W. W. WOODFILL.

DRAFT ATTACHMENT FOR HARNESS.

APPLICATION FILED SEPT. 27, 1909.

970,590.

Patented Sept. 20, 1910.

Fig. 1.

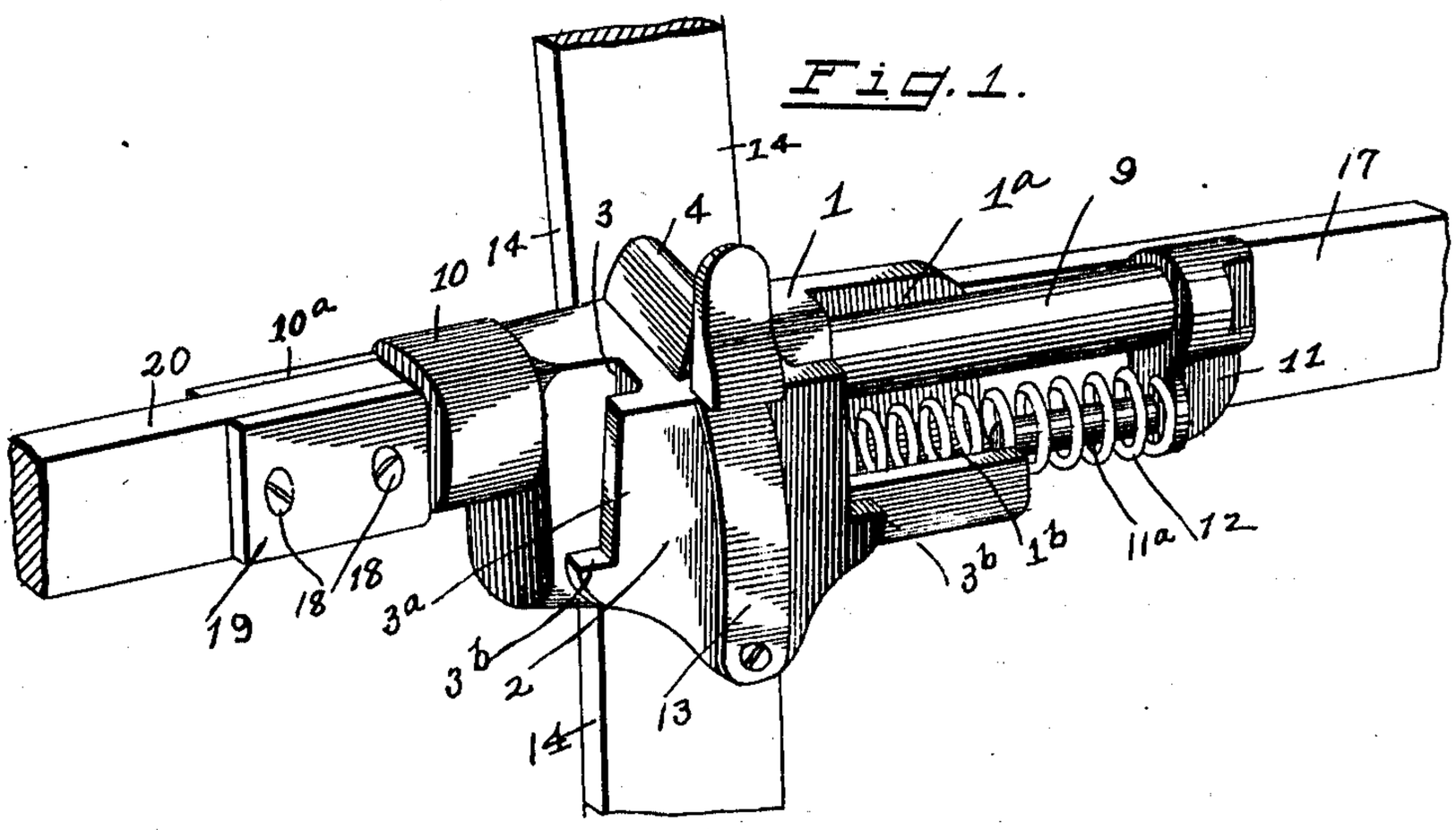


Fig. 2

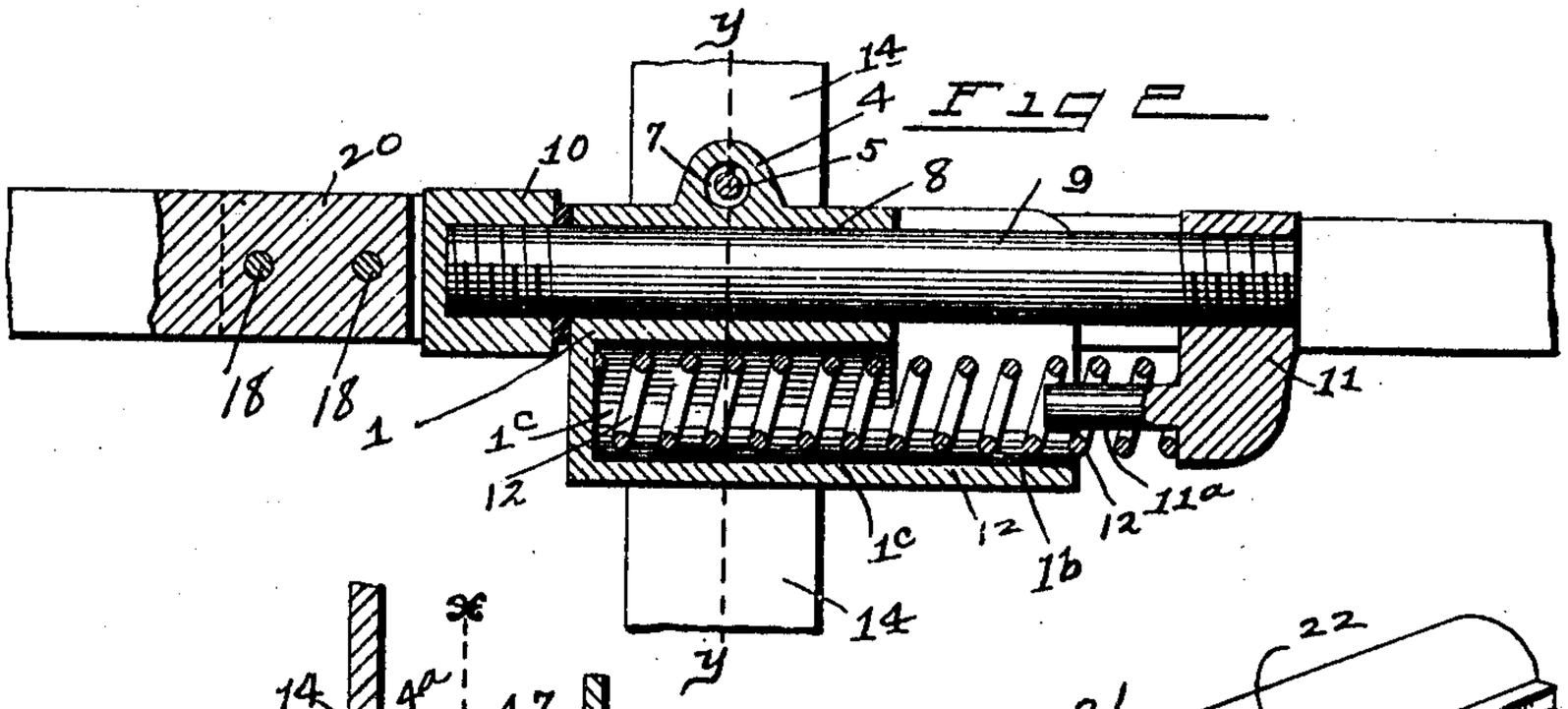


Fig. 3.

