

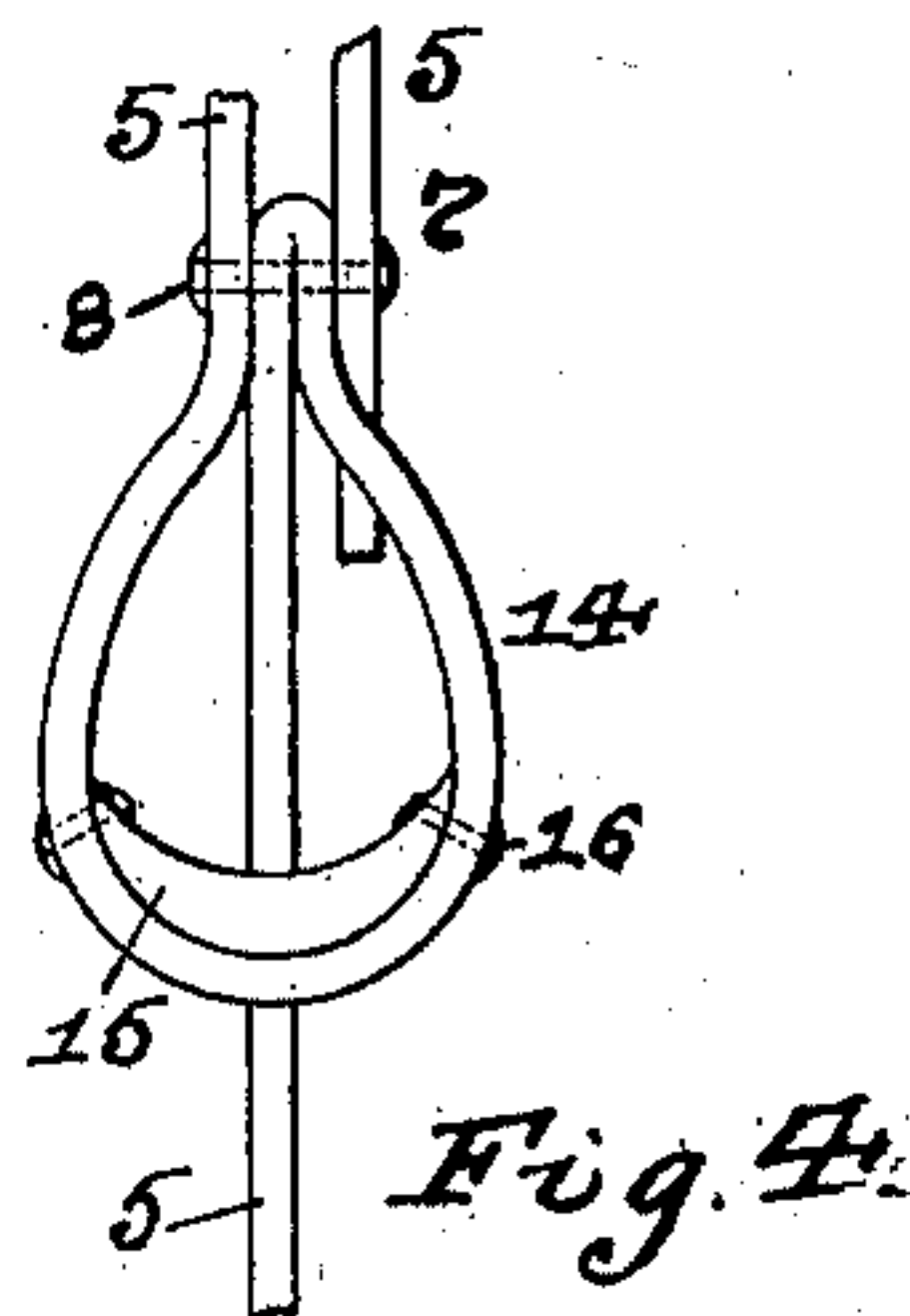
