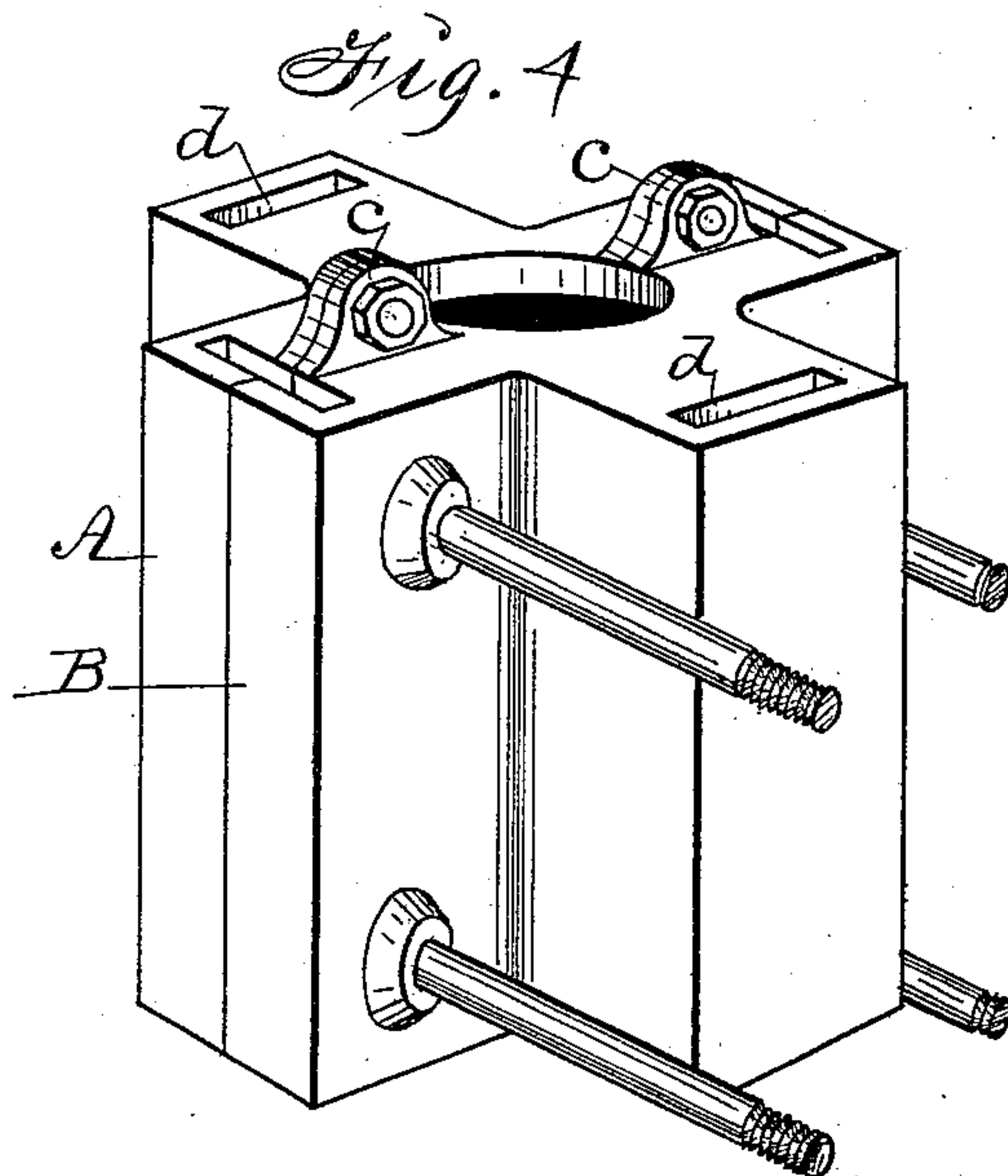
