

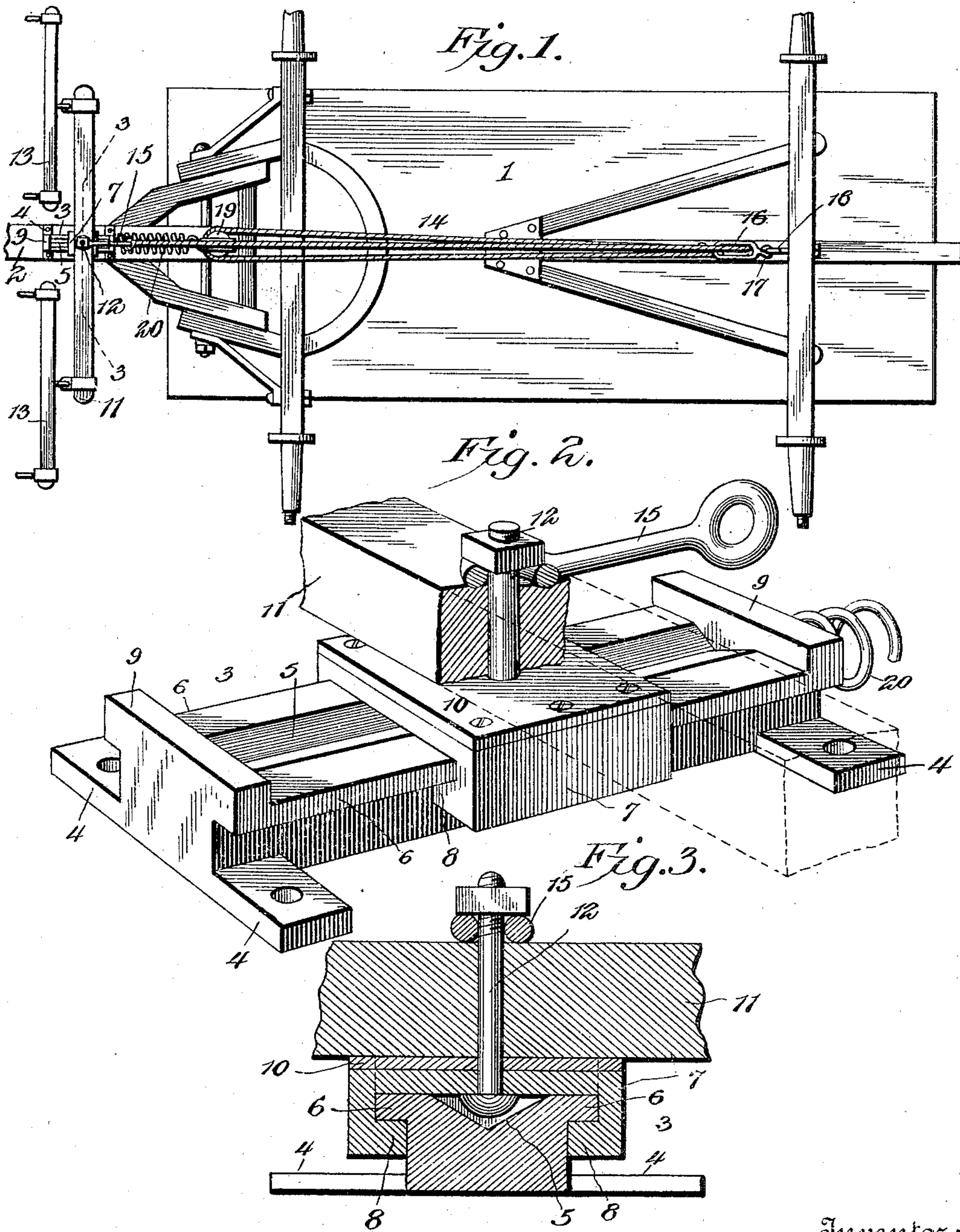
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Patented Dec. 17, 1901.

P. M. GUTLEBER.  
DRAFT APPLIANCE.

(Application filed Aug. 21, 1901.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## DRAFT APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 688,850, dated December 17, 1901.

Application filed August 21, 1901. Serial No. 72,822. (No model.)

*To all whom it may concern:*

Be it known that I, PHOENIX M. GUTLEBER, a citizen of the United States, residing at Liberty Corner, in the county of Somerset and State of New Jersey, have invented a new and useful Draft Appliance, of which the following is a specification.

This invention relates to draft appliances, and has for its object to provide an improved yieldable connection between the draft-animals and the vehicle, so as to ease the strain upon the former and obviate jerking movements of the vehicle.

It is furthermore designed to embody this invention in the nature of an attachment for application to any ordinary vehicle without altering or changing the construction thereof.

Another object is to provide for slidably mounting the draw-bar upon the tongue or pole of the vehicle, so that the draw-bar may move in opposite directions longitudinally of the pole under the strain of the draft, and also to have a yieldable connection between the draw-bar and the vehicle, so as to take up slack and yield under sudden strains, thereby to relieve the latter to a considerable extent from the draft-animals.

A final object resides in arranging the device so that it may be mounted upon the under side of a tongue or pole, whereby it may be displaced, so as to be out of the way, and thereby not subject to displacement.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is an inverted plan view of the present invention applied to a vehicle. Fig. 2 is a detail perspective view of the attaching-bracket and the slide carried thereby. Fig. 3 is a transverse sectional view taken on the line 3 3 of Fig. 1.

Like characters of reference designate corresponding parts in all the figures of the drawings.

In the accompanying drawings there has been illustrated a vehicle-body 1, having the usual tongue or pole 2. These parts may be of any ordinary or preferred form, as they are shown merely to illustrate the application and operation of the present invention.

