

No. 702,159.

Patented June 10, 1902.

J. F. SCHUMACHER.
JOURNAL BOX.

(Application filed Jan. 27, 1902.)

(No Model.)

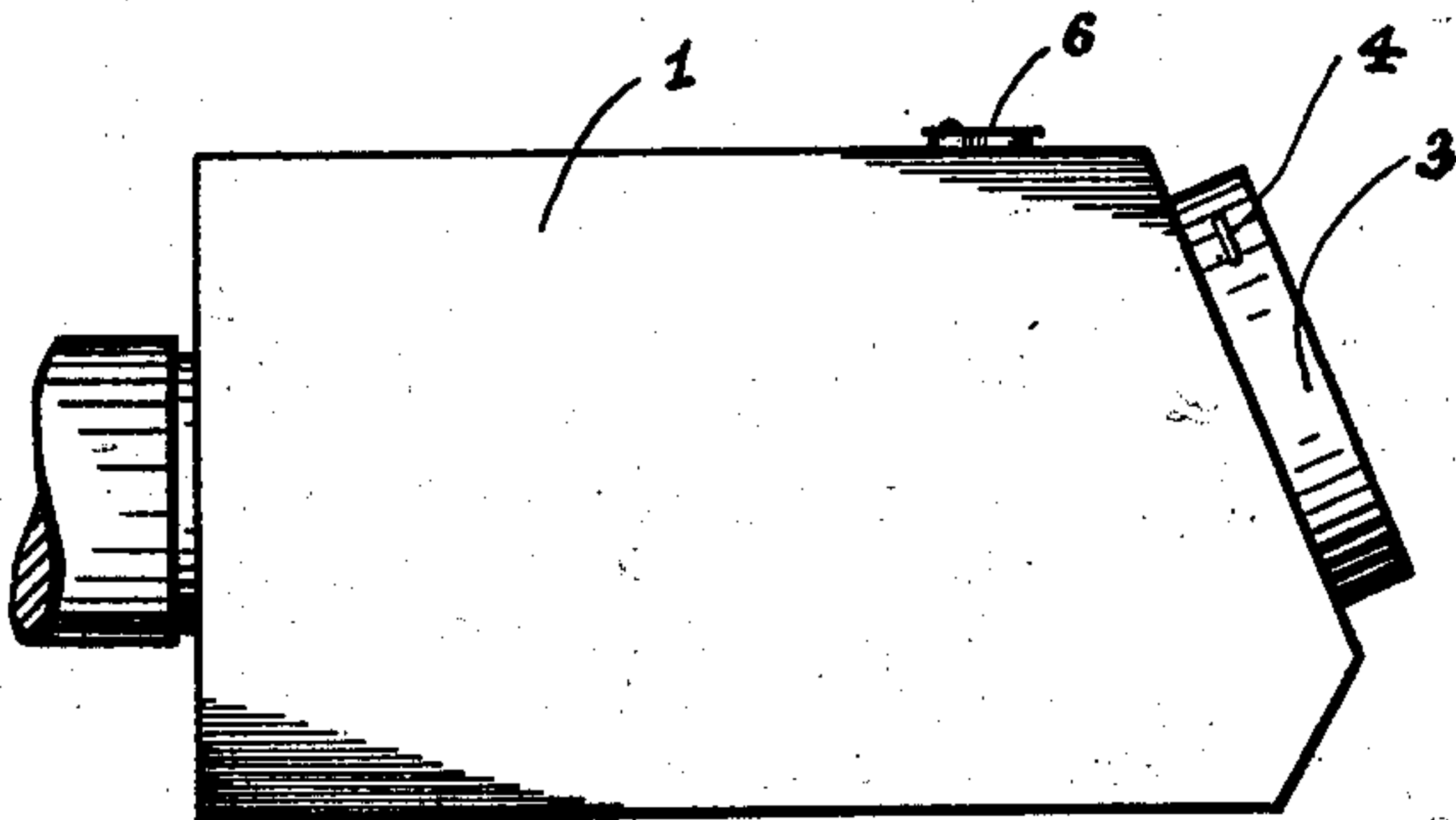


Fig. 1

