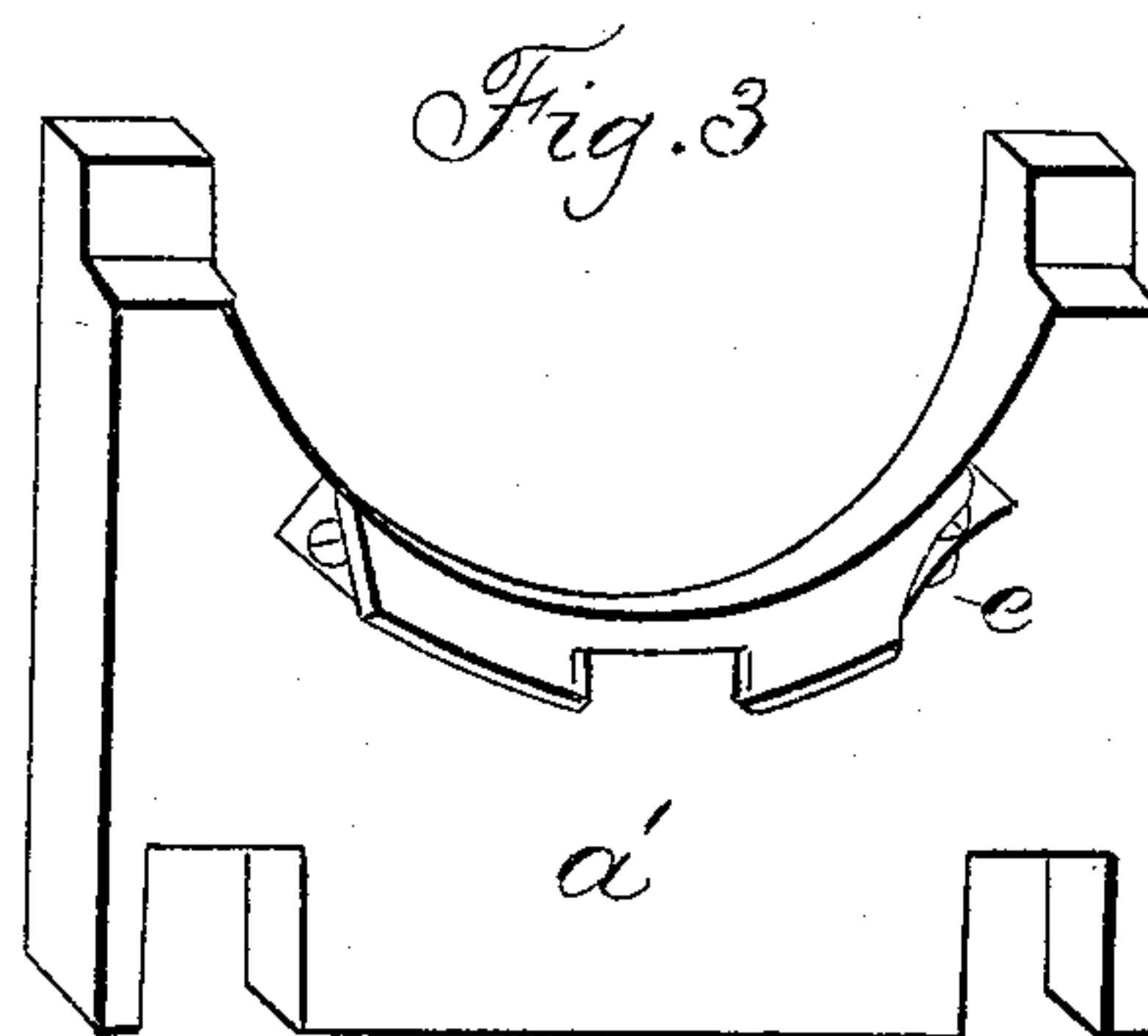
