

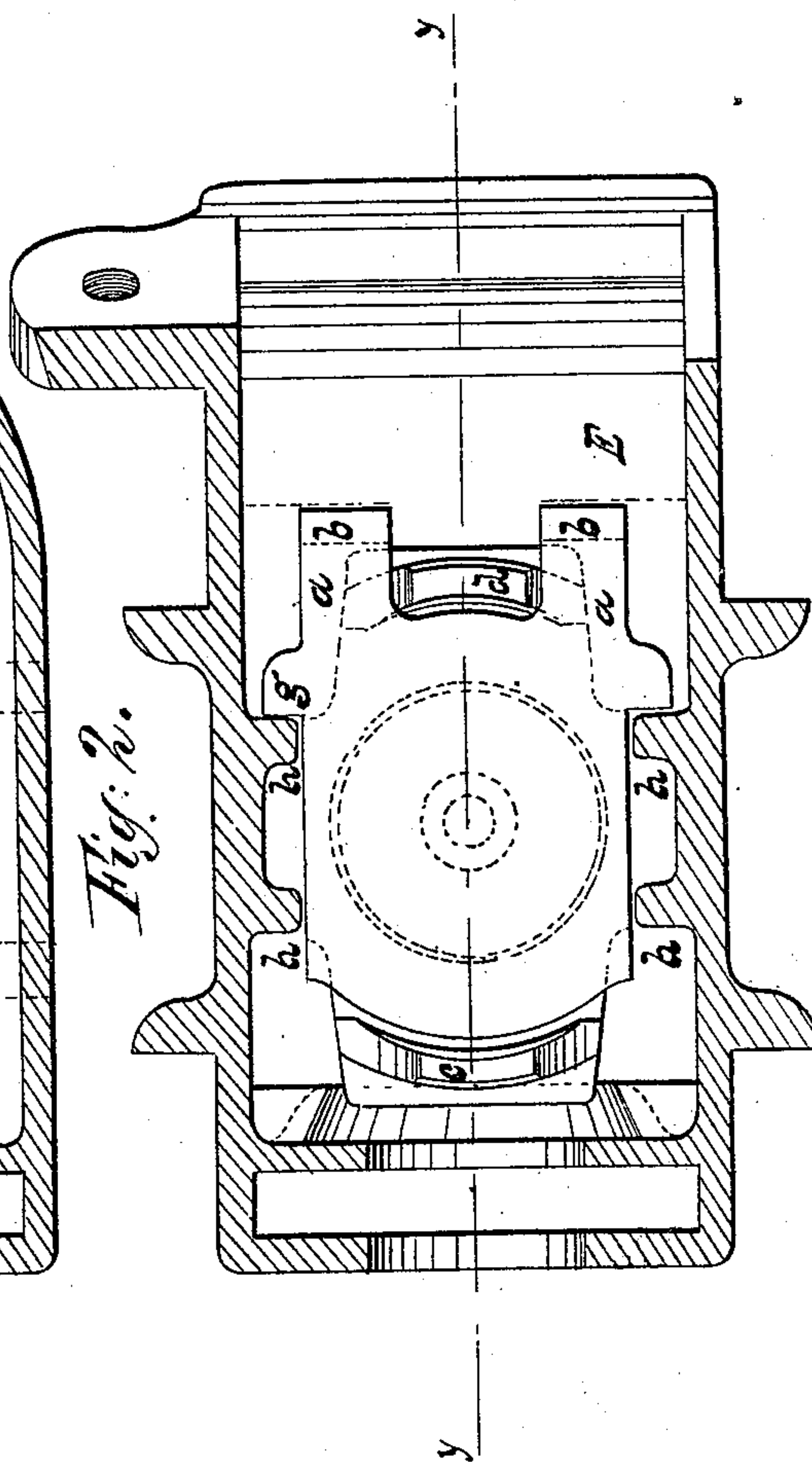