Fig. 3

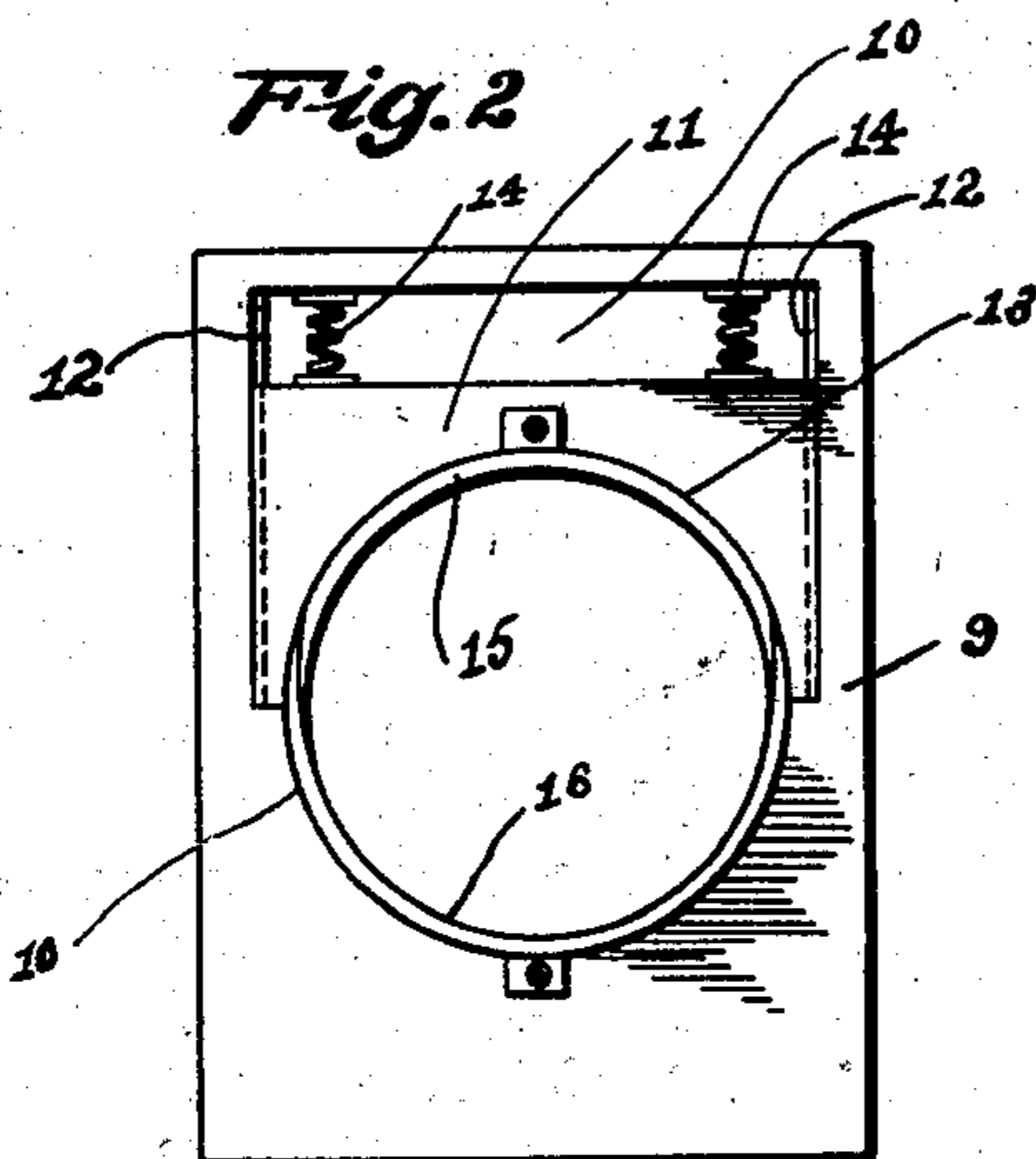
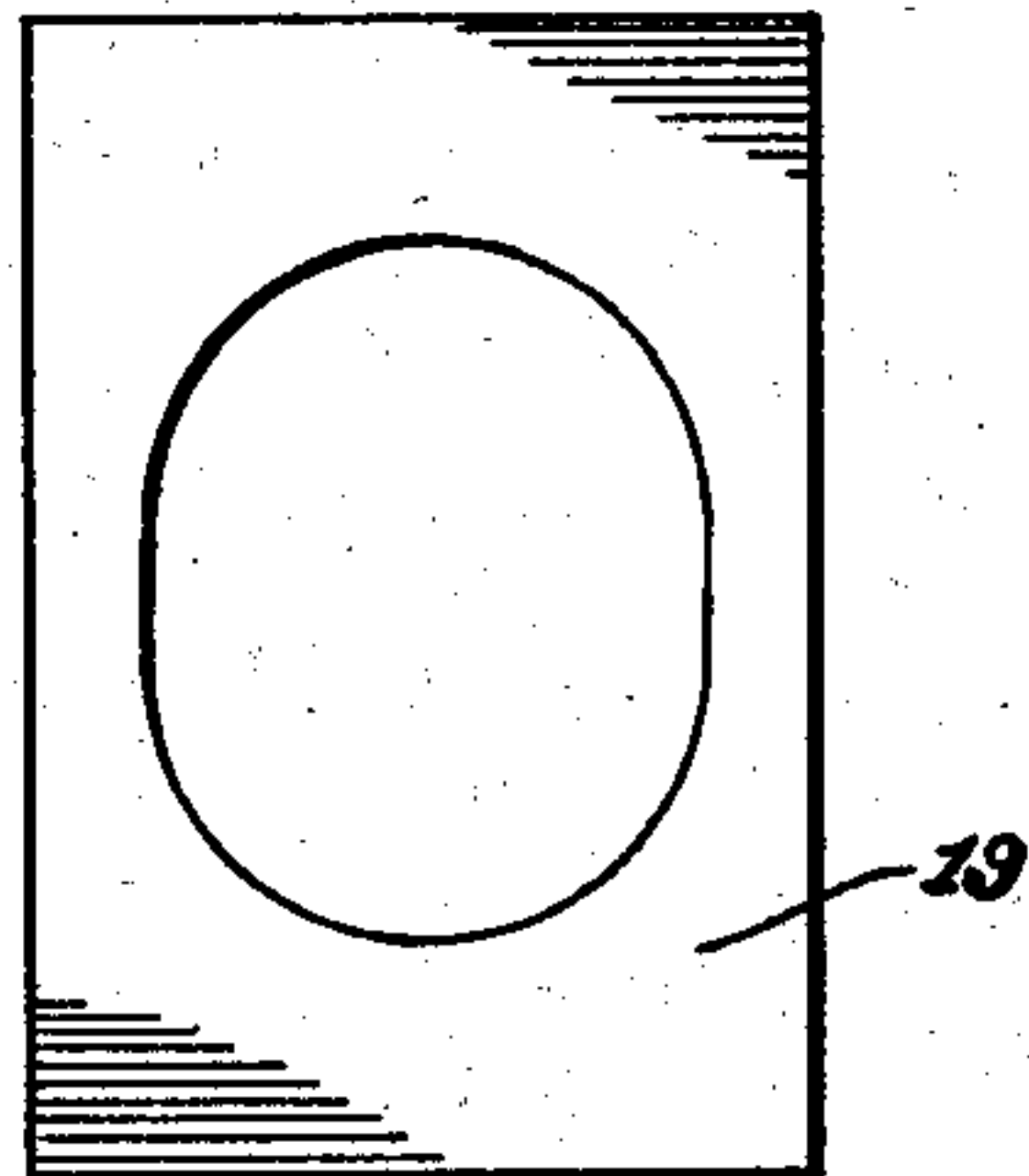


