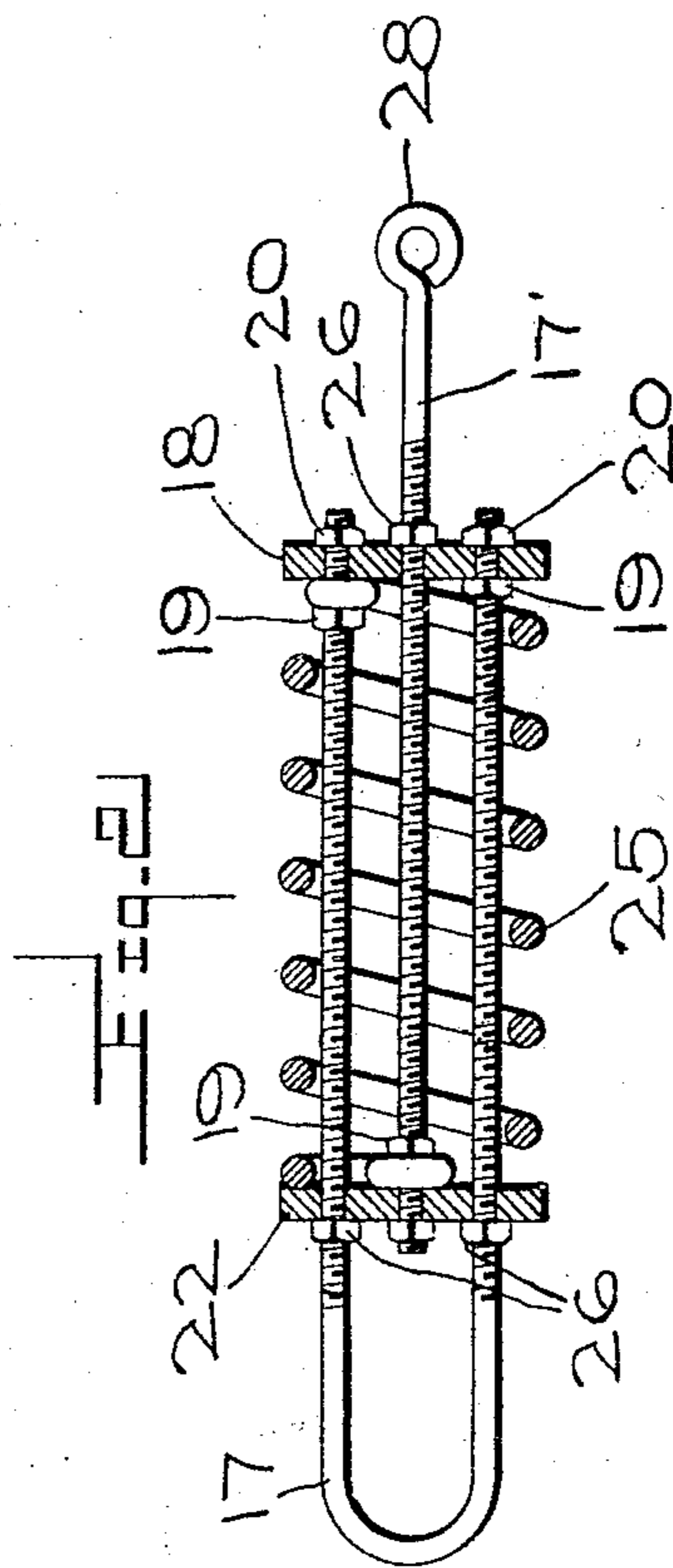


944,755.

Patented Dec. 28, 1909.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## COMPENSATING DRAFT APPLIANCE.

944,755.

Specification of Letters Patent.

Patented Dec. 28, 1909.

Application filed March 25, 1909. Serial No. 485,692.

*To all whom it may concern:*

Be it known that I, WILLIAM C. WHITE, a citizen of the United States, residing at De Smet, in the county of Kingsbury and State of South Dakota, have invented certain new and useful Improvements in Compensating Draft Appliances, of which the following is a specification.

This invention relates to wagons, plows and devices of a like nature and relates particularly to a draft appliance for use in connection with the same.

An object of this invention is to provide a plow or the like with means whereby the draft appliances employed in connection therewith will be prevented from breakage when an obstacle is encountered to stop the progress of the plow during the operation of the same.

Another object of this invention is the provision of a draft appliance of this nature with springs for taking up lost motion of the plow which are provided with means whereby the tensions of the same may be adjusted according to the weight adapted to be drawn through the medium of the device.

