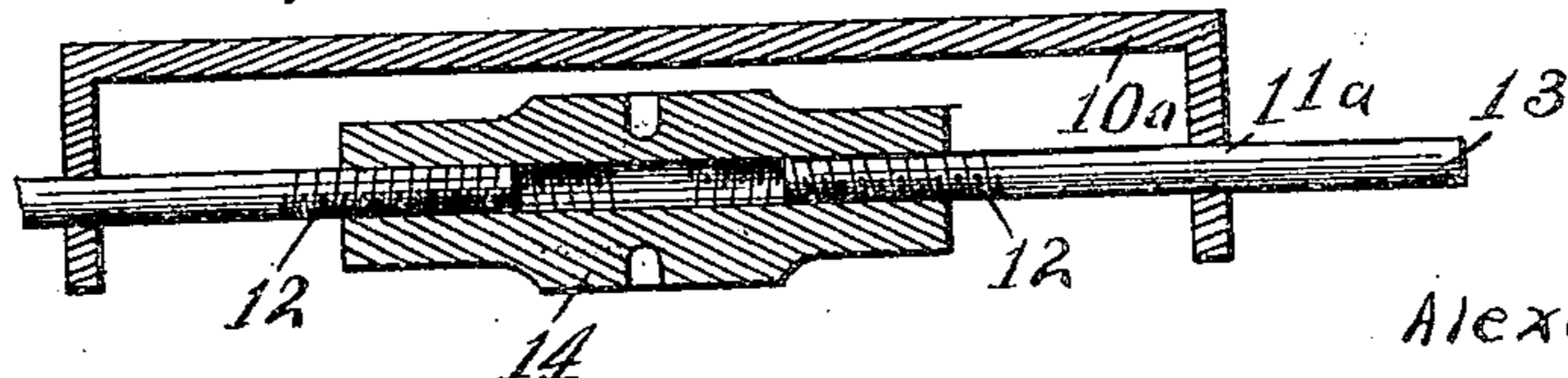
