

Sept. 6, 1932.

H. C. PRIEBE

1,876,019

DRAFT GEAR

Filed Oct. 23, 1928

2 Sheets-Sheet 1

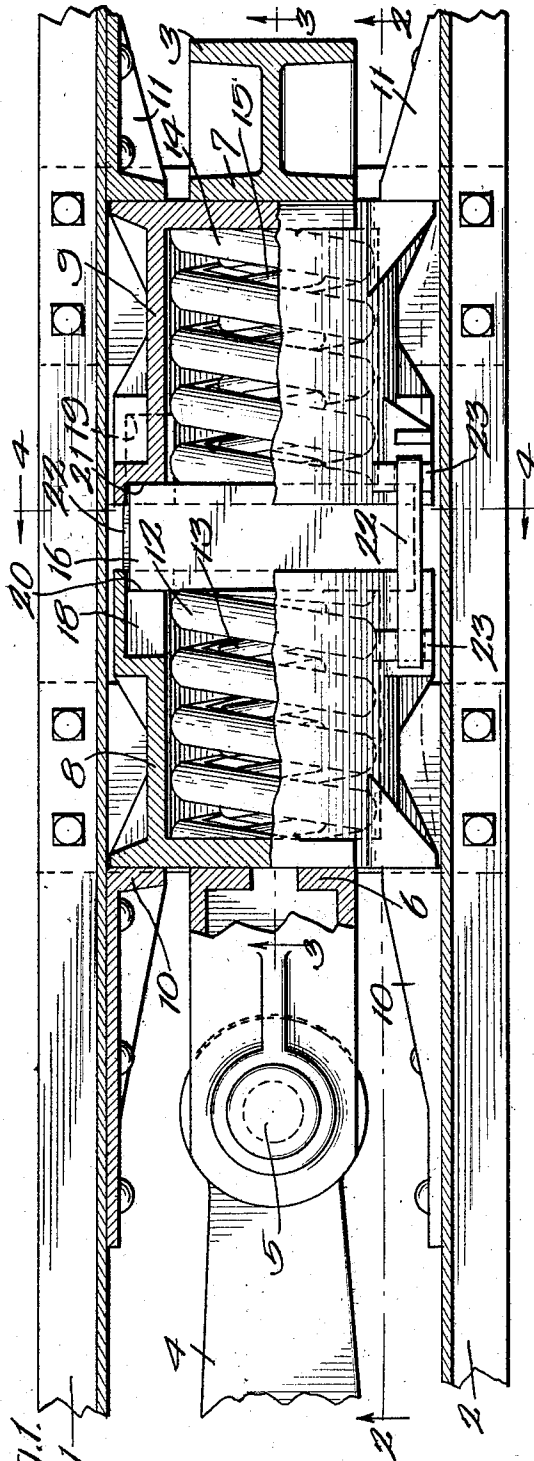


Fig. 1.

