

No. 771,048.

PATENTED SEPT. 27, 1904.

W. H. EMERICK.
JOURNAL BOX.

APPLICATION FILED MAY 11, 1903.

NO MODEL.

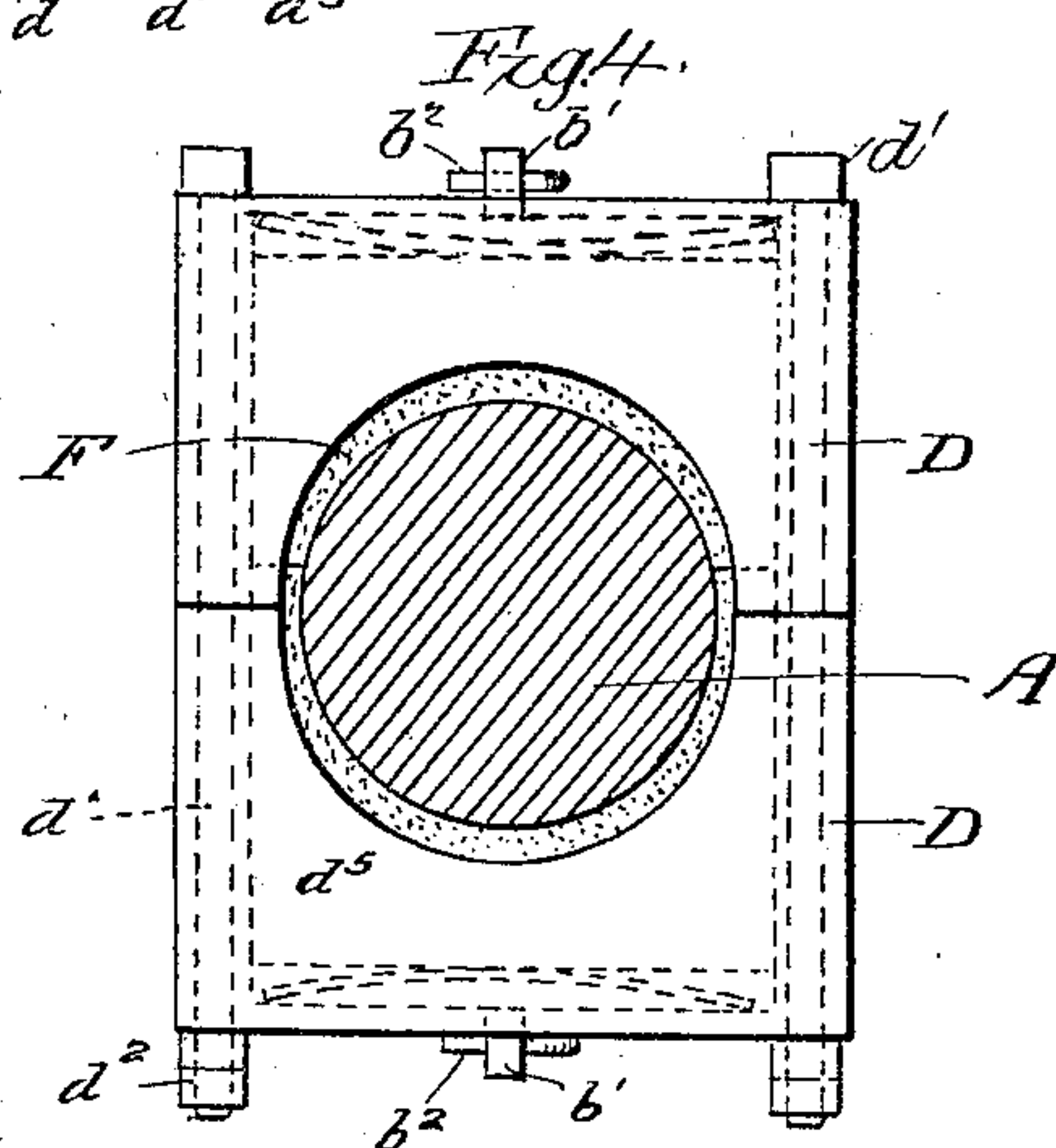
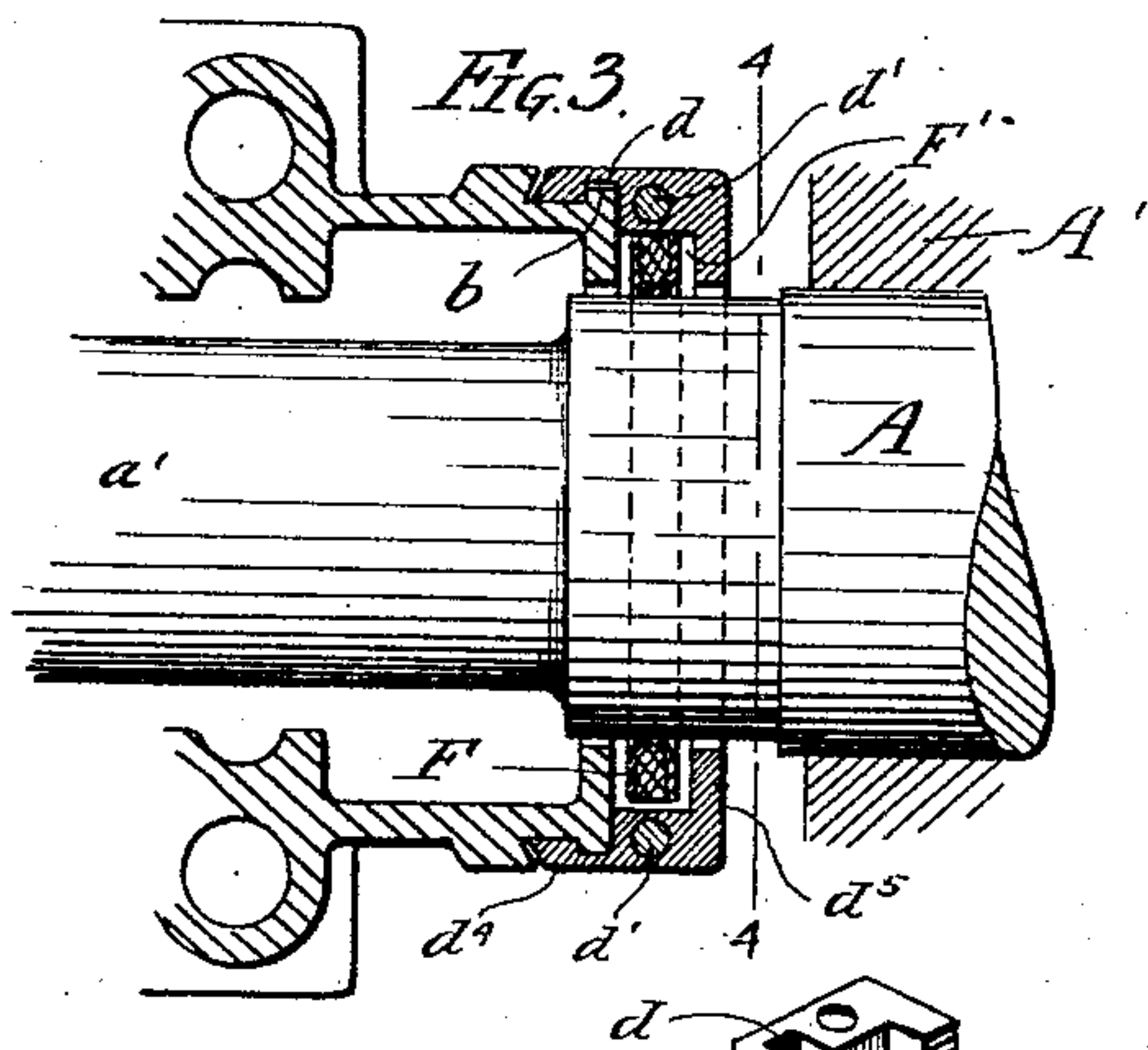
