

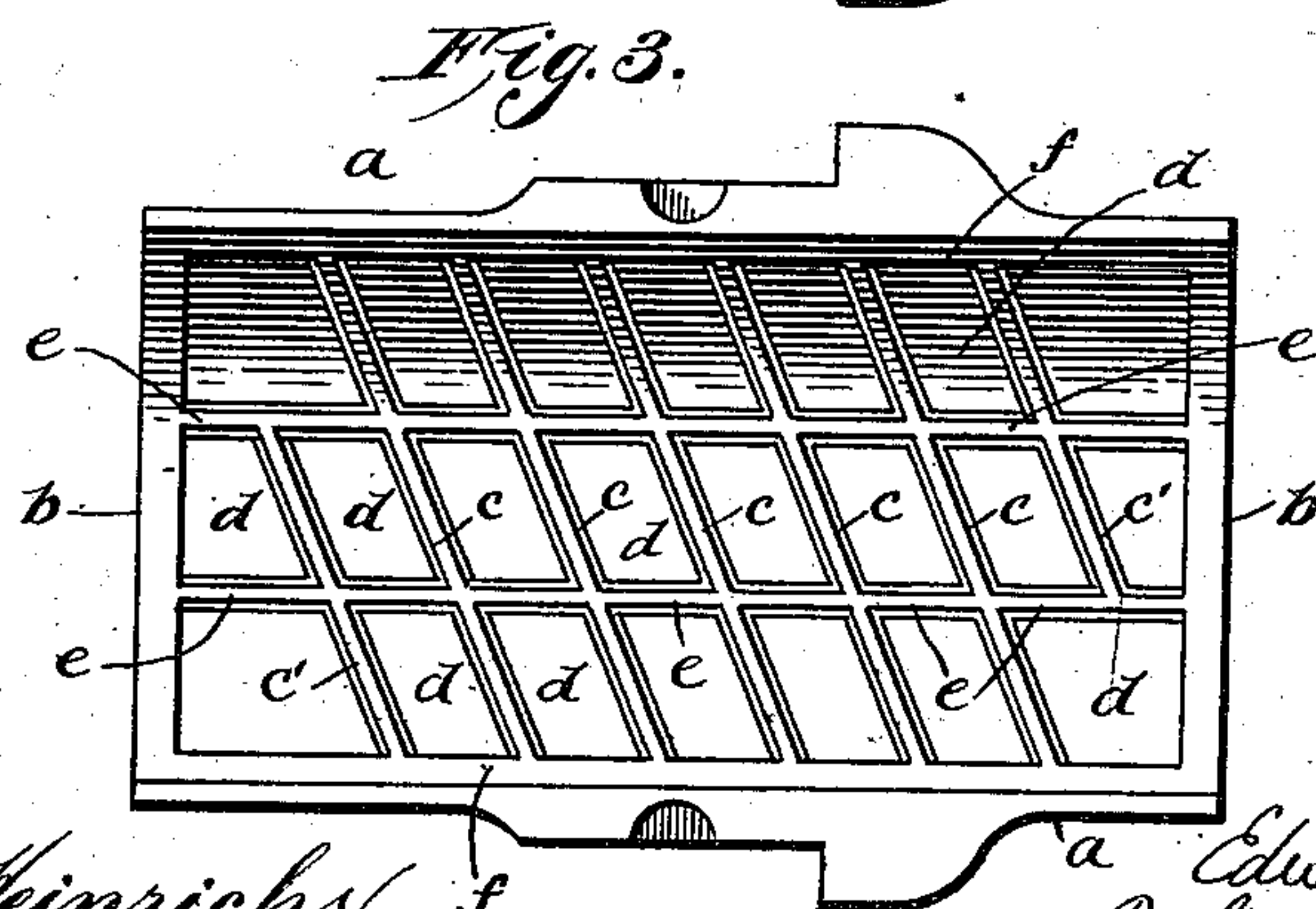
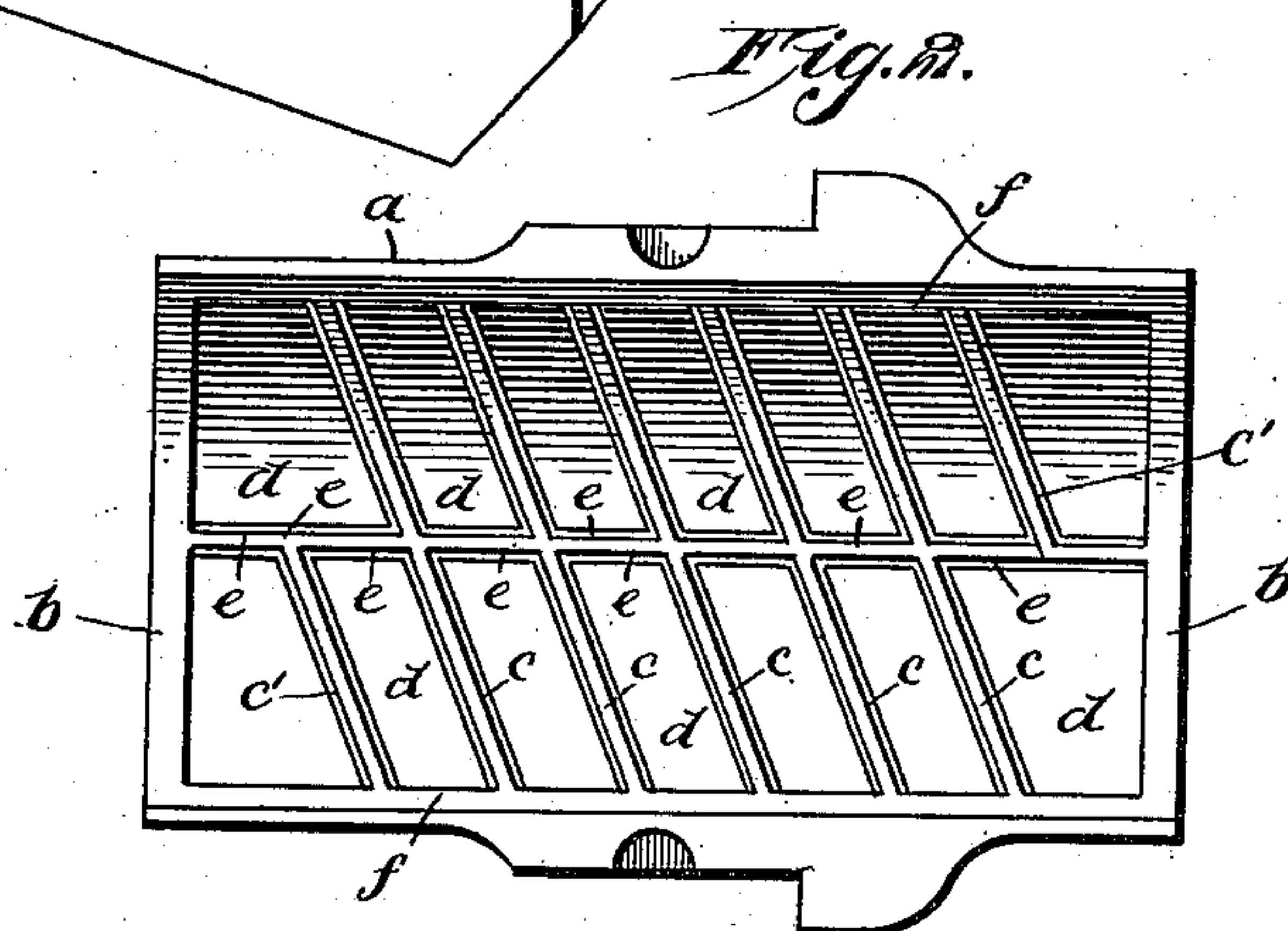
