

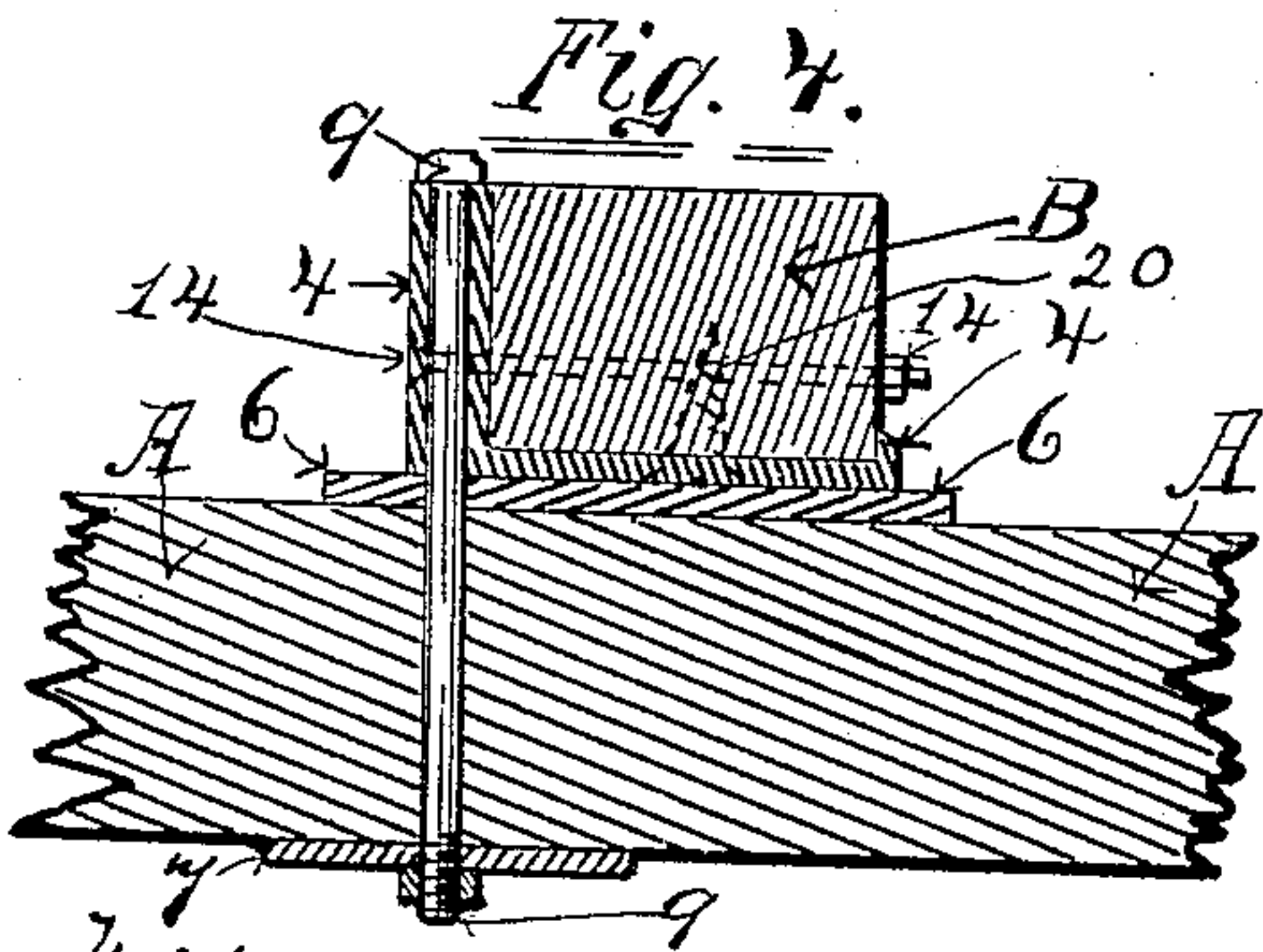
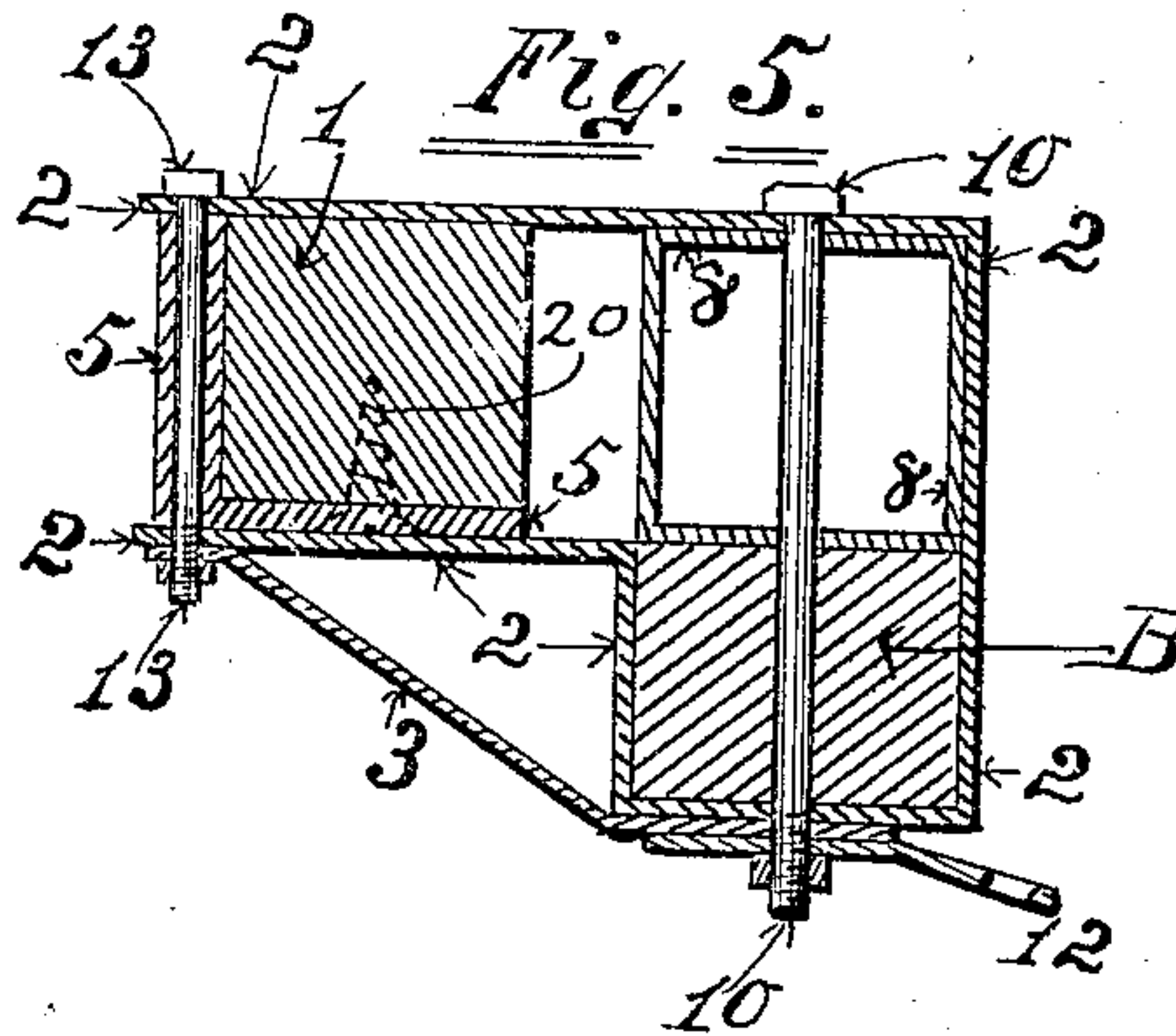
