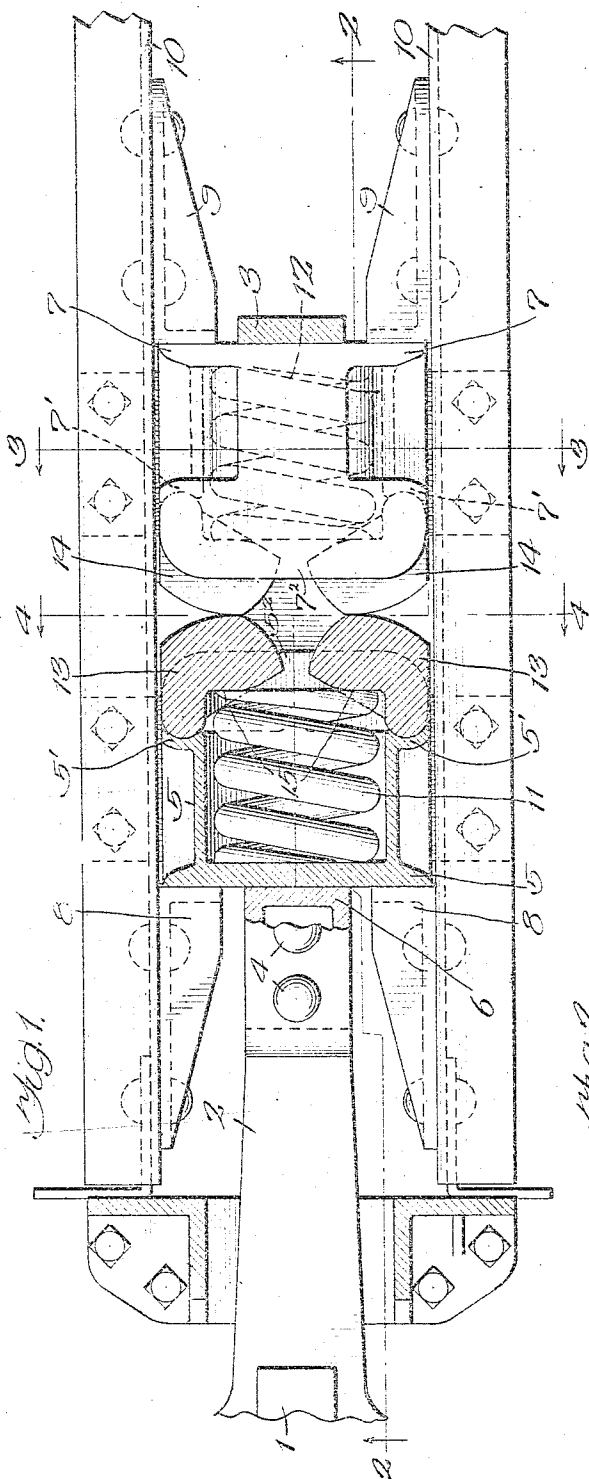
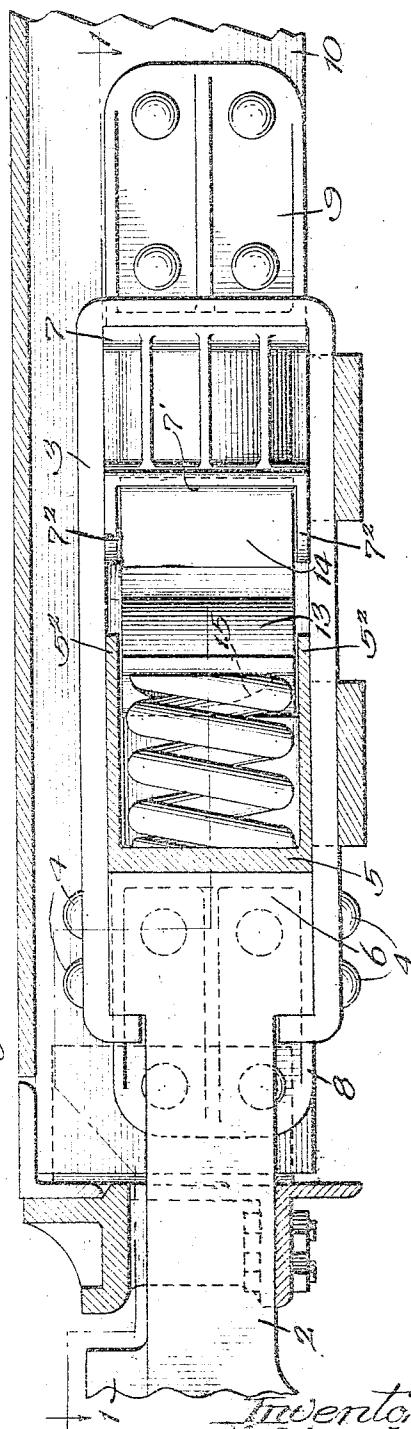


1,282,940.

