

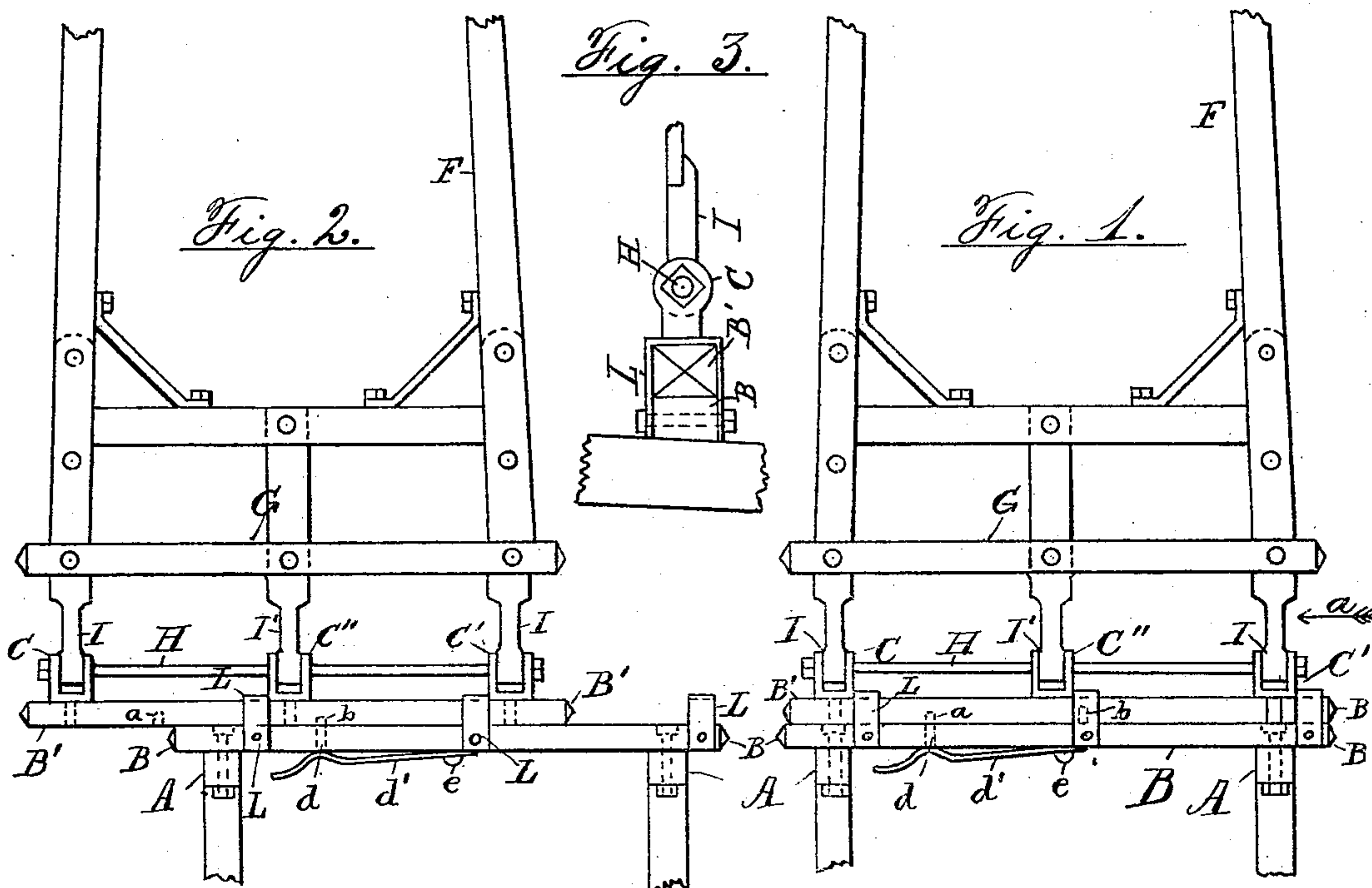
(No Model.)

A. J. ALLEN.

THILL COUPLING FOR SLEIGHS.

No. 277,099.

Patented May 8, 1883.



Attest:

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UNITED STATES PATENT OFFICE.

ABRAHAM J. ALLEN, OF PASKACK, NEW JERSEY.

THILL-COUPPLING FOR SLEIGHS.

SPECIFICATION forming part of Letters Patent No. 277,099, dated May 8, 1883.