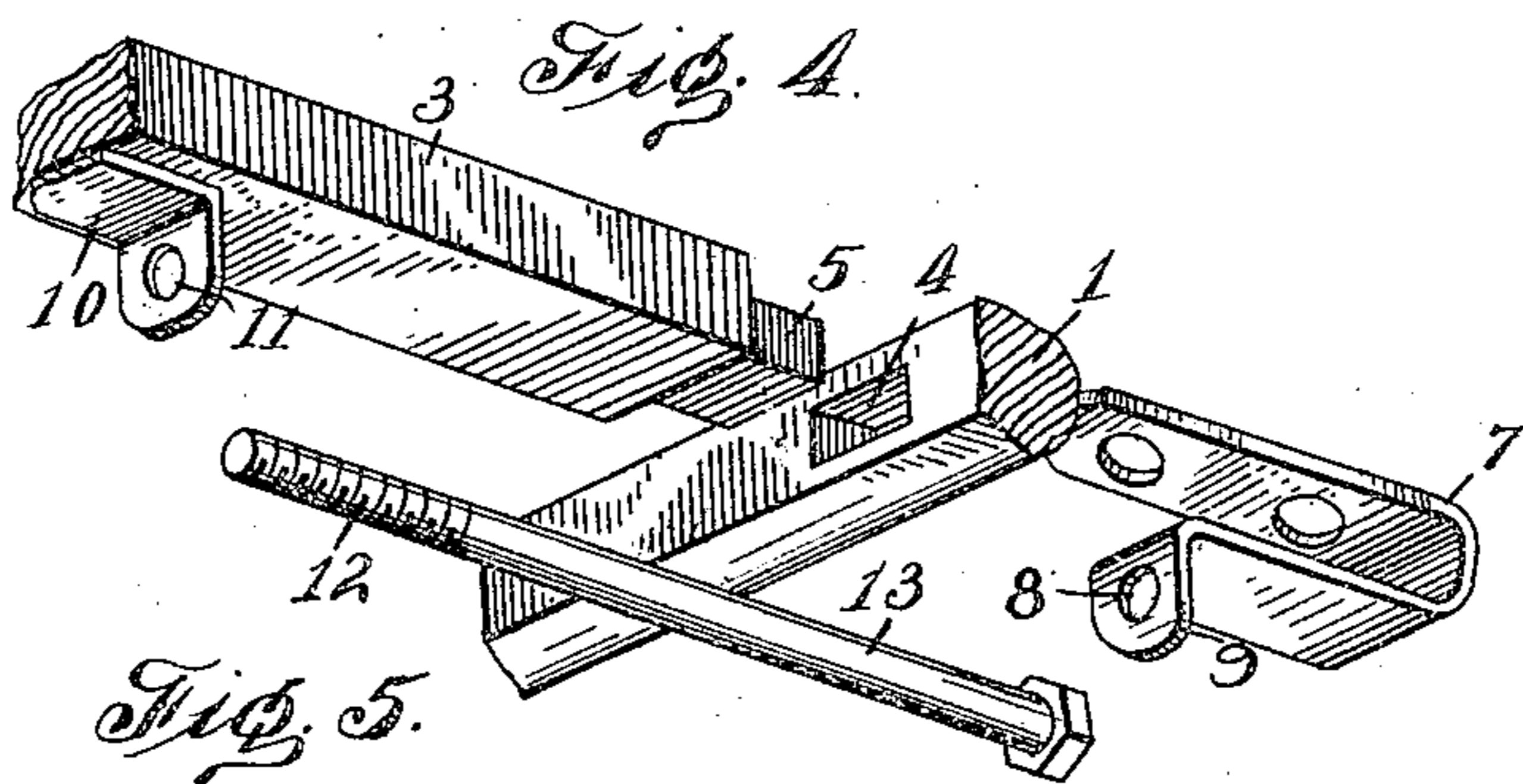
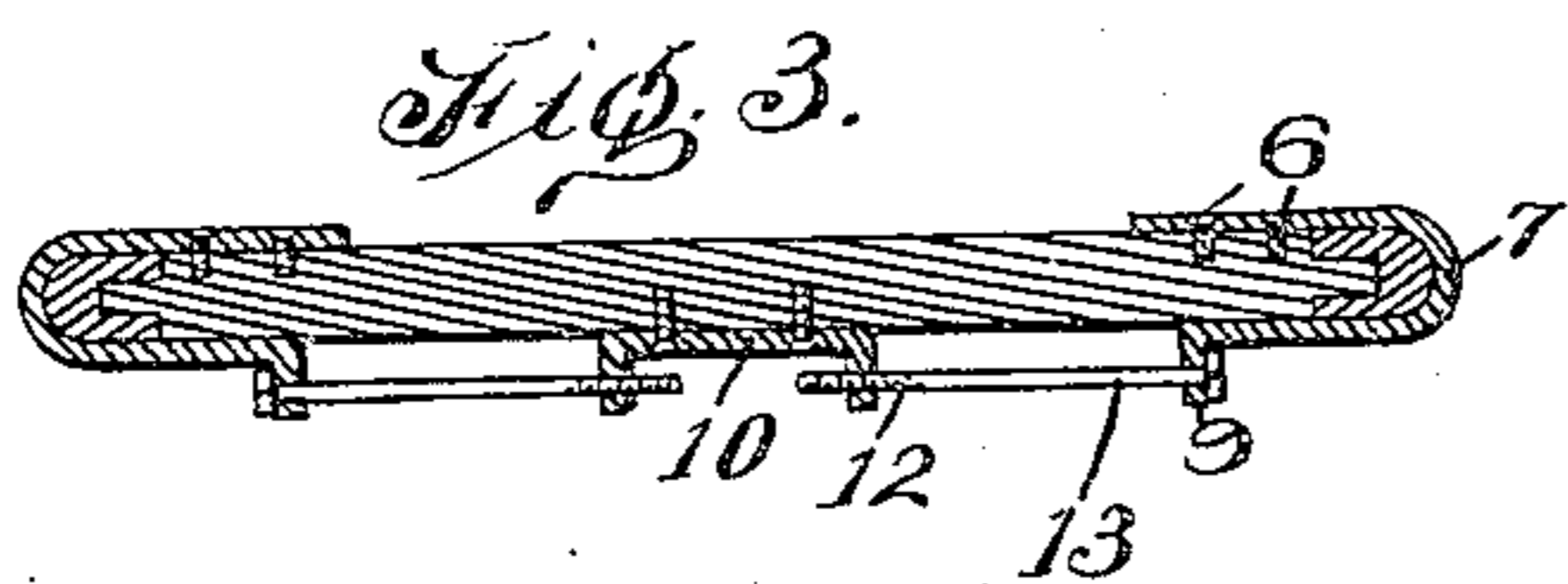