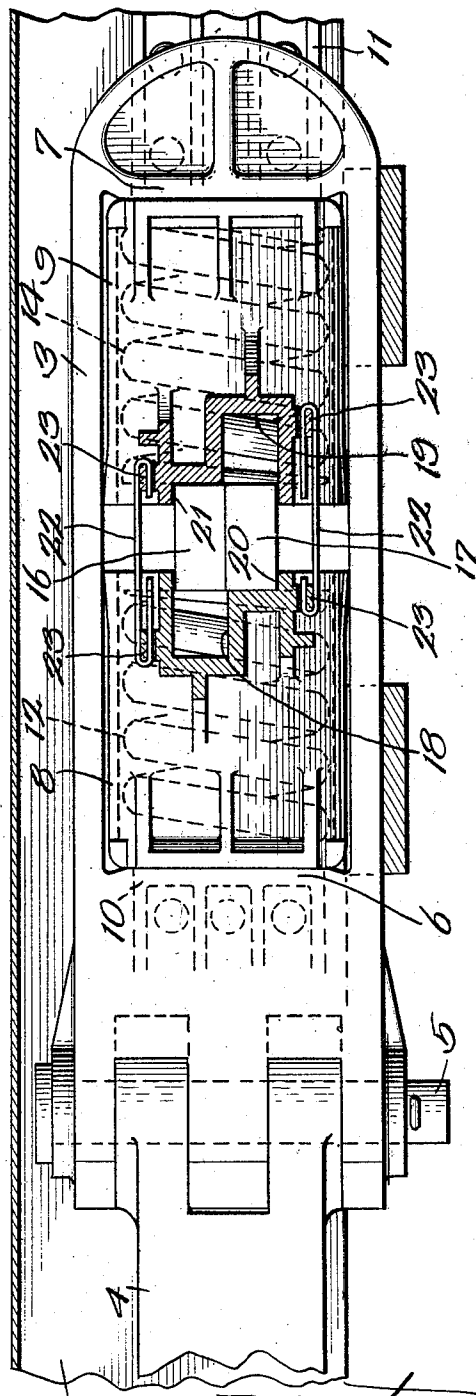


Fig. 2.

Inventor:
Herman C. Pribe
By G. L. Bragg, Atty.

Sept. 6, 1932.

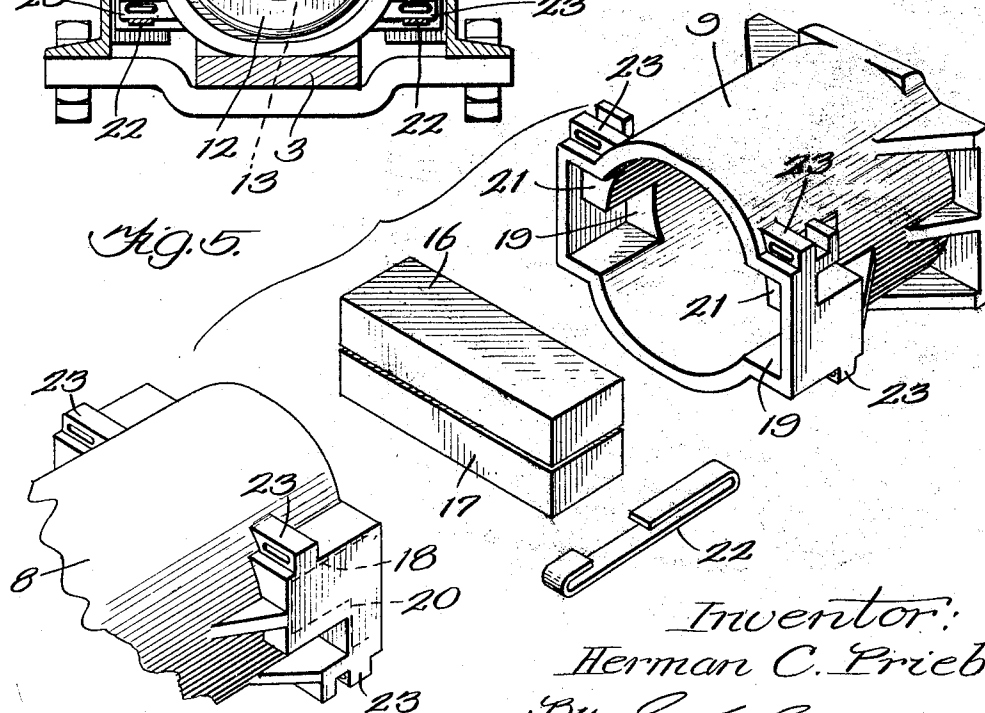
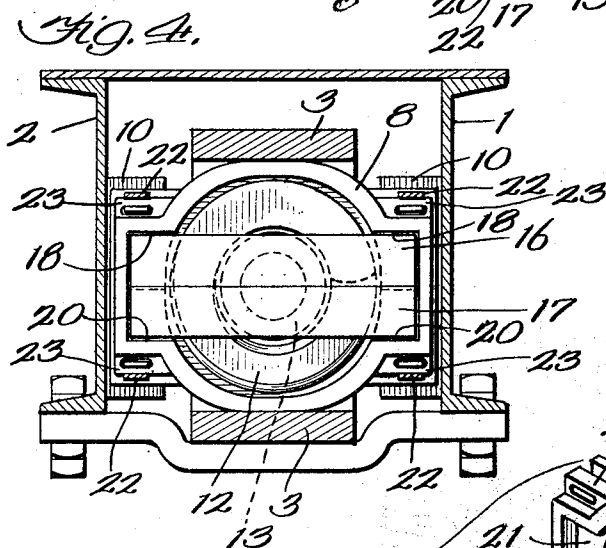
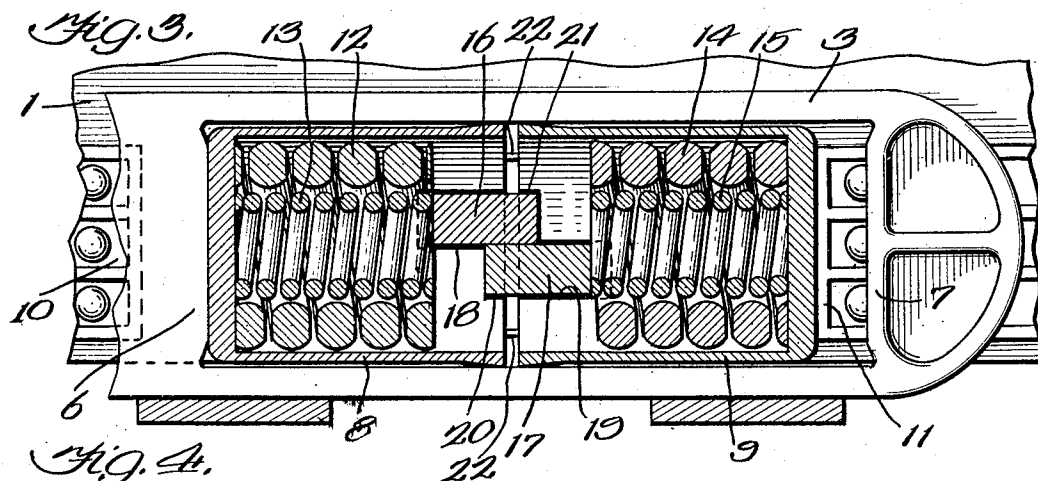
H. C. PRIEBE