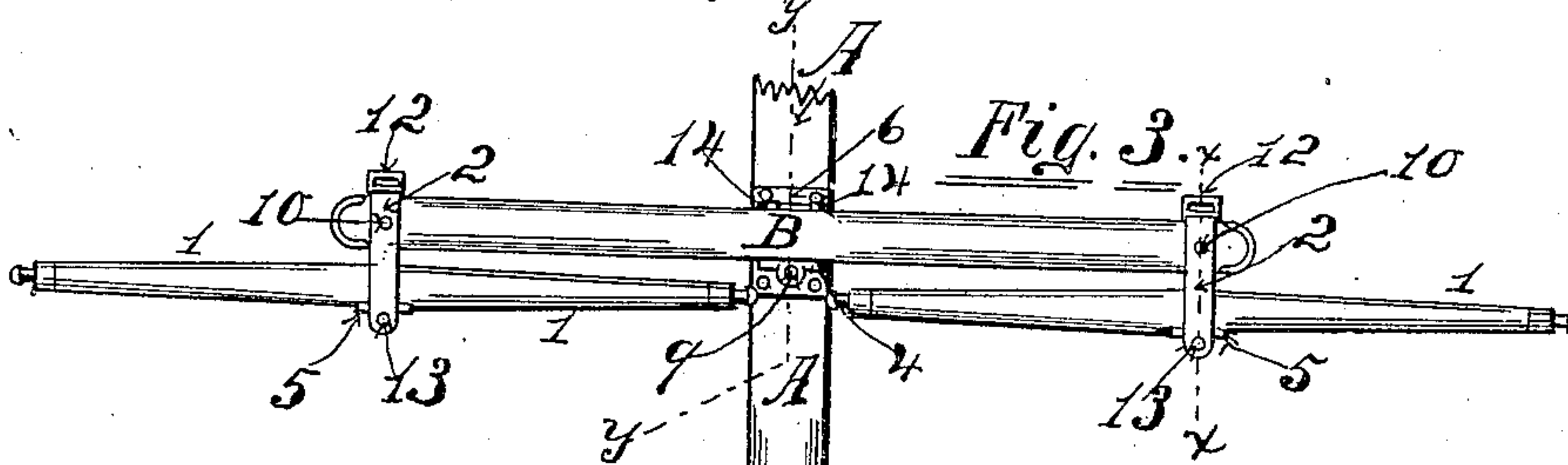
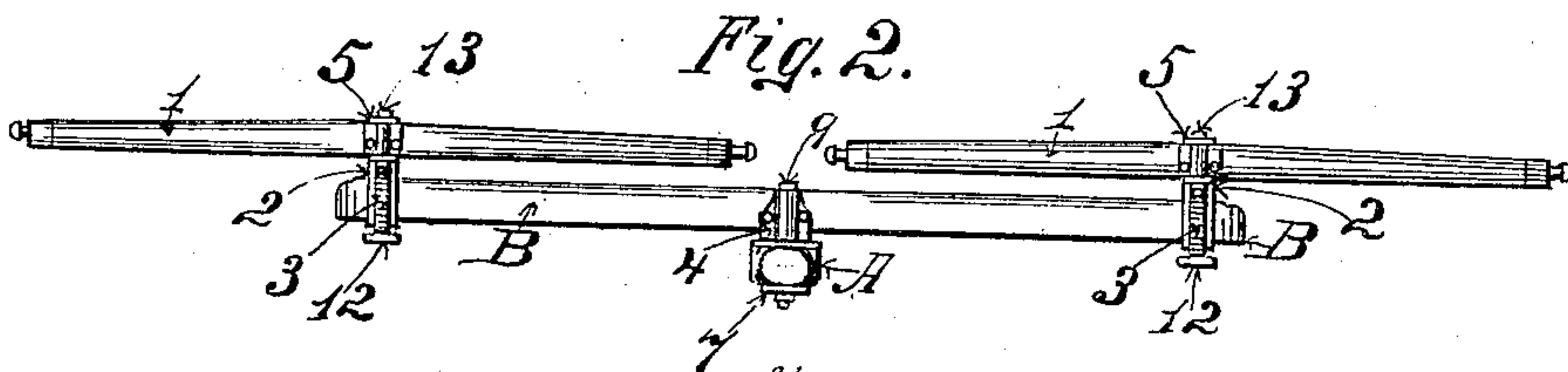