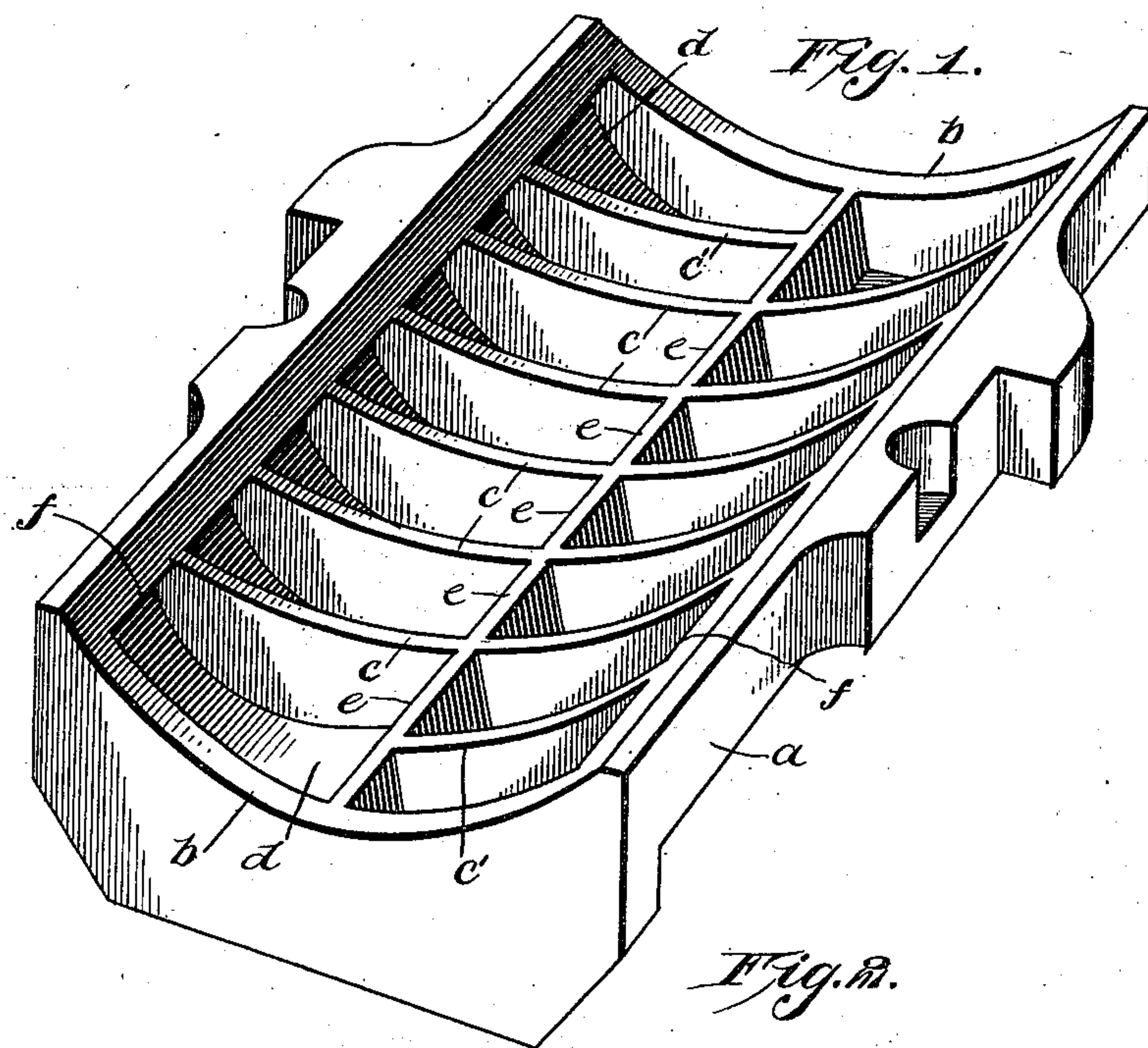
No. 723,839.