1,876,019

DRAFT GEAR

Filed Oct. 23, 1928

2 Sheets-Sheet 2



Inventor:
Herman C. Priebe
By *G. K. Buz & Co.* atty.

UNITED STATES PATENT OFFICE

HERMAN C. PRIEBE, OF BLUE ISLAND, ILLINOIS; THOMAS H. TAYLOR ADMINISTRATOR
OF SAID HERMAN C. PRIEBE, DECEASED

DRAFT GEAR

Application filed October 23, 1928. Serial No. 314,359.

My invention relates to draft gears for coupling cars in trains and particularly to such a gear that is inclusive of two aligned spring barrels movable along the line of draft, one in response to pushing strains and the other in response to pulling strains, and a coiled spring within each of said barrels and also arranged along the line of draft, said barrels having open ends that are adjacent and being pressed upon at their other ends by the springs respectively located therein.

In accordance with my invention the springs in the barrels exert pressure through the intermediation of two bars which are placed side by side between the adjacent ends of the springs, said bars extending in the same direction across the line of draft. Each spring has a bar individual thereto and which is pressed by this spring upon the barrel that houses the other spring. In the preferred embodiment of the invention each barrel has recesses extending longitudinally thereof and in which the end of the bar that is individual to the spring in such barrel is guided in its movements longitudinally of the gear. Each barrel desirably also has recesses in which the bar that is pressed upon by the spring in the other barrel is seated.

A draft gear made in accordance with my invention is compact and its parts are readily assembled.

The invention will be more fully explained in connection with the accompanying drawings in which Fig. 1 is a plan view, mainly in section, of a gear shown open, made in accordance with the preferred embodiment of the invention; Fig. 2 is a sectional view on line 2—2 of Fig. 1; Fig. 3 shows a part of the gear as it appears in Fig. 2, but partially closed; Fig. 4 is a sectional view on line 4—4 of Fig. 1; and Fig. 5 is a perspective view showing parts of the gear in separated relation.