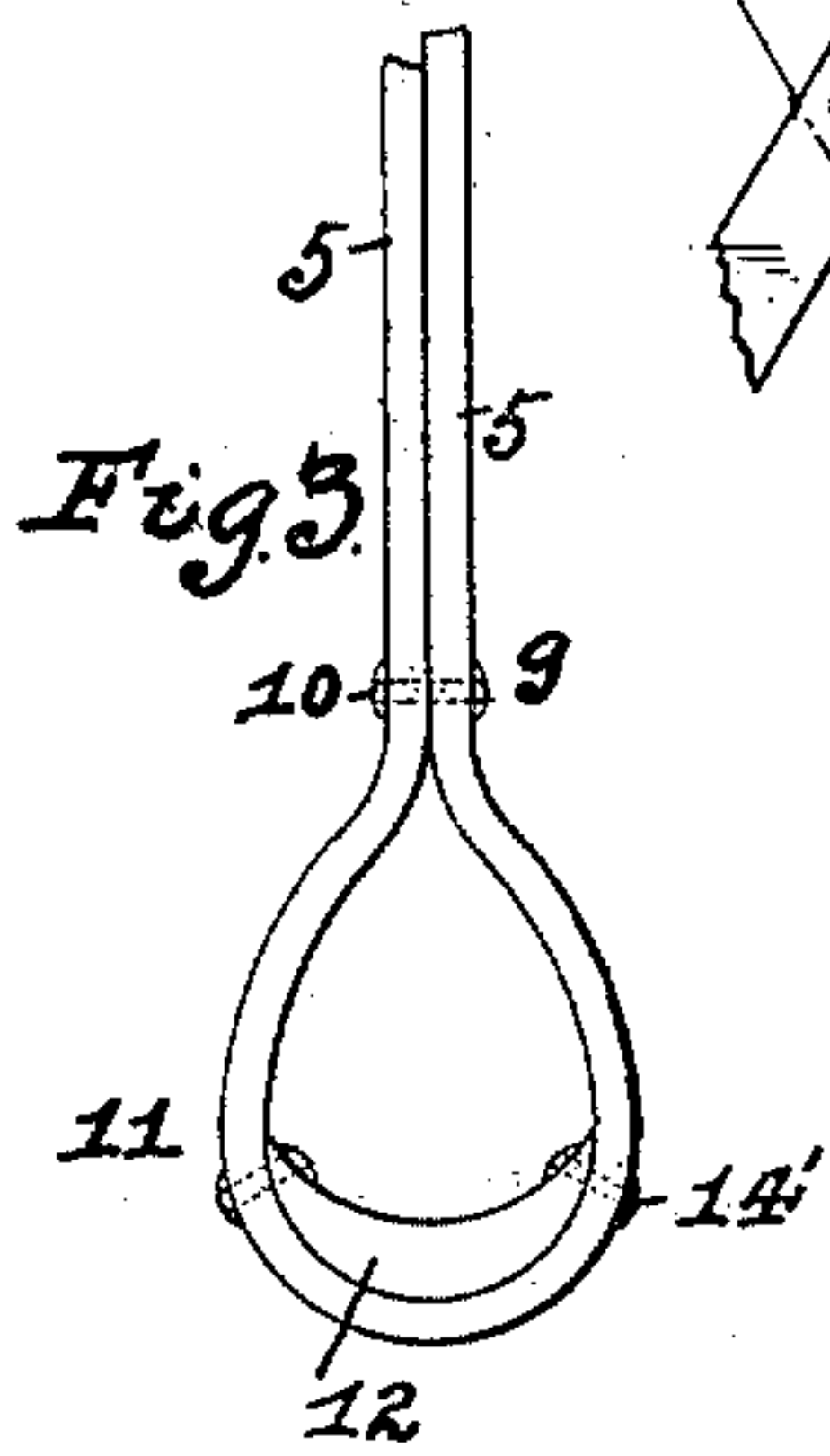
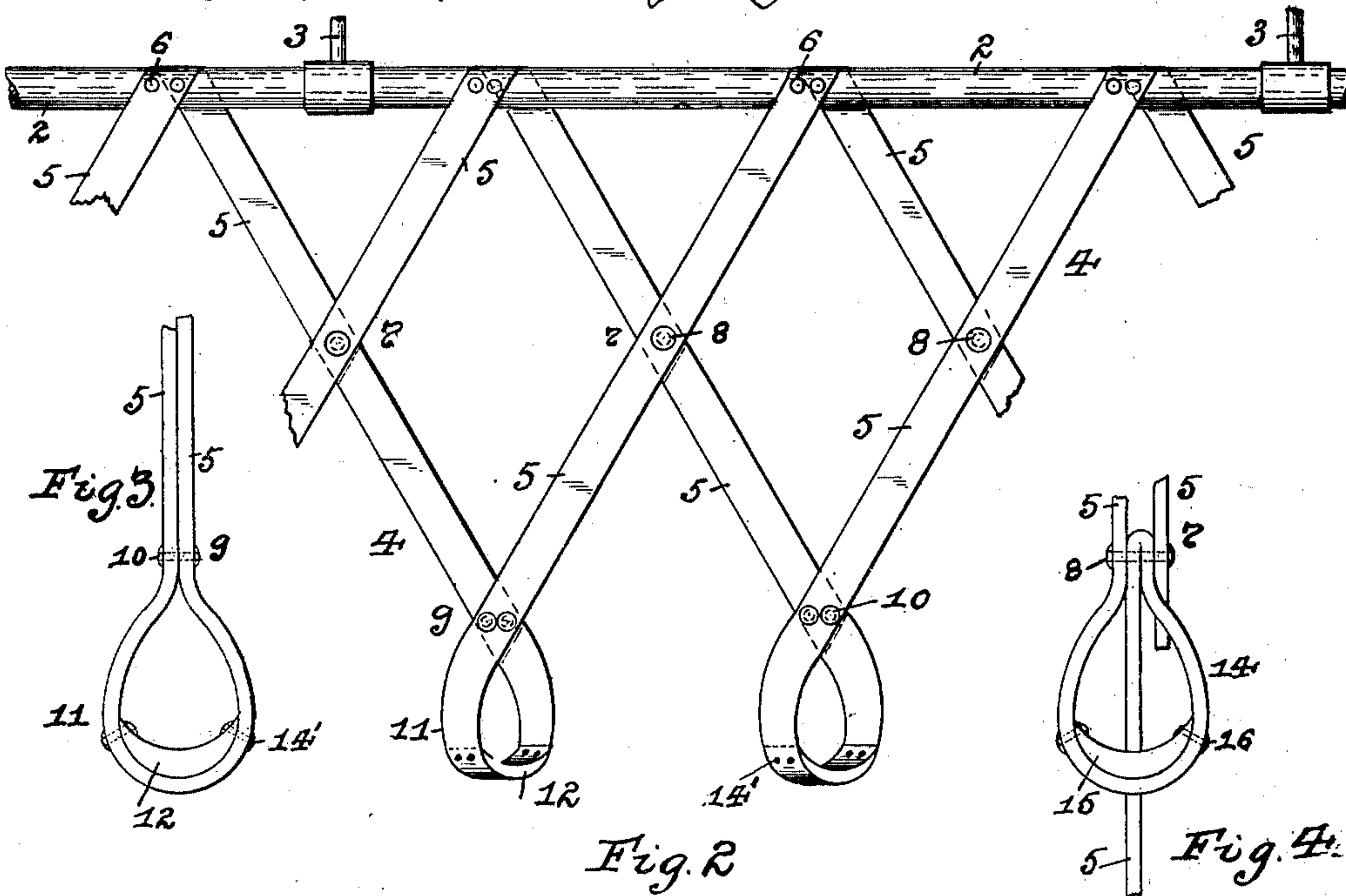
