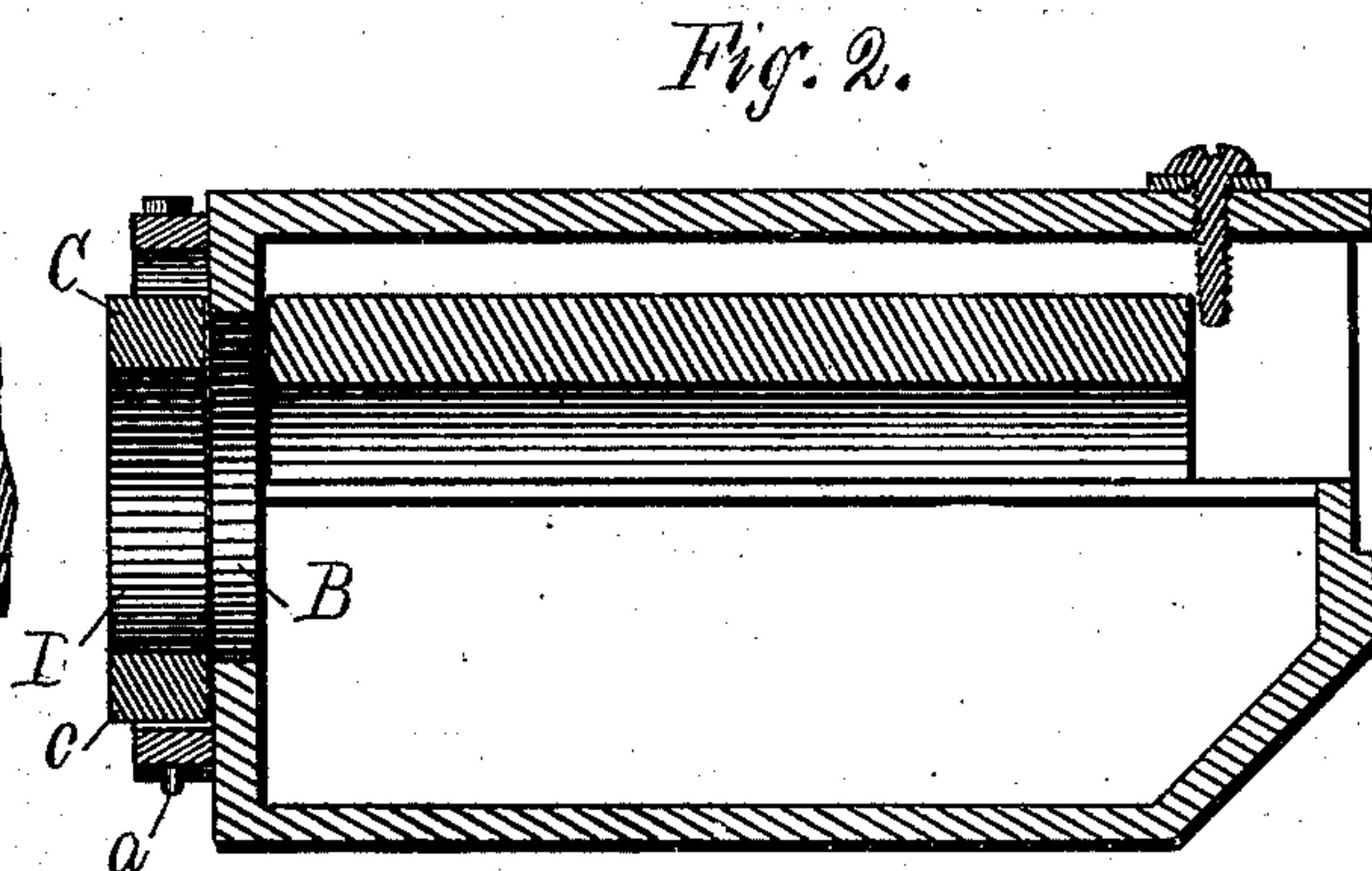
