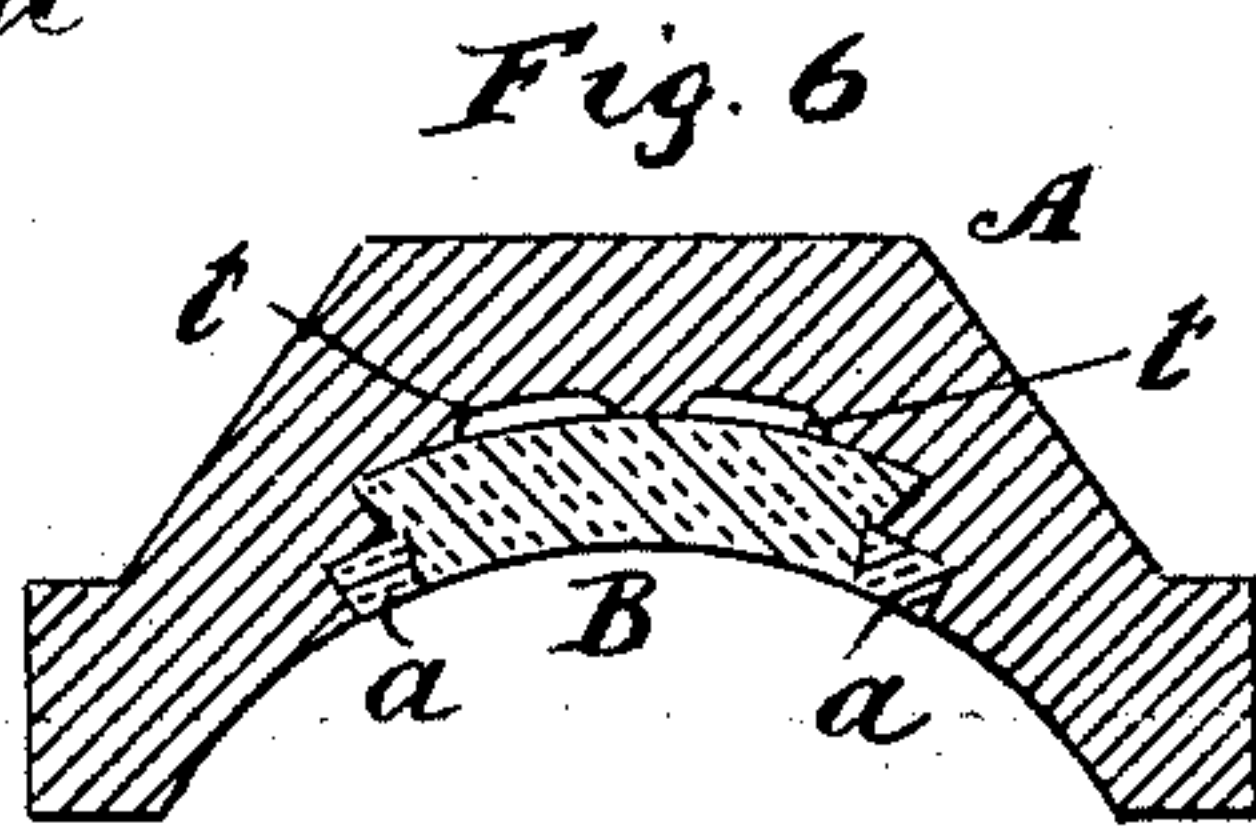