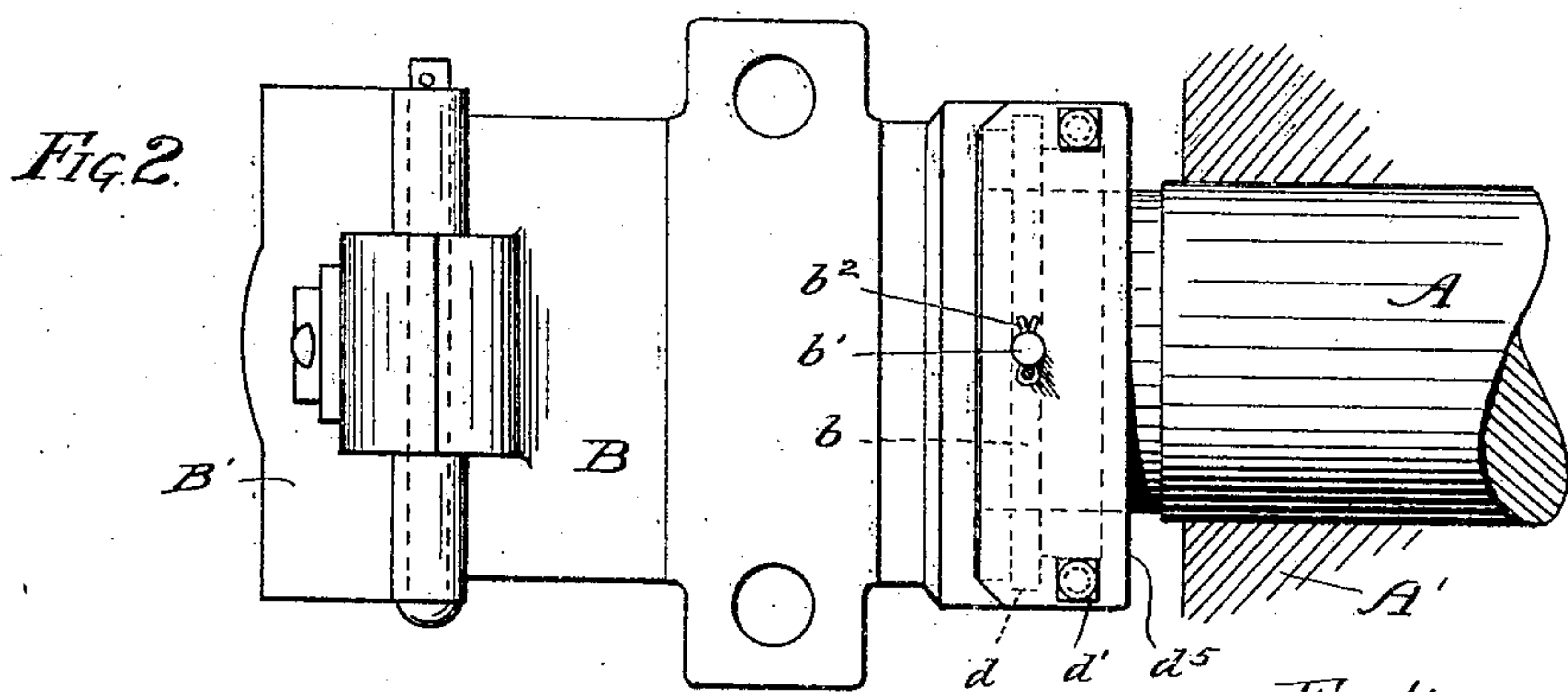