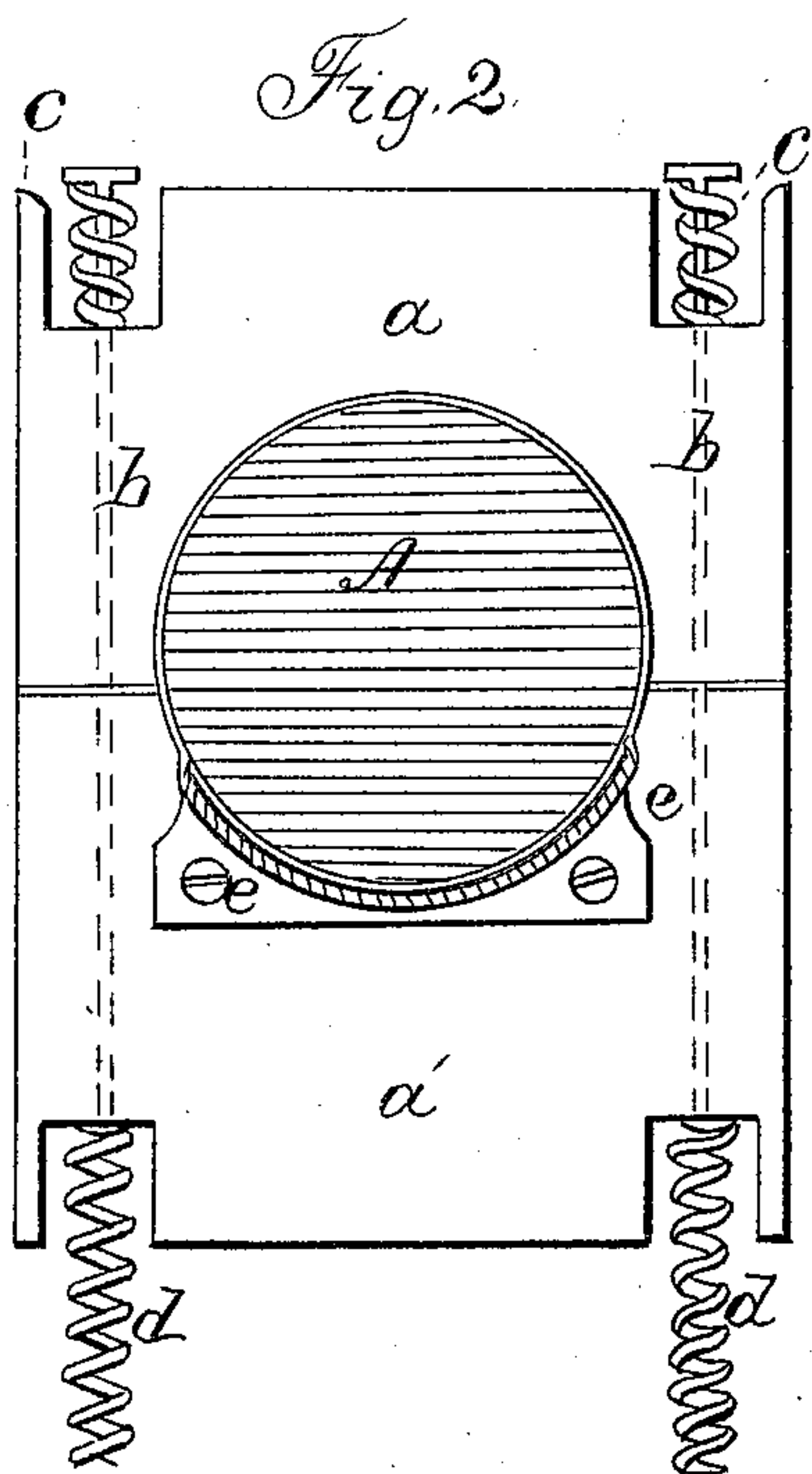