The center sills 1 and 2 of a car desirably also constitute the draft sills of the gear. The coupler yoke 3 is desirably disposed between the sills with its sides in the same vertical plane. The coupler stem 4 is pivotally connected by a pin 5 with the outer end of the yoke.

The yoke has an outer abutment 6 and an inner abutment 7. Two aligned spring barrels 8 and 9 are surrounded by the yoke and are movable along the line of draft with respect to the yoke to have separable engagement with said abutments respectively. The outward movement of the outer barrel 8 is limited by the outer lugs 10 on the center sills. The inward movement of the inner barrel 9 is limited by the inner lugs 11 also provided on the sills. The outer barrel is movable inwardly along the line of draft in response to pushing strains and the inner barrel is movable outwardly along the line of draft in response to pulling strains, as will be apparent to those familiar in the art. Two coiled springs 12, 13 are housed by the outer barrel and two coiled springs 14 and 15 are housed by the inner barrel. These springs are also arranged along the line of draft. The barrels have open ends and these open ends are adjacent or opposed. The springs 12 and 13 press upon the outer or closed end of the barrel 8 and the springs 14 and 15 press upon the inner or closed end of the barrel 9. The springs 12 and 13 also press upon the outer or open end of the barrel 9 and the springs 14 and 15 also press upon the inner or open end of the barrel 8. The springs 12 and 13 press upon the barrel 9 through the intermediation of a bar 16. The springs 14 and 15 press upon the barrel 8 through the intermediation of a bar 17. These two bars are rectangular in cross section and in sliding relation longitudinally of the gear. The bars extend in the same direction across the line of draft and are in lapping relation longitudinally of the gear axis. The spring barrel 8 has recesses 18 that are provided in lateral enlargements of the barrel and communicate with the barrel bore. The spring barrel 9 has recesses 19 that are also provided in lateral enlargements of this barrel and which also communicate with the bore of this barrel. These recesses 18, 19 serve to guide the bars therein in their movements longitudinally of the gear and to preserve the bars in parallelism and in close proximity. The barrel 8 has additional recesses 20 in the enlargements thereof and the barrel 9 has additional recesses 21 in the enlarge-

ments thereof. These added recesses also communicate with the bores of the barrels. The ends of these recesses 20, 21 constitute seats for the bars as clearly illustrated in the drawings. The recesses 20 and 21 also cooperate in maintaining the bars in proper assembly and association.

In assembling the gear the bars are initially absent, the springs being first inserted, whereafter the bars are disposed in the barrels. The spring barrels are of such length that the adjacent ends thereof are brought into abutting engagement when the springs are compressed to the limit which is set for them, whereby the springs are prevented from being over compressed. The parts of the gear surrounded by the yoke are held in assembly, before they are placed within the yoke, by means of the hook ended straps 22 which are engaged within the eyes 23 that are cast upon the outer sides of the barrel.

Changes may be made without departing from the invention.

Having thus described my invention, I claim:

A draft gear comprising two aligned spring barrels movable along the line of draft, each barrel having a closed end and an open end, said open end having lateral enlargements thereof providing recesses communicating with the barrel bore, there being one each of two pair of recesses in each lateral enlargement, one pair of said recesses extending deeper longitudinally of the gear than the other pair of relatively shallow recesses, said barrels having their open ends adjacent with the pair of shallow recesses of one barrel opposing the deeper recesses of the other barrel; a relatively thick rectangular bar seated in the shallow recesses of each barrel and movable in the deeper recesses of the other barrel, said bars extending in the same direction across the line of draft and being in sliding lapping relation longitudinally of the gear axis; and a coil spring housed in each barrel and arranged along the line of draft, each said spring pressing at one end upon the closed end of the barrel which houses it and at the other end pressing upon the other barrel through the intermediation of one of said bars.

In witness whereof, I hereunto subscribe my name.

HERMAN C. PRIEBE.