

No. 849,515.

PATENTED APR. 9, 1907.

F. B. TOWNSEND.
ROLLER SIDE BEARING FOR RAILWAY CARS.

APPLICATION FILED DEC. 29, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

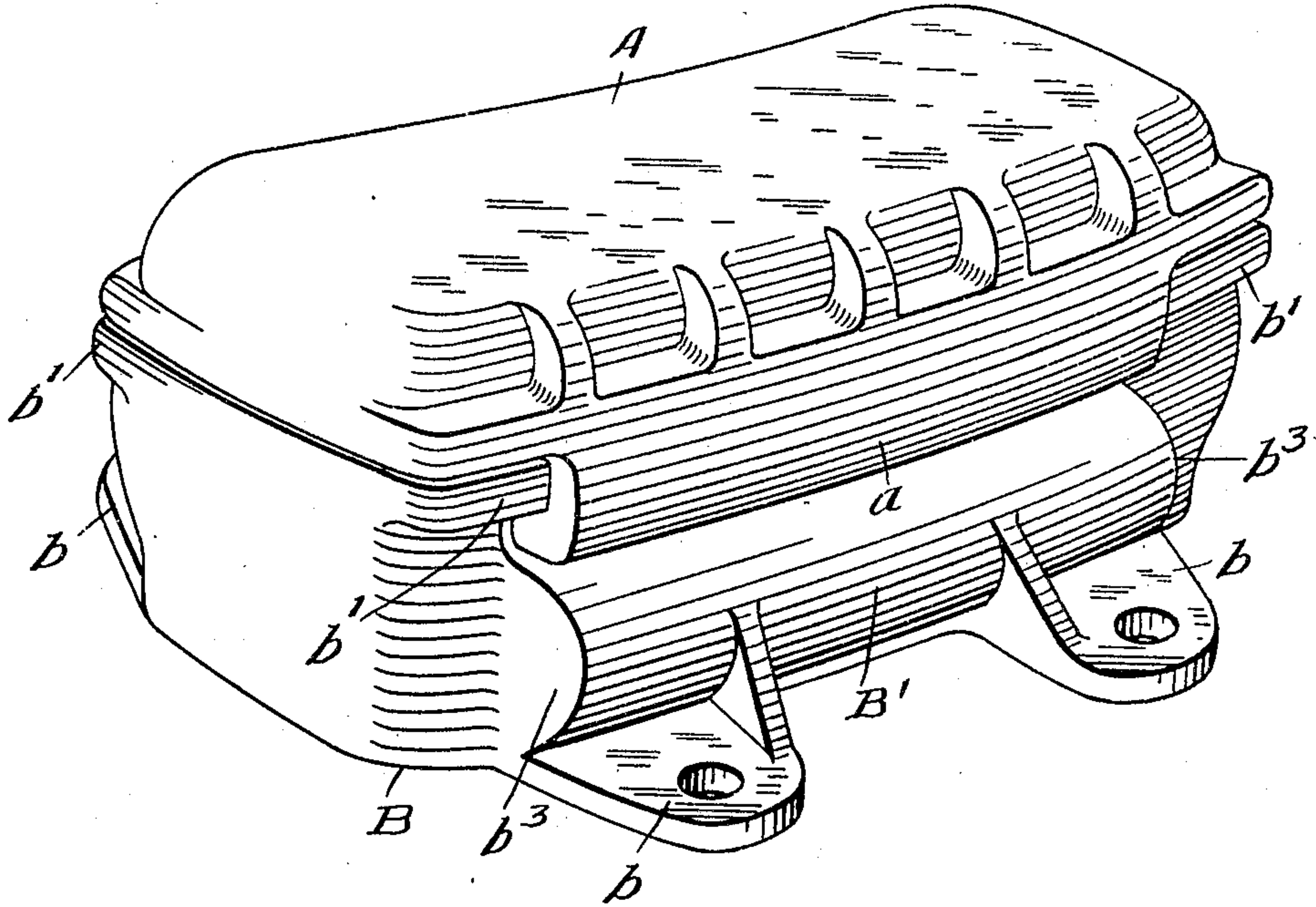
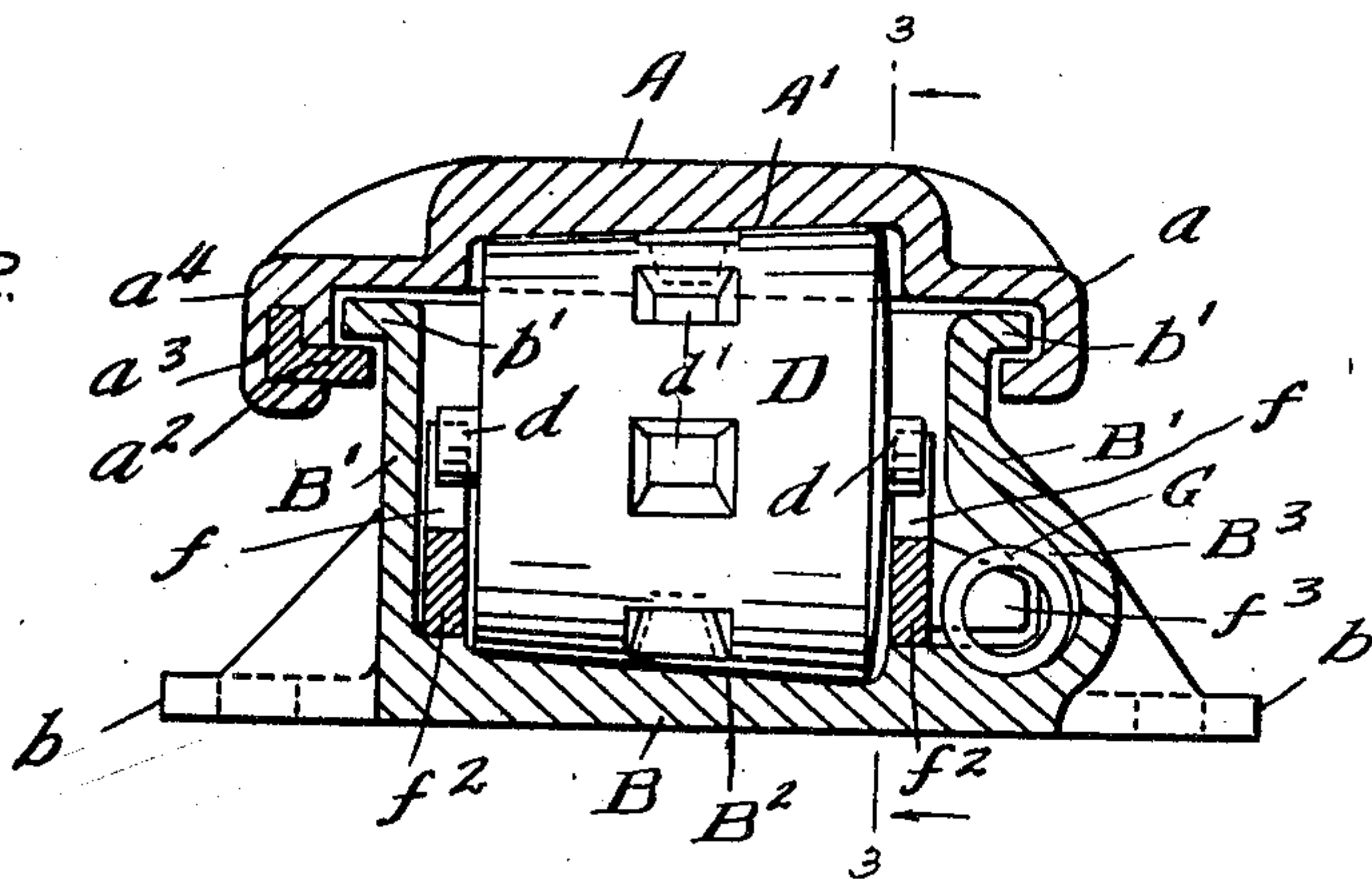