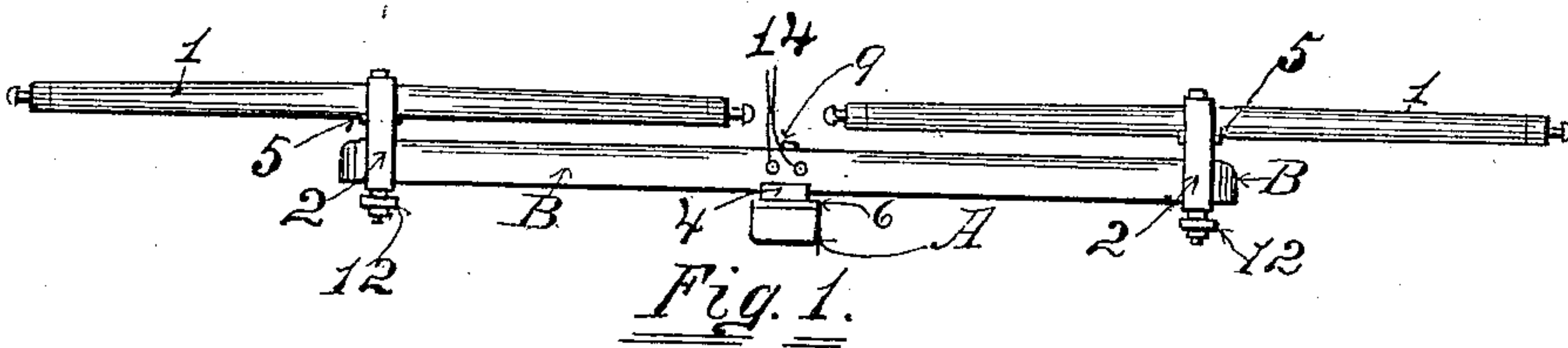
No. 835,459.

