

(No Model.)

F. DICKERBOOM.

DEVICE FOR ATTACHING HARNESS TO VEHICLE SHAFTS.

No. 572,873.

Patented Dec. 8, 1896.

Fig. 1.

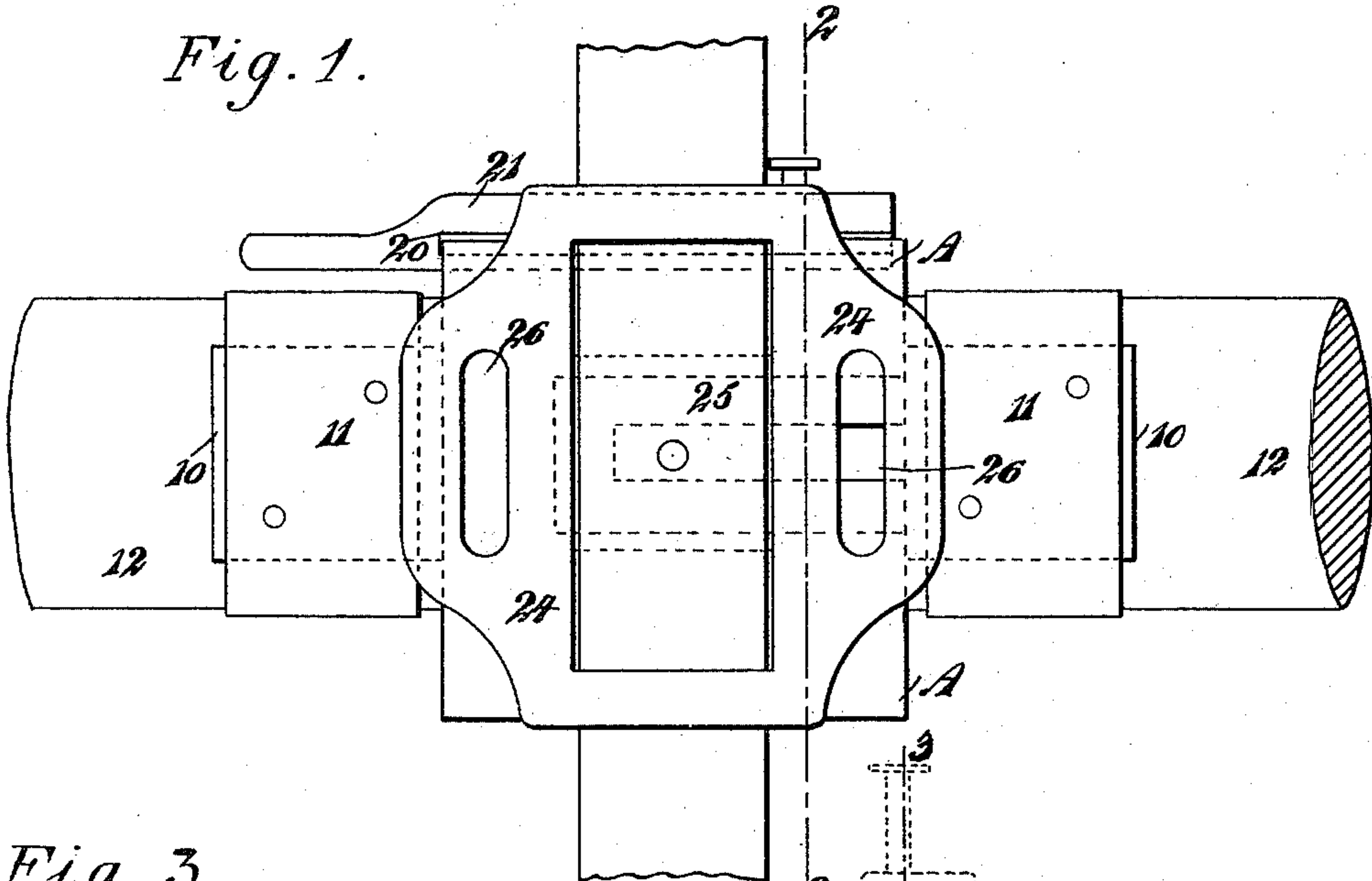


Fig. 3.