Fig. 2.



WITNESSES:

Wm. Geiger
H. W. Munday

INVENTOR

Frederick B. Townsend.

BY

Munday, Evans, Adcock & Clark

his ATTORNEYS

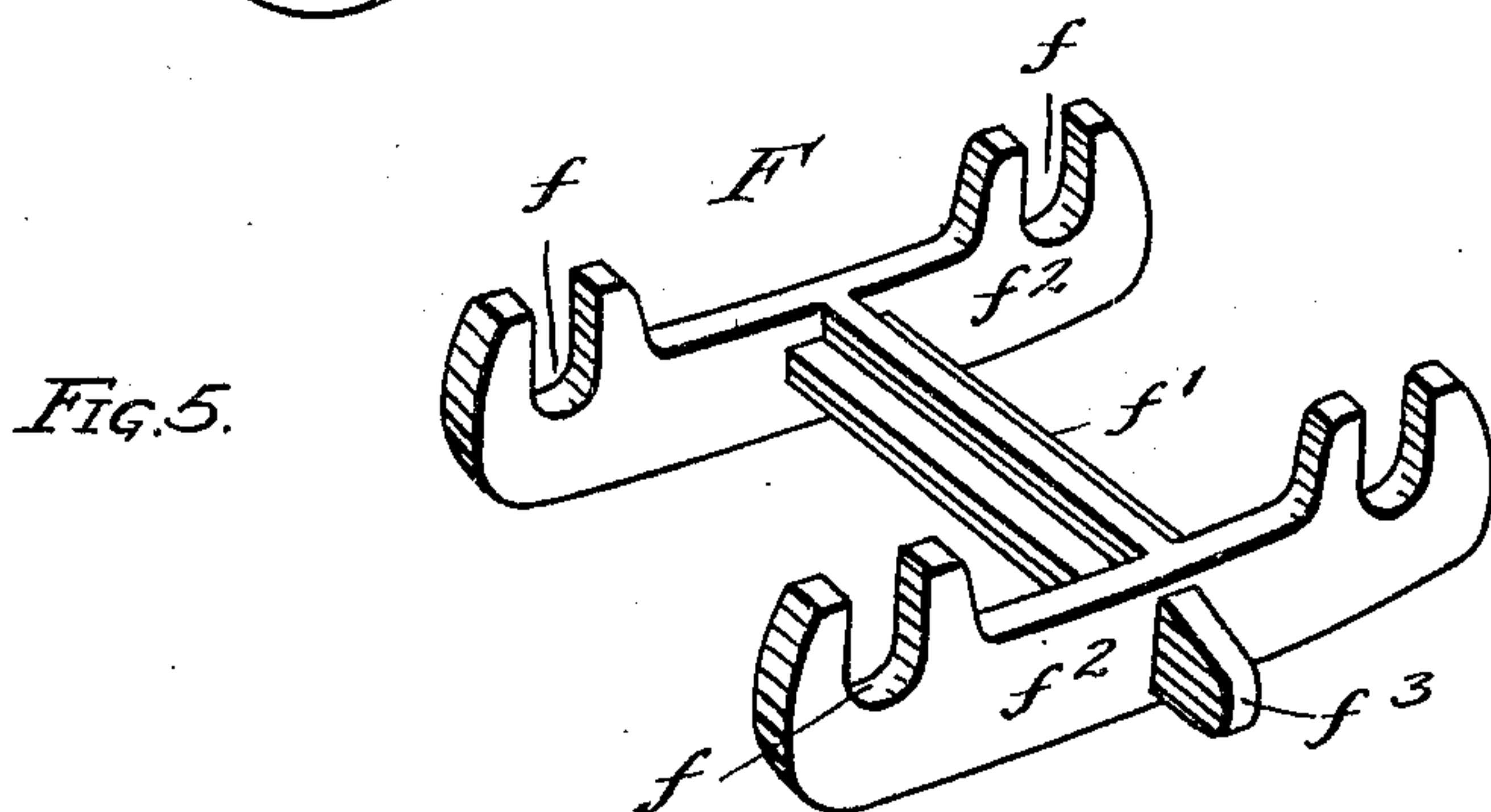
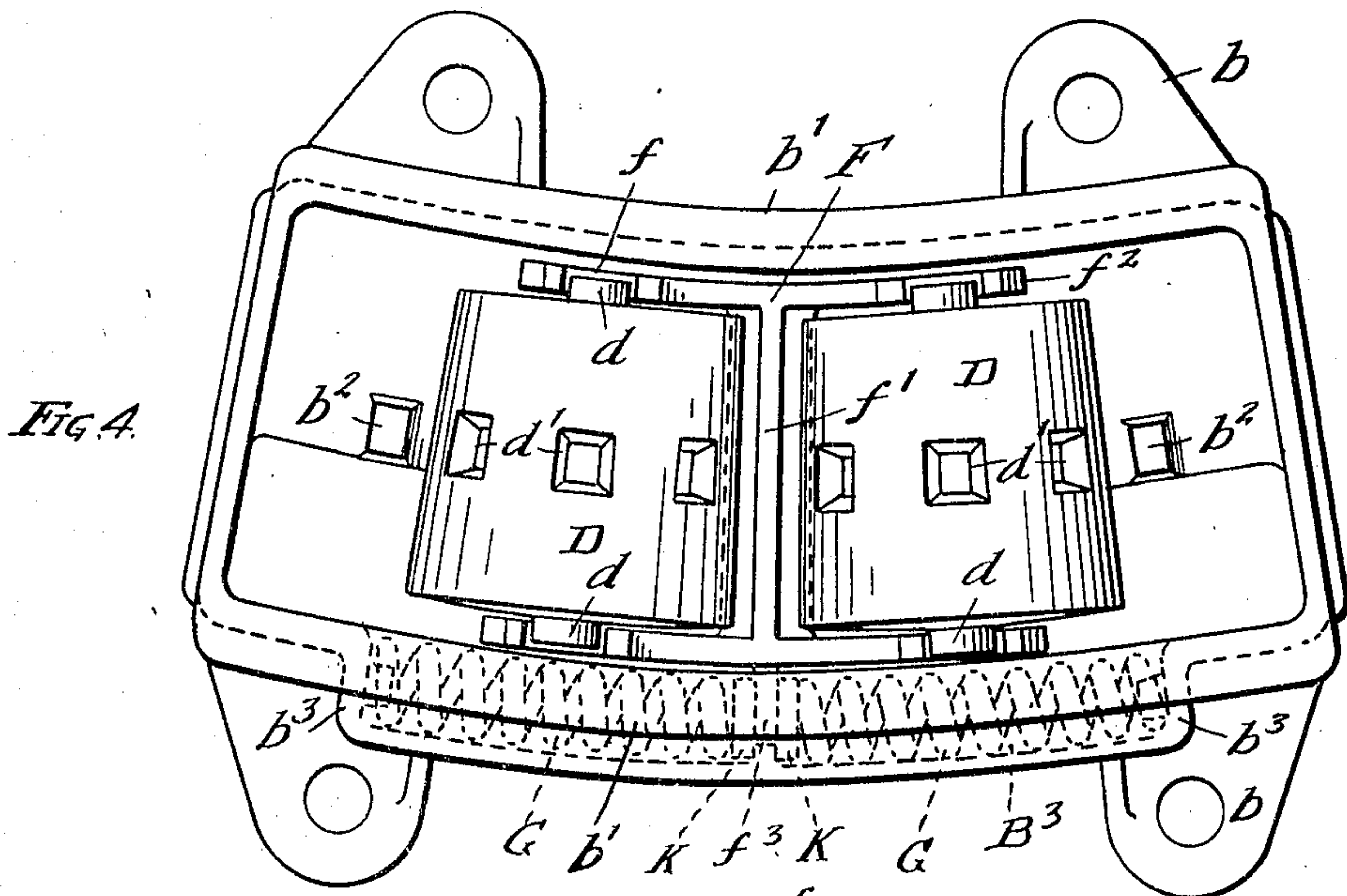
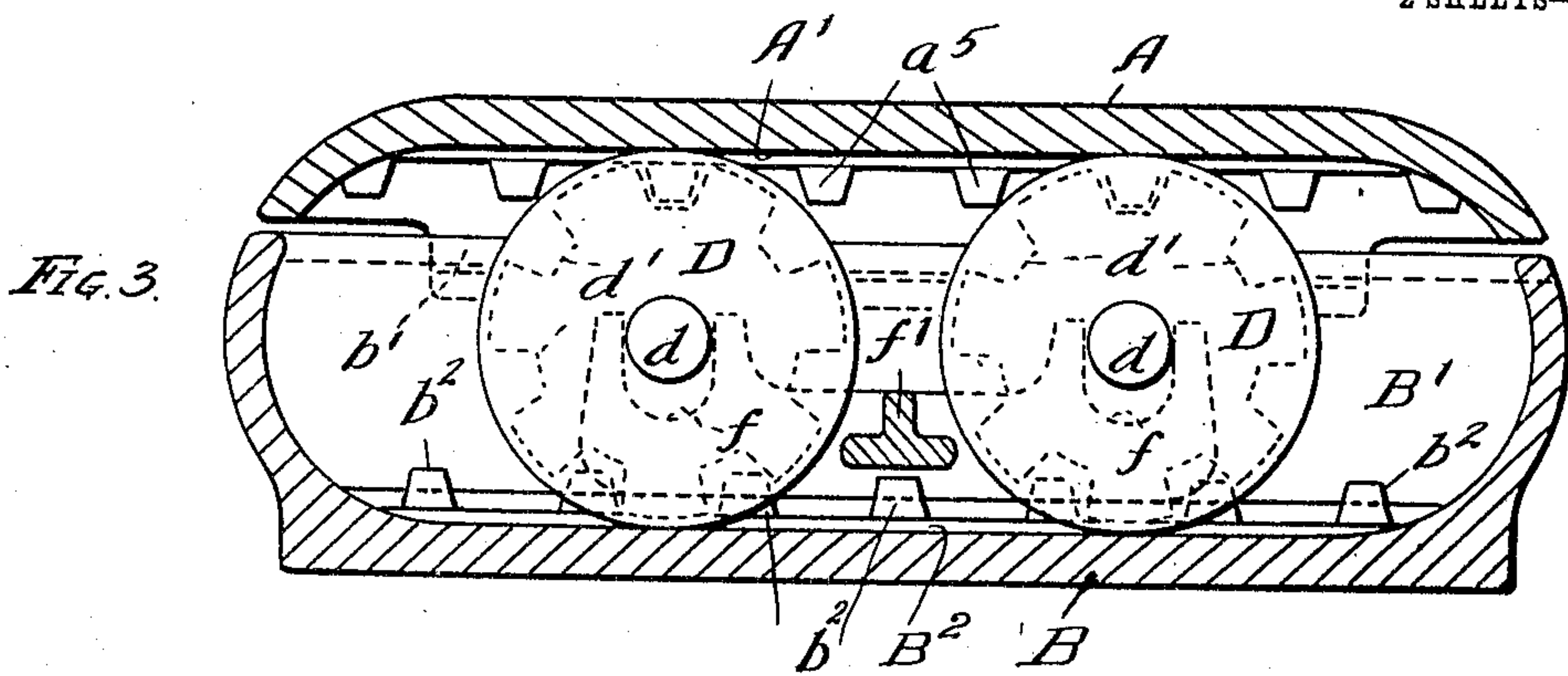
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