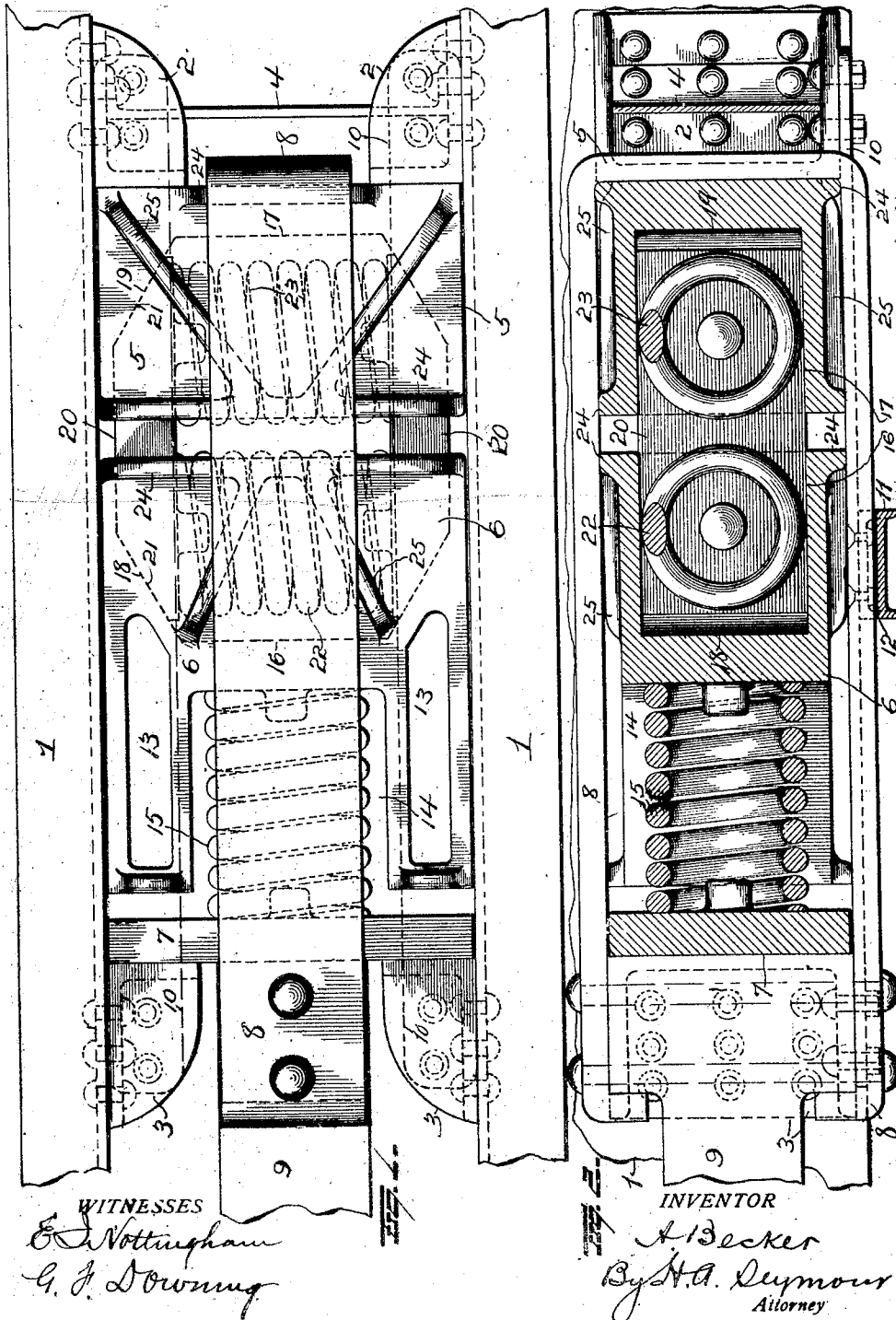


A. BECKER.
 FRICTION DRAFT GEAR FOR RAILWAY CARS.
 APPLICATION FILED MAY 20, 1908.

976,427.