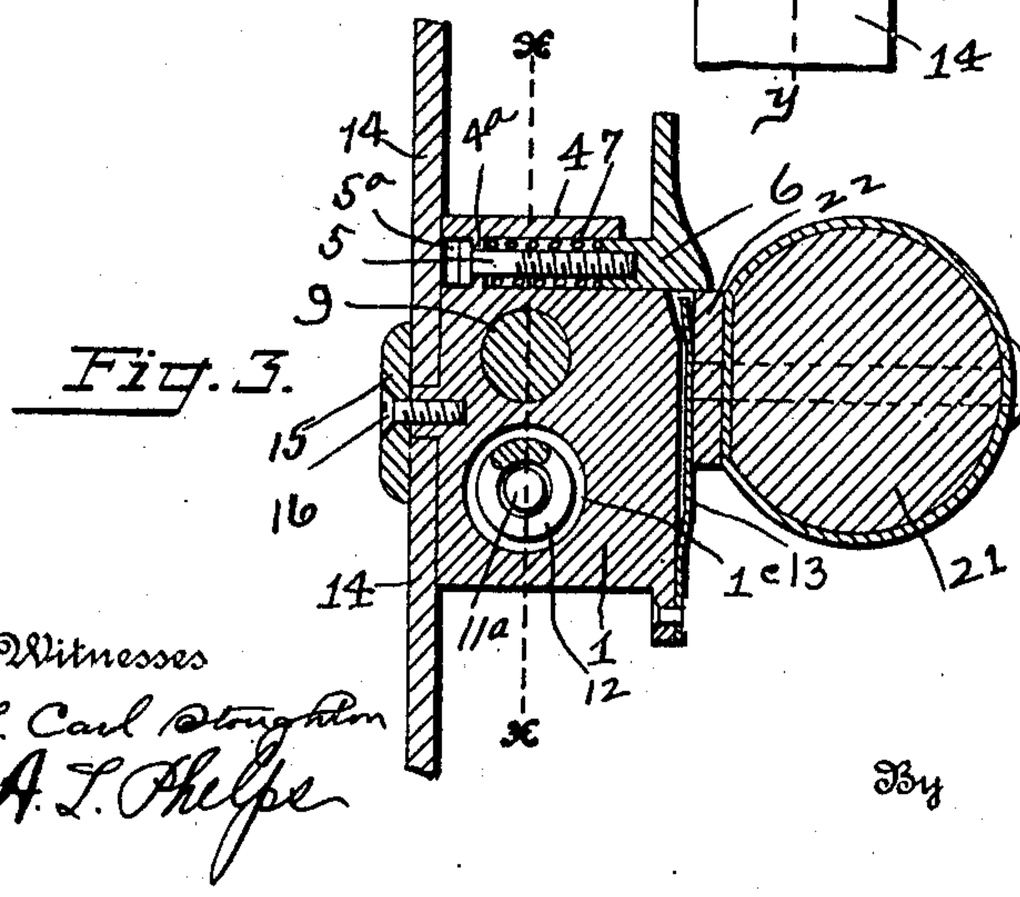
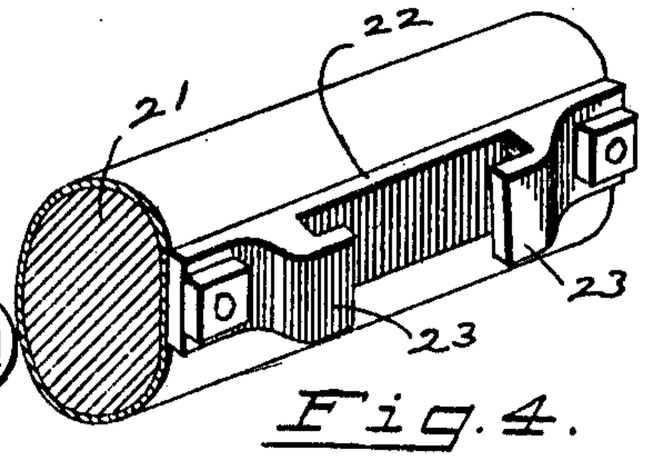


Fig. 4.



Witnesses

L. Carl Stoughton

A. L. Phelps

Inventor

White W. Woodfill

By C. C. Shepherd

Attorney

UNITED STATES PATENT OFFICE.

WHITE W. WOODFILL, OF COLUMBUS, OHIO.

DRAFT ATTACHMENT FOR HARNESS.

970,590. Specification of Letters Patent. Patented Sept. 20, 1910.

Application filed September 27, 1909. Serial No. 519,769.

To all whom it may concern:

Be it known that I, WHITE W. WOODFILL, citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Draft Attachments for Harness, of which the following is a specification.

My invention relates to the improvement of draft attachments for harness and the objects of my invention are to provide an improved harness attachment, by means of which a vehicle may be drawn without undesirable jolt or shock thereto, resulting from sudden increase in the speed of the horse, and by means of which the horse is relieved of the usual starting strain; to so construct my improved harness attachment as to obviate the necessity of employing the usual harness tugs or traces and to produce other improvements, the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawing, in which—

Figure 1 is a perspective view of my harness attachment, showing the same in connection with a portion of the harness. Fig. 2 is a longitudinal section on line *x x* of Fig. 3. Fig. 3 is a transverse section on line *y y* of Fig. 2, and Fig. 4 is a detail view perspective of a portion of a vehicle shaft, showing my improved attaching device thereon.

Similar numerals refer to similar parts throughout the several views.