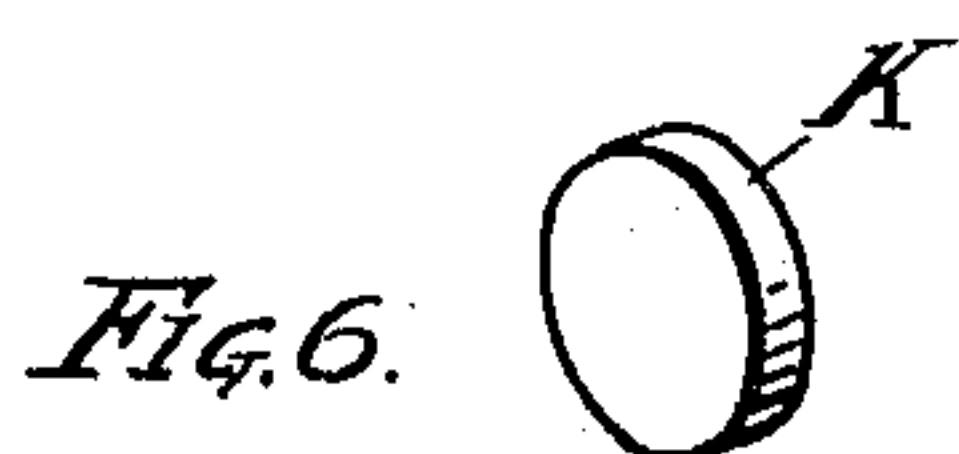
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2 SHEETS—SHEET 2.