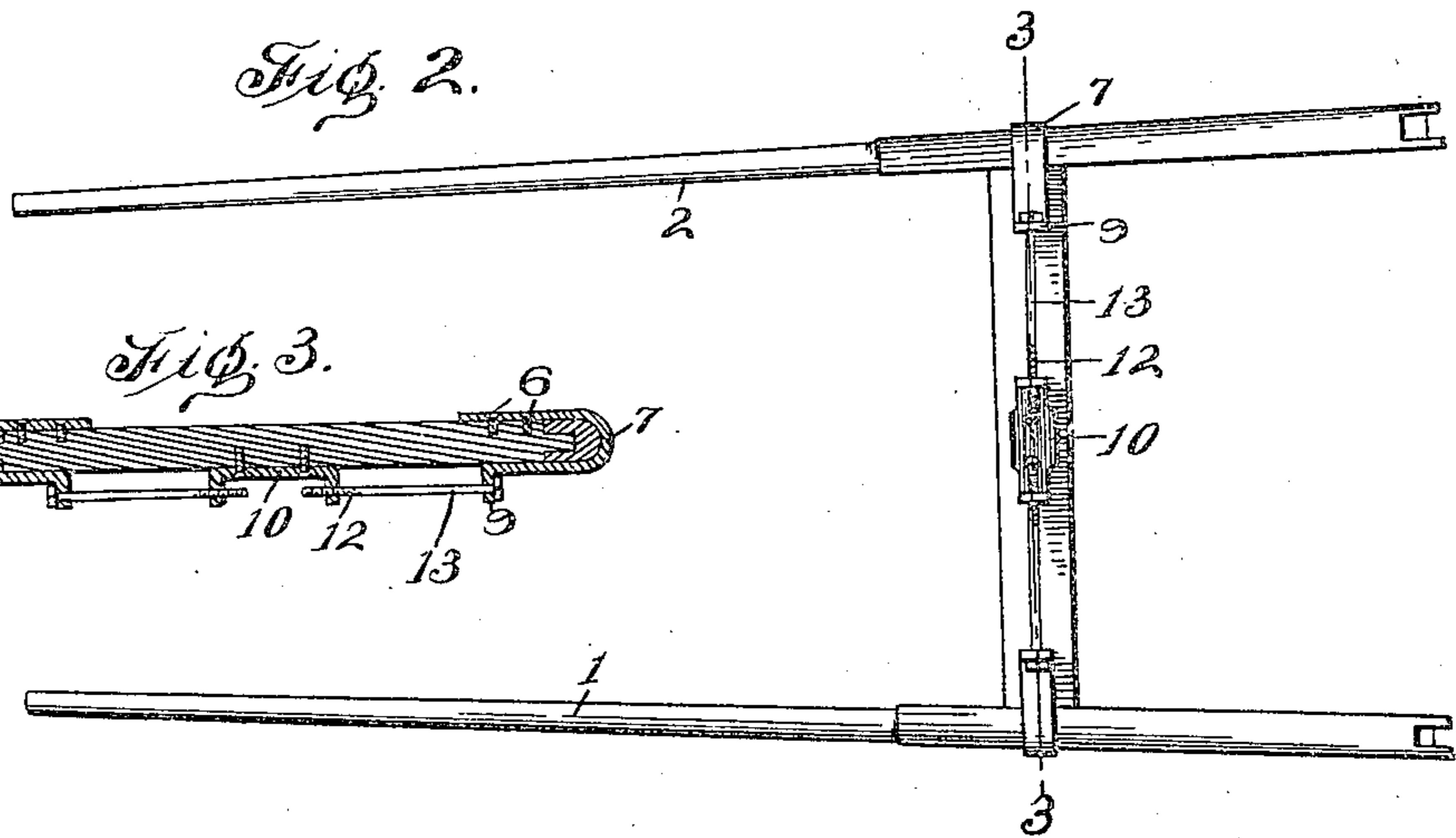