Fig. 2

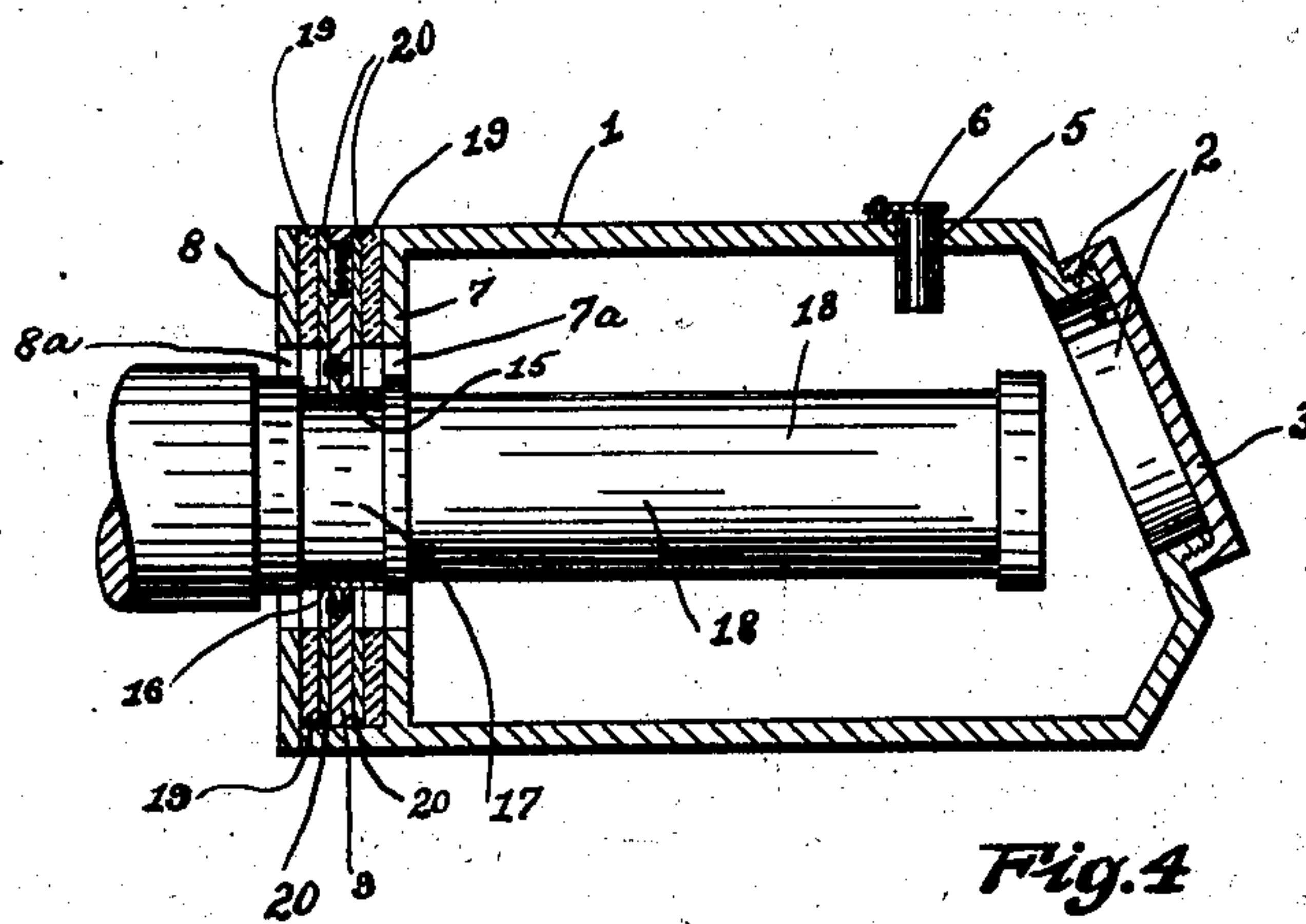


Fig. 4

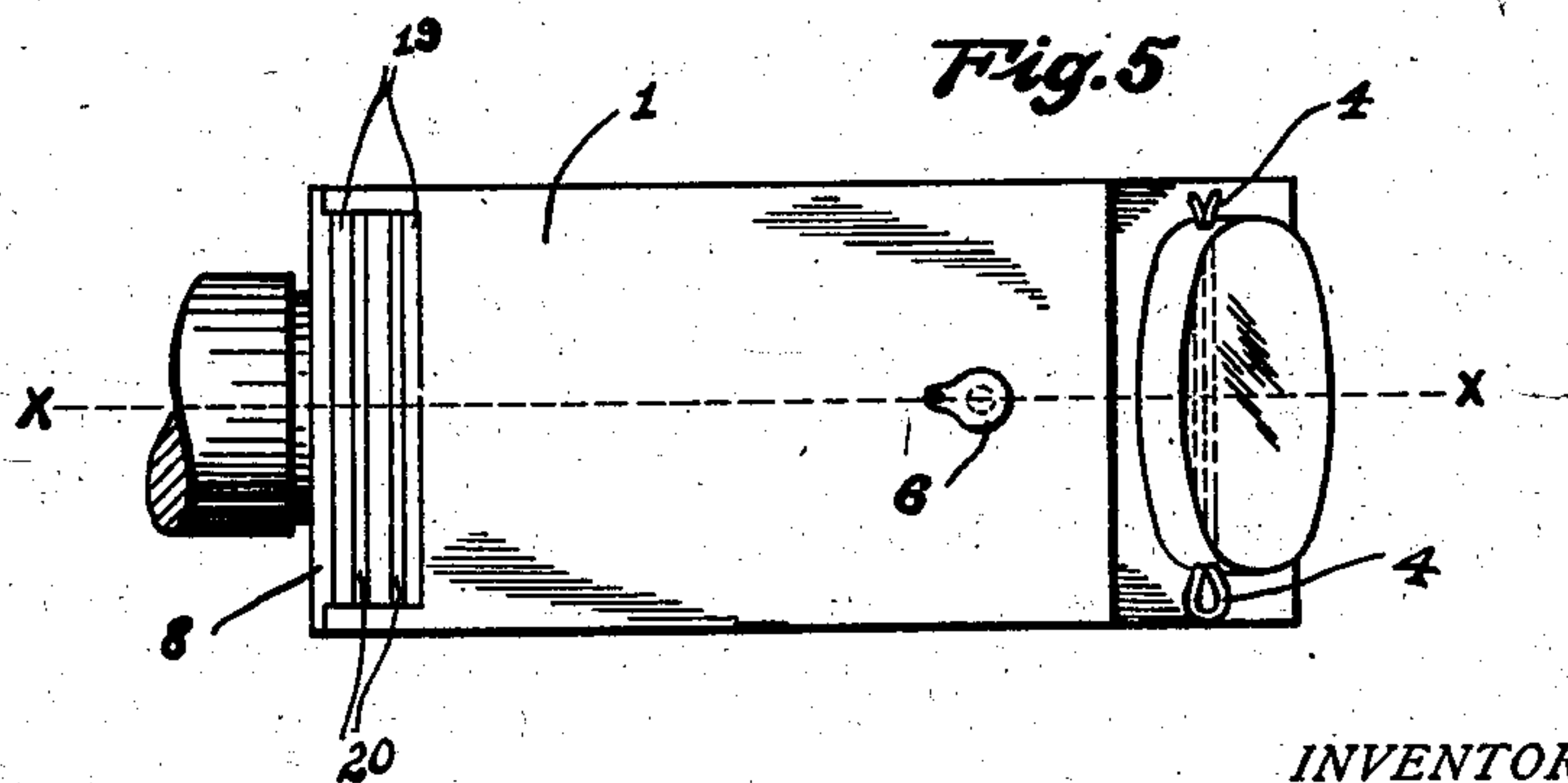


Fig. 5

WITNESSES:

F. D. Zwerner
A. D. Phelps

INVENTOR.

John F. Schumacher

BY

C. C. Shepard
ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN F. SCHUMACHER, OF LEONARD, OHIO.

JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 702,159, dated June 10, 1902.

Application filed January 27, 1902. Serial No. 91,326. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. SCHUMACHER, a citizen of the United States, residing at Leonard, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Journal-Boxes, of which the following is a specification.

My invention relates to the improvement of journal-bearings, and has particular relation to that class of journal boxes or bearings which are employed in conjunction with car-wheel and similar journals.

The objects of my invention are to provide an improved journal-bearing construction of superior construction and arrangement of parts, to provide improvements in the dust-guard and in the packing therefor, and to provide improved means for gaining access to the journal-box, and to produce other improvements the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved journal-box. Fig. 2 is an enlarged view in elevation of the dust-guard. Fig. 3 is an enlarged view in elevation of one of the metallic dust-guard packing-plates. Fig. 4 is a central vertical longitudinal section of my improved journal-bearing, showing a journal therein; and Fig. 5 is a plan view.

Similar numerals refer to similar parts throughout the several views.