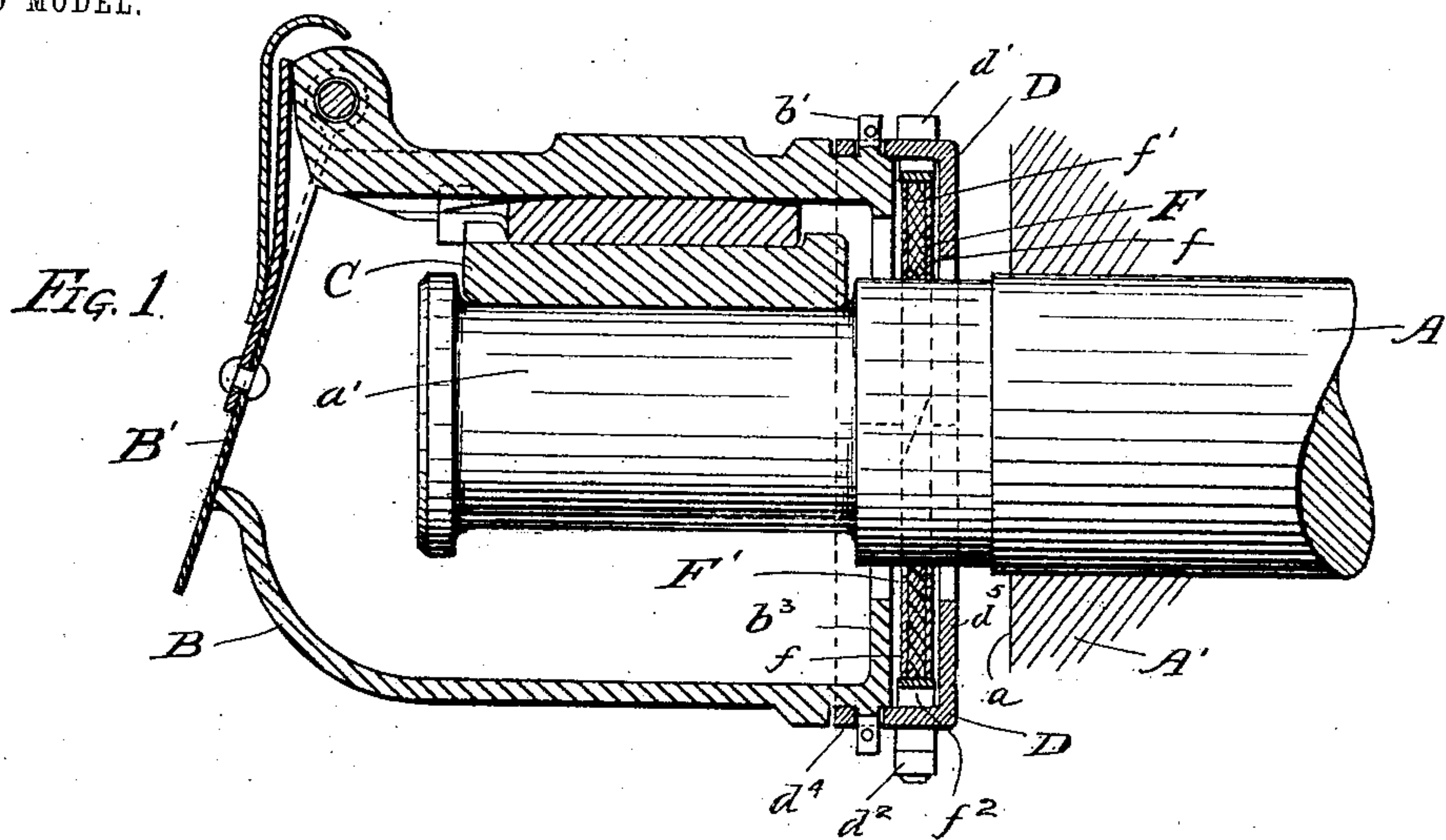
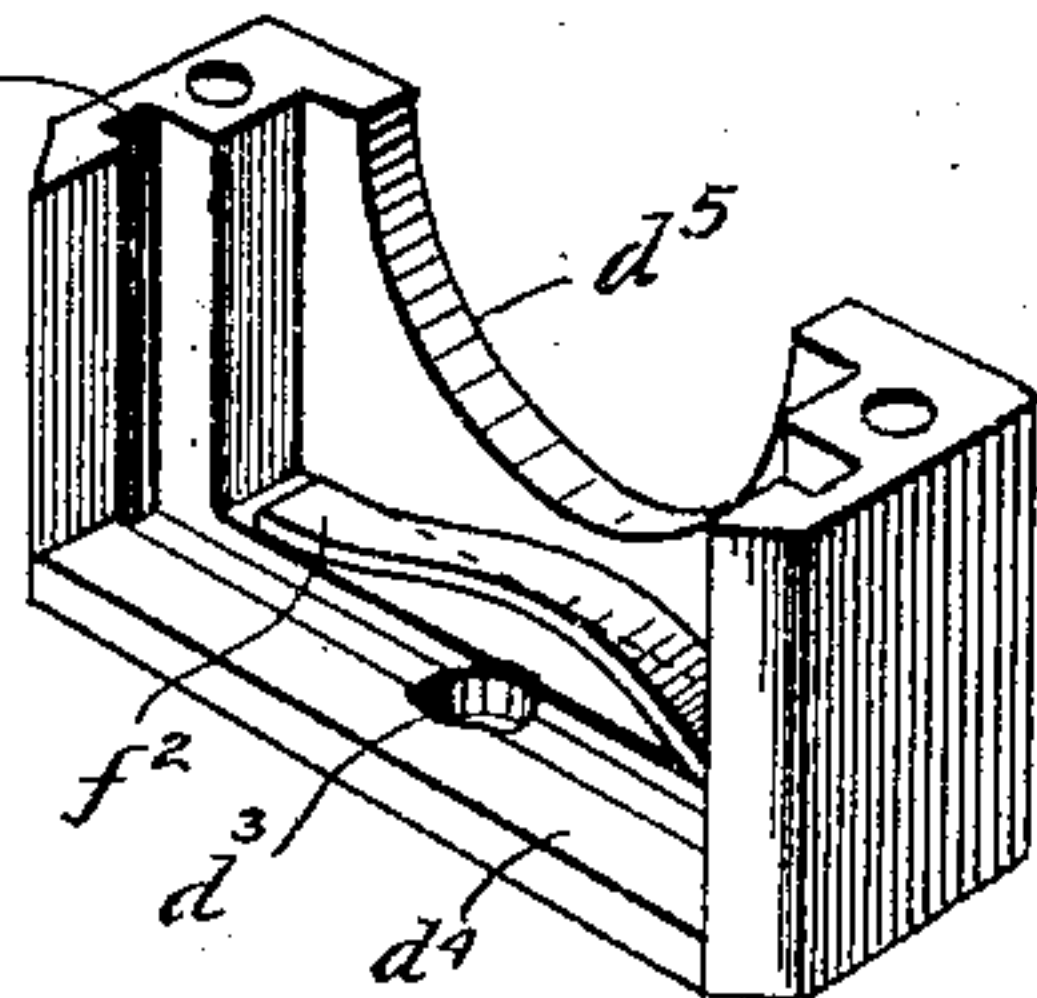