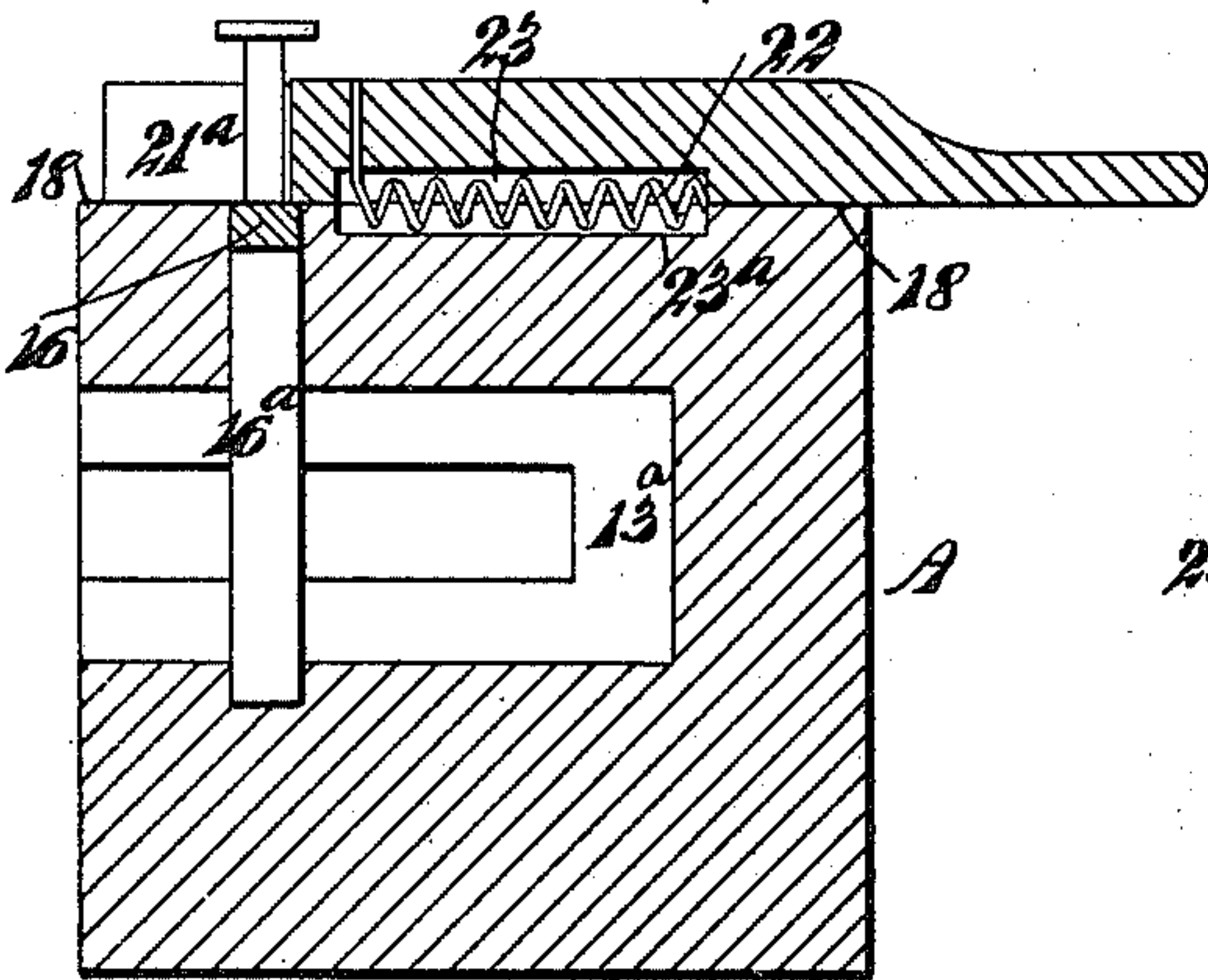
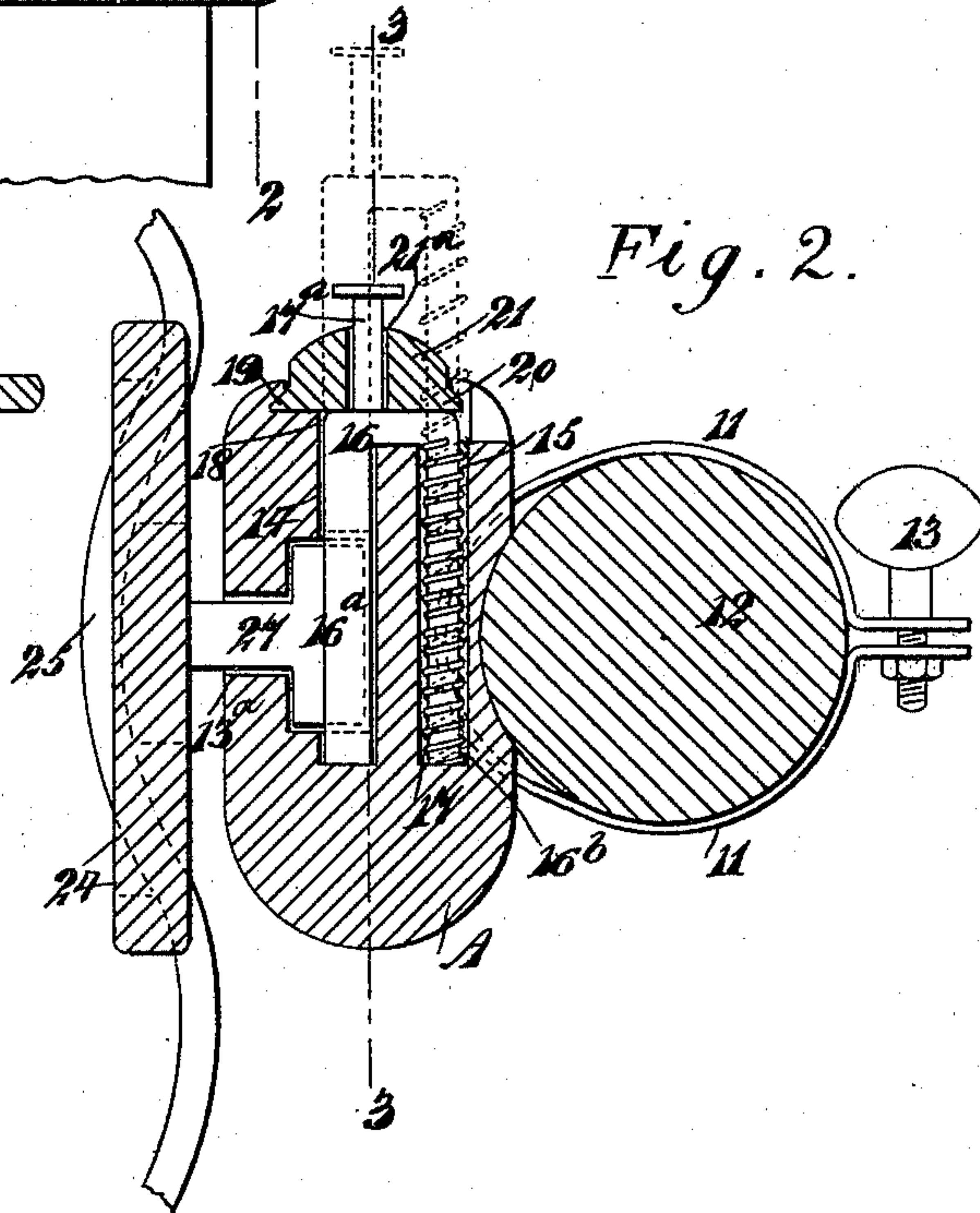