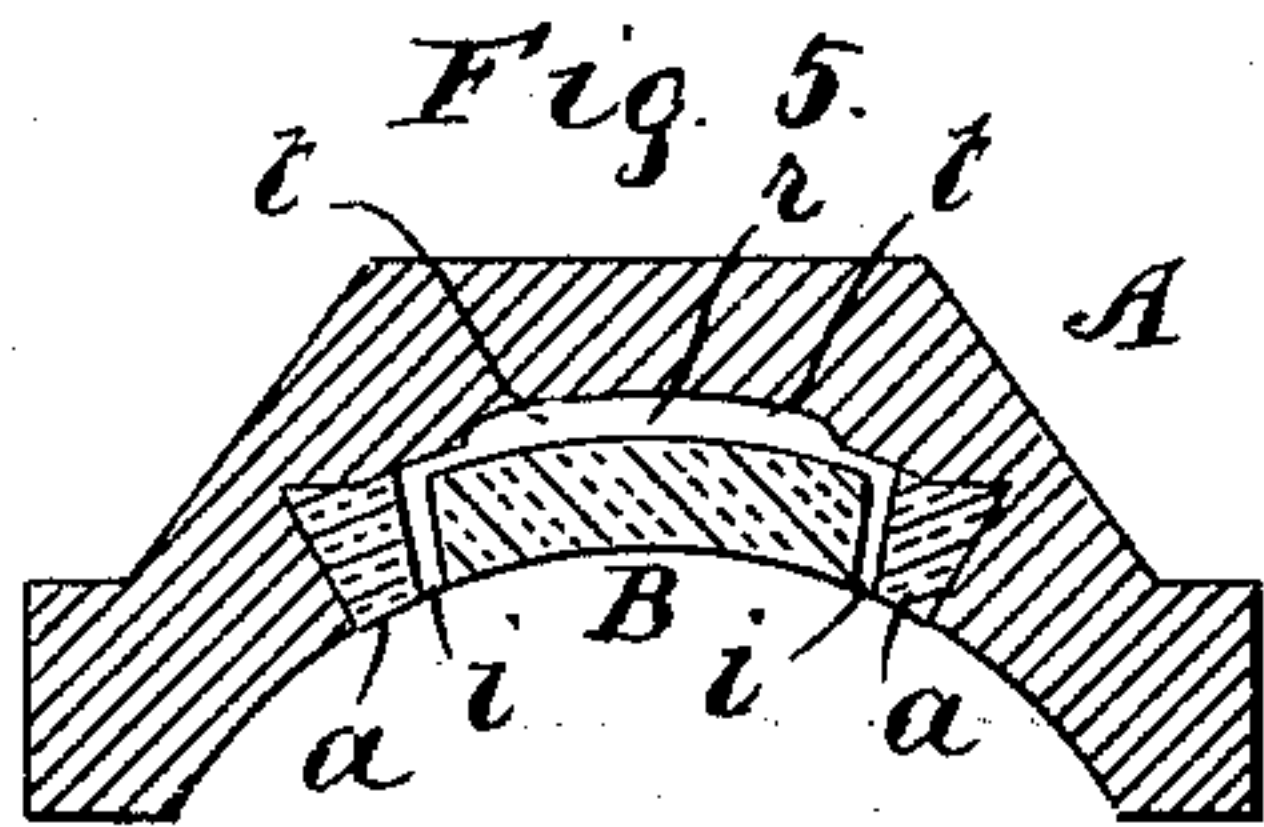
