

(No Model.)

2 Sheets—Sheet 1.

E. J. LE GAY.
MOLD FOR FORMING BOOT OR SHOE HEELS.

No. 322,301.

Patented July 14, 1885.

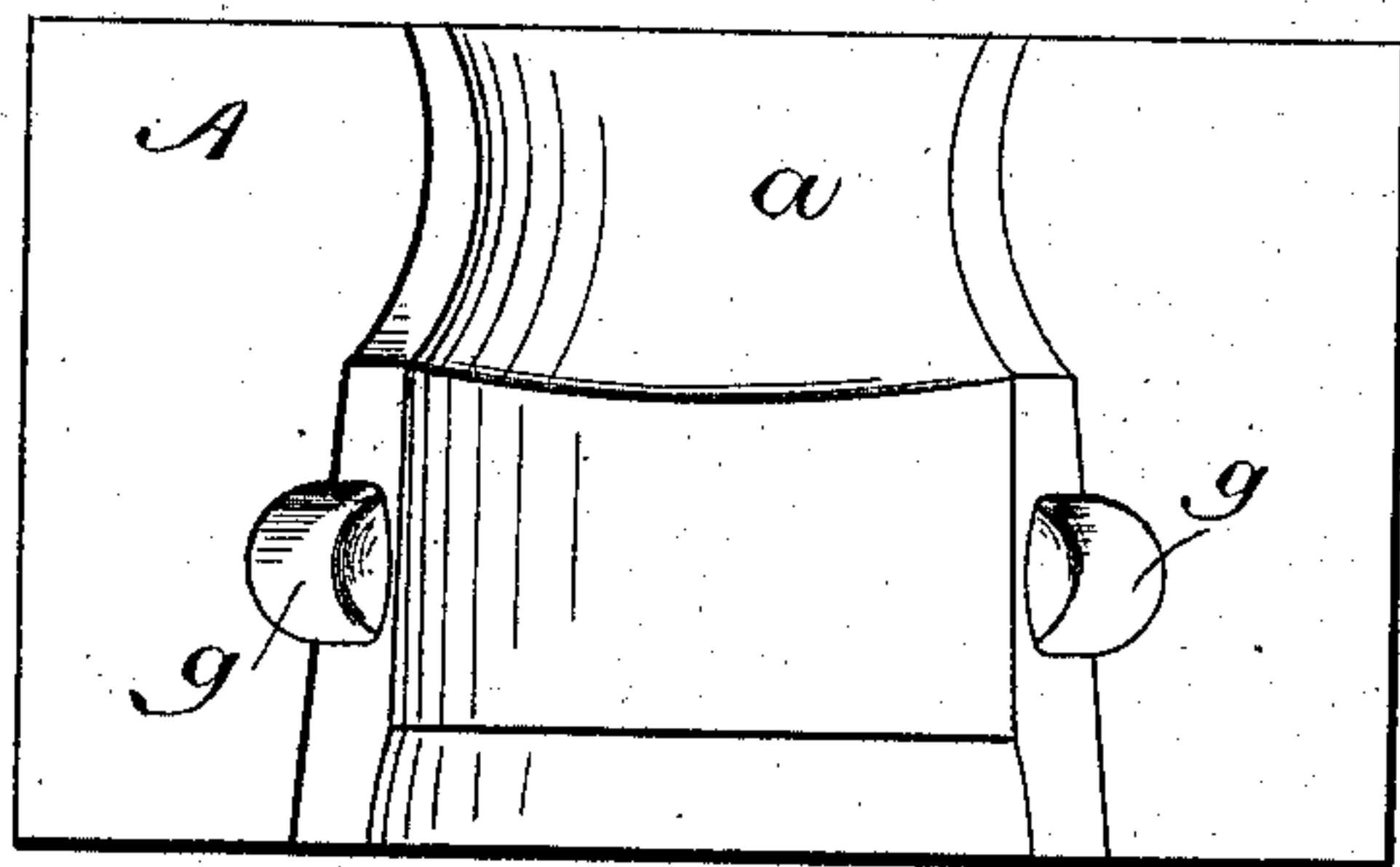