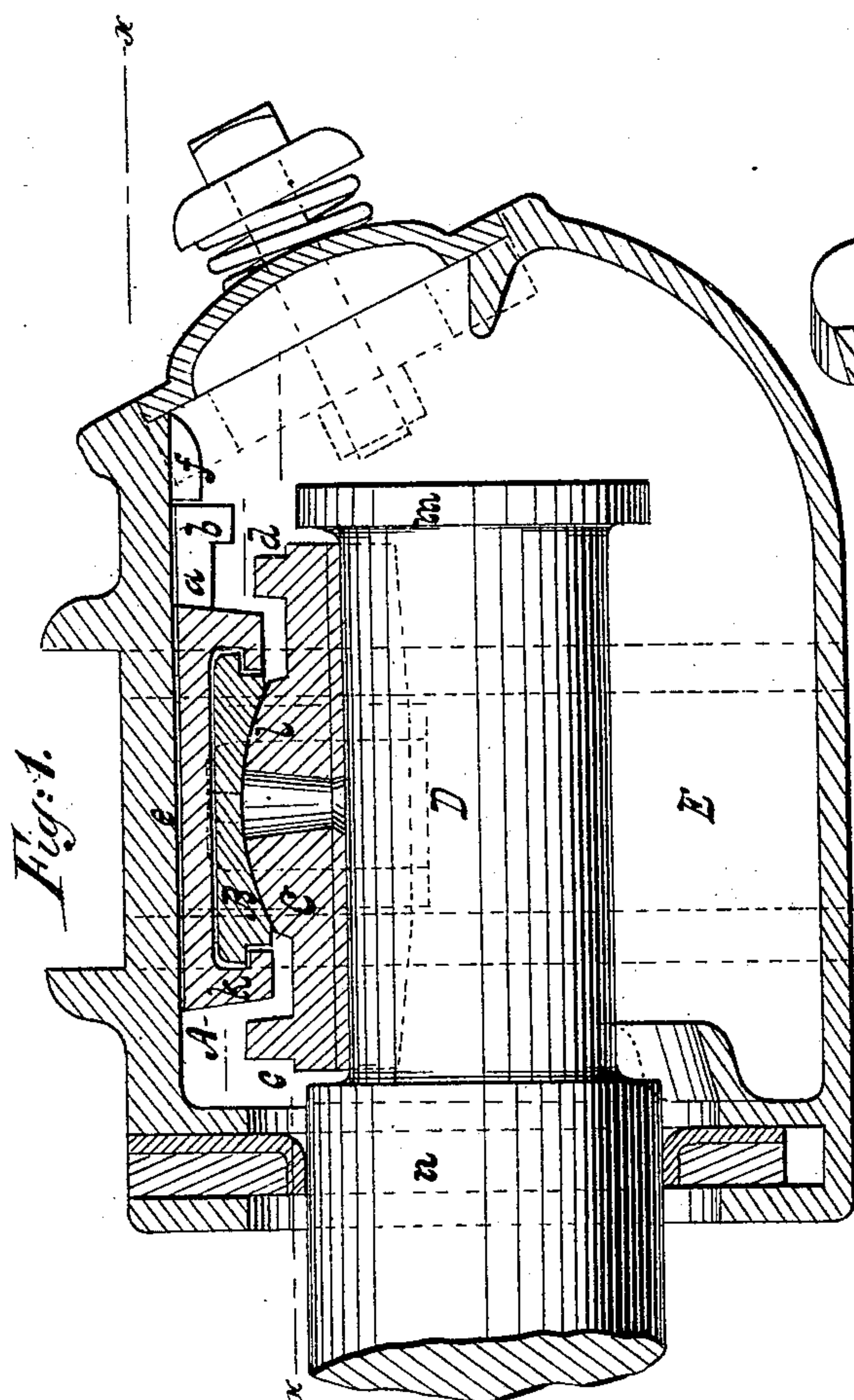
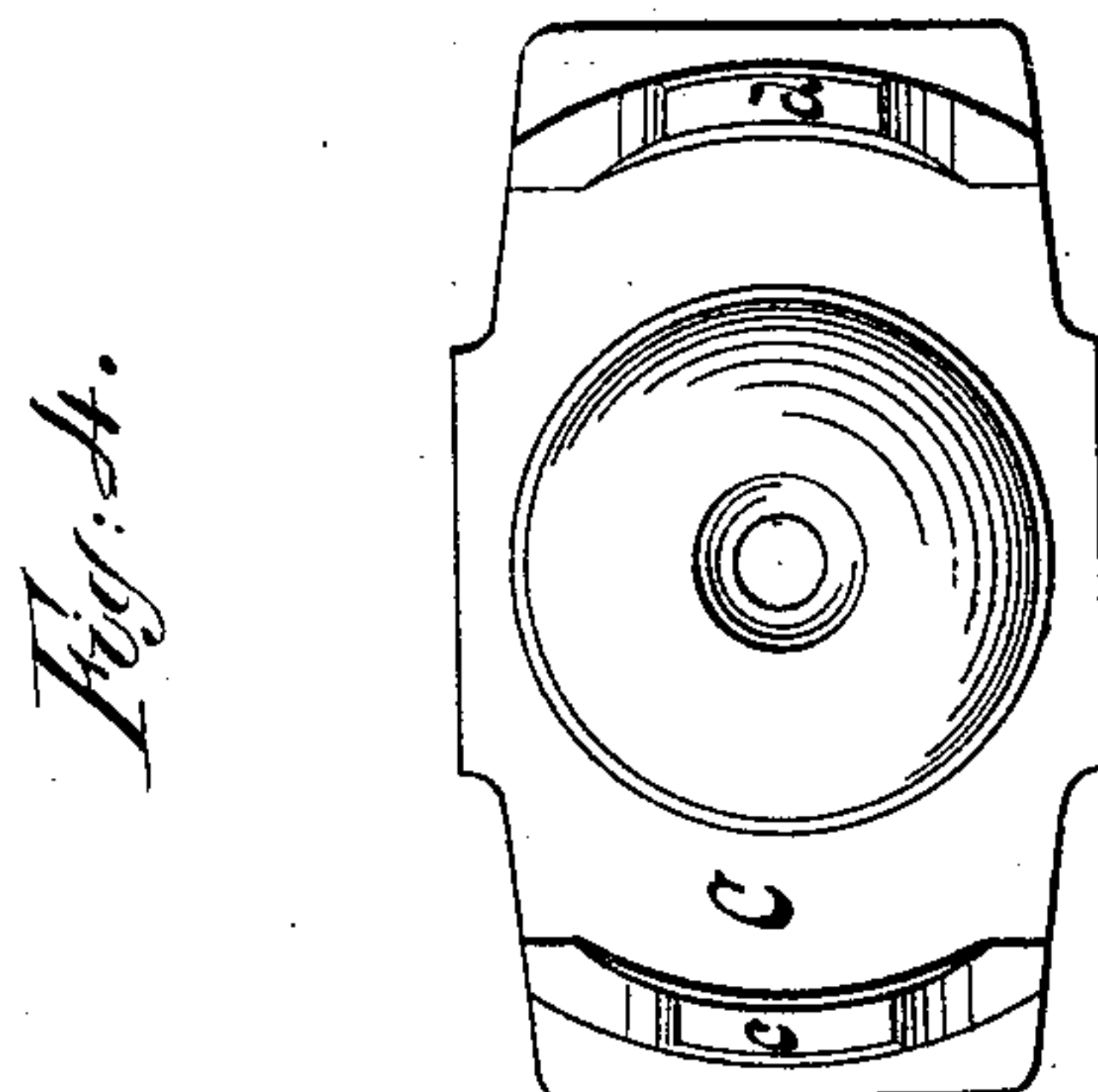