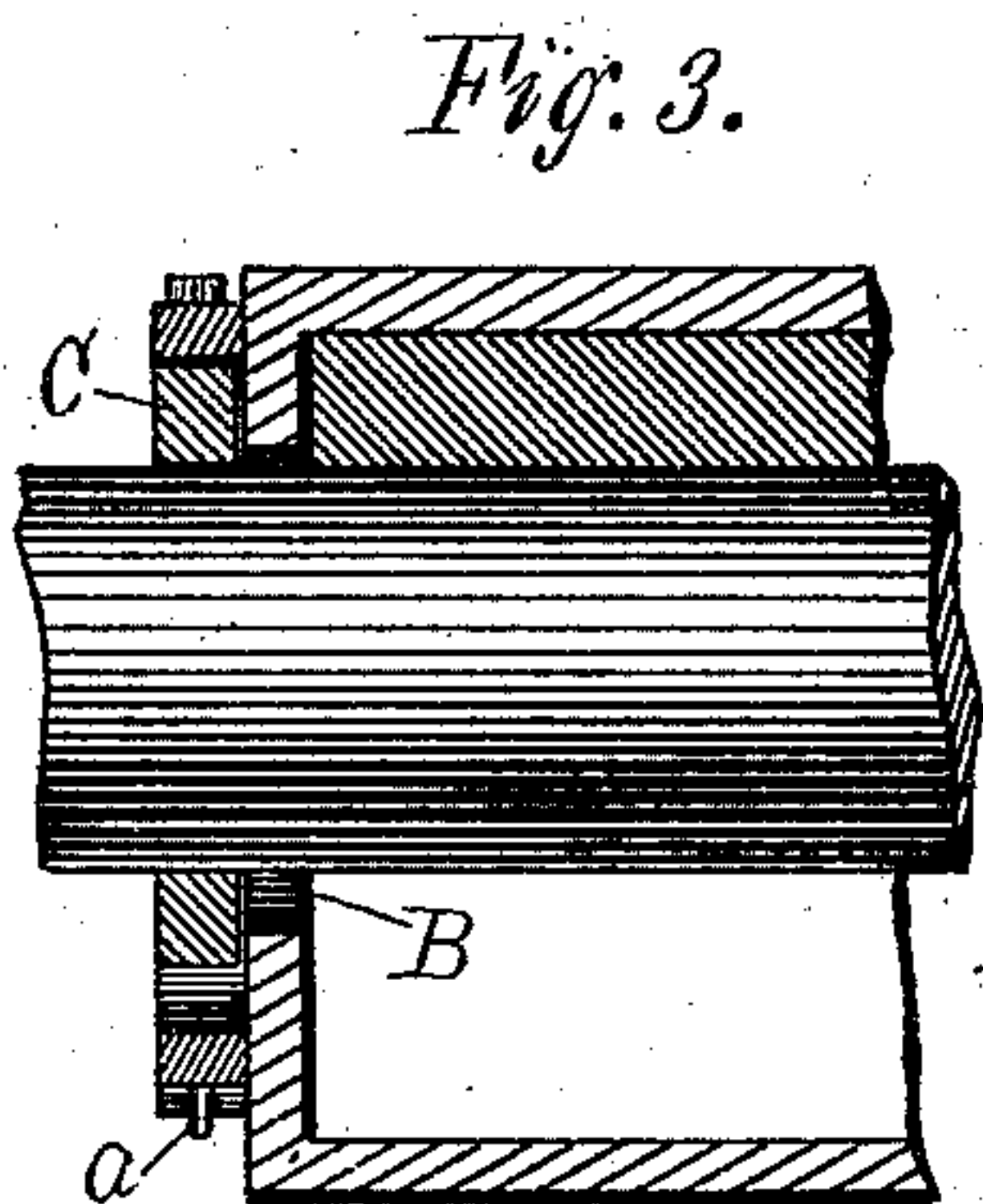