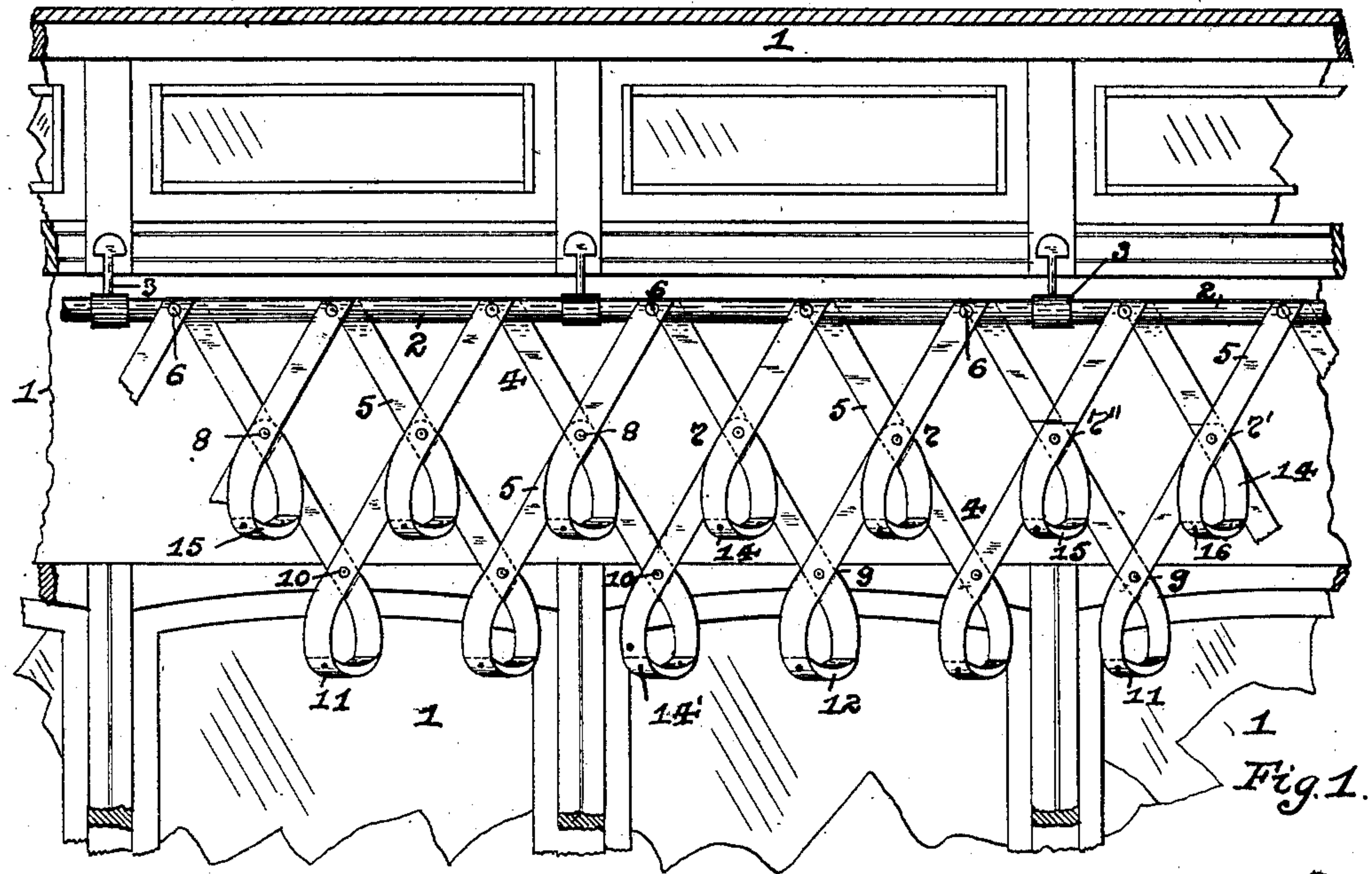
No. 660,610.

