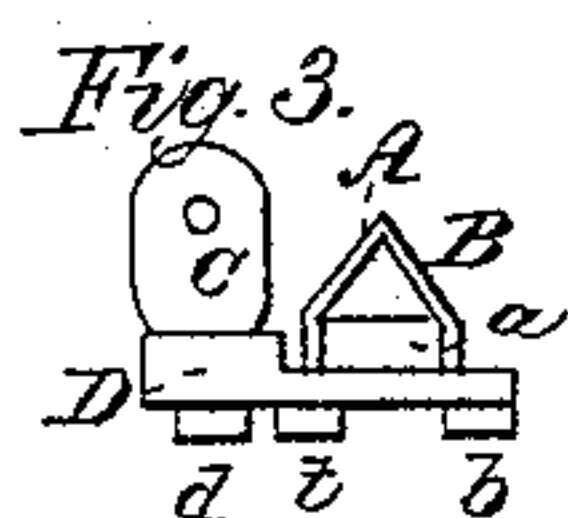
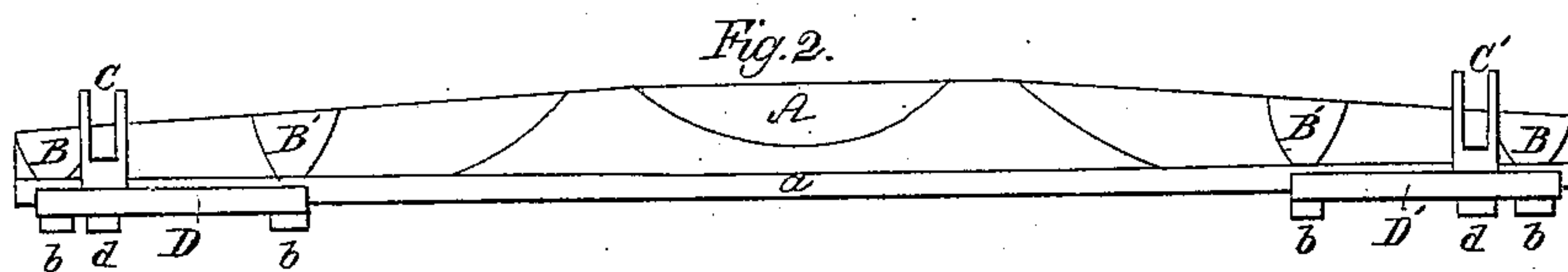
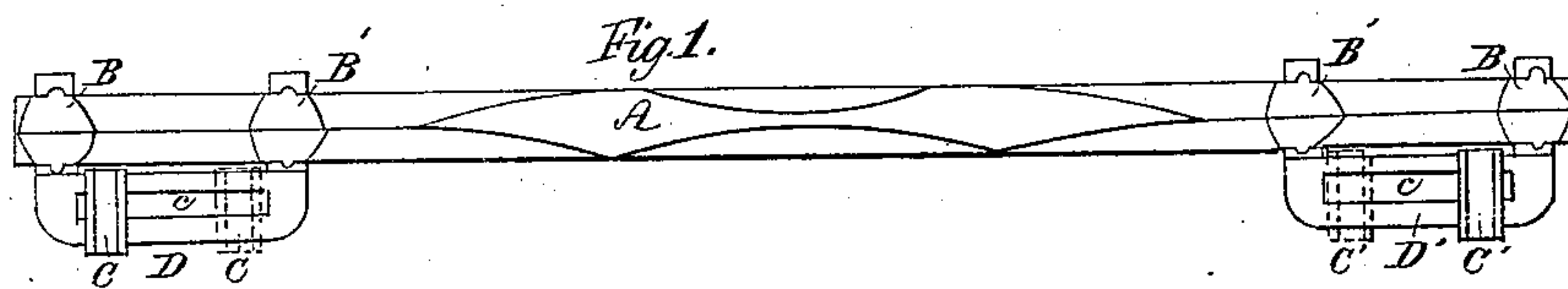


A. W. HAM.
Thill Coupling.

No. 84,545.

Patented Dec. 1, 1868.



Witnesses.
A. H. H. H.
Edw. P. Dray.

Inventor
A. W. Ham
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Attys

United States Patent Office.

ALBERT W. HAM, OF STOCKPORT, NEW YORK.

Letters Patent No. 84,545, dated December 1, 1868.

SHIFTING-JACK FOR CARRIAGE-THILLS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, ALBERT W. HAM, of Stockport, in the county of Columbia, and State of New York, have invented a new and useful Shifting-Jack for Carriage-Thills, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a longitudinal top view of an axle-tree, with my improvement applied thereto;

Figure 2, a longitudinal side view or elevation of the same, as seen from the front; and

Figure 3, an end view thereof.

Similar letters of reference indicate corresponding parts.

It not unfrequently happens that where the thills or the pole of a wagon, or other vehicle, are broken, much inconvenience is experienced from the fact that while another pole, for instance, might be taken from a vehicle not in use, the same cannot be used, for the simple reason that its irons, or ends of its cross-brace, are too close, or else too far apart to fit the jacks of the first wagon.

My invention meets this difficulty, and is otherwise or generally advantageous, by giving the jacks at opposite ends of the axle-tree an adjustable character relatively to each other, so as to vary their distance apart; and it further includes a connection of the adjacent clips at either end of the axle-tree, by a jack-sustaining bar or holder, whereby the pull or strain is divided between the said clips; also, a combination of this latter feature with the first named.

Referring to the accompanying drawing—

A represents the front axle-tree of a wagon or other vehicle, and *a* the bottom stiffening-bar or plate thereto, with the usual clips, B B', at either end of the axle-tree; but instead of securing the jacks C C' to the

outer ends B of these clips, I cause them to be carried by jack-sustaining bars or holders D D', made to connect the inner and outer clips B B', whereby the strain or pull of the pole on the jacks is transferred to or divided over both clips B B', and a more extended distribution given it over the axle-tree at its ends.

The clips and jack-sustaining bars or holders may be united, and stiffening-plate *a* held up against the under side of the axle-tree, by giving the bars D D' a plate or flat-staple form, as seen in figs. 1 and 3, and passing the ends of the clips through the bars, when the whole may be secured by nuts *b b*, screwed on to the ends of the clips.

The bars or jack-holders D D' are here shown as constructed with slots *c c*, for the purpose of effecting, as represented by red lines in fig. 1, the adjustment of the jacks C C' along them, though such adjustment may be otherwise effected, the shanks of the jacks passing through the slots, and when said jacks are set to their required distances apart, the same may be secured by nuts *d d*, screwing on their ends, and bearing against or under the holders.

In this way may the desideratum sought to be attained, of enabling the jacks to accommodate different poles, be secured, and a better distribution of the pull or strain between the clips and over the ends of the axle-tree be effected.

What is here claimed, and desired to be secured by Letters Patent, is—

The forwardly-projecting holders D D', supporting the single-shank jacks C C', as arranged with the separated clips B B', as and for the purpose described.

A. W. HAM.

Witnesses:

A. LE CLERC,

EDWD. P. TRACY.