Application filed July 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, A. J. ALLEN, a citizen of the United States, residing in the town of Paskack, in the State of New Jersey, have invented certain new and useful Improvements in Sleigh-Thill Couplings, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

My invention is intended to improve the constructions heretofore devised for using either a pole or a pair of shifting thills, at the user's option, upon the same sleigh; and it consists in the combination, with the shifting bar heretofore provided with couplings that would fit either a pole or thills, of an eye secured to such bar at the middle, for transmitting the pull to the runner of the sleigh when the thills were shifted to one side.

In United States Patent No. 242,231, dated May 31, 1881, a thill-shifter constructed with a bar sliding in guides like mine is shown with couplings or clevises placed at the ends of the bar, and adapted to receive either a pole or thills; but in previous constructions no couplings adapted to receive a pole had been shown, as plain eyes had been substituted for forked couplings by the inventors. The invention described in Patent No. 242,341 was not provided, however, with any means to transmit the pull to the runner on that side of the sleigh to which the thills were shifted, although a bracket was provided to prevent the sliding bar from bending when adjusted for direct draft. Such a deficiency renders the whole device useless in practice, as the thills, when the sleigh runs suddenly upon bare ground, are subjected to a violent strain, and the projecting end of the shifting bar is not adapted to stand such a pull without possessing excessive weight and clumsiness. My invention remedies this defect by providing the middle of the shifting bar with an eye, and connecting the same with a central eye upon the thills, which eyes, when shifted, are near enough in line with the runner to pull the sleigh without any flexure of the shifted bar.

The construction is shown in the drawings, in which Figure 1 is a plan of those parts of the thills and sleigh-runners which are affected

by my improvements, the thills being arranged for a central draft of the vehicle. Fig. 2 is a plan of the same with the thills shifted for side-draft, and Fig. 3 is an end view of the thill-irons and runner A in the direction of the arrow *a* in Fig. 1.

A A are the front parts of the sleigh-runners, to which a cross-bar, B, is attached; and B' is the shifting bar held to the bar B by three straps, L, one of which is located at the right-hand side of each of the runners, and the third midway between them.

C C' are couplings adapted to receive either a pole or thills, the latter being shown in the drawing at F, and formed with the usual cross-piece, G, to which eyes I I are attached. A third coupling, C'', is inserted into the bar B', midway between the others, and an additional eye, I', is provided upon the cross-piece G to effect the transmission of the draft through the coupling C'' when the thills are shifted.

The eyes I I I' are held in their couplings by a long bolt, H. The bar B may be made of wood or iron, as preferred; but the bar B' is made of iron, and is formed with holes *b c*, for the insertion of a spring-catch, *d*. This catch, which is substantially the same as that shown in the Patent No. 242,341, referred to above, is shown as a pin passed through the bar B from the rear and held in place by a spring, *d'*, which is secured to the bar B by a screw, *e*, and bent at its free end so as to be readily lifted by the fingers. The pin falls into the hole *b* when the thills are shifted, and into the hole *a* when arranged, as in Fig. 1, for center draft.

The couplings C C' may be secured to the shifting bar by rivet-shanks, and are obviously in position to receive a pole when the bar B' is locked in its central position, as in Fig. 1, and a pole may be then inserted by withdrawing the bolt H in the usual way. If the coupling or joint C'' be inserted in the iron B' by a screw-thread, it can be removed when the pole is in use, and the entire structure present an ordinary appearance.

The shifting bar B' rests in three of the straps L when in its central position; but is drawn from the right-hand one when shifted, as seen in Fig. 2, the straps being all arranged

at the right-hand side of the couplings C C' C''. The projection of the bar B' over the side of the sleigh when adjusted for side-draft thus draws the bar from one of its straps at the
5 same time that it brings the eye C'' nearly in a line with the runner, whereby the pull of the thills is effectually sustained without any strain upon the end of the bar B'.

The projections of the parts can be arranged
10 differently from those shown in the drawings, and the eyes C'' and I' arranged to shift directly in front of the runner, if preferred. To accomplish this object the left-hand strap would be placed outside of the runner, and the
15 middle strap also moved to the left the necessary amount; but in practice the construction shown in the drawings supports the strain adequately. I am aware that other inventions possess the shifting features of my device,

and do not therefore claim the same, except in 20 the precise construction shown and described.

Having thus set forth my invention, I claim the same as follows:

The combination, with the bars B and B', connected by straps L L L, as described, of the 25 three couplings C C' C'', and the thills provided with eyes I I and I', and bolt H, the whole arranged and operated in relation to the runners of a sleigh as and for the purpose set forth.

In testimony whereof I have hereunto set my 30 hand in the presence of two subscribing witnesses.

ABRAHAM J. ALLEN.

Witnesses:

THOS. S. CRANE,

W. F. D. CRANE.