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H. W. Munday



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BY
Munday, Evans, Adcock & Clarke
his ATTORNEYS

UNITED STATES PATENT OFFICE.

FREDERICK B. TOWNSEND, OF CHICAGO, ILLINOIS, ASSIGNOR TO W. H. MINER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

ROLLER SIDE BEARING FOR RAILWAY-CARS.

No. 849,515.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed December 29, 1906. Serial No. 349,983.

To all whom it may concern:

Be it known that I, FREDERICK B. TOWNSEND, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Roller Side Bearings for Railway-Cars, of which the following is a specification.

My invention relates to improvements in roller side bearings for railway-cars.

The object of my invention is to provide a roller side bearing of a strong, simple, efficient, and durable construction, in which the cap-plate may have an extended movement in respect to the bottom plate, in which the cap-plate may be automatically returned to its normal position when relieved from load or pressure, and which will be composed of few parts, of simple form and construction, capable of being cheaply manufactured.

My invention consists in the means I employ to practically accomplish this object or result—that is to say, it consists, in connection with a top or cap plate against which the body-bolster bears and a bottom or base plate secured to the truck-bolster and provided with an integral longitudinal recess or chamber to receive a spring for restoring the cap-plate and rollers to their central position, of a pair of rollers interposed between the top and cap plate and having notches or teeth to engage the notches or teeth on the top and bottom plates, and a roller spider or frame cast in one integral piece and provided with seats or bearings to receive the integral shafts or hubs of the rollers, and an integral spring-engaging member projecting into the spring chamber or recess of the bottom plate and engaging the springs in said chamber or recess, so that the roller spider or frame and the rollers journaled thereon and the cap-plate meshing with the teeth or notches of the rollers will be restored to their central or normal position.

My invention also consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of a railway side bearing embodying my invention. Fig. 2 is a central vertical cross-section. Fig. 3 is a vertical longitudinal section. Fig. 4 is a plan view

with the top plate removed. Fig. 5 is a perspective view of the roller frame or spider, and Fig. 6 is a perspective view of one of the followers or bearing-disks interposed between the end of the spring and the spring-engaging member of the roller frame or spider.

In the drawings, A represents the cap or top plate, and B the base or bottom plate, which is secured to the truck-bolster of the car by bolts passing through the ears or lugs b of the base-plate. The base-plate B is provided with integral lateral flanges or guides b' , one engaging a corresponding integral flange or guide a of the cap or top plate and the other engaging a removable guide a^2 , fitting in a slot a^3 of the depending flange a^4 of the cap or top plate A. The upright sides B' B' of the bottom or base plate B form a chamber to receive the rollers D, which are preferably two in number and which are furnished with short integral shafts d .

The rollers D are preferably of conical or frustum shape, and the tread B^2 of the bottom plate and A' of the top plate are preferably correspondingly inclined and curved. The rollers D are also furnished with teeth-like devices d' , engaging corresponding intermeshing teeth-like devices a^5 and b^2 to keep the rollers and top and bottom plates in proper engagement or mesh and insure the returning of the top plate to its central position with the rollers and roller-frame or spider F.

The roller frame or spider F is preferably cast in one integral piece and has seats or bearings f , preferably in the form of upright slots, to engage the short shafts d of the rollers D. The roller frame or spider F has a cross-bar f' connecting its side bars f^2 and is also provided with an integral spring-engaging member f^3 , projecting beyond one of the side bars into the spring chamber or recess B^3 of the bottom or base-plate B. This spring-chamber B^3 contains one or more, and preferably two, coiled springs G, which bear at their outer ends against the shoulders or ends b^3 of the spring chamber or recess B^3 and at their inner ends engage the member or projection f^3 of the roller spider or frame F, and thus cause said frame or spider to be restored to its central position when the top or cap plate A is relieved from load, and this roller frame or spider F thus causes the roll-

ers D and cap-plate A to be also restored to their central position.

If desired, followers or bearing-disks K may be interposed between the inner ends of the springs G and the spring-bearing member f^3 of the spider F.

I claim—

1. In a roller side bearing for railway-cars, the combination of the cap or top plate and the bottom or base plate having interengaging guides or flanges to permit the cap or top plate to reciprocate in respect to the bottom or base plate, rollers interposed between said plates furnished with short shafts at each end, a movable roller frame or spider having slotted seats or bearings to receive the shafts of the rollers and provided with a projecting spring-engaging member, said bottom or base plate being provided with a spring-receiving chamber or recess, and a spring therein acting upon said spring-engaging member of said roller spider or frame, said rollers and said top and bottom plates

being provided with interengaging teeth-like devices, substantially as specified. 25

2. In a roller side bearing for railway-cars, the combination with top and bottom plates, furnished with interengaging guides, and the bottom plate being provided with a spring-receiving chamber or recess, rollers interposed between said top and bottom plates furnished with teeth-like devices and said top and bottom plates having teeth-like devices meshing with the teeth-like devices on the rollers, said rollers being provided with short projecting shafts at each end, a roller frame or spider having seats or bearings engaging the shafts of the rollers and provided with a projecting member to engage the springs and a pair of springs in the spring-receiving chamber or recess of the bottom plate, substantially as specified. 35 40

FREDERICK B. TOWNSEND.

Witnesses:

H. M. MUNDAY,
PEARL ABRAMS.