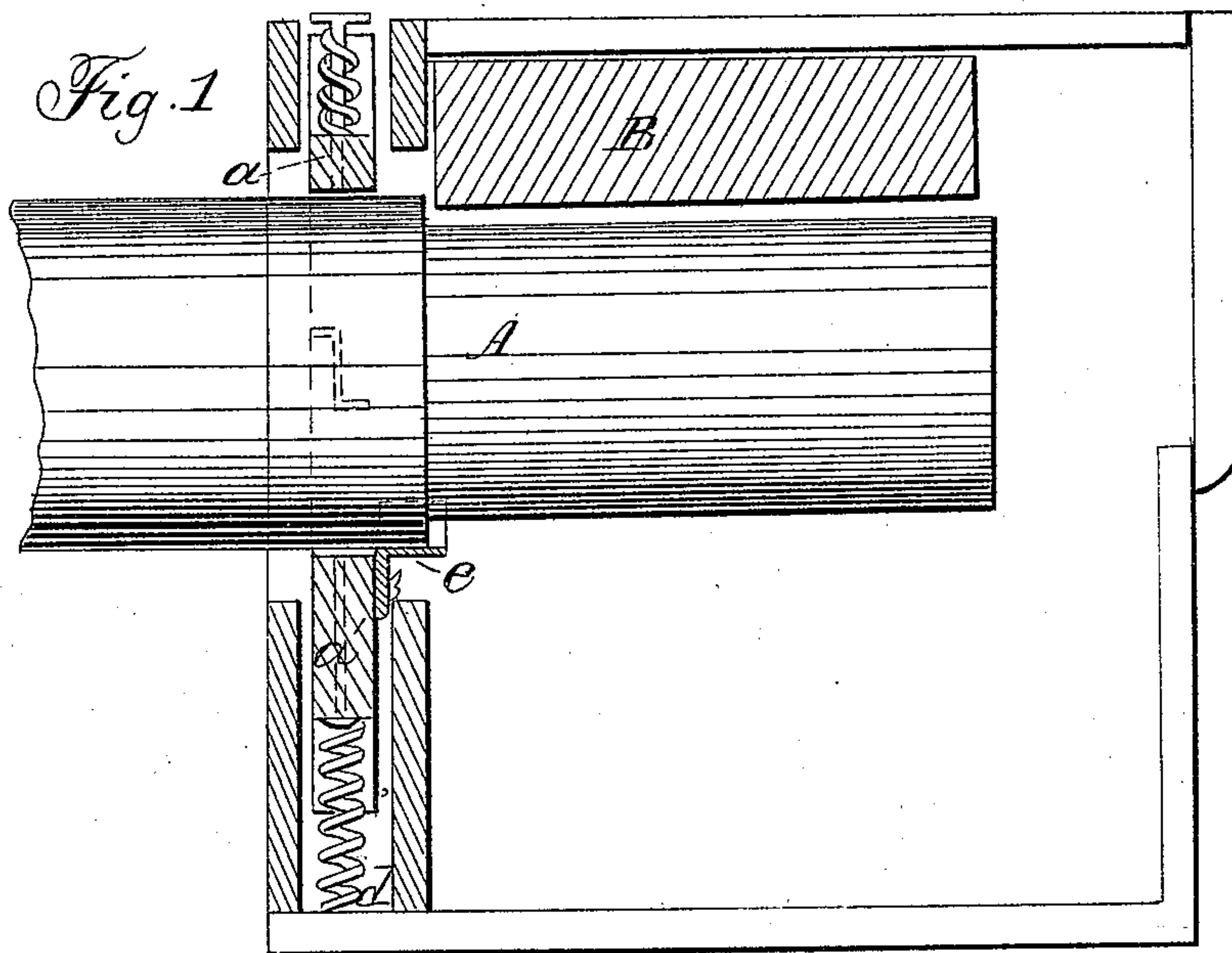