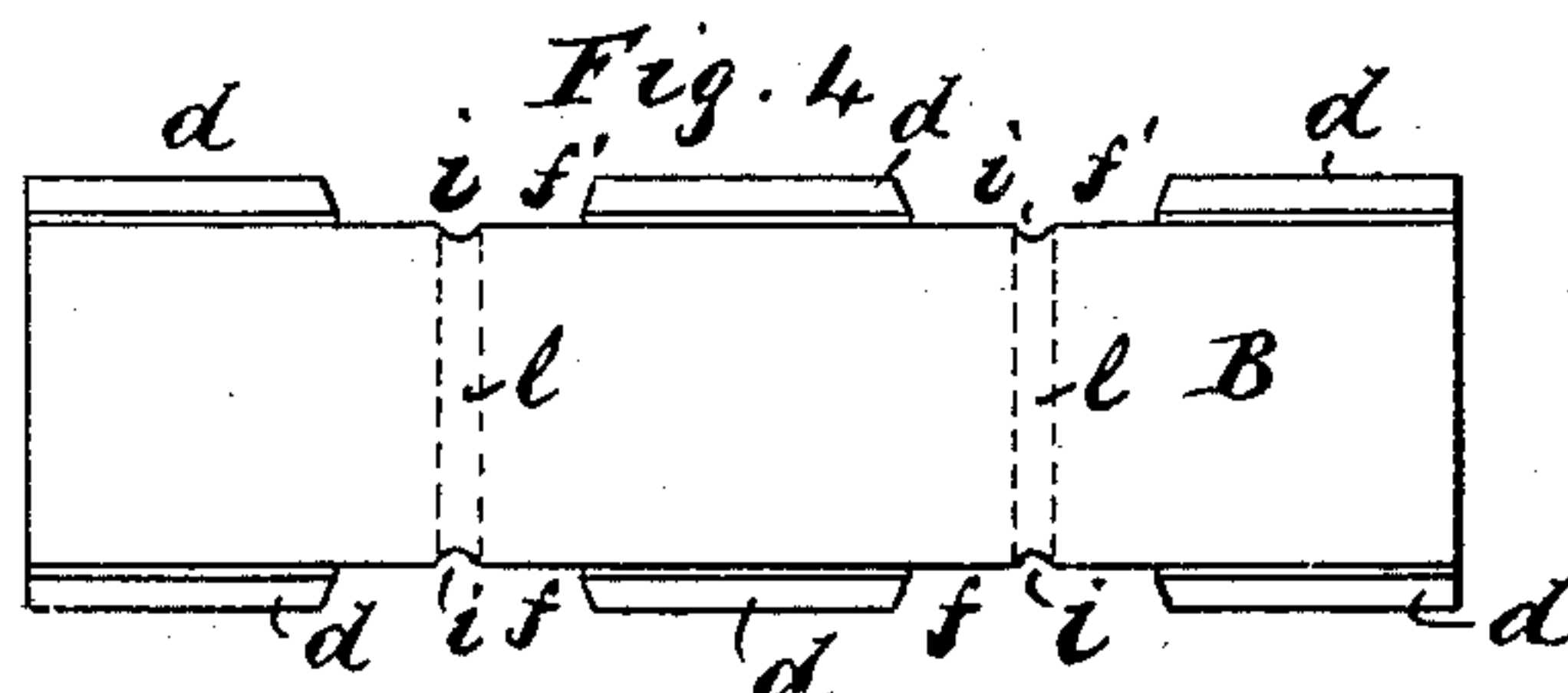
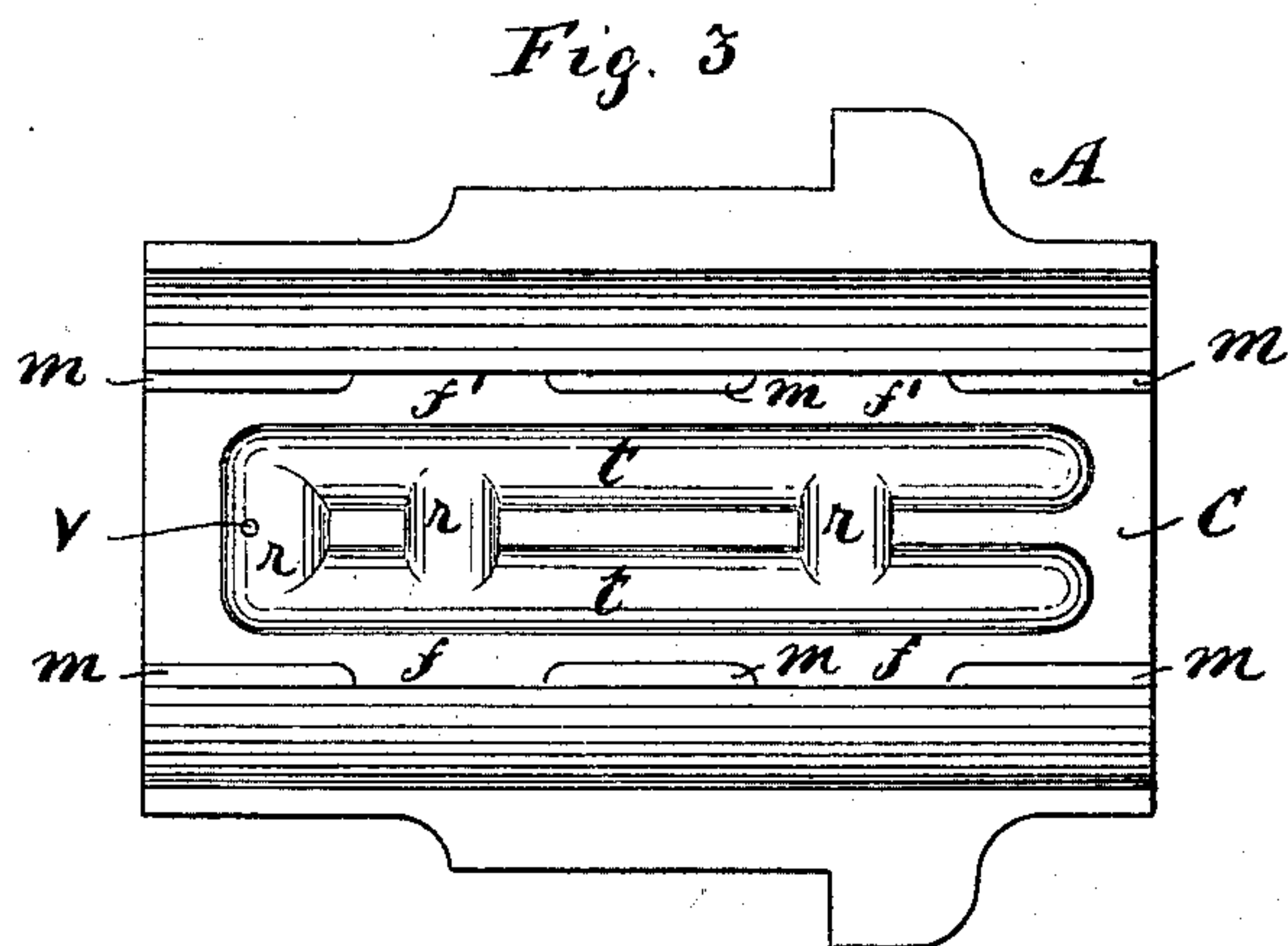