A still further object of this invention is the provision of an adjustable connection between the plow and the draft appliance whereby the number of draft animals may be increased or decreased according to the requirements and the device may be adjusted to accommodate the same.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top plan view of the complete device, Fig. 2 is a detailed view of the compensating device.

Referring to the drawings, 10 designates a cross arm which is preferably formed of metallic piping and which is provided upon its opposite extremities with forwardly projected and pivotally mounted links 11 in the outer ends of which are detachably secured the doubletrees 12 and 13. The trees 12 and 13 may be formed in any suitable manner for the purpose of attaching any convenient number of draft animals to the beam 10 ac-

cording to the weight of the plow or other device which is to be drawn.

For the purpose of attaching the beam 10 to the object to be drawn and of adjusting the beam transversely, a pair of sleeves 14 is provided, the sleeves being engaged slidably about the beam 10 and held in adjusted position thereon by means of suitable set screws 15. The sleeves 14 are each provided with ears 16 which are rearwardly extended therefrom and are apertured for the reception of the forward extremities of yokes 17. The yokes 17 are U-shaped and have their bight portion engaged through respective apertures formed in each of the ears 16 to admit of the swinging motion of the yokes during adjustment of the same. Each of the yokes is provided with threaded portions upon its extremities over which is engaged a disk 18 which is held in adjusted position thereon by means of the clamping nuts 19 and 20 disposed upon the opposite sides of the disk 18. Each of the disks 18 is provided with a central aperture through which is slidably engaged the central portion of a rod 17' carried rigidly by a similar disk 22 through which the intermediate portion of the yokes is slidably engaged. The disk 22 is held to the rod by nuts 19 and 20, engaged oppositely of the disk. Coil springs 25 are positioned about the yokes 17 between the disks 18 and 22 and are secured at their extremities against the inner faces of the disks by means of adjacent clamping nuts 19. This arrangement of the springs causes a normal resilient separation of the disks which are checked in such position by means of adjusting nuts 26 respectively carried upon the members 17 and 17'. By means of the nuts 26 the tension on the spring may be varied to suit teams of different weights. The inner extremities of the rods 17' are each curved to form eyes 28 for engagement with the ring 29 which is arranged to be engaged with the plow or other device to be drawn.

The operation of the device is as follows: When the beam 10 is attached to the draft animals and is drawing a plow or the like the rods 17 and 17' form a connection and act in such manner. When the plow or other device strikes an obstacle which tends to decrease the motion of the same or suddenly stops it the springs 25 are compressed admitting of the sliding passage of the yokes

17 and rods 17' through the disks 18 and 22 gradually overcoming the momentum of the team and preventing the breakage of the beam through sudden strain. The tensions of the spring 25 may be adjusted by means of moving the nuts 26 longitudinally upon the members 17 and 17' to permit of the separation of the disks 18 and 22. If the tree 12 is replaced by a smaller or larger one, the sleeves 14 are loosened upon the beam 10 by means of the set screws 15 and the beam 10 moved laterally in one direction or the other for the purpose of equalizing the draft during the operation of the device. It is also readily seen that the tensions of the springs 25 may be regulated by separating the sleeves 14 and securing the same in such position.

What I claim is:—

20 1. A device of the class described comprising a cross arm, trees secured to the opposite extremities of said cross arm, sleeves adjustably disposed on said cross arm, rod members rearwardly extended from said sleeves, 25 springs disposed about said rods secured at their rearward extremities to the outer extremities of said rods, a second set of rods disposed through said springs and secured to the same at their forward extremities, and 30 a ring commonly engaged with the rear extremities of said second set of rods for the purpose of attaching the device to a vehicle.

2. A device of the class described comprising a cross arm, trees mounted upon the opposite extremities of said cross arm, sleeves 35 slidably disposed intermediately upon said cross arm, rod members rearwardly extended from said sleeves, disks adjustably mounted upon the ends of said members, springs disposed about and extended forwardly from the rear extremities of said members, said springs being secured to said disks, a second set of disks secured to the forward extremities of said springs and 45 slidably disposed upon said members, an adjusting nut disposed on said rod members for engagement with the outer face of said second disks to limit the forward motion of the same, rods disposed through said springs secured at their forward extremities to the 50 second disks, said rods being disposed slidably through said first disks, an adjusting nut carried by said second rods for engagement with the outer faces of said first disks and a ring carried by the rear extremities of 55 said second rods for attaching the device to a vehicle.

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

WILLIAM C. WHITE.

Witnesses:

O. ALTFILLISCH,  
R. C. FULLER.