Patented Oct. 29, 1918.

2 SHEETS—SHEET 1.



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Patented Oct. 29, 1918.
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Fig. 3.

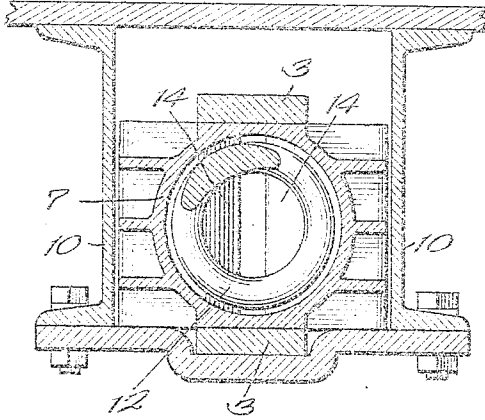


Fig. 4.

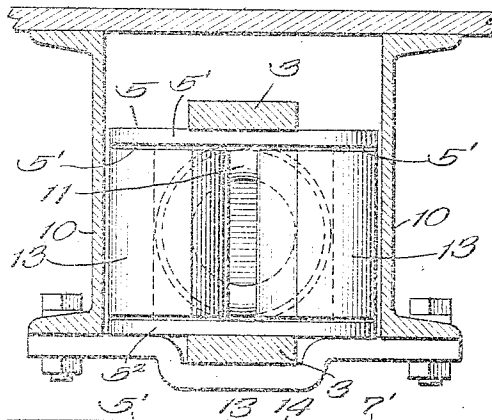


Fig. 5.

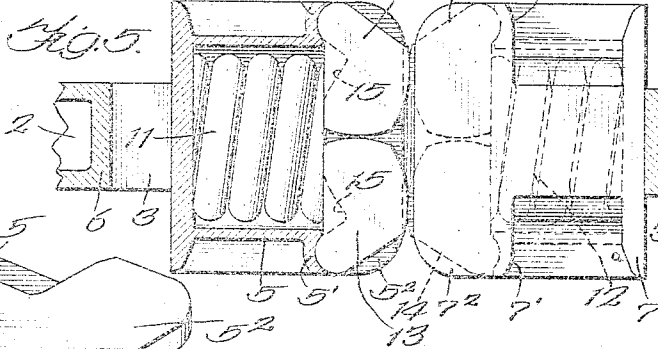


Fig. 6.

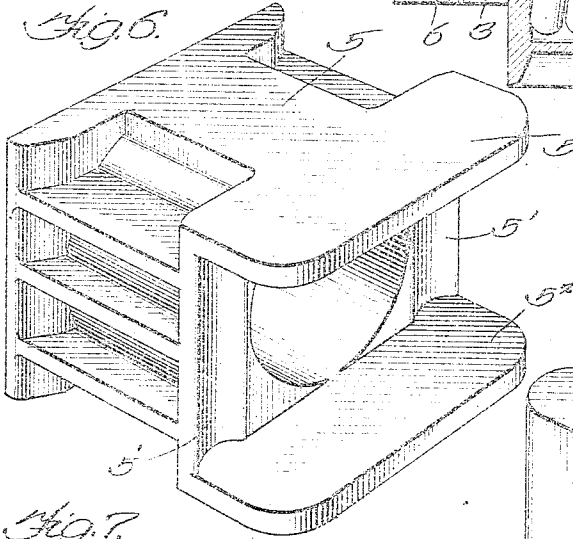
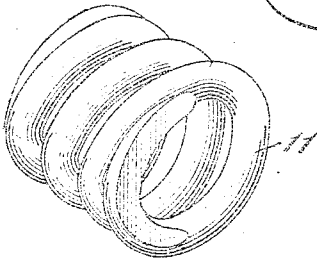
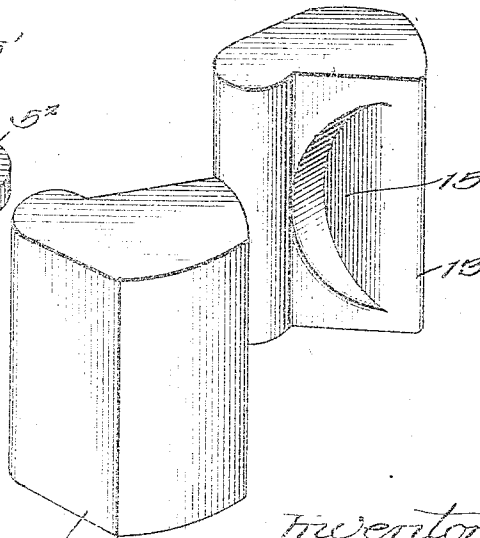


Fig. 7.