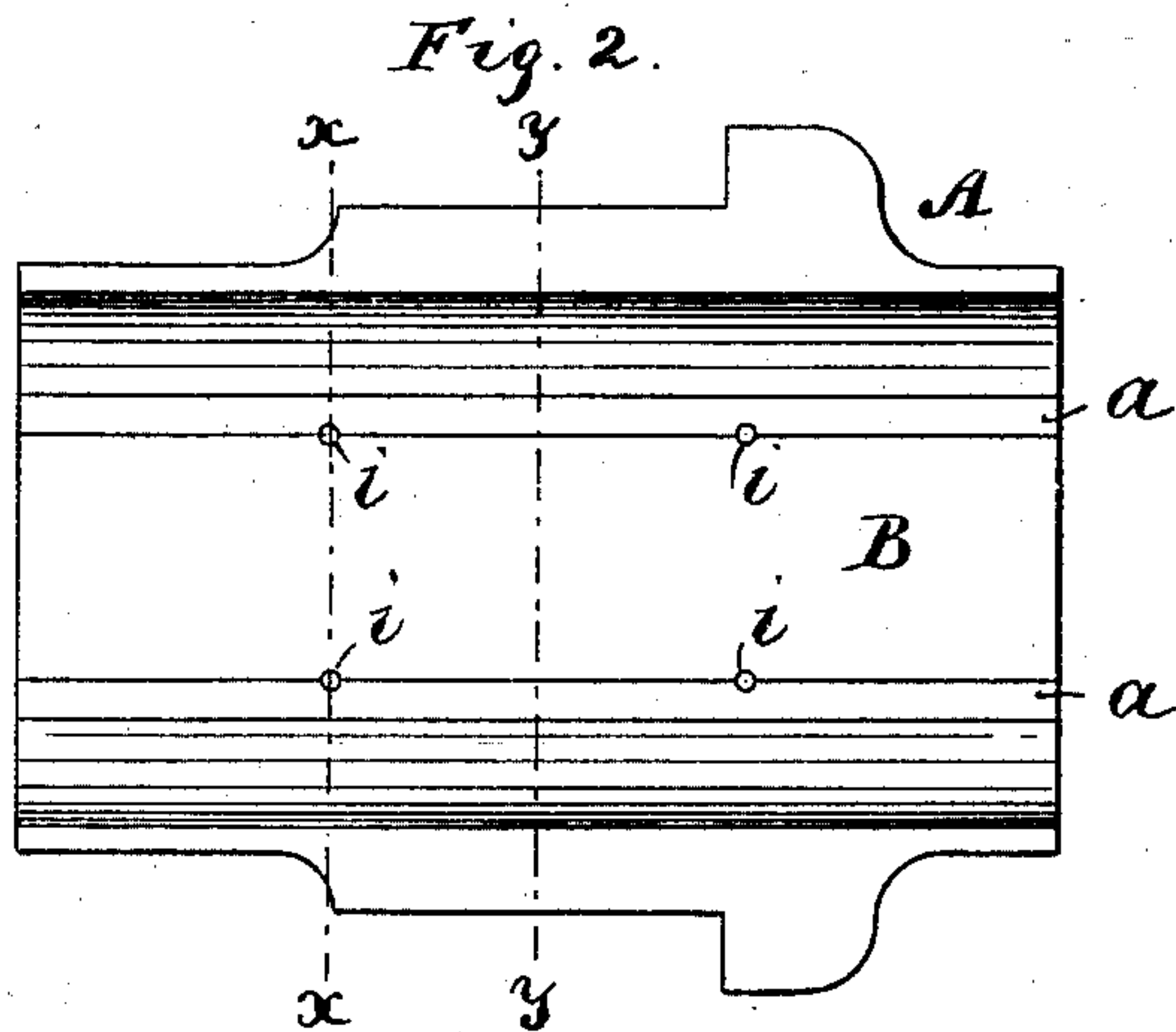