In carrying out my invention and to provide for the slidable mounting of a double-tree or draw-bar there is provided a bracket 3, which is applied to the under side of the pole and is connected thereto by means of suitable fastenings passed through the laterally-projected ears formed by the cross-bars 4, which are carried by the opposite ends of the bracket. The intermediate under side of the bracket is provided with a longitudinal groove or way 5, and outwardly-directed longitudinal ribs 6 are provided at the opposite lower edges of the bracket. A slidable block 7 is applied to the under side of the bracket and is provided with inwardly-directed overhanging flanges 8 to slidably embrace the ribs of the bracket, whereby the block or slide may be moved in opposite directions upon the bracket. Cross-bars 9 are secured transversely across the under side of the bracket and at opposite ends thereof, so as to form stops to limit the opposite movements of the slide. The under side of the slide is provided with a wear-plate 10, and an ordinary double-tree or draw-bar 11 is pivotally connected to the under side of the slide by means of a bolt 12, that has its head slidably received within the groove or way of the bracket. The opposite ends of the draw-bar are provided with the usual whiffletrees 13.

From the foregoing description it will be apparent that the draw-bar is mounted to move in opposite directions longitudinally of the pole, and to connect the draw-bar with the body of the vehicle there is provided a rope, cable, or other flexible connection 14, which has one end connected to the draw-bar by means of a hooked link 15, that is connected to the lower end of the bolt 12, the opposite end of said connection being secured to a block or pulley 16, that has a hook whereby said pulley or guide may be engaged with a clip 18, carried by some part of the rear portion of the running-gear. The intermediate portion of the flexible connection is run back and forth through the pul-

ley 16 and another pulley 19, which is connected to the rear end of the bracket 3 by means of a helical spring 20.

From the foregoing description it is apparent that the present device may be applied to any ordinary vehicle without altering or changing the same in any respect whatsoever and when applied does not interfere with any of the movable parts of the vehicle. It will of course be understood that the doubletree or draw-bar 11 is pivotally mounted upon the bolt 12, so that it may have the usual swinging movement, and the hooked link 15 is also pivotally connected with the bolt, and the spring 20 is loosely connected to the adjacent pulley and the bracket, so as to accommodate for the lateral and vertical movements of the tongue or pole.

When the draft-animals are connected to the draw-bar in the usual manner, it will be seen that the strain of the draft acts on the helical spring, thereby obviating jerking movements of the vehicle and relieving the draft-animals of considerable strain. Moreover, the spring takes up all slack in the draft connection, and thereby obviates looseness of the traces, as the slide permits of the draw-bar being moved in opposite directions upon the pole, and the tendency of the spring is to draw the draw-bar to its rearward limit against the tension of the draft.

What I claim is—

1. The combination with a running-gear of a vehicle having a tongue or pole, of a transverse draw-bar slidably mounted upon the pole, front and rear guides carried by the running-gear, one of said guides being capable of a yielding movement in a direction longitudinally of the running-gear, and a flexible connection having its forward end connected to the draw-bar, its rear end connected to the rear guide and the intermediate portions reeved loosely through the two guides.

2. In a draft appliance, a bracket constructed for application to a vehicle, a slide mounted thereon, a draw-bar carried by the slide, a guide yieldably connected to the rear end of the bracket, another guide located in rear of the former guide and constructed for connection with a vehicle, and a flexible connection having its opposite ends secured to the latter guide and the draw-bar, and its intermediate portions reeved loosely through both guides.

3. In a draft appliance, a bracket having means for connection with a vehicle, and provided with opposite upwardly-directed longitudinal ribs, and a longitudinal groove or way formed in its lower face, a slide upon the underside of the bracket and embracing the ribs thereof, a draw-bar applied to the lower side

of the slide, a pivot-bolt piercing the slide draw-bar and having its head slidably received in the groove of the bracket, a guide yieldably carried by the rear end of the bracket, a rear guide having means for rigidly connecting the same to the vehicle, and a flexible connection having its opposite ends secured respectively to the draw-bar and the fixed guide, and its intermediate portions reeved loosely through the guides.

4. A draft appliance comprising an attaching-bracket, a slide mounted thereon, a draw-bar intermediately pivoted to the slide, a guide-pulley having a spring connection with the rear end of the bracket, a relatively fixed pulley located in rear of the former pulley and provided with means for connection with a vehicle, and a cable having its opposite ends secured, respectively, to the draw-bar and the relatively fixed pulley and also having its intermediate portions reeved loosely through both pulleys.

5. The combination with the running-gear and pole of a vehicle, of a draw-bar mounted to slide in opposite directions longitudinally of the pole, a yieldable guide located in rear of the draw-bar, a relatively fixed guide in rear of the yieldable guide, and a cable having its opposite ends, respectively, connected to the draw-bar and the fixed guide, and also having its intermediate portions reeved loosely through the two guides.

6. A draft appliance, comprising a bracket having means for connection with a pole, the under side of the bracket being provided with a longitudinal groove, and also having opposite outwardly-directed longitudinal ribs, a slide working across the lower side of the bracket and having inwardly-overhanging flanges slidably embracing the ribs, a draw-bar applied to the under side of the slide, a pivot-bolt piercing the slide and the draw-bar, the head of the bolt being slidably received within the groove, a link pivotally connected to the lower projected end of the bolt, a pulley having a loose spring connection with the rear end of the bracket, a rear pulley having means for connection with a vehicle, and a cable having its opposite ends connected, respectively, to the rear pulley and the link, and its intermediate portions being reeved loosely through both of the pulleys.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

PHOENIX M. GUTLEBER.

Witnesses:

F. W. FUNESS,  
L. V. STRYKER.