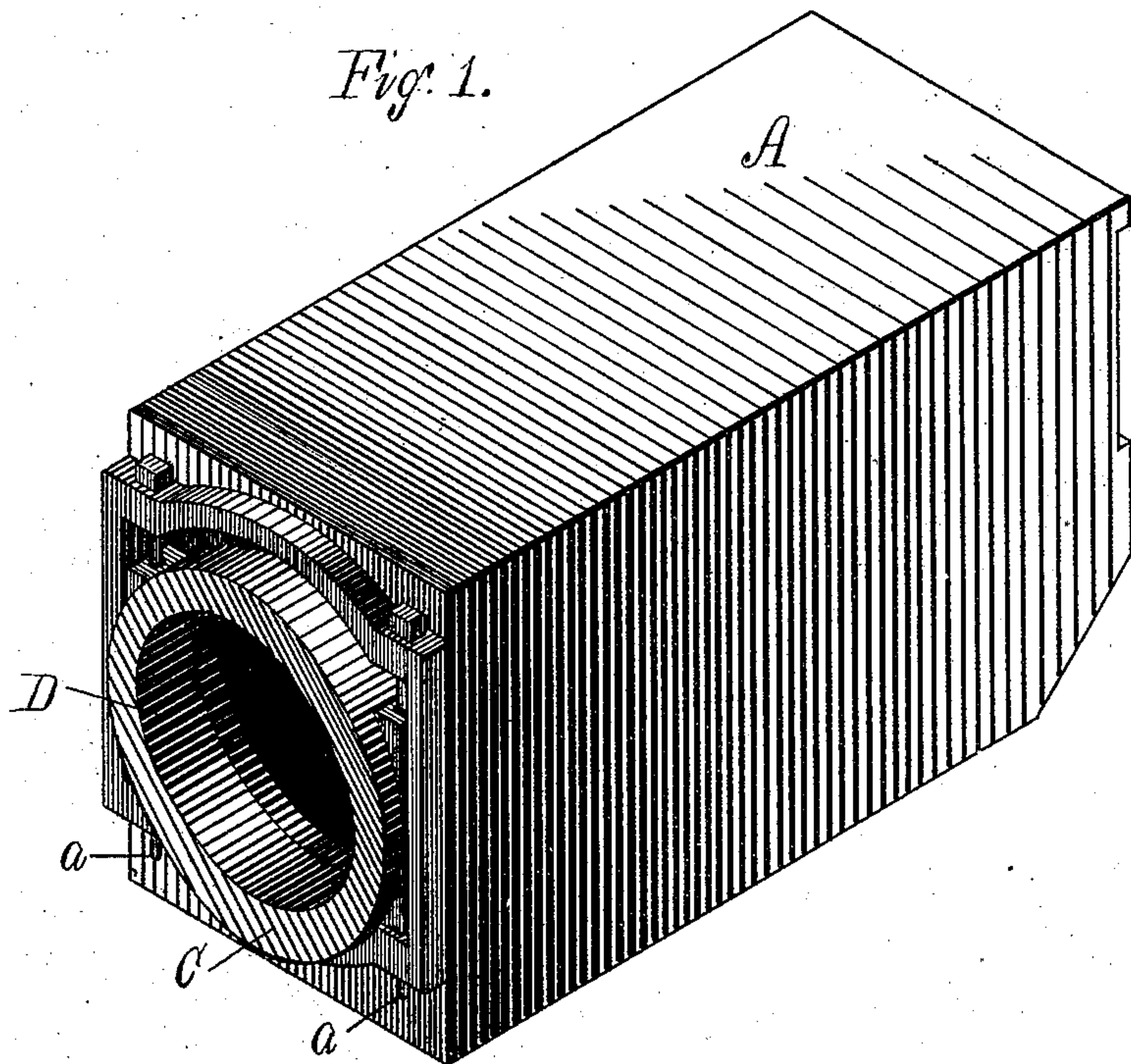