Patented Oct. 30, 1900.

L. T. YODER.
SUPPORTING STRAP FOR CARS, &c.

(Application filed Nov. 27, 1899.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

LORENZO T. YODER, OF PITTSBURG, PENNSYLVANIA.

SUPPORTING-STRAP FOR CARS, &c.

SPECIFICATION forming part of Letters Patent No. 660,610, dated October 30, 1900.

Application filed November 27, 1899. Serial No. 738,262. (No model.)

To all whom it may concern:

Be it known that I, LORENZO T. YODER, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Supporting-Straps for Cars, &c.; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to supporting-straps for cars; and the same has for its main object to provide such a form of supporting-strap which will be prevented from sliding along its supporting-bar, so as to enable persons holding the same while within a street, steam, traction, or other car or conveyance to properly support and steady themselves, and more especially in case such car, vehicle, or conveyance gives a sudden jerk or motion in a forward or backward direction.

My invention consists, generally stated, in the novel arrangement, construction, and combination of parts, as hereinafter more specifically set forth and described, and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains to construct and use the improvement, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 shows a portion of a car or conveyance having my invention applied thereto. Fig. 2 shows an enlarged plan or side elevation of a portion of my improved supporting-strap, and Figs. 3 and 4 are detail sections of the same.

Like characters herein indicate like parts in each of the figures of the drawings.