PATENTED MAR. 31, 1903.

E. J. DECKER.
JOURNAL BEARING.

APPLICATION FILED FEB. 3, 1903.

NO MODEL.



Witnesses:

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UNITED STATES PATENT OFFICE.

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JOURNAL-BEARING.

SPECIFICATION forming part of Letters Patent No. 723,839, dated March 31, 1903.

Application filed February 3, 1903. Serial No. 141,684. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. DECKER, of the city and county of Philadelphia, State of Pennsylvania, have invented an Improvement in Journal-Bearings, of which the following is a specification.

More particularly my invention relates to that class of journal-bearings known as "filled" bearings, in which the bearing-face is provided with a series of grooves or pockets containing graphite or other comminuted antifrictional material. In such bearings the strength of the casting is more or less weakened by the pockets or grooves, especially where they are made large enough to contain a material quantity of graphite, and they are consequently liable to crack when subjected to heavy pressure or blows.

It is one of the objects of my invention to brace or strengthen the casting to resist this tendency to crack, while permitting large pockets to be employed and enabling the pocket-walls to be made less heavy, if desired.

It is also an object of my invention to enable the filling material to be held more firmly in the pockets, and, further, to avoid the formation of sharp angles or corners in the pockets.

In carrying out my invention I form the inner curved or bearing face of the casting of a series of transverse ribs, forming between one another and between the outer ribs and the end walls a series of pockets for the filling material, and I connect some or all of these transverse ribs by longitudinal brace-ribs, which serve the dual function of strengthening the casting and of dividing the pockets into smaller sections for the filling material.

In the drawings, Figure 1 is a perspective view of the casting or shell of a journal-bearing embodying my invention. Fig. 2 is a plan view of the same on a reduced scale; and Fig. 3 is plan view similar to Fig. 2, illustrating a different form.