Fig. 2.



WITNESSES:

Henry A. C. Kelly
J. H. Acker

INVENTOR

F. Dickerboom

BY

Mumford

ATTORNEYS.

UNITED STATES PATENT OFFICE.

FREDERICK DICKERBOOM, OF WINDOM, MINNESOTA.

DEVICE FOR ATTACHING HARNESS TO VEHICLE-SHAFTS.

SPECIFICATION forming part of Letters Patent No. 572,873, dated December 8, 1896.

Application filed March 6, 1896. Serial No. 582,077. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK DICKERBOOM, of Windom, in the county of Cottonwood and State of Minnesota, have invented a new and Improved Device for Attaching Harness to Vehicle-Shafts, of which the following is a full, clear, and exact description.

The object of the invention is to provide a device especially adapted for connecting light harness, particularly racing-harness, to the shafts of a vehicle, and to so construct the device that the connection between the harness and the shafts may be expeditiously and conveniently effected, and whereby the harness need comprise only the bridle and driving-reins and the saddle, the attachment being connected with the saddle-straps, and a portion of the device being adapted as a fixture to the said straps, the other portion being made a fixture on the shafts.

A further object of the invention is to so construct the device that it will be simple, durable, and economic, and may be used in connection with buggy or draft harness, if so desired.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of the attachment applied to a shaft. Fig. 2 is a vertical section through the shaft and through the attachment, the section being taken practically on the line 2 2 of Fig. 1; and Fig. 3 is a vertical section through the body portion of the attachment, the said section being taken substantially on the line 3 3 of Fig. 2.

In carrying out the invention the body of the device consists of a block, preferably made of light and strong material, and the said block is provided with an extension 10 from each end, and a clip is secured to each extension, being adapted to grip or surround the shaft 12, and the outer ends of the clips are connected and secured by means of adjusting-screws 13 or like devices. The inner face of the body-block A of the attachment is preferably longitudinally concaved to re-

ceive the inner surface of the shaft, as shown in Fig. 2. A T-slot 13^a is formed horizontally in the body-block, extending from its front end a predetermined distance toward the rear, as shown in Figs. 2 and 3.

