

(No Model.)

J. GRIERSON.  
TUG.

No. 459,076.

Patented Sept. 8, 1891.

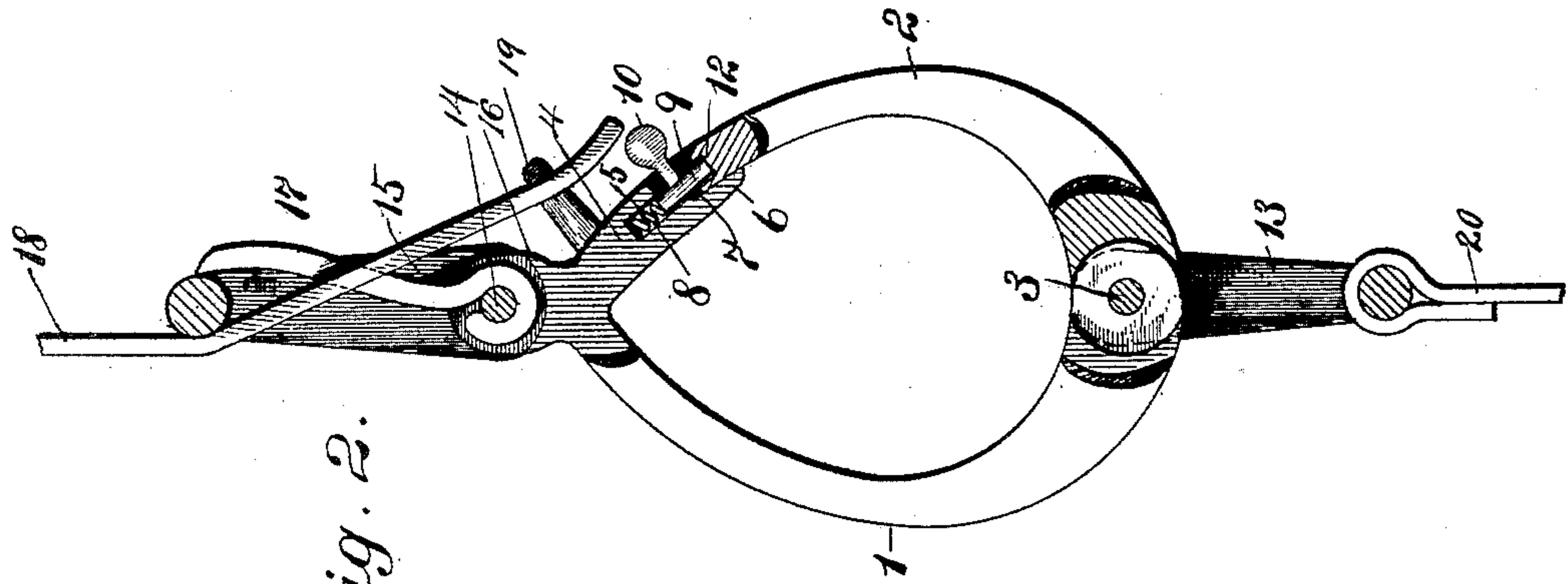


Fig. 2.