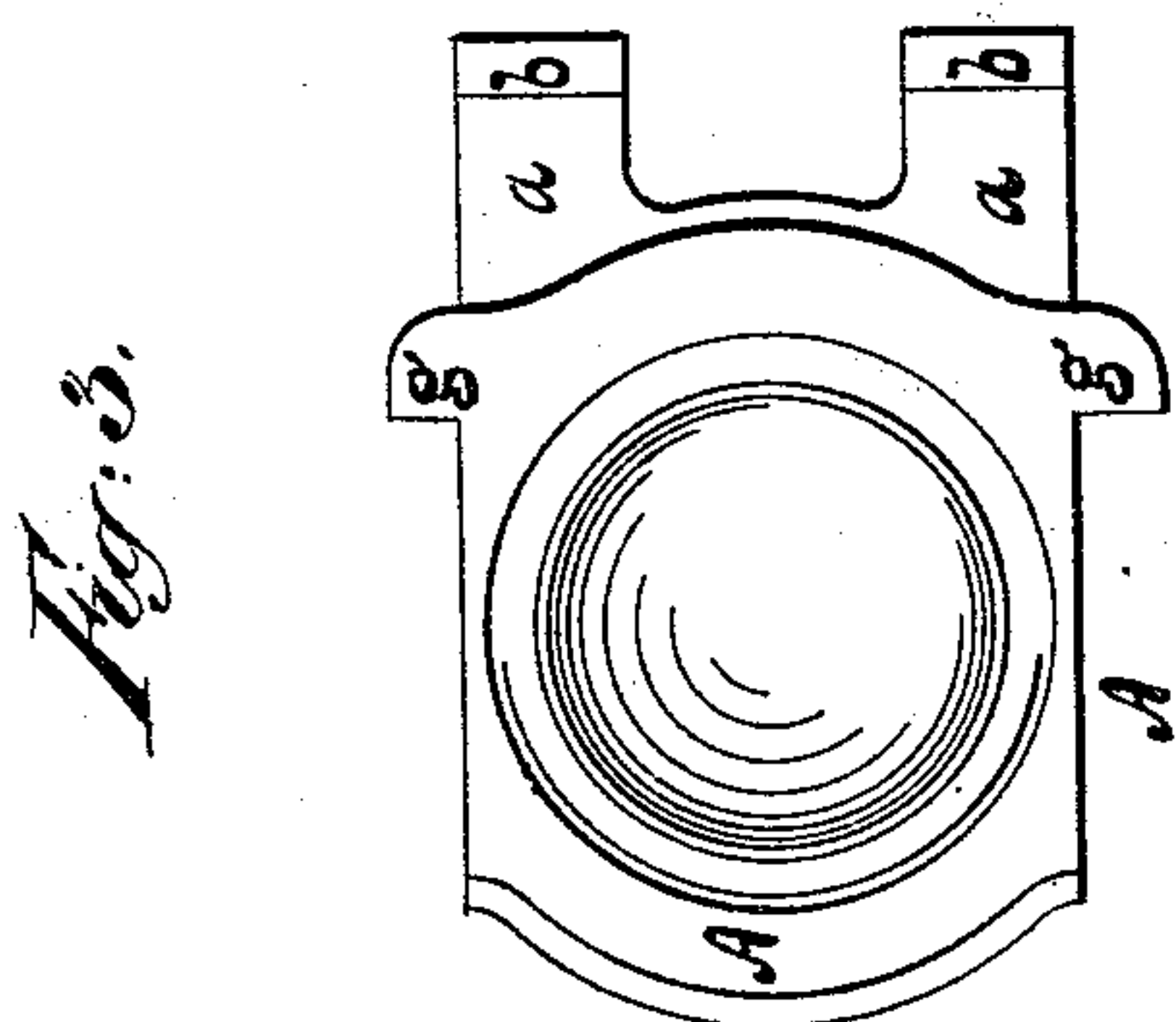
(No Model.)