Adjacent to the outer end of the aforesaid body-block two vertical and parallel bores or openings 14 15 are made, the said openings being connected at the top, and immediately above the connection between the two bores or openings 14 and 15 a longitudinal slideway 18 is made in the upper portion of the body-block, the inner faces of which slideways are provided with grooves 19 to receive ribs 20, formed on the sides of the slide 21, adapted to extend along the top of the body-block and beyond its rear end. The members 16^a and 16^b, of a substantially U-shaped bolt 16 are respectively held to slide in the bores or vertical openings 14 and 15, and the innermost bore or opening 14 is in communication with the T-slot 13^a, so that when the bolt is in its lower or locking position in the body-block the inner member 16^a will cross the T-slot and extend below the bottom wall of the same. A spring 17 is coiled, preferably, around the outer member 16^b of the bolt, the said spring having a tendency to carry the bolt upward, so that its inner member will clear the T-slot when the slide 21 is carried from over the top of the bolt, the slide serving to hold the bolt in its locking position. The bolt is provided at its upper end with an upwardly-extending shank 17^a, terminating in a suitable head, and the outer or front end of the slide has a slot 21^a made therein, through which the shank of the bolt extends when the slide is closed over the bolt. The slide 21 is held in its closed position by a spring 22, which is attached to the slide, and is located partially within a recess 23, made in the bottom of the slide, and a recess 23^a in the upper surface of the block over which the slide moves, as illustrated in Fig. 3, the spring being placed under compression when the slide is drawn outward to release the bolt 16.

The saddle-straps 25 are secured to a buckle 24, and the said buckle is ordinarily provided with an opening 26 at each end to receive additional straps, if necessary, and upon the back of the buckle a T-stud 27 is secured or made integral with the buckle, and this stud

is adapted to enter the T-slot 13^a in the body-block A, as shown in Fig. 2.

The body portion of the attachment is a fixture on the shaft, although it may be adjusted to any point in the length of said shaft to suit the horse to be harnessed, and when said harness is to be used upon race-horses, as heretofore stated, it may consist only of the saddle, bridle, and driving-reins, the buckles remaining attached to the saddle-straps 25. In harnessing the horse to a vehicle after the horse is placed within the shafts it is simply necessary to draw the slide rearward and permit the bolt 16 to pass to its upper position. (Shown in dotted lines in Fig. 2.) The studs 27 of the buckles attached to the saddle-straps are then passed into the T-slots 13^a of the body-blocks to a point near the rear ends of the said slots. The bolts are then pressed downward, preventing the buckle-studs from leaving the body-blocks, and the slide will then fly back to its locking position over the bolt.

When the horse is to be removed from the vehicle, the slides are drawn backward, releasing the bolts, and the studs of the buckles leave the blocks as the horse advances. When the device is used in connection with harness for heavier work, as, for example, the drawing of surreys, buggies, or express-wagons, a breast-strap will be needed, or a collar and hames, and the extra piece of harness may be attached to the buckle at one of its slots 26, and another piece of harness may be attached at the other apertured portion of the buckles, if desired. In the racing-harness above referred to the horse will pull only on the saddle and the girth, nothing else.

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

1. A thill attachment having a body provided with a horizontally-extending and undercut slot opening at the front of the body and also provided with a horizontal slideway communicating with two transversely-extending bores or passages, one of which is also in communication with the undercut slot, a

buckle having a stud projecting and movable in the undercut slot, a U-shaped bolt, the arms of which are respectively movable in the bores or slots, a spring pressing the U-shaped bolt, and a spring-pressed slide movable in the slideway and capable of holding the bolt in a position opposed to the tendency of the spring thereof, substantially as described.

2. A thill attachment having a body portion provided with a slot opening at the forward end of the body portion, the body portion being also provided with a bore or passage intersecting the slot, a bolt movable in the bore or passage, a spring pressing the bolt outward from the bore or passage, a slide capable of holding the bolt against the pressure of the spring, a spring pressing the slide to engagement with the bolt, and a buckle provided with a stud movable in the slot and normally engaged by the bolt to prevent the disengagement of the stud from the body, substantially as described.

3. A thill attachment having a body provided with a slot and with a bore intersecting the slot, a slide formed with a slot, a spring pressing the slide inward, a bolt having a stud movable in the slot of the slide, a spring pressing the bolt, and a buckle provided with a stud movable in the slot and engaged by the bolt to prevent the disengagement of the stud with the body, substantially as described.

4. A thill attachment having a body portion provided with a slot opening at the forward end of the body portion, the body portion being also provided with a bore or passage intersecting the slot, a bolt movable in the bore or passage, a spring pressing the bolt outward from the bore or passage, a slide capable of holding the bolt against the pressure of the spring, and a spring pressing the slide to engagement with the bolt, the slot being capable of receiving a portion of a buckle, substantially as described.

FREDERICK DICKERBOOM.

Witnesses:

A. SANDVICK,
M. D. GATES.