The shell *a* is a single casting, usually of brass or bronze, having the customary external form and the inner curved bearing-face, which fits the journal. The inside of the casting between the curved end walls *b b* is hollow and is formed with a series of inte-

gral curved ribs *c c'*, which form a series of pockets *d*, adapted to be filled with graphite or any other antifriction-filling, such as is used in filled bearings. Similar pockets are formed between the outer ribs *c' c'* of the series and the end walls *b b*. As shown, these outer transverse ribs *c' c'* do not extend entirely across the face of the casting, but terminate at or near the median line. This is not, however, essential to my invention, and the ribs *c' c'* may, if desired, be extended entirely across the casting from one side to the other.

e represents longitudinal brace-ribs connecting adjacent transverse ribs and dividing the pockets into smaller sections.

In the construction shown in Figs. 1 and 2 the end ribs *c' c'* terminate on the median line of the casting, and the ribs *e* are formed in a continuous rib extending on the median line from end wall to end wall and uniting not only the adjacent ribs *c c* and *c c'*, but also the outer ribs *c'* and the end walls *b*.

In the construction shown in Fig. 3 the outer transverse ribs *c' c'* extend from opposite side walls of the casting to a distance beyond the median line, and two sets of longitudinal ribs *e* are employed, one extending from end wall to end wall through the end of one rib *c'* on one side of the median line and the other extending from end wall to end wall through the end of the other outer rib *c'* on the other side of the median line. This affords a particularly strong box, as the two continuous ribs *e e* on opposite sides of the median line brace the casting at the points where cracking is most liable to occur. They also divide the bearing-surface into a number of small pockets.

It is not necessary to my invention, however, that the ribs *e*, whether one or more be used, shall extend from end wall to end wall or shall unite all of the adjacent ribs *c e* and *c c'*, as the extent, number, and location of these connecting longitudinal ribs *e* between the transverse ribs, as well as the number of transverse ribs, will depend upon the size and weight of the casting and the service to which it is to be put.

The ends of the pockets *d* adjacent to the side walls may be bridged by strips *f*, the

outer faces of which are curved to correspond with the curvature of the ribs *c c'* and end walls *b b*. These strips form ends for the pockets to retain the filling material in place.

5 The details of construction may be varied without departing from my invention.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. A journal-bearing having a curved inner
10 face adapted to fit the journal and formed of a series of transverse ribs forming pockets to retain the filling material and longitudinal connecting-ribs between adjacent transverse ribs uniting said ribs together and dividing
15 the pockets formed by them into sections.

2. A journal-bearing having a curved inner face adapted to fit the journal and formed of a series of transverse ribs forming pockets to retain the filling material, and a longitudinal
20 rib extending from end wall to end wall and uniting adjacent transverse ribs together and the outer transverse ribs to the end walls and dividing the pockets into sections.

3. A journal-bearing having a curved inner
25 face adapted to fit the journal and formed of a series of transverse ribs forming pockets adapted to retain the filling material, the outer ribs of said series extending beyond the median line of the casting and a longitudinal
30 rib out of the median line of the casting extending from end wall to end wall and uniting adjacent transverse ribs together and the outer transverse ribs to the end walls.

4. A journal-bearing having a curved inner
35 surface adapted to fit the journal and formed of a series of transverse ribs forming pockets adapted to retain the filling material, the

outer ribs of said series extending from opposite side walls beyond the median line of the casting, and two longitudinal ribs ex- 40
tending each through the end of one of said outer transverse ribs and uniting adjacent transverse ribs and dividing the pockets formed by them into sections.

5. A journal-bearing having a curved inner 45
face adapted to fit the journal and formed of a series of transverse ribs forming pockets adapted to retain the filling material, the outer ribs of said series extending from opposite side walls beyond the median line of the 50
casting, and two longitudinal ribs extending each from end wall to end wall through the end of one of said outer transverse ribs and uniting adjacent transverse ribs and dividing the pockets formed by them into sections. 55

6. A journal-bearing having a curved inner face adapted to fit the journal and formed of a series of transverse ribs, the outer ribs of said series terminating part way across the face of the casting, and a longitudinal rib 60
uniting said transverse ribs and dividing the pockets formed by them into sections.

7. A journal-bearing having its bearing-
face formed of transverse ribs forming pock- 65
ets to retain the filling material with a longitudinal rib uniting adjacent transverse ribs and dividing the pocket formed thereby into sections.

In testimony of which invention I hereunto set my hand.

EDWARD J. DECKER.

Witnesses:

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R. M. KELLY.