Patented Nov. 22, 1910.

2 SHEETS-SHEET 1.



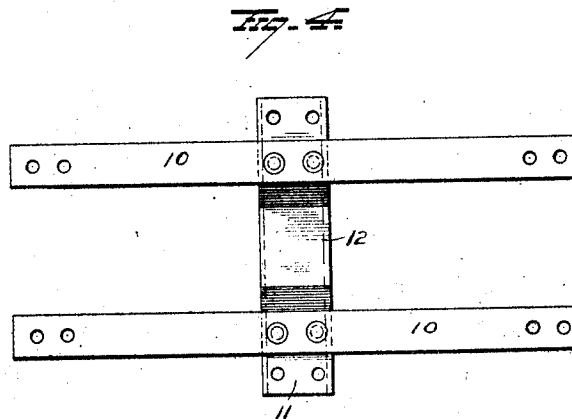
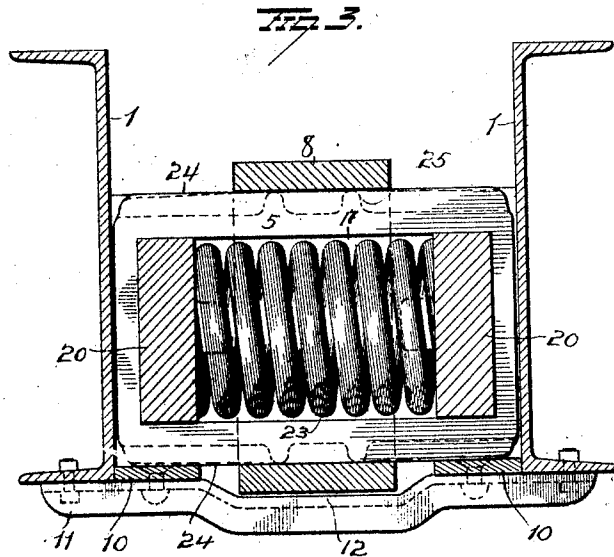
339

A. BECKER.
 FRICTION DRAFT GEAR FOR RAILWAY CARS.
 APPLICATION FILED MAY 20, 1908.

976,427.

Patented Nov. 22, 1910.

2 SHEETS—SHEET 2.



WITNESSES
E. Nottingham
G. J. Downing

INVENTOR
A. Becker
 By *H. A. Seymour*
 Attorney

UNITED STATES PATENT OFFICE.

ANTON BECKER, OF COLUMBUS, OHIO, ASSIGNOR TO THE RALSTON STEEL CAR COMPANY, OF COLUMBUS, OHIO.

FRICTION DRAFT-GEAR FOR RAILWAY-CARS.

976,427.

Specification of Letters Patent. Patented Nov. 22, 1910.

Application filed May 20, 1908. Serial No. 433,893.

To all whom it may concern:

Be it known that I, ANTON BECKER, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Friction Draft-Gear for Railway-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in draft devices for railway cars,—the object of the invention being to so construct a friction draft gear, that two of the members thereof will operate as stops for each other to prevent over compression of the springs which coöperate with said members.

A further object is to construct a friction draft gear in such manner that the springs and movable friction blocks, as well as the various friction faces shall be inclosed and protected.

A further object is to so construct friction draft gear that the various movable parts thereof can be removed without the necessity for detaching the draft yoke from the draw bar of the coupling.

With these objects in view the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view illustrating a draft gear embodying my invention. Fig. 2 is a longitudinal sectional view; Fig. 3 is a transverse sectional view; and Fig. 4 is a detail view.