PATENTED NOV. 6, 1906.

G. NAYLOR.

## DOUBLE AND SWINGLE TREE.

APPLICATION FILED NOV. 21, 1905.



Witnesses:

J. W. Midgley.

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*Inventor:*

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# UNITED STATES PATENT OFFICE.

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## DOUBLE AND SWINGLE TREE.

No. 835,459.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed November 21, 1905. Serial No. 288,473.

*To all whom it may concern:*

Be it known that I, GEORGE NAYLOR, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Double and Swingle Trees, of which the following is a specification.

My invention relates to double and swingle trees for two or more horses, and has for its object to provide certain pivotal parts of such form and construction as to permit each part to swing clear of any other part and also to increase the strength and durability of the whole device.

Doubletrees that are pivoted to the tongue of a vehicle by a pin passing down through the wood at the center thereof are weakened at the point of greatest strain, the same being true of the swingletree, and if the latter are superposed on and near the ends of the doubletree the pivoted points soon wear, so that the inner end of the swingletrees run on and wear the doubletree, making the pull of the tug unequal, causing when breast-collar harnesses are used a tendency of the breast-collar to slip and chafe the horse's breast. The same tendency is also present when the swingletrees are hung in the same horizontal plane with that of the doubletree when one horse pulls harder than the other by reason of the diagonal position that will be assumed by the doubletree causing the inner end of the rearmost swingletree to rest against the doubletree.