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. EMERICK, OF CHICAGO, ILLINOIS.

JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 771,048, dated September 27, 1904.

Application filed May 11, 1903. Serial No. 156,514. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. EMERICK, 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 Journal-Boxes, of which the following is a specification.

My invention relates to improvements in journal-boxes for railway-cars.

10 Railway journal-boxes as heretofore constructed have at their rear ends an integral wearing face, flange, or collar which bears against the wearing boss or face of the car-wheel and confines in place the dust-guard, 15 which surrounds the axle to prevent dust, sand, and grit from getting into the journal and its packing. Owing to the end thrust between the car-axle and journal-box, especially in rounding curves, the friction is great 20 of the car-wheel upon this integral wearing face, flange, or collar at the end of the journal-box, so that in a short time the metal is partially or entirely cut away, so that the wearing flange or collar is broken off or worn 25 away, thus permitting the dust-guard to fall or get out of its proper position, so that the journal will quickly fill with sand and grit sucked up from the track, resulting in heating and destruction of the journal-bearing and 30 sometimes in serious accidents occasioned thereby, and when the wearing face, flange, or boss at the rear end of the journal-box becomes thus worn or broken it is necessary to remove and throw away the entire journal- 35 box and replace it with a new one, thus involving not only great expense, but also unavoidable delays in the movement of trains.

The object of my invention is to provide a journal-box of a simple, strong, efficient, and 40 durable construction that will effectually overcome these difficulties or objections.

My invention consists in the means I employ to practically accomplish this object or result—that is to say, it consists in providing 45 the journal-box with a removable wearing face or piece at its rear end made in a separate piece from the journal-box and connected thereto by interengaging guides.

It further consists in combination, with the 50 journal-box, of a removable wearing face or

piece therefor at the rear end thereof made in two separate pieces or parts, so that the same can be removed or applied around the axle without removing the journal-box.

It further consists, in connection with the 55 axle and journal-box and its two-part removable wearing face or piece, of a dust-guard confined and held in place at the rear end of the journal-box by the removable wearing face or piece of the journal-box. 60

It also consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown or described.

In the accompanying drawings, forming a 65 part of this specification, Figure 1 is a central vertical section of a journal-box embodying my invention. Fig. 2 is a top or plan view. Fig. 3 is a central horizontal section. Fig. 4 is a section on line 4 4 of Fig. 3, and Fig. 5 70 is a detailed perspective view of one half or part of the removable wearing face or piece of the journal-box.

In the drawings, A represents a car-axle, A' a portion of a car-wheel, and *a* the wearing 75 face or boss thereof, which bears against the end of the journal-box.

B is the journal-box, and C the bearing therein fitting the journal *a'* of the axle. The journal-box B is provided at its rear end with 80 a removable or independent wearing face or piece D, made in a separate piece from the journal-box and preferably made in two halves or parts, both of which are designated by the reference-letter D, and removably connected 85 to the rear end of the journal-box by interengaging guides *d b*, formed on the removable wearing face or piece D and journal-box, respectively. These guides *b d* preferably 90 consist of interengaging grooves and shoulders or ribs, as illustrated in the drawings, and extend all around or at the sides, top, and bottom of said parts B and D. Bolts *d'*, having nuts *d''* extending vertically through the two halves or parts D D of the removable 95 wearing face or piece, secure the same together and to the journal-box around the axle. The removable wearing face or piece D D of the journal-box may also be secured thereto by lugs or pins *b'* on the journal-box, 100

having keys b^2 , and which lugs or pins extend through suitable holes d^3 in the lateral flanges d^4 of the removable wearing face or piece D of the journal-box. The wearing face or piece D of the journal-box, or each half or part thereof, comprises a lateral or marginal flange d^4 , which surrounds and embraces the end of the journal-box at its horizontal, top, bottom, and upright sides, and an upright end flange d^5 , which bears against the wearing face or boss of the car-wheel and which, in connection with the end flange b^3 of the journal-box, forms a chamber F' to receive and confine the dust-guard F.

The two-part removable wearing-piece D D when the two members thereof are clamped together is of a general box shape and surrounds and incloses the end of the journal-box, the lateral flanges d^4 at the top, bottom, and upright sides of the wearing-piece overlapping and surrounding the end of the journal-box and forming a tight joint therewith by the interengaging guide-grooves and shoulders b d on the journal-box and on the lateral flanges of the wearing-piece, respectively.