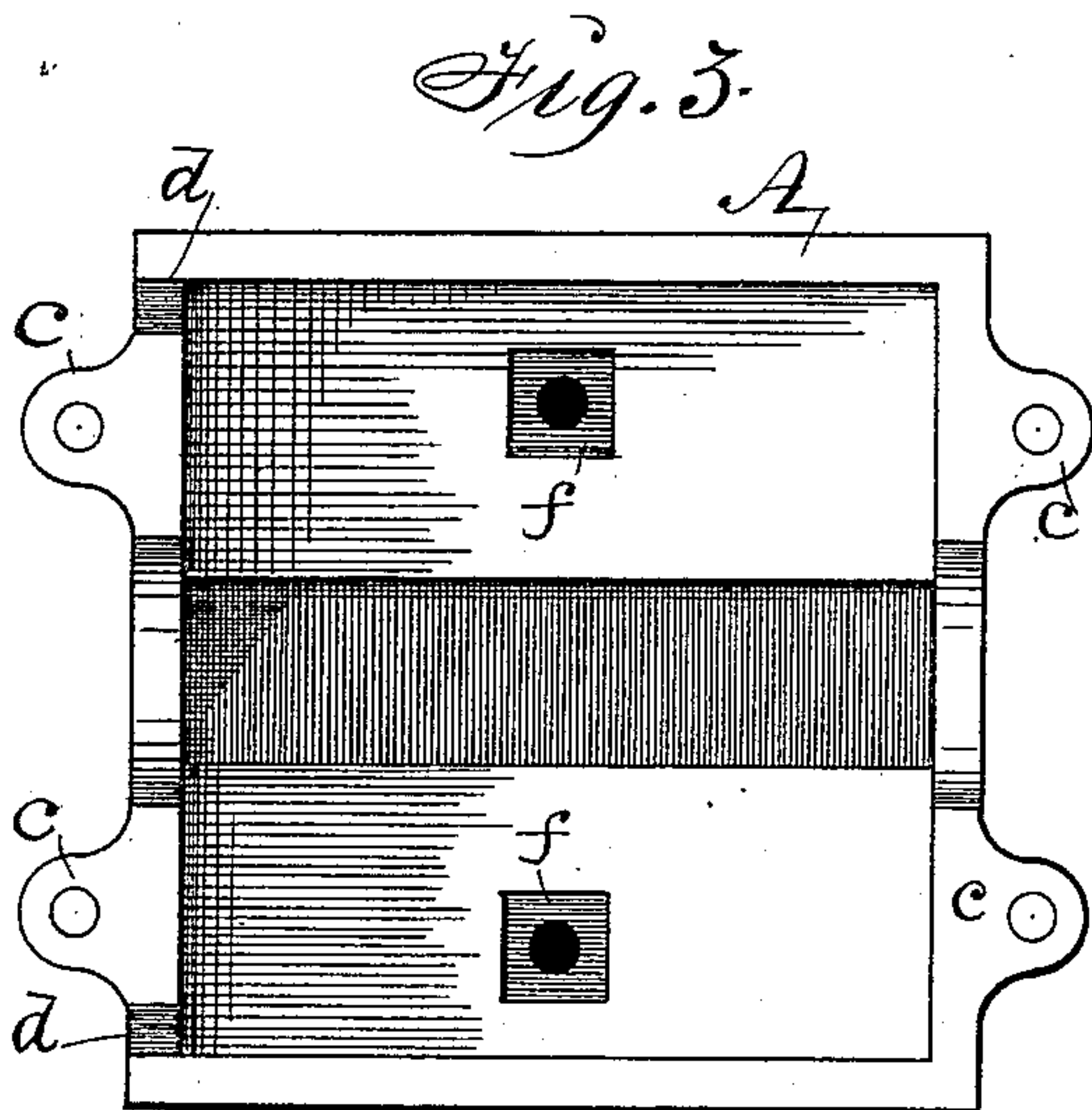
