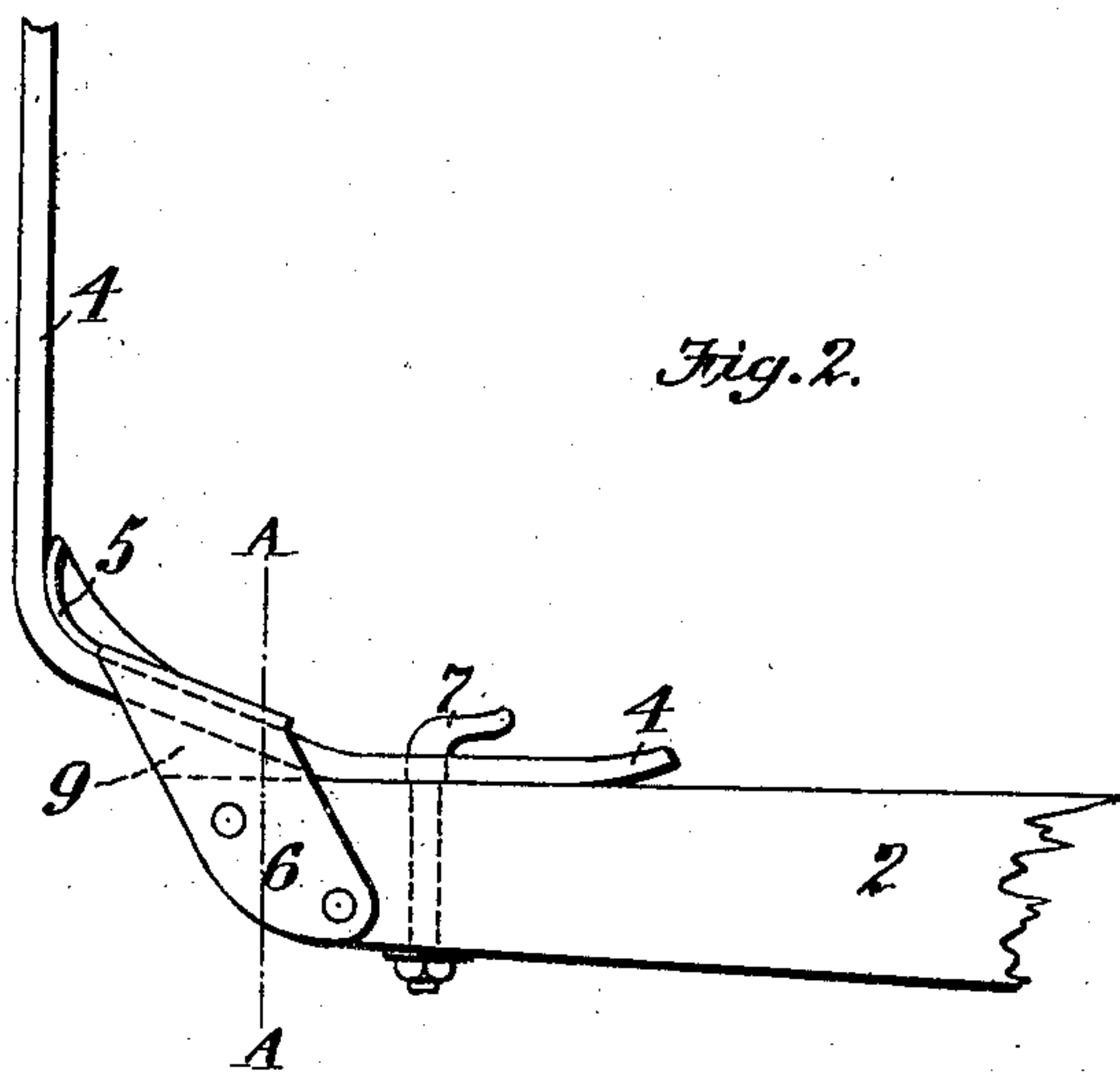