J. R. BAKER.

CAR AXLE BOX.

No. 370,034.

Patented Sept. 20, 1887.



WITNESSES:

Chas. Nida.
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INVENTOR

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UNITED STATES PATENT OFFICE.

JACKSON R. BAKER, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO THE
BAKER ADJUSTABLE BEARING COMPANY, OF NEW YORK, N. Y.

CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 370,034, dated September 20, 1887.

Application filed June 29, 1887. Serial No. 242,846. (No model.)

To all whom it may concern:

Be it known that I, JACKSON R. BAKER, of Jersey City, in the county of Hudson and State of New Jersey, have invented a certain new and useful Improvement in Car-Axle Bearings, of which I declare the following to be a full, clear, and exact specification, reference being had to the accompanying drawings, forming a part thereof.

10 This invention is in the nature of an improvement in car-axle bearings; and the invention consists of a car-axle bearing constructed and combined substantially in the manner and for the purpose herein particularly described.

15 In the accompanying sheet of drawings, Figure 1 is a vertical section in the line *yy*, Fig. 2, of a car-axle box, showing the application of my bearing therein. Fig. 2 is a plan or top view in section taken in the line *xx*, Fig. 1. Fig. 3 is a top view of the key, and Fig. 4 a top view of the axle bearing or brass.

Similar letters of reference indicate like parts in the several views.

25 This invention relates particularly to an improvement in the application of the adjustable axle bearings heretofore patented by me in several Letters Patent. The distinguishing feature of such patented axle-bearings is the adjustability of the bearing to the irregular motions of the axle, caused by inequalities in the track and otherwise. To adapt these adjustable bearings to the purpose for which they were designed, however, it was found necessary to construct the axle box or housing of 30 specific or special form in some particulars, and the chief purpose of this present invention is to permit the easy application of my aforesaid patented bearings to the axle boxes or housings of any ordinary construction.