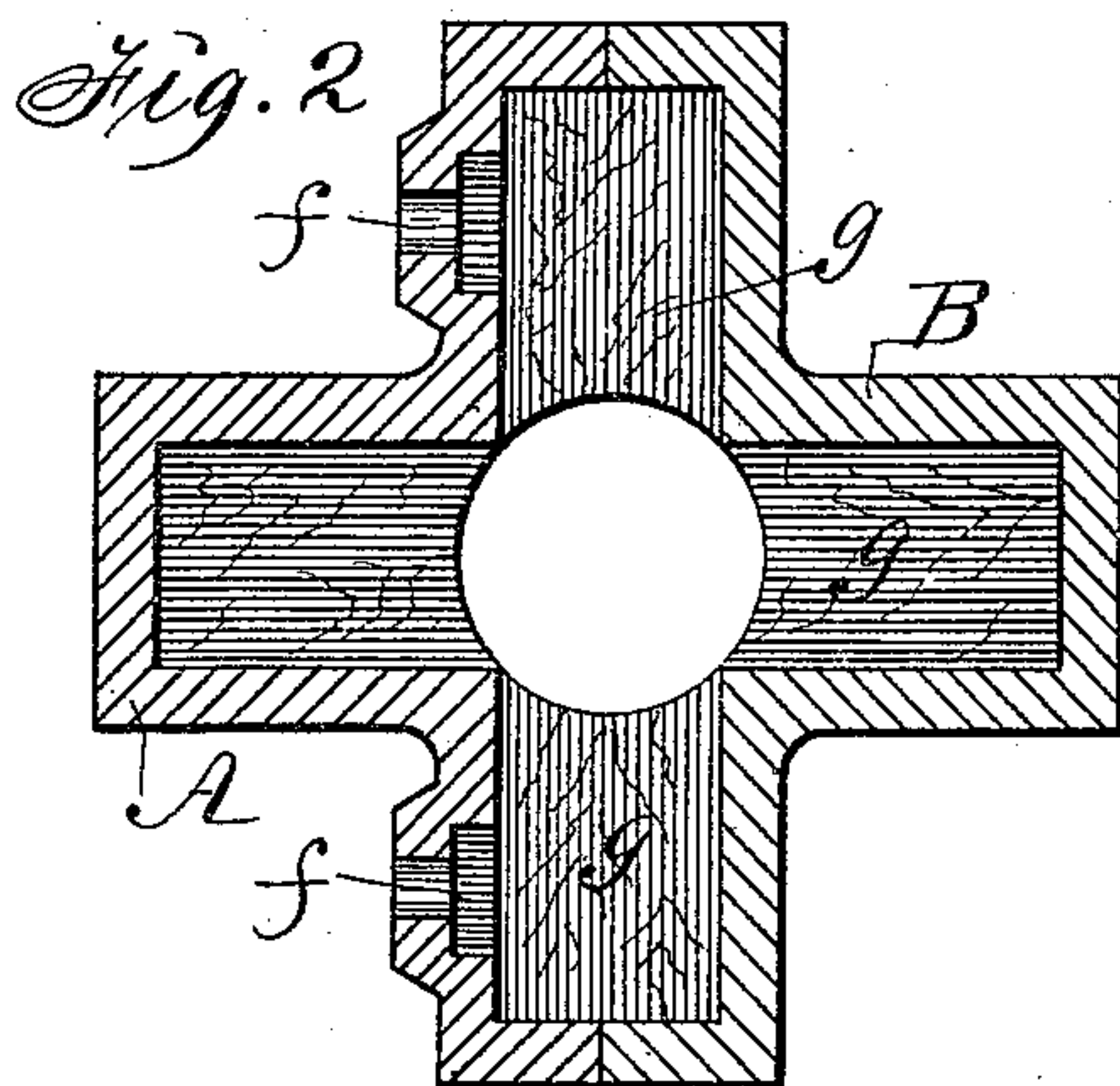