J. F. CROCKETT & C. BARRETT.
Car-Axle Box.

No. 224,997.

Patented Mar. 2, 1880.



Witnesses.
Wm. T. Andrews
F. H. Williams

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John F. Crockett
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UNITED STATES PATENT OFFICE.

JOHN F. CROCKETT, OF LACONIA, NEW HAMPSHIRE, AND CHARLES
BARRETT, OF SOMERVILLE, MASSACHUSETTS.

CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 224,997, dated March 2, 1880.

Application filed December 13, 1879.

To all whom it may concern:

Be it known that we, JOHN F. CROCKETT, of Laconia, in the county of Belknap and State of New Hampshire, and CHARLES BARRETT, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Railway-Car-Axle Boxes, of which the following is a specification.

The purpose of this invention is to provide a simple and efficient dust-guard for the axle-boxes of railway-cars; and it consists in a vertically-sliding open plate or annulus disposed upon the inner face of the axle-box and between it and the wheel-hub, and about the elliptical opening of such box which receives the axle-journal, the said plate or annulus being held closely up to the box by and sliding upon vertical guides, and being of sufficient area to cover at all times the discrepancy between the longest diameter of the elliptical opening and the circumference of the axle-journal, in order that passage of dust thereat shall be effectually excluded.

The drawings accompanying this specification represent, in Figure 1, an isometric elevation, and in Figs. 2 and 3 sections of a box containing our improvements.

In these drawings, A represents the case or housing of the axle-box of a railway-car, the same being constructed practically in the ordinary manner, and its inner elliptical opening, which receives the axle-journal and permits the necessary up and down movements of the box upon such journal, being shown at B.

In carrying out our invention we provide a flat plate, C, which may be square or polygonal, with a central hole, D, to inclose the axle-journal, or a flat ring, as shown in Fig. 1 of the drawings; and we place this flat ring against the inner side or face of the housing A and surrounding the opening B, said ring being of sufficient area to overlap at all times the space between the said opening and the axle-journal, in order to provide a tight joint which shall effectually prevent access of dust to the interior of the box or housing through such elliptical opening.

The ring-plate or dust-guard C may be composed of steel or other hard or soft metal, or such other material as practice shall determine

best for the purpose; and in order that it may maintain its close relation to the box, and yet be capable of sliding vertically to and fro of the same to adapt itself to variable slip movements between the box and axle-journal, we mount it upon vertical slides or rods *a a*, secured to the housing upon opposite sides of the opening B.

In lieu of the guides *a a*, the plate or ring C may be secured to the housing by a dovetail or shelf groove, or in any other suitable manner, so long as the connection insures a dust-tight joint between the ring and housing.

When adapted to ordinary axle-boxes the inner face of the dust-guard C will be flush, or practically so, with that of the housing A; but we propose adapting the dust-guard to a peculiar construction of box and journal invented by one of us—viz., Charles Barrett—and for which he has made application for Letters Patent, and in which an axle-journal of uniform diameter is employed, (in lieu of one having a peripheral groove, as now practiced,) and in connection with such plain journal a loose collar encircling the same and disposed between the axle-box or housing and the wheel-hub, to receive the wear which would otherwise devolve upon the box or housing.

In adapting our dust-guard to this construction of box and journal we lengthen the ring into an integral collar, *c*, as shown in Figs. 1 and 2 of the drawings, and so that the collar shall meet the hub of the wheel and practically perform the functions of the loose collar shown in the Barrett application before named.

The dust-guard, as above explained, while insuring a tight joint between the journal and exterior of the box, enables the box to be readily raised to permit removal of the wedge and journal-bearing, and is a simple, strong, and durable device.

By connecting the dust-guard to the journal-box in a suitable manner the said guard cannot become lost or mislaid when the box is removed from the journal.

We claim and desire to secure by Letters Patent of the United States the following:

1. In combination with a car-axle box having a fixed frame on its rear end, a cylindrical dust-excluding collar, formed in one piece and

extending beyond the rear of said frame, so as to receive the thrust of the wheel-hub, substantially as set forth.

2. In combination with a car-axle box having a frame on its rear end and rods *a*, which pass through said frame, a cylindrical dust-excluding collar provided with lugs through which said fastening-rods pass, said collar being formed in one piece and extending beyond

the rear of said frame, so as to receive the thrust of the wheel-hub, substantially as set forth.

JOHN F. CROCKETT.
CHARLES BARRETT.

Witnesses:

WM. T. ANDREWS,
F. H. WILLIAMS.