40 To that end, referring to the drawings, wherein E represents an ordinary axle-box, such as is in common use on railways, I utilize the ordinary stops, *f*, which are cast to the inner top surfaces of such boxes, and also the lugs *h*, which are also cast on said boxes and to the inner surfaces of the sides thereof. To an axle-box having these features I fit what I may call a "key," A. This key is of cast metal, and in it is cast a circular recess, *k*, in which recess 50 is fitted my central bearing, B. This key A is

provided with lugs *a*, which terminate in hook projections *b*, and the key has formed on it lugs *g*, also.

C represents the axle-brass with a central circular convex projection, *l*, which projection 55 enters into the concavity of the bearing B, the lower surface of the brass C resting upon the surface of the journal D of the car-axle.

The construction of the brass C and the bearing B in the particulars named in no wise 60 differing from the construction described in my previous patents, it will not be necessary to repeat that description minutely again, a reference to these patents, particularly that of 1881, being sufficient; but by reason of the 65 construction of the key A to my adjustable bearings, as aforesaid, I am enabled to apply these bearings to the ordinary axle-box, and to do this it is simply necessary to insert the key A, containing within it the bearing B, within 70 the axle-box E, until the lugs *a* of the key abut against the ordinary stops, *f*, of the box, the box being jacked up, as is customary when fitting brasses. The brass C being inserted, as stated, and as is shown in Fig. 1, the key A is placed 75 over it, its concave part receiving the convex part *l* of the brass C, the lower surface of the brass C resting on the journal D, so that when the jack is removed from beneath the box the weight of the car brings the upper surface of 80 the key A in close contact with the under surface, *e*, of the top of the box E, the convex part *l* of the brass C snugly within the concavity of the bearing B, and the under bearing-surface of the brass C tightly against the sur- 85 face of the journal D, and when this is done the fixing of the key, bearing, and brass to the journal within the box is completed. Now, when the several parts are adjusted, as described, within the box, any horizontal outward movement of 90 the key A within the box is checked by the contact of the ends of the lugs *a* of the key with the stops *f*, cast within the box, and any horizontal inward movement of the key A is checked by the contact of the lugs *g* of the key 95 with the lugs *h*, cast to the sides of the box, and any horizontal sidewise motion of the key A within the box is checked by the contact of the sides of the key with the aforesaid lugs *h*, the key being held against vertical play by 100

the weight of the car, which, by reason of the interposed brass C and bearing B, jams it between the journal D and the under top surface of the box.

5 From the foregoing it is plain that my adjustable bearings are as readily applied to the ordinary axle-boxes as are the common and well-known axle-brasses, and it is also plain that when so applied they are quite as effective as they would be if applied to boxes specially constructed for them, for the brass C has the same horizontal play, being limited only by the curbs or stops *c* and *d*, the stop *d* entering in the space between the lugs *a* of the key
10 A, provided for that purpose, and the head *m* of the journal D, and being limited in the other direction by the stop *c*, and the key A, and the axle *u*, and the pivotal action of the convex part *l* within the concavity of the bearing
15 B is in no wise interfered with.

Another advantage growing out of the application of my adjustable bearing to axle-boxes of common construction is that if for any cause the adjustable bearing should by
20 reason of derangement, cutting out, or fracture become inoperative on the road, then in such event it will be only necessary to jack up the box, withdraw the key A, turn it upside down, bringing its flat surface undermost, and then

the ordinary and common brass can be inserted within the box in precisely the same manner and with the same facility as such brasses are now inserted. 30

The purpose of the projections *b* of the lugs *a* of the key is to facilitate the reversal of the key A, should it become necessary, as stated, since they add to the end surface of the lugs *a* and insure the bearing of these ends against the stops *f* in the axle-box, and they also present obstacles against which a packing-hook
35 40 may engage when it is used to withdraw the key from the box.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is— 45

1. In combination with a railroad axle-box of common construction, a key, A, containing a central bearing, B, and a bearing-brass, C, as and for the purpose described.

2. In combination with an axle-box, a key, A, containing a bearing, B, and provided with lugs *a* and *g* to limit the movement of said key within the axle-box, as and for the purpose described. 50

JACKSON R. BAKER.

In presence of—

G. M. PLYMPTON,
D. A. CARPENTER.