My invention avoids all the objections above mentioned by the means and construction of parts, as hereinafter set forth, in which similar characters of reference indicate like parts throughout the several figures of drawings forming a part of this specification, in which—

Figure 1 is a rear end view of a wagon-tongue A with my invention mounted thereon; Fig. 2, a front end view of the same; Fig. 3, a top view of the same; Fig. 4, an enlarged vertical section of the doubletree B and a portion of the tongue A on the plane of the line *x x*, Fig. 3; Fig. 5, an enlarged vertical section of one of the swingletrees and one end of the doubletree B on the plane of the line *y y*, Fig. 3.

The tongue A is of the usual material and construction and carries pivoted thereto the doubletree B by a vertical bolt 9, the upper part of which is inclosed by the forward ver-

tical part of the angle-shaped clip 4, to which the middle part of the said doubletree B is secured by bolts 14, securing the vertical part of the said angle-clip 4 thereto, the lower horizontal part of the latter being secured by ordinary wood-screws, which firmly hold the said doubletree B and the said angle-clip 4 together without unduly weakening the parts. The ordinary "hammer-strap" beneath the head of the bolt 9 and extending back and down to the tongue A and thereto secured may or may not be used. A chafe-plate 6 is interposed between the bottom of the angle-clip 4 and the upper surface of the tongue A and secured thereto in the ordinary manner.

At points distant from the bolt 9, near the ends of the doubletree B, are secured the clevis attachments 2 of particular form and use. The said clevis 2 is made with a downwardly-projecting loop that incloses the sides and bottom of a part of the doubletree B, which is firmly held in place by a hollow square 8, also inclosed by the said clevis 2, the parts just named being securely clamped together by the vertical bolt 10. The forwardly-projecting part of the said clevis 2 carries pivoted within the upper and lower parts thereof a swingletree 1, which is pivoted at its central part with an angle-clip 5, through the forward vertical part of which a downwardly-projecting bolt 13 extends, the said bolt 13 also passing through holes near the upper and lower ends of the forwardly-projecting parts of the said clevis 2. The lower end of the said bolt 13 passes through one end of a brace 3 and is there secured by means of a threaded nut fitting the correspondingly-threaded lower end of the said bolt 13. The said brace 3 extends back and down beneath the downward loop of the said clevis 2, to the under side of which it is secured by a strap-clip 12, which is retained in position by means of the bolt 10, which is screw-threaded and provided with a nut at its lower end. The strap-clips 12 may be provided at their free ends with elongated transverse holes for strap connections or round holes for chain connections, as desired. The angle-clips 5 are secured to the swingletrees in the same manner as is the angle-clip 4 to the doubletree B heretofore described. This construction of the clevis 2 elevates the swingletrees I above the level of the doubletree B, so that the ends of the said swingletrees I swing clear of the said doubletree B at all



time, while the pivot-bolts 10 13, passing through the forward parts of the angle-clips 4 5, permits the full strength of the wood to which they are secured to be practically  
5 unimpaired.

Having thus described my invention, I claim as new—

1. In a device of the type set forth, the combination with a doubletree of a clevis  
10 carried thereby and formed with a depending portion for the reception of said doubletree, and a forwardly-extending portion for the reception of a swingletree, a hollow square imposed between said doubletree and  
15 the top portion of said clevis, a bolt passing through said clevis, said doubletree and said hollow square and binding said parts together, an angle-plate comprising a horizontal and vertical portion carried by said swingletree, said vertical portion being formed  
20 with an integral sleeve, a bolt passing through the forwardly-extending part of said

clevis and axially through said sleeve and a diagonal brace having its ends secured to said forwardly-extending and depending portions of said clevis. 25

2. In a device of the type set forth, the combination with a doubletree of a clevis carried thereby and formed with a depending portion for the reception of said doubletree and a forwardly-extending portion, a  
30 spacing and reinforcing element interposed between said doubletree and the upper portion of said clevis, a bolt passing through said clevis, said doubletree and said element  
35 and binding the same together, said forwardly-extending portion serving to pivotally receive a swingletree.

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

GEORGE NAYLOR.

Witnesses:

BERNARD J. STEWART,  
CLARENCE M. CANNON.