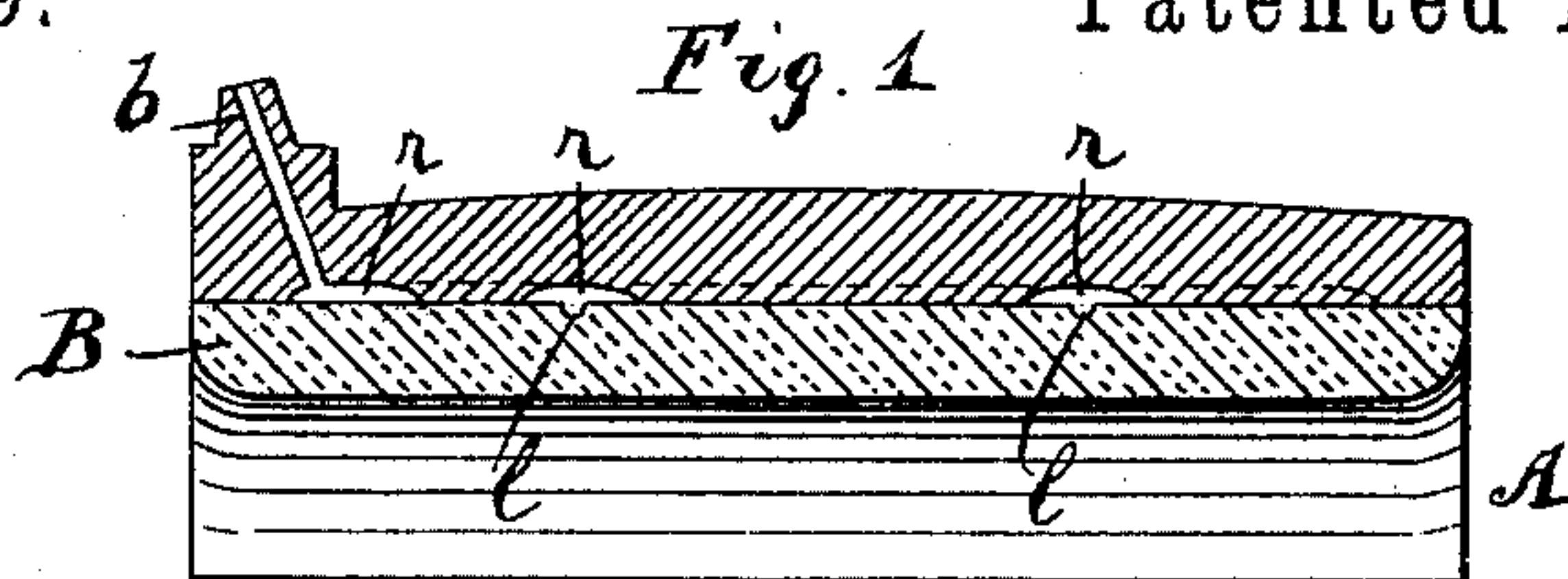