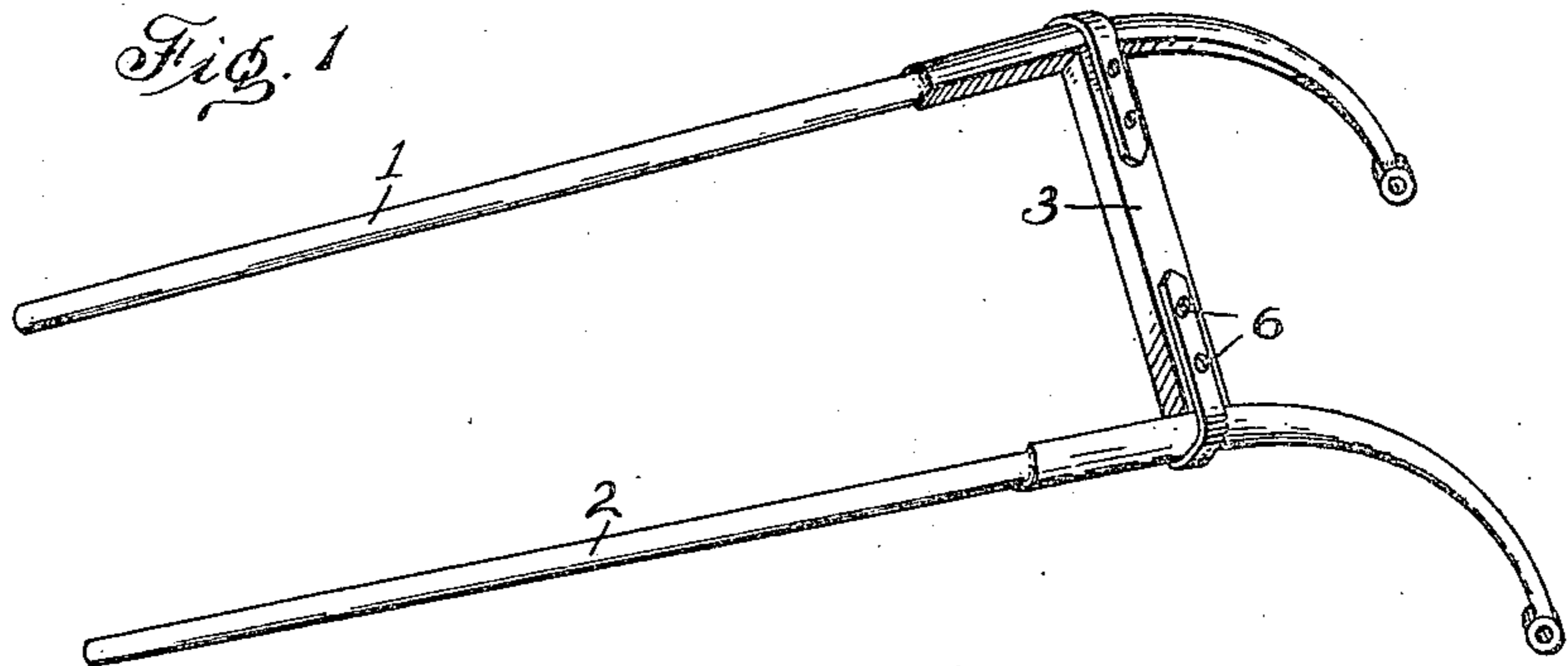