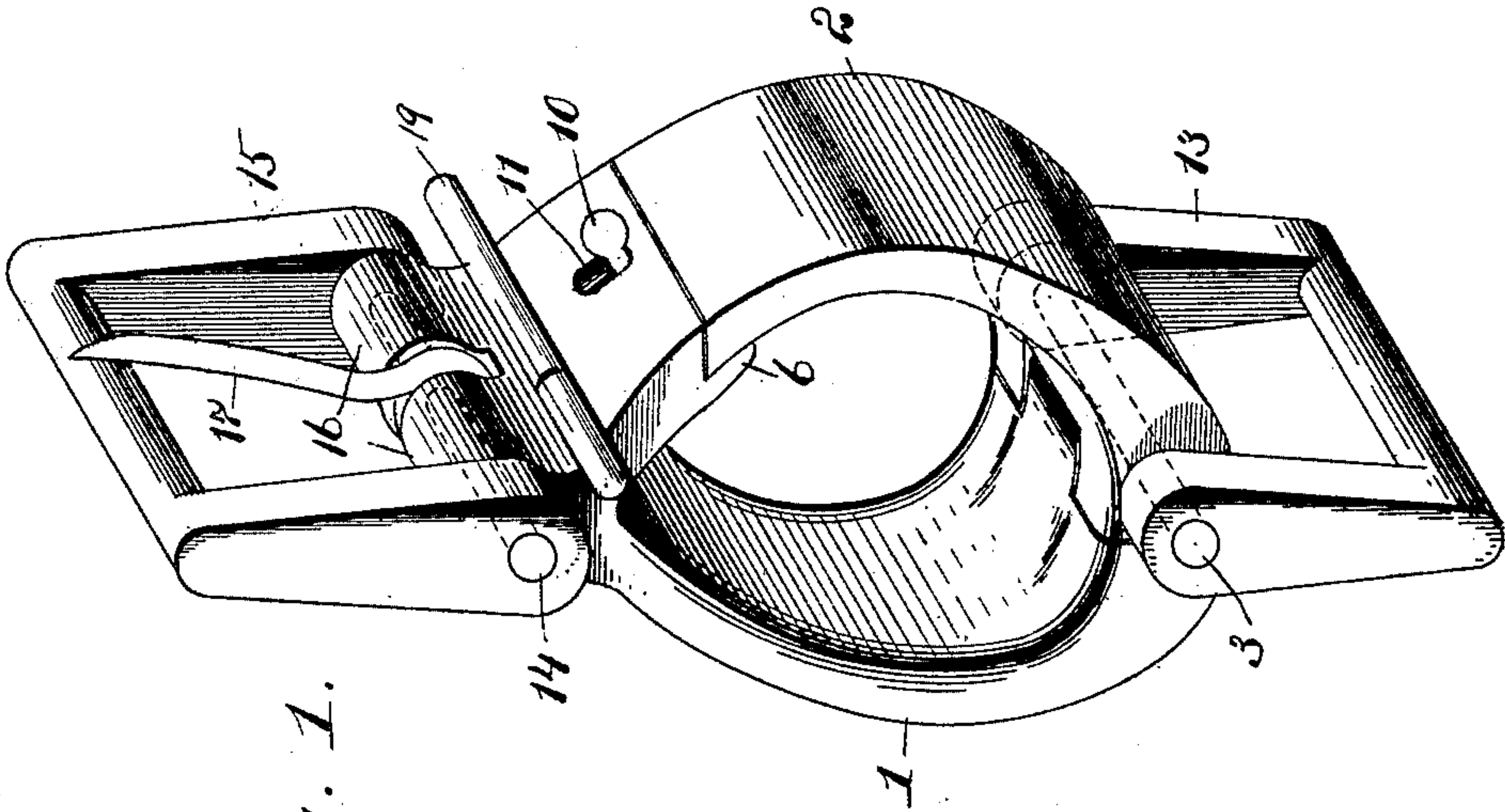


Fig. 1.

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# UNITED STATES PATENT OFFICE.

JOHN GRIERSON, OF RICHMOND, MISSOURI.

## TUG.

SPECIFICATION forming part of Letters Patent No. 459,076, dated September 8, 1891.

Application filed May 2, 1891. Serial No. 391,373. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN GRIERSON, of Richmond, Ray county, Missouri, have invented certain new and useful Improvements in Tugs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to that class of harness attachments which are designed to surround the shaft of a vehicle and to which the back-straps from the saddle and the belly-band are connected; and the object of my invention is to produce a simple, durable, and inexpensive loop of this class which will afford a secure support for the shafts and which can be quickly placed in and removed from the shaft without necessitating forward and backward movements of the vehicle after the animal has been stationed between the shafts.

To the above purposes my invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a harness-tug constructed in accordance with my invention. Fig. 2 is a view of the same, partly in end elevation and partly in transverse vertical section.