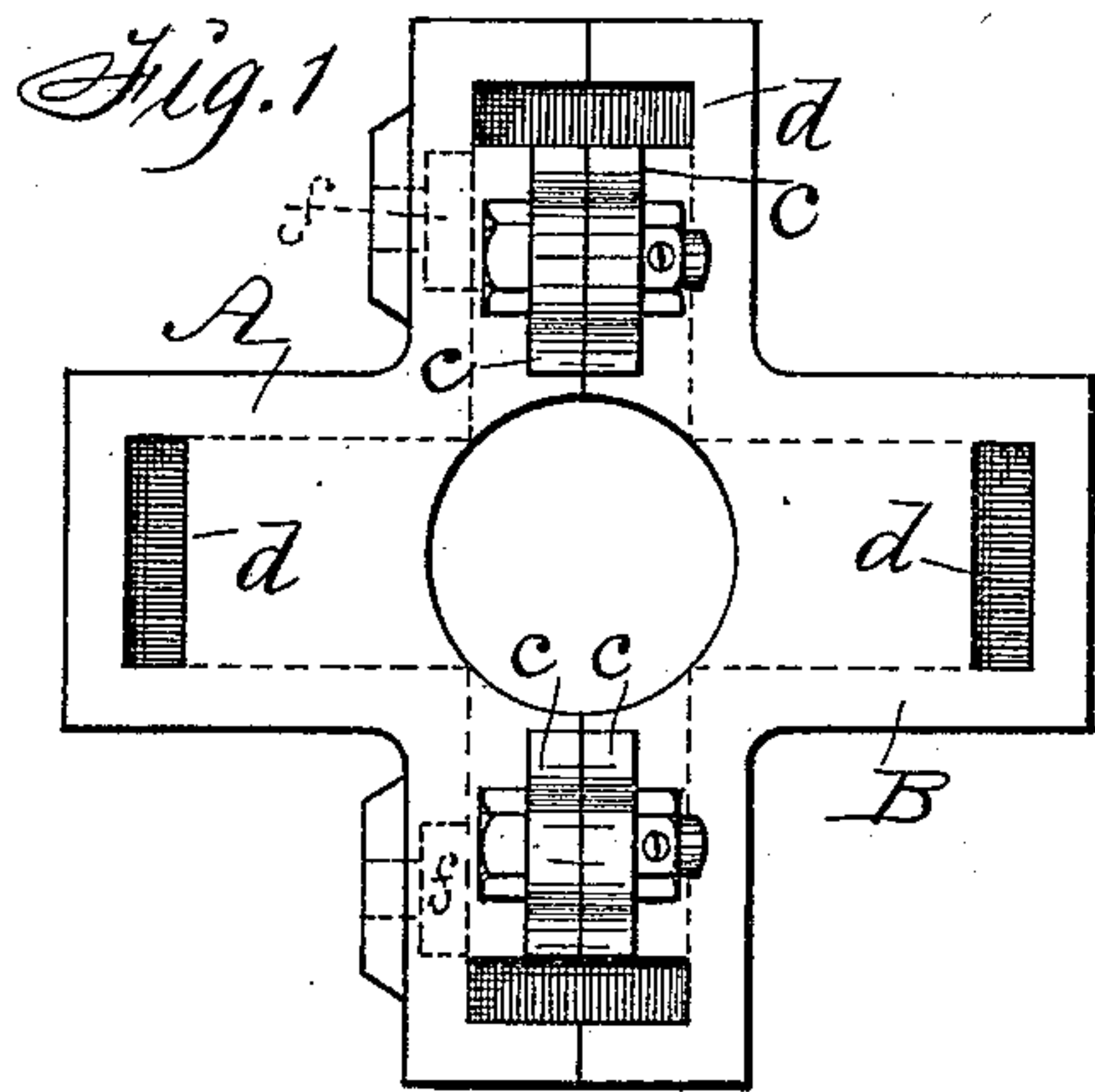