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A. LOTT.
VEHICLE THILL.

APPLICATION FILED JULY 21, 1905.



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VEHICLE-THILL.

No. 816,667.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALEXANDER LOTT, a citizen of the United States, residing at Seminary, in the county of Covington and State of Mississippi, have invented certain new and useful Improvements in Vehicle - Thills, of which the following is a specification.

This invention relates to vehicle-thills; and it has for an object to provide a means for holding the thills to the cross-bar under great pressure to prevent the joint between these parts becoming loose, the means being adjustable to permit the thills to be removed when they break and new ones fitted to the cross-bar.

Other and further objects will appear in the following description and will be more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of one embodiment of my invention. Fig. 2 is a plan view of the embodiment shown in Fig. 1. Fig. 3 is a section on the line 3 3, Fig. 2. Fig. 4 is a separated perspective view of the joint between the cross-bar and one of the thills, and Fig. 5 is a detail sectional view of another embodiment of my invention.

Referring more particularly to the drawings, 1 and 2 indicate the thills, and 3 the cross-bar, which may be secured at its ends to the sides of the thills in any suitable manner. In the preferred construction the sides of the thills are mortised, as at 4, while the cross-bar is provided with tenons 5 at its ends.

Secured at one end by screw 6 to one face of the cross-bar near each end thereof, preferably the upper face, are straps 7, which are turned or bent around the adjacent thill to the opposite face of the cross-bar and are provided with eyes 8 in laterally-extending portions 9 at their free end.

In the embodiment shown in Figs. 1 to 4 the cross-bar 3 is provided on its under face with a U-shaped bracket 10, the arms of which have threaded openings 11, into which are fitted the threaded ends 12 of bolts or tie-rods 13, each tie-rod or bolt also fitting through an eye 8 in one of the straps 7 and connecting these parts.

In the embodiment shown in Fig. 5 the U-shaped bracket 10^a is provided with unthreaded openings 11^a, and tie-rods or bolts 13 pass freely therethrough and are connected together by a turnbuckle 14.

In both embodiments the tension on one bolt or tie-rod is by means of the common connection at their inner ends balanced by the tension on the other, thereby preventing any undue strain on the parts of the device.

By employing a screw-adjusting means at the free end of the strap I am enabled to obtain the greatest pressure on the joint with the least force.

The best results are obtained when the straps 7 are made of flexible material, as they will then conform to the parts and not become loose as quickly as when otherwise made.

It is apparent that if a thill breaks it is only necessary to loosen one end of the strap holding the broken thill, remove the thill, and fit another one to the cross-bar.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with the cross-bar and a thill jointed to an end of the same, of means secured to one face of the cross-bar and extending around the thill to the opposite face of the bar, and adjustable means securing the free end of the first-mentioned means.

2. The combination with the cross-bar and a thill jointed to an end of the same, of a strap secured to one face of the cross-bar and bent around the thill to the opposite face of the bar, and adjustable means securing the free end of said strap.

3. The combination with the cross-bar and a thill jointed to an end of the same, of a flexible strap secured to one face of the cross-bar and bent around the thill to the opposite face of the said bar, and adjustable means securing the free end of said strap.

4. The combination with the cross-bar and a thill jointed to one end of the same, of a strap secured to one face of the cross-bar and extending around the thill to the opposite face of the bar, said strap being provided with an eye at its free end, a threaded bolt secured at one end to the strap through the eye, and means securing the other end of the bolt.

5. The combination with the cross-bar and a pair of thills, each of which is jointed to one end of the cross-bar, means secured to one face of the cross-bar and extending around the thill to the opposite face of the cross-bar, and adjustable means connecting the free end of said first-mentioned means.

6. The combination with the cross-bar and

a pair of thills, each of which is jointed to one end of the cross-bar, of straps secured to one face of the cross-bar and extending around the thill to the opposite face thereof, and adjustable means for connecting the free end of the straps.

7. The combination with the cross-bar and a pair of thills, each of which is jointed to one end of the cross-bar, means secured to one face of the cross-bar and extending around the thills to the opposite face of the cross-bar, a pair of tie-rods, each secured at one end to one end of said means, and common means for securing the other ends of the tie-rods together.

8. The combination with the cross-bar and a pair of thills, each of which is jointed to one end of the cross-bar, straps secured to one face of the cross-bar and extending around the thills to the opposite face of the cross-bar,

bolts, each secured at one end to the free end of a strap and threaded at its other end, and common means into which the threaded ends of the bolts are screwed.

9. The combination with the cross-bar and a pair of thills, each of which is jointed to one end of the cross-bar, of straps secured to one face of the cross-bar and extending around the thills to the opposite face of the cross-bar, said straps being provided with laterally-extending portions having eyes, bolts connected at one of their ends to the strap through the eyes, and common means into which the free ends of the bolts are threaded.

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

ALEXANDER LOTT.

Witnesses:

J. P. FOWLER,
T. H. WATTS.