In the said drawings, 1 designates the body portion of the tug, and 2 the hinged or opening portion of the same, these two parts together constituting a loop which is substantially ovoid in cross-section to properly surround a shaft of the vehicle and the greater or wider curvature at the lower part of which serves to properly receive and support the shaft. These two parts are of metal and may be more or less ornamented, as desired. The lower part of the opening section 2 is connected to the lower part of the body portion 1 by a pin 3, which constitutes the pin-  
45 tle of the hinged connection between said body portion 1 and the opening portion 2 and which extends transversely of the intermatch-  
50 ing ends of the same. The upper portion of the body 1 is formed with an integral extension 4, which projects downwardly and out-

wardly from the body portion, and in the lower end of which is formed a longitudinal recess 5. Upon the lower margin of this extension 4 is formed a downwardly and outwardly extending lip 6, having on its outer side a recess 7, for a purpose to be hereinafter explained. Within the recess 5 is located a spiral spring 8, and a pin or bolt 9 is inserted into this recess and comes into contact with the lower end of said spring. This bolt or pin 9 is provided with a projection or finger-piece 10, which works through a vertical slot 11 in the lower outer part of the extension 4. The upper end of the opening portion 2 of the loop is formed with a longitudinal recess or cavity 12 to receive the lower end of the pin or bolt 9. To the ends of the pin 3 at the lower part of the tug are attached the upper ends of a loop 13, to the cross-bar of which one end of the belly-band 20 is to be attached. A pin 14 extends transversely through a pair of offsets 16 at the upper end of the back-band of the body portion 1 of the tug, and to the projecting ends of this pin are connected the ends of the arms of a buckle 15, to which the lower end of one of the back-straps 18 from the harness-saddle is attached. The lower part of the tongue of this buckle is interposed between the two offsets 16 and surrounds the pin 14, as shown. It is to be understood that one of these tugs is placed at each side of the animal's body and is connected, as above described, to the lower end of the corresponding back-strap 18. After the animal has been stationed between the shafts of the vehicle the bolt or pin 9 is pushed upward and the opening portion 2 is allowed to open. The shaft is now raised and placed within the body portion 1 of the tug, after which the opening portion is raised and closed, the spring 8 automatically forcing the pin or bolt into the recess or cavity 12 of the opening portion 2. It will thus be seen that the shafts can be quickly and easily connected to the harness without necessitating the backing or pulling forward of the vehicle, and that the device is very simple and durable in construction and affords a reliable means of connection for the shafts.

In the drawings I have shown a keeper 19, which is formed upon the upper part of the tug, the said keeper being preferably of U



form and having its ends united to the outer sides of the extension 4. After the end of the back-band has been properly connected to the buckle 15 the free extremity of the  
5 back-band is inserted beneath the keeper 19, and is thus retained neatly in place, so as to prevent all flapping of the end of the back-band as the animal travels.

It is to be further understood that the opening portion 2 of the tug may, if preferred, be  
10 hinged to the upper part of the body portion of the tug, instead of the lower portion, as shown, and in this event the extension 4 would be formed on the lower instead of the  
15 upper portion of the tug-body.

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

An improved harness-tug comprising a  
20 metal body portion and a metal closing portion hinged to the outer part of the body portion, a pintle or pin extending through the intermatching ends of said body and closing

portions, a loop secured to the ends of said pin, a pin extending through offsets at the  
25 opposite part of the body portion, a buckle secured to the ends of said pin, a tongue surrounding the pin and interposed between the offsets, an extension at the upper part of the  
30 body portion of the loop and formed with a recess and a slot communicating therewith, a lip upon the outer end of the extension, a pin or bolt within the recess, a spiral spring  
35 within said recess acting to automatically throw said bolt outward therefrom, a finger-piece extending from the bolt through the slot, and a recess in the upper end of the closing portion to receive the outer portion of the bolt, substantially as set forth.

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

JOHN GRIERSON.

Witnesses:

C. F. LA GRANGE,  
LOUIS LITTMANN.