(No Model.)

O. S. LEE & W. VIGGERS.  
STAMP MILL GUIDE.

No. 420,946.

Patented Feb. 11, 1890.



Witnesses:  
M. P. Smith.  
R. H. Orwig.

Inventors: William Viggers,  
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By Thomas G. Orwig, Attorney.



# UNITED STATES PATENT OFFICE.

OBADIAH SMITH LEE AND WILLIAM VIGGERS, OF DURANGO, MEXICO.

## STAMP-MILL GUIDE.

SPECIFICATION forming part of Letters Patent No. 420,946, dated February 11, 1890.

Application filed November 9, 1889. Serial No. 329,812. (No model.)

*To all whom it may concern:*

Be it known that we, OBADIAH SMITH LEE, a citizen of the United States of America, and WILLIAM VIGGERS, a citizen of Great Britain, both residing at Durango, in the Republic of Mexico, have invented new and useful Stamp-Mill Guides, of which the following is a specification.

Heretofore pieces of wood have been adj-  
10 justably connected with the battery-post of a stamp-mill by means of gibs, wedges, and metal straps, in such a manner that they would serve as guides to the vertically-reciprocating stems of stamp-mills.

15 Our object is to avoid the difficulties incident to the application of wooden bearings, to facilitate their adjustment, to improve their efficiency, and to reduce the expense of time and labor required in the construction, application, adjustment, and use of wooden bear-  
20 ings.

Our invention consists in the construction and combination of metal boxes and wooden bushings, as hereinafter set forth, pointed out  
25 in our claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a top view of one of our complete guides, and Fig. 2 a transverse section. Fig. 3 is an inside view of one of the sections  
30 of the metal boxing adapted to retain wooden bushings. Fig. 4 is a perspective view of one of the complete guides ready to be applied to a battery frame or post, as required for practical use.

35 A and B are the mating sections of a cast-metal box. They have coinciding perforated ears *c* projecting outward from the planes of their inner and overlapping faces, through which screw-bolts are passed to rigidly connect them. When united, they produce in  
40 cross-section the form of a cross and four distinct chambers, that are in right-angled positions to each other, and circular openings in the top and bottom in a central position to the  
45 four chambers, and also angular openings or slots *d* at the outer ends of the chambers.

*f* are openings in the wall or back of the metal sections adapted to allow bolts to be  
50 passed through from the inside outward, so as to leave the heads countersunk in the inside face of the wall. The bolts thus con-

nected with the box are designed to be extended through a battery post or frame to fasten the box thereto.

*g* are pieces of wood corresponding in size 55 and shape with the four uniform chambers in the box. They are readily cut from a plank of proper thickness and made concave at one end, so that their four concave faces will jointly produce a complete circle and wooden  
60 bushing in the center of the box, through which the stem of a stamp can be passed and operated. The grain of the wood can run in any direction.

To adjust the bushing, as required, to com- 65 pensate for wear upon their concave faces, or for lining up the bushing, wedges are driven against the rear or outer ends of the wooden blocks, through the slots *d* in the metal box, and the removal and planing of the faces of  
70 the blocks are avoided; and such adjustment and refitting of the wood to the stem can be made while the stamping-mill is in operation; and when the wooden pieces become too short  
75 they can be readily removed and new ones inserted in their places.

We claim as our invention—

1. As an improved article of manufacture, a metal box for stamp-mill guides composed of two mating parts adapted to be detach- 80 ably connected with bolts to produce four angular chambers that extend at right angles to each other and radially from the center of the complete box, for the purposes stated.

2. The mating sections A and B, each hav- 85 ing perforated ears *c* and notches to produce openings *d*, and wooden blocks *g*, having concave faces in their inner ends, constructed and combined substantially as shown and described, for the purposes stated. 90

3. The metal-box section A, having perforated ears *c* and openings *f*, and the mating section B, adapted to be rigidly connected to produce four distinct chambers and to be jointly fastened to a post or frame to support wooden  
95 pieces *g*, in the manner and for the purposes shown and described.

OBADIAH SMITH LEE.  
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Witnesses:

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