The dust-guard F may be of any suitable construction, but is preferably composed of two halves or parts, each designated by the reference-letter F and each preferably consisting of an independently-movable shell f , embracing a felt or other packing f' , the two halves or parts F F being continually forced together around the axle by springs f^2 f^2 , which are interposed between the shells f and the removable wearing face or piece D D of the journal-box.

B' represents the lid or door of the journal-box.

I claim—

1. The combination with a car wheel and axle and dust-guard, of a journal-box provided at its rear end with a removable wearing-piece to bear against the wearing-boss of the car-wheel, and to confine the dust-guard in place around the axle, said wearing-piece comprising two duplicate members having lateral flanges surrounding and engaging the rear end of the journal-box at its top, bottom and upright sides, and having upright end flanges to bear against the wearing-boss of the car-wheel, said members having also bolts passing through the same one on each side of the axle to removably clamp and unite the same to the journal-box, substantially as specified.

2. The combination with a car wheel and axle, of a journal-box and a removable, two-part, box-shaped wearing-piece secured thereto at the inner end thereof, and comprising duplicate members having lateral flanges embracing and surrounding the inner end of the journal-box at its top, bottom and sides, said lateral flanges and inner end of the journal-box having interengaging guide shoulders and grooves, said members of the wearing-

piece also each having an upright end flange to bear against the wearing-boss of the car-wheel, and bolts extending through both members of the wearing-piece, one on each side of the axle for removably connecting and clamping the two-part wearing-piece to the journal-box, substantially as specified.

3. The combination with a car wheel and axle, of a journal-box provided at its rear end with a removable wearing-piece to bear against the wearing-boss of the car-wheel, and to confine the dust-guard in place around the axle, said wearing-piece comprising two duplicate members having lateral flanges surrounding and engaging the rear end of the journal-box at its top, bottom and upright sides, and having upright end flanges to bear against the wearing-boss of the car-wheel, said members having also bolts passing through the same one on each side of the axle to removably clamp and unite the same to the journal-box, a two-part dust-guard interposed between the journal-box and said two-part wearing-piece, and springs for pressing the two parts of the dust-guard together around the axle, one spring acting on the upper member of the dust-guard and the other upon the lower member, substantially as specified.

4. The combination with a car wheel and axle, of a journal-box and a removable, two-part, box-shaped wearing-piece secured thereto at the inner end thereof, and comprising duplicate members having lateral flanges embracing and surrounding the inner end of the journal-box at its top, bottom and sides, said lateral flanges and inner end of the journal-box having interengaging guide shoulders and grooves, said members of the wearing-piece also each having an upright end flange to bear against the wearing-boss of the car-wheel, and bolts extending through both members of the wearing-piece, one on each side of the axle for removably connecting and clamping the two-part wearing-piece to the journal-box, a two-part dust-guard interposed between the journal-box and said two-part wearing-piece, and springs for pressing the two parts of the dust-guard together around the axle, one spring acting on the upper member of the dust-guard and the other upon the lower member, substantially as specified.

5. The combination with a car wheel and axle and dust-guard, of a journal-box provided at its rear end with a removable wearing-piece to bear against the wearing-boss of the car-wheel and to confine the dust-guard in place around the axle, said wearing-piece comprising two duplicate members having lateral flanges surrounding and engaging the rear end of the journal-box at its top, bottom and upright sides, and having upright end flanges to bear against the wearing-boss of the car-wheel, substantially as specified.

6. The combination with a car wheel and axle, of a journal-box and a removable, two-

part, box-shaped wearing-piece secured there-
to at the inner end thereof, and comprising
duplicate members having lateral flanges em-
bracing and surrounding the inner end of the
5 journal-box at its top, bottom and sides, said
lateral flanges and inner end of the journal-
box having interengaging guide shoulders
and grooves, said members of the wearing-

piece also each having an upright end flange
to bear against the wearing-boss of the car- 10
wheel, substantially as specified.

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Witnesses:

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