In carrying out my invention I employ a casting body 1 of a general oblong form, said body being formed on its outer side with an outwardly projecting portion 2, in the front and rear sides of which are formed opposing vertical channels or recesses 3. The outer flanges 3^a, which result from the production of the channels 3, are formed in their lower portions with the forwardly and rearwardly projecting shoulders 3^b, indicated in Fig. 1 of the drawing. The rearwardly extending portion of the body 1 has the outer face of its upper portion recessed or reduced in thickness, as indicated at 1^a. The lower portion of this recessed member 1^a is projected outwardly to form a horizontal channel 1^b, said channel having its forward end communicating with a socket continuation thereof, which is formed in the lower portion of the body 1 and which is indicated at 1^c. With the upper side of the body 1 is formed an upwardly projecting transverse housing 4, within the inner end portion of which is formed a partition 4^a, through a central opening in which passes the stem of a bolt 5, the head of said bolt, which is indicated at 5^a, being thus retained on the inner side of said partition 4^a. The outer threaded portion of the bolt stem is engaged with the inwardly projecting horizontal member of an angular latch piece 6, this latch piece having its outer portion normally projected beyond the outer side of the body 1 by pressure of a spring 7, which is coiled about the bolt 5 and which bears between the partition 4^a and the inner end of the horizontal lower member of the latch piece 6. Formed lengthwise through the thicker portion of the body 1 and extending beneath the housing 4, is a bore or guideway 8, in which is mounted slidably a horizontal pin 9, the forward end of which, on the outer side of the body 1, is provided with a head 10. The rear portion of the pin, which normally extends at a distance in rear of the body 1, has secured thereto the upper portion of a downwardly extending arm 11, the lower portion of said arm being provided with a forwardly extending pin 11^a. About said pin is arranged the rear end portion of a horizontal coil spring 12, the rear portion of said spring lying in the channel 1^b and the forward portion thereof extending within the casing or socket member 1^c against the closed end of which said spring bears. As will be understood, the spring 12 serves to retain the pin 9 in its rearmost position. Secured to the lower portion of the outer face of the casting body 1 is the lower end of an upwardly extending and inwardly curved spring strip 13.

14 represents the usual back band and girth-connecting strap, said strap being secured to the rear side of the casting body 1, preferably by means of a clamping member 15, which is held in connection with the body 1 by a screw 16. I also connect with the rear portion of the casting body 1 a rearwardly extending harness strap 17 which is connected in a desirable manner with the breeching of the harness. Formed with one side of the head 10, which is secured to the forward end of the bolt 9, is a forwardly extending clamping tongue 10^a. To the outer face of this tongue is secured, through the medium of screws 18 and a detachable

clamping plate 19, the rear end portion of a forwardly extending breast collar strap 20.

21 represents a portion of one of the vehicle shafts, said shafts being designed to extend on the outer sides of the casting body 1. Each of the shafts 21 has secured to its inner face a keeper plate 22, the latter being in the nature of an elongated plate or bar body, from the inner face of which, and on opposite sides of the center of its length, project hook-like tongues 23. In connecting the shafts with the casting body 1 on opposite sides of the horse, the shafts are first elevated and then lowered, and in their downward movement, the tongues 23, at the shaft plates 22, enter the channels or recesses 3 of the body 1, said tongues thus engaging the flange projections 3^a of said body and the contact of the tongues with the shoulders 3^b, serving to limit the downward movement of the shafts. It will be understood, however, that in the operation of lowering the shafts they will contact with the rounded faces of the outwardly projecting portions of the latch members 6, resulting in the latter being pressed inwardly until flush with the outer faces of the casting bodies, and also resulting in a compression of the springs 7. The shaft having been lowered sufficiently, it will be understood that the tension of the springs 7 will result in again forcing the latch pieces 6 outward, in which positions they will project above the shaft plates 22 and prevent an accidental upward movement of the shafts. When the parts are in the position just described, it is obvious that the outwardly bent springs 13 will exert spring pressure against the shaft plates 22 and operate to prevent any undesirable vibration or rattling of the parts.

From the construction and operation which I have described, it will be readily understood that in the initial forward pull on the breast collar straps 20, produced by the starting of the horse, the pins 9 will be pulled gradually forward, resulting in a compression of the springs 12, said springs thus affording a yielding resistance to the forward movement of the horse and vehicle, which resistance will be gradually overcome as the horse moves forward. In this manner it is obvious that in both the starting and stopping movement of the horse, and in cases where sudden resistance is offered to the forward movement of the vehicle, both the horse and the occupants of the vehicle will be relieved from the shock or jolt which might otherwise be occasioned.

It is evident that the shafts may be readily disengaged from my improved harness attachment body by first pressing the latch members 6 inward, then raising the shafts until the plate hooks 23 are disengaged from the casting body 1.

I claim—

In a device of the character described, the combination with a draft body secured to the back and girth straps of harness, said body having an outwardly projecting T-shaped portion, of a connecting member rigidly secured to a shaft of a vehicle and adapted to fit over said T-shaped extension, a horizontally disposed spring actuated latch normally tending to be projected outwardly to overlie said member, a pin slidably disposed within said draft body, a breast strap fixedly secured to one end of said pin and projecting forwardly from the draft body, a strap secured to the draft body and projecting rearwardly from said draft body, a lateral extension upon one end of the pin, and a spring disposed between said extension and the draft body, said spring lying within a housing formed by said draft body.

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

WHITE W. WOODFILL.

Witnesses:
C. C. Shepherd,
Joseph N. Eagleson.