G. W. & J. C. GEISENDORFF.

Car-Axle Box.

No. 19,840.

Patented Apr. 6, 1858.



UNITED STATES PATENT OFFICE.

GEORGE W. GEISENDORFF AND J. C. GEISENDORFF, OF CINCINNATI, OHIO.

IMPROVEMENT IN BOX-CASES AND LUBRICATORS FOR RAILROAD-CAR AXLES.

Specification forming part of Letters Patent No. 19,840, dated April 6, 1858.

To all whom it may concern:

Be it known that we, GEORGE W. GEISENDORFF and JACOB C. GEISENDORFF, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Box-Cases for Railroad-Car Axles; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification.

The object of our improvement is to prevent the waste or loss of oil by its flowing longitudinally on the car-axle, and we accomplish this object by the employment of a spring-stripper placed inside of the box-case, which removes the surplus oil from the axle and returns it to the reservoir. In addition to the stripper, we use an expansible or clasp packing, to which the stripper is attached. Said packing renders the use of the stripper more perfect and completely prevents the entrance of dust to the journal and box inside of the box-case.

In forming our packing we usually employ wood.

The nature of our improvement consists in making use of packing in two pieces, so arranged with helical springs that the packing and stripper shall act in concert with each other and the axle of the car will be perfectly clasped in the semicircular openings of said packing, and by an arrangement of the springs the packing shall admit of the necessary play of the axle in the box-case and still preserve a close contact of the packing with the axle. The clasp of the semicircular packing is effected by a pair of draw-bolts and helical springs, which will be more fully described hereinafter. The stripper may be rigid and attached by screws to the lower half of the packing and move in concert with its spring; or it may form a spring in itself, and by a stem be connected with the box-case. The stripper and packing are placed at the rear end of the box-case.

To enable others to construct and use our improvement it may be described as follows:

Figure 2 exhibits the packing as detached from the box-case. *a a'* represent the half-circles, which are made to fit the axle and usually an inch in thickness. A small portion of their edges at the junction of the semi-

circles is removed to allow of the slight wear of the packing. *b b* are draw-bolts passing through the thickness of the packing. They are fastened in the lower semicircle *a'*, but pass loosely through the upper one *a* and serve as a guide thereto. At the upper edge of *a* recesses are made for the reception of helical springs *c c*, which are confined between the heads of the bolts and the edge of the packing, so that the expansion of those springs will force the upper half of the packing toward the lower. At the lower edge of *a'* recesses are formed for receiving helical springs *d d*. Those springs are made stronger than the upper ones, so as to insure a full degree of force in keeping up the packing to the axle. The lower springs have their bearing on the bottom of the box-case, and it is between it and the edge of *a'* they exert their force in keeping the packing up. The stripper *e* is best formed of metal, and is furnished with a right-angled flange for securing it by screws or bolts to the side of the packing *a'*. It may have a nick at its half-length (see Fig. 3) for allowing the oil to pass more freely from it. The ends of the stripper are curved to fit the axle perfectly.

A is a portion of the car-axle; *B*, the bearing or box. In fitting the packing to the box-case it is made a slight degree narrower than the width of the case, so that in the vibration of the axle the packing, being free to move from side to side of the case, will prevent undue wear thereof on either side. In a fixed packing—such as a metallic clamp-ring fastened to the box-case—this evil must occur, and consequently the ring will be worn irregularly and an opening result and allow the escape of the oil by flowing on the axle.

In the mere use of collar-ring without the stripper it is doubtful if the object of saving the oil thereby would be accomplished even if the irregular wear of the ring did not occur.

We have found after numerous trials that our mode of employing the stripper and the packing conjointly will best accomplish the saving, and as the same springs support the stripper and the packing the end in view is secured in a simple, economical, and efficient manner, and not liable to be put out of order by the shocks to which it must be subjected in the moving of the cars.

Having described our improvement in box-

cases for railroad-car axles, what we claim as our invention, and desire to secure by Letters Patent, is—

The employment of the divided packing *aa'*, in combination with the springs *cc* and *dd*, constructed substantially in the manner and for the purposes set forth.

In testimony whereof we have hereunto

signed our names before two subscribing witnesses.

G. W. GEISENDORFF.
J. C. GEISENDORFF.

Witnesses:

ISAAC THALMAR,
JOHN W. TEAL.