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UNITED STATES PATENT OFFICE

HERMAN C. PRIEBE, OF BLUE ISLAND, ILLINOIS.

DRAFT-GEAR.

1,282,940.

Specification of Letters Patent.

Patented Oct. 29, 1918.

Application filed April 22, 1918. Serial No. 230,043

To all whom it may concern:

Be it known that I, HERMAN C. PRIEBE, citizen of the United States, residing at Blue Island, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Draft-Gears, of which the following is a full, clear, concise, and exact description.

My invention relates to draft gears of the type employing inner and outer followers actuated by couplers, rockers individual to the followers and movable thereby, and means, operating through said rockers, for resisting the approach of the followers toward each other. This motion resisting means is preferably in the form of spring mechanism, particularly where friction is not relied upon to resist the relative movement of the followers.

It is the object of my invention to improve the construction and arrangement of the component parts of the gear which have been named whereby the desired effectiveness in operation may be secured with the most simple construction of gear.

In practising my invention I employ at least two or more sets of rockers, each set having one rocker individual to each follower and movable thereby. The two rockers of each set interact preferably by providing them with opposed engaging curved faces and are interposed between the motion resisting means which is subdivided into two elements each element being individual to a follower and in alignment with the other element and with both followers.

I will explain my invention more fully by reference to the accompanying drawings showing the preferred embodiment thereof and in which Figure 1 is a sectional view taken generally on line 1—1 of Fig. 2; Fig. 2 is a sectional view taken generally on line 2—2 of Fig. 1; Fig. 3 is a sectional view on line 3—3 of Fig. 1; Fig. 4 is a sectional view on line 4—4 of Fig. 1; Fig. 5 is a view illustrating some of the elements appearing in Fig. 1 but in changed positions; Fig. 6 is a perspective view illustrating a follower and two rockers belonging to different sets and each individual to said follower; and Fig. 7 is a perspective view illustrating a spring.

Like parts are indicated by similar characters of reference throughout the different figures.

The coupler 1 has a coupler shank 2 to which the outer ends of a yoke 3 are secured

by means of rivets or bolts 4. An outer follower 5 is engaged by the coupler butt 6 and is moved inwardly whenever the coupler is subject to sufficient pushing strain. The inner follower 7 is engaged by the inner end of the coupler yoke 3 and is movable outwardly when the coupler is subject to sufficient pulling strain. The extent to which the outer follower is movable outwardly is limited by the outer stops 8. The extent to which the inner follower 7 is movable inwardly is limited by the inner stops 9. All of said stops are riveted against the center sills 10 that form a part of the underframe structure of a car equipped with the draft gear. The followers 5 and 7 are in the nature of spring barrels which house the cooperating spring elements 11 and 12 of mechanism that is employed to resist the movement of either follower toward the other and to effect the return of the followers toward the stops respectively pertaining thereto.

One or more sets of rockers are disposed between the followers. I have illustrated two sets of rockers, each set including a rocker 13 individual to the outer follower 5 and a rocker 14 individual to the inner follower 7.

The outer follower 5 carries two seats or mountings 5^a, one for each rocker 13 to rock upon. The inner follower 7, similarly, carries two seats or mountings 7^a one for each rocker 14 to rock upon. All of the rockers are of similar construction, the rockers of each set being symmetrically arranged. They interact preferably by being pressed in direct engagement by the springs 11, 12 of the motion resisting mechanism, these springs serving to oppose the relative movement of the followers by opposing the attendant follower effected rocking movement of the rockers. The rockers of each set, where in engagement, are formed with curved engaging faces whereby each rocker of a set causes the other rocker of the same set to turn upon its seat or mounting. Each rocker has a part thereof which is in engagement with the seat provided upon the follower individual thereto curved to form a segment of a cylinder, the seat upon the follower engaged thereby being similarly curved. By this construction each rocker has an axis of rotation which is substantially fixed with respect to the follower individual thereto. Each rocker is preferably

formed with a cavity for receiving the adjacent end of the corresponding spring, such a cavity being illustrated at 15 in Fig. 6. The aforesaid seats 5¹, 7¹ and the rockers engaging the same are desirably placed upright, in which event the follower 5 is provided with inner ledges 5² between which the rockers 13 are disposed and the follower 7 is provided with outer ledges 7² between which the rockers 14 are disposed, these ledges preventing the rockers from moving up and down materially. Each of the opposed engaging curved faces of the rockers of each set has its distance from the axis of the rocker increased as such curvature approaches the axis of the springs or gear. This formation of the curvature permits the approach of either follower toward the other when the gear is subject to sufficient pushing or pulling strain.