1, 1 represent suitable draft sills, to the inner faces of which, brackets or stops 2, 2, and 3, 3, are secured. The draft sills 1, 1, are connected by a channel-iron brace 4 secured at its respective ends to the respective brackets 2, 2. Between the pairs of brackets 2 and 3, two box housings 5, 6, are located,—one of which is adapted to abut against the brackets 2, 2, and the other being made to terminate a short distance from a follower 7 while the latter abuts against the brackets 3, 3. A draft yoke 8 embraces the housings 5—6 so as to extend above and below the same and engage the rear end of the housing 5,—the respective members of said yoke being permanently secured at their forward ends to the rear end of the draw bar 9 of a coupling. The housings are supported in a

horizontal position by means of bars 10—10 removably secured at their ends to the brackets 2 and 3. The bars 10 are connected intermediate of their ends by a cross bar 11 having a depressed portion 12 at its center for the accommodation of the lower member of the yoke 8. The ends of the cross bar 11 project beyond the bars 10 and these projecting ends of the cross bar are secured to the lower flanges of the draft sills 1.

The housing 6 is made with forwardly projecting, hollow portions 13, which coöperate to form a pocket 14 for the reception of a service spring 15, the rear end of which has a bearing in the rear end of said pocket, while the forward end of the service spring bears against the follower 7. The housing 6 is also made with a pocket 16 and the housing 5 is made with a similar pocket 17, the open ends of said pockets being disposed opposite to each other. The closed forward end of the pocket 16 is made with inclined faces 18 while the rear closed end of the pocket 17 is made with inclined faces 19. Friction blocks 20 enter these pockets and each is provided at its respective ends with inclined faces 21 which engage the inclined faces 20 in the pockets. Transversely disposed springs 22—23 are located within the pockets of the respective housings and bear at their ends against the friction blocks. These springs normally press the friction blocks laterally so that the coöperation with their inclined friction faces with the inclined friction faces in the pockets will operate to normally force the respective housings apart as illustrated in Fig. 1.

The adjacent edges of the top and bottom walls of the respective housings are provided with ribs 24 and these ribs, as well as the top and bottom walls of the housings are reinforced by ribs 25. The reinforced edges of the housings are disposed in parallel planes, so that the reinforced edges of one housing can abut against the reinforced edges of the other, and thus said housings act as stops for each other and prevent compression of the springs 22—23.

With the construction and arrangement of parts as above described, the springs 22—23 and the friction faces are inclosed and protected by the pocketed housings. Should it be desired to remove the friction draft devices for the purpose of repair or for other reason, this may be accomplished without re-

moving the draft yoke from the draw bar, by removing the supporting bars 10 and then dropping the housings until they become disposed below the draft sills, when said housings can be removed laterally.

Various slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope and hence I do not wish to
10 restrict myself to the precise details herein set forth.

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:—

15 1. In a friction draft gear, the combination of two housings, each having friction faces therein, friction blocks cooperating with said friction faces, transverse springs bearing at their ends against said friction
20 blocks, and ribs on opposing edges of said housings and constituting abutments for each other to limit the movements of said housings and prevent over compression of the springs.

25 2. In a friction draft gear, the combination of two separated pocketed members having reinforced top and bottom opposing edges constituting abutments for the respective members, each member having friction

faces inclosed within its pocket, friction 30 blocks disposed in the pocketed members and cooperating with the inclosed friction faces therein, and springs disposed between said friction blocks and tending to press them laterally.

35 3. In a friction draft gear, the combination of two separating pocketed members, each having ribs at the edges of its top and bottom walls, the ribs of one member being parallel with the ribs of the other member, 40 ribs on said top and bottom walls extending from the ribs at the edges, each of said members having inclined friction faces inclosed within its pocket, friction blocks located in said pocketed members and extending from 45 one to the other, each of said friction blocks having inclined friction faces cooperating with the friction faces inclosed within the pockets, and transverse springs pressing outwardly against said friction blocks. 50

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

ANTON BECKER.

Witnesses:

E. S. CULVER,
C. H. WEBER.