(No Model.)

R. BEDDALL.
JOURNAL BEARING.

No. 314,989.

Patented Apr. 7, 1885.



Witnesses.

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RICHARD BEDDALL, OF MALDEN, MASSACHUSETTS.

JOURNAL-BEARING.

SPECIFICATION forming part of Letters Patent No. 314,989, dated April 7, 1885.

Application filed January 26, 1885. (No model.)

To all whom it may concern:

Be it known that RICHARD BEDDALL, of Malden, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Journal-Bearings, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved journal-bearing; Fig. 2, a bottom or interior view of the same; Fig. 3, a like view with the auxiliary bearing removed; Fig. 4, a plan view of the auxiliary bearing detached; Fig. 5, a vertical transverse section taken on the dotted line *xx* in Fig. 2, and Fig. 6 a like view taken on the dotted line *yy* in Fig. 2.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates more especially to that class of journal-bearings which are designed for use with car-axes, locomotive-axes, &c., although well adapted for journals of nearly every description; and it consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more effective and otherwise desirable article of this character is produced than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the body of the bearing, or bearing-proper, and B the auxiliary bearing. The body of the bearing is composed of composition or other suitable metal, and is of the ordinary form and construction, except as hereinafter specified. The body is provided with a depression, C, extending its entire length to receive the auxiliary bearing or slide B. A series of flanges, *m*, project inwardly from either side of the depression C, and in the bottom of said depression there are two grooves, *t t*, arranged in parallelism and connected by the transverse grooves *r*. The auxiliary bearing or slide B is preferably com-

posed of metal, which is slightly softer than that of which the body A is composed, and is provided with a series of laterally-projecting flanges, *d*, and on its back or upper side with two transverse grooves, *l*. An oil duct or hole, *b*, leads from an oil-cup (not shown) through the body A, and opens at *v* in one of the transverse grooves *r*, as seen in Figs. 1 and 3.

In attaching the auxiliary bearing B to the body A, said bearing is slipped into the depression C, its flanges *d* passing under the flanges *m*. Babbitt or other suitable metal is then melted and poured into the spaces between the edges of the auxiliary bearing and the body, the melted metal *a* flowing into and filling the spaces *f* between the flanges *m d*, thereby securely locking the auxiliary bearing into the body in a manner which will be readily obvious without a more explicit description.

The metal or composition composing the body A is preferably slightly harder than the metal *a* and the metal *a* slightly harder than that of which the auxiliary bearing B is composed. The bearing B and metal *a* also project slightly beyond the bearing-surface of the body A, so that as the bearing is used the bearing-surfaces of the parts *a B* soon wear down to a plane with the bearing-surface of the body, and thereby fit or adjust themselves more perfectly to the journal than would otherwise be possible. Oil ducts or holes *i* lead from the bearing-surface or inner face of the bearing to the grooves *l*, and in lubricating the journal the oil passes through the hole *b* into the reservoir formed by the grooves *t r*, filling said reservoir, and from thence along the grooves *l* and through the ducts *i* to the journal.

It will be obvious that the flow of oil through the duct or hole *b* may be governed by any suitable appliances for that purpose; also, that a strainer may be used in connection with the oil-cup, to prevent dirt, gravel, &c., from being carried into the reservoir within the bearing.

The holes *i* are formed by cutting vertical grooves in the edges of the auxiliary bearing B at the ends of the grooves *l*, as seen in Fig. 4, and filling them with plumbago or some other suitable coring substance, the plumbago being removed after the metal fastenings *a* have been cast into the spaces *f*, as described.

The object in making the metal *a* slightly

harder than the bearing B is to enable it to hold the parts A B firmly in position, and also because of its narrow bearing-surface, which would render it liable to wear away more rapidly than the auxiliary bearing.

5 Having thus explained my invention, what I claim is—

The improved journal-bearing herein described, the same consisting of the body A, 10 provided with the depressions C, flanges *m*,

grooves *t r*, and oil-duct *b*, the auxiliary bearing B, provided with the flanges *d*, grooves *l*, and holes *i*, and the metallic fastenings *a a*, constructed, combined, and arranged to operate substantially as set forth.

RICHARD BEDDALL.

Witnesses:

C. A. SHAW,
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