As illustrated in the drawings, a portion of the car or conveyance is shown at 1, which has the ordinary strap-supporting bar or rod 2, extending longitudinally along the upper portion thereof, and is secured to said car or conveyance 1 by means of the usual brackets 3. The supporting-strap is shown at 4 and preferably is formed of leather, although any other suitable flexible material can be used. This strap 4 preferably extends in two continuous pieces or strips which pass alternately over the bar or rod 2, so as to form a number or series of cross-straps 5 the whole length of the bar or rod 2, and said straps are rigidly secured thereto by means of nails 6,

although screws or any other form of fastening can be used. The cross-straps 5 of the strap 4 cross each other at an angle and are also rigidly secured to each other at their central crossing points or intersections 7 by means of rivets 8 or other suitable fastening means, and the lower ends of such straps 5 are secured to each other at their lower crossing points or intersections 9 by rivets 10 or other suitable engaging means. The lower ends of such cross-straps 5 are bent to form the lower loops or handles 11, within which is provided the brace-piece 12, which is secured to said loops or handles 11 by means of the rivets 14' or other suitable fastening means. If desired, the ends of the cross-straps 5 can also be bent at their central crossing points or intersections 7 to form the upper loops or handles 14, within which are provided the brace-pieces 15, which are held or secured therein by the rivets 16 or other fastening device.

The use and operation of my improved supporting-strap 4 for cars and conveyances are as follows: When such a strap 4 is in use, a person holding onto the same by means of the handles 11 or 14 will be prevented from falling down or jerked suddenly forward or backward in a car or conveyance by the quick movement of such car or conveyance on account of the said strap 4 being prevented from sliding forward or backward on the bar or rod 2 by reason of said cross-straps 5 crossing each other at an angle and being secured to said bar or rod 2 at 6 and to each other at the crossings or intersections 7 and 9, although said straps 4 are permitted to swing at right angles to said bar or rod 2.

It will be obvious that the cross-straps 5 and handles 11 and 14 are made from one continuous piece of material, so as to form the entire supporting-strap 4, although, if desired, the cross-straps 5 can be divided at their central crossings or intersections 7' and the handles 14 formed as shown in Fig. 1, or said handles 14 can be formed separate from the cross-straps 5, as shown at 7'' in Fig. 1. These upper handles 14 allow adults of the ordinary height to use the same, while the lower handles 11 permit their use by women and children or adults of less than ordinary height.

It will thus be seen that my improved strap

for cars and conveyances is cheap and simple in its construction and operation and can be applied to any form of car or conveyance. Such a form of strap will be prevented from slipping along the supporting bar or rod from any cause and at the same time will permit the swinging of the same at right angles to such bar or rod, and a person using the same will be prevented from being thrown forward or backward by the sudden movement of a car or conveyance in either direction, thereby preventing injury to the person by wrenching the body or being possibly thrown to the floor of the car or conveyance.

Various modifications may be resorted to other than those mentioned in the construction and design of the strap without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a car or conveyance, the combination of a bar or rod, and a supporting-strap formed of a series of cross-straps rigidly secured to said bar or rod and to each other.

2. In a car or conveyance, the combination of a bar or rod, and a supporting-strap formed of a series of cross-straps rigidly secured to said bar or rod, and to each other, said cross-straps being provided with loops or handles at their lower ends.

3. In a car or conveyance, the combination of a bar or rod, and a supporting-strap formed of a series of cross-straps rigidly secured to said bar or rod and to each other at their crossings or intersections, said cross-straps being provided with loops or handles at such crossings or intersections.

4. In a car or conveyance, the combination

of a bar or rod, and a supporting-strap formed of a series of cross-straps rigidly secured to said bar or rod and to each other at their crossings or intersections, said cross-straps being provided with loops or handles at their crossings and lower ends.

5. As a new article of manufacture, a supporting-strap for cars and conveyances, comprising a flexible strap formed of a series of cross-straps adapted to be rigidly secured to each other and to the supporting rod or bar of the car or conveyance.

6. As a new article of manufacture, a supporting-strap for cars and conveyances, comprising a flexible strap formed of a series of straps adapted to cross each other at an angle and be rigidly secured to each other at their crossings or intersections, said cross-straps being adapted to be rigidly secured to the supporting bar or rod of the car or conveyance, and loops or handles formed on the lower ends of said cross-straps.

7. As a new article of manufacture, a supporting-strap for cars and conveyances, comprising a flexible strap formed of a series of straps adapted to cross each other at an angle and be rigidly secured to each other at their crossings or intersections, said cross-straps being adapted to be rigidly secured to the supporting bar or rod of the car or conveyance, and loops or handles formed at the crossings or intersections of said cross-straps.

In testimony whereof I, the said LORENZO T. YODER, have hereunto set my hand.

LORENZO T. YODER.

Witnesses:

J. N. COOKE,

J. L. TREFALLER.