1 represents the body of my improved journal-box, which is preferably of the elongated or approximately rectangular form shown, the outer end of said box presenting an angular face, the upper and wider incline of which is formed with an externally-threaded neck 2, on which is adapted to be screwed a cap 3. This cap is further assured in its engagement with said box-neck by a transverse pin 4, which, as indicated more clearly in Fig. 5 of the drawings, intersects the upper portions of the neck 2 and cap 3, said pin being removably inserted in openings formed in said parts, which are adapted to be made to register one with the other. In the upper side and near the forward end portion of the box I provide an oil-inlet 5, which is adapted to be covered by a pivoted and swinging cover-plate 6.

In its inner end portion the box 1 is provided with the usual vertical dust-guard compartment, which is formed between the internal partition 7 and the removable end 8 of said box 1, said parts 7 and 8 having formed therein the usual enlarged central journal, receiving openings 7^a and 8^a. The dust-guard compartment formed as described is of sufficient width to receive centrally the dust-guard and to contain on opposite sides of said dust-guard packing-plates of the character hereinafter described. Of the dust-guard, 9 represents the body or main section thereof, which is in the nature of a vertical frame-plate, formed with an opening 10, which occupies the greater portion of the upper half thereof, the lower portion of this opening communicating with a half-round bearing-recess 10, formed in the lower half of said body 9. The upper and movable section 11 of the dust-guard is adapted to fit between the sides of the opening 10, being of less height than the latter and having its ends grooved to receive loosely inwardly-projecting guide-ribs 12, formed on the inner sides of the upper portion of the dust-guard body. The under side of the dust-guard section 11 is formed with the usual semicircular bearing-recess 13. Within the opening 10 and between the upper side of the dust-guard section 11 and the upper portion of the main section 9 I interpose suitable springs 14, the tension of which normally holds said upper section 11 in its lowest position within the opening 10. 15 and 16 represent, respectively, upper and lower journal-bearing segments, each of which is approximately semicircular in form and one of which is secured within the recess 13 of the upper dust-guard section 11, and the remaining segment is similarly secured in the recess 10 of the section 9. The end portions of these bearing-segments 15 and 16 are so extended as to overlap each other, these extended end portions being so beveled as to preserve the approximately circular form of bearing produced by the meeting of said segments. As indicated more clearly in Fig. 4 of the drawings, the bodies of the segments 15 and 16 are of such width as to project laterally beyond the inner and outer faces of the dust-guard sections, the segments being, as indicated in said Fig. 4, adapted to receive the

usual reduced bearing portion 17 of an axle-journal 18. Within the dust-guard pocket or receptacle of the box 1 and on opposite sides of the dust-guard I provide packing-plates or
5 gaskets 19, the latter being formed of rubber and having central openings corresponding with the openings 7^a. Between these rubber packing-plates or gaskets 19 and the dust-guard I interpose comparatively thin metallic
10 packing-plates 20, which correspond in outline with the rubber plates 19. These rubber and metallic gaskets or packing-plates are designed to insure the dust-guard in its position and at the same time to completely
15 close the dust-guard compartment against the entrance of dust or foreign matter. It is obvious that if the rubber gaskets or packing-plates were alone used difficulty might be encountered in moving the dust-guard in or out
20 of said compartment, owing to the tendency of the guard to bind against the rubber; but the employment, as herein described, of the thin metallic plates or gaskets 20 provides substantially a metallic inner facing for said
25 rubber gaskets, from between which facings the dust-guard may be readily withdrawn. Owing to the yielding or compressible nature

of the rubber of which the gaskets 19 are formed it is obvious that by subjecting the same to compression during the insertion of
30 the dust-guard the tendency of the guard and its packing-plates to separate will be obviated.

Having now fully described my invention, what I claim, and desire to secure by Letters
35 Patent, is—

In a journal-box, the combination with a box-body 1 having a dust-guard compartment in its inner end portion and a journal-receiving opening therein, of a dust-guard
40 comprising a main section 9 and a yielding or movable section 11 slidably mounted therein, and curved bearing-segments secured in oppositely-located recesses of said dust-guard sections, said bearing-segments having beveled
45 end portions which are adapted to overlap each other and being of such width as to extend in front and in rear of the dust-guard body, substantially as specified.

JOHN F. SCHUMACHER.

In presence of—

C. C. SHEPHERD,
P. S. KARSBUN.