By the arrangement illustrated each spring acts upon both rockers of a set and the rockers form a motion resisting means between the springs, all of these elements thus being interacting when either follower is in motion. Moreover, the entire structure is very compact, being embraced between the sides of the yoke and the center sills.

While I have herein shown and particularly described the preferred embodiment of my invention I do not wish to be limited to the precise details of construction shown as changes may readily be made without departing from the spirit of my invention, but having thus described my invention I claim as new and desire to secure by Letters Patent the following:—

1. A draft gear including a coupler; inner and outer followers actuated thereby and movable each toward the other; springs, one individual to each follower, for resisting the approach of the followers toward each other; and two rockers having opposed engaging curved faces, one rocker being individual to each follower and actuatable thereby, said rockers being interposed between and engaged by said springs to maintain the rockers in contact and resist follower effected movement thereof.

2. A draft gear including a coupler; inner and outer followers in the form of barrels actuated thereby and movable each toward the other; springs, one in each follower, for resisting the approach of the followers toward each other; and two rockers having opposed engaging curved faces, one rocker being individual to each follower and actuatable thereby, said rockers being interposed between and engaged by said springs to maintain the rockers in contact and resist follower effected movement thereof.

3. A draft gear including a coupler; inner and outer followers actuated thereby and movable each toward the other;

springs, one individual to each follower, for resisting the approach of the followers toward each other; and two rockers having opposed engaging curved faces, one rocker being fulcrumed upon each follower and actuatable thereby, said rockers being interposed between and engaged by said springs to maintain the rockers in contact and resist follower effected movement thereof.

4. A draft gear including a coupler; inner and outer followers in the form of barrels actuated thereby and movable each toward the other; springs, one in each follower, for resisting the approach of the followers toward each other; and two rockers having opposed engaging curved faces, one rocker being fulcrumed upon each follower and actuatable thereby, said rockers being interposed between and engaged by said springs to maintain the rockers in contact and resist follower effected movement thereof.

5. A draft gear including a coupler; inner and outer followers actuated thereby and movable each toward the other; motion resisting elements, one individual to each follower, for resisting the approach of the followers toward each other; and two rockers having opposed engaging curved faces, one rocker being individual to each follower and actuatable thereby, said rockers being interposed between and engaged by said motion-resisting elements to resist follower effected movement of the rockers.

6. A draft gear including a coupler; inner and outer followers actuated thereby and movable each toward the other; motion resisting elements, one individual to each follower, for resisting the approach of the followers toward each other; and two rockers having opposed engaging curved faces, one rocker being fulcrumed upon each follower and actuatable thereby, said rockers being interposed between and engaged by said motion resisting elements to resist follower effected movement of the rockers.

7. A draft gear including a coupler; inner and outer followers actuated thereby and movable each toward the other; springs, one individual to each follower, for resisting the approach of the followers toward each other; and two interacting rockers, one rocker being individual to each follower and actuatable thereby, said rockers being interposed between and engaged by said springs.

8. A draft gear including a coupler; inner and outer followers actuated thereby and movable each toward the other; motion resisting elements, one individual to each follower, for resisting the approach of the followers toward each other; and two interacting rockers, one rocker being individual to each follower and actuatable thereby, said rockers being interposed between

and engaged by said motion resisting elements.

9. A draft gear including a coupler; inner and outer followers actuated thereby and movable each toward the other; springs, one individual to each follower, for resisting the approach of the followers toward each other; and two interacting rockers, one rocker being fulcrumed upon each follower and actuatable thereby, said rockers being interposed between and engaged by said springs.

10. A draft gear including a coupler; inner and outer followers actuated thereby and

movable each toward the other; motion resisting elements, one individual to each follower, for resisting the approach of the followers toward each other; and two interacting rockers, one rocker being fulcrumed upon each follower and actuatable thereby said rockers being interposed between and engaged by said motion resisting elements.

In witness whereof I hereunto subscribe my name this sixteenth day of April, A. D. 1918.

HERMAN C. PRIEBE.