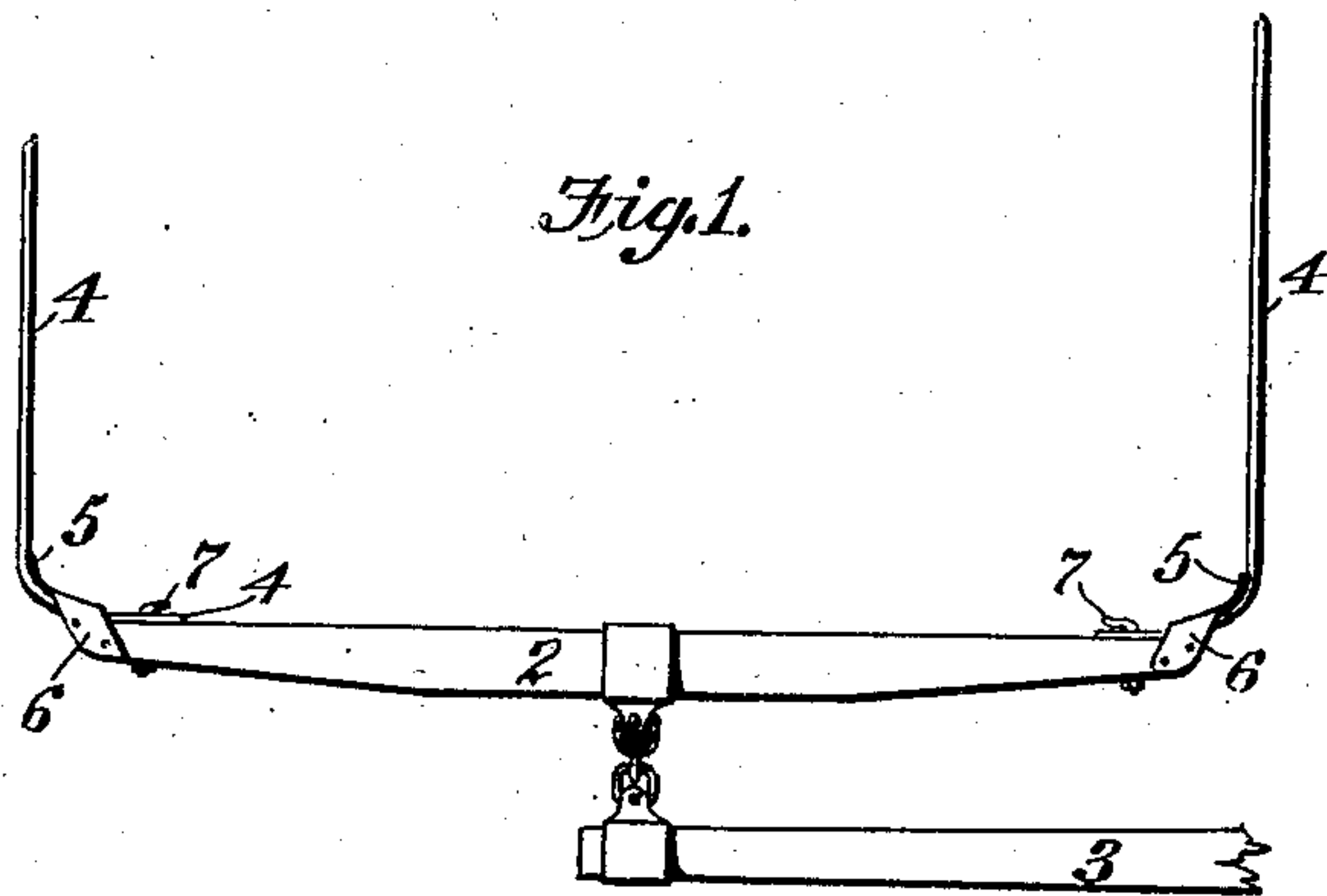


No. 896,030.

PATENTED AUG. 11, 1908.

A. E. LEVINS.
SWINGLETREE.

APPLICATION FILED FEB. 20, 1908.



WITNESSES:

Charles H. Wagner.
John T. Schrott.

INVENTOR

Abram E. Levins.

BY

Fred Gaberich
ATTORNEY.

UNITED STATES PATENT OFFICE.

ABRAM E. LEVINS, OF VERNON, BRITISH COLUMBIA, CANADA.

SWINGLETREE.

No. 896,030.

Specification of Letters Patent.

Patented Aug. 11, 1908.

Application filed February 20, 1908. Serial No. 416,906.

To all whom it may concern:

Be it known that I, ABRAM E. LEVINS, citizen of the Dominion of Canada, residing at Vernon, in the Province of British Columbia, Canada, have invented a new and useful Improvement in Swingletrees, of which the following is a specification.

This invention relates to a swingle-tree end and means for attachment of the trace thereto, and is designed to provide a swingle-tree suitable for use with plows or cultivators, in orchards, hop-yards or the like, where the ordinary swingle-tree having a trace attached to a hook in the end would injure the bark of the trees or tear the vines.

In my efforts to avoid this injury I devised a means of attachment wherein the trace was carried round the end of the swingle-tree and attached to a hook at the back which device was fully described in an application for Letters Patent in the United States filed, the 24th of October, 1907, under Serial No. 399032. This method while fully attaining the object for which it was designed has proved in practice to be open to objection, in that, the end of the trace where it passes round the end of the swingle-tree is liable to come in contact with and be injured by the wheel of a cultivator in turning, or by striking against a double swingle-tree bareither while turning or when one horse is making a stronger pull than the other. It is to overcome these objections that the invention which is the subject of this application has been designed.

The invention is fully described in the following specification, and illustrated in the drawings by which it is accompanied, in which:

Figure 1 is a plan view of a swingle-tree having my improved trace attachment connected to the end of a double-tree bar, Fig. 2, an enlarged detail of the end in plan, and Fig. 3, a cross section of the same on the line A A, and Fig. 4, shows the application of my invention to a metal swingle-tree.

In these drawings 2 represents one swingle-tree and 3 the connecting bar, 4 being the trace ends which it is desired to attach. At each end of the swingle-tree 2 a metal shoe is attached projecting laterally outward and forward from it. This shoe comprises side plates 6 by which it is secured to the bar and a forwardly inclined bearing piece 5 round

which the trace end passes, which piece 5 terminates in an easy curve toward the line of pull of the trace. Between the front of the bar 2 and the connecting portion 5 of the shoe a space 9 is left through which the end of the trace may be passed and connected to a hook 7 secured to the bar 2.

I do not desire to be confined to the particular method of construction of the shoe shown in the drawing so long as the essential principle is attained, which lies in the attachment of the trace 4 forward of the back of the bar so as to be protected thereby, and the projection of the bend of the trace laterally beyond the end of the bar 2.

The shoe may be made of sheet metal stamped and folded somewhat as shown in Fig. 2, or of a metal socket into which the end of the bar is secured. Or the swingle-tree bar may be made entirely of metal, as shown in Fig. 4, of the drawing in which case I would prefer, where the swingle-tree is braced as shown, that the trace hook be secured to the back bar of the truss, as the bend of the trace will be less while it will still be in advance of and protected by the back of the bar.

Having now particularly described my invention and the object thereof, I hereby declare that what I claim as new and desire to be protected in by Letters Patent, is:

1. In a swingle-tree end, a fixedly held metal shoe projecting laterally from and in advance of the end of the bar leaving a space for the reception of the trace end between the shoe and the forward side of the bar and means for securing the trace to the bar.

2. In a swingle-tree, a fixedly held metal shoe projecting laterally from and in advance of the end of the bar, leaving a space for the reception of the trace end between the shoe and the forward side of the bar, said shoe having a forwardly projected curved trace engaging portion, and means for securing the trace to the bar.

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

ABRAM E. LEVINS.

Witnesses:

ROWLAND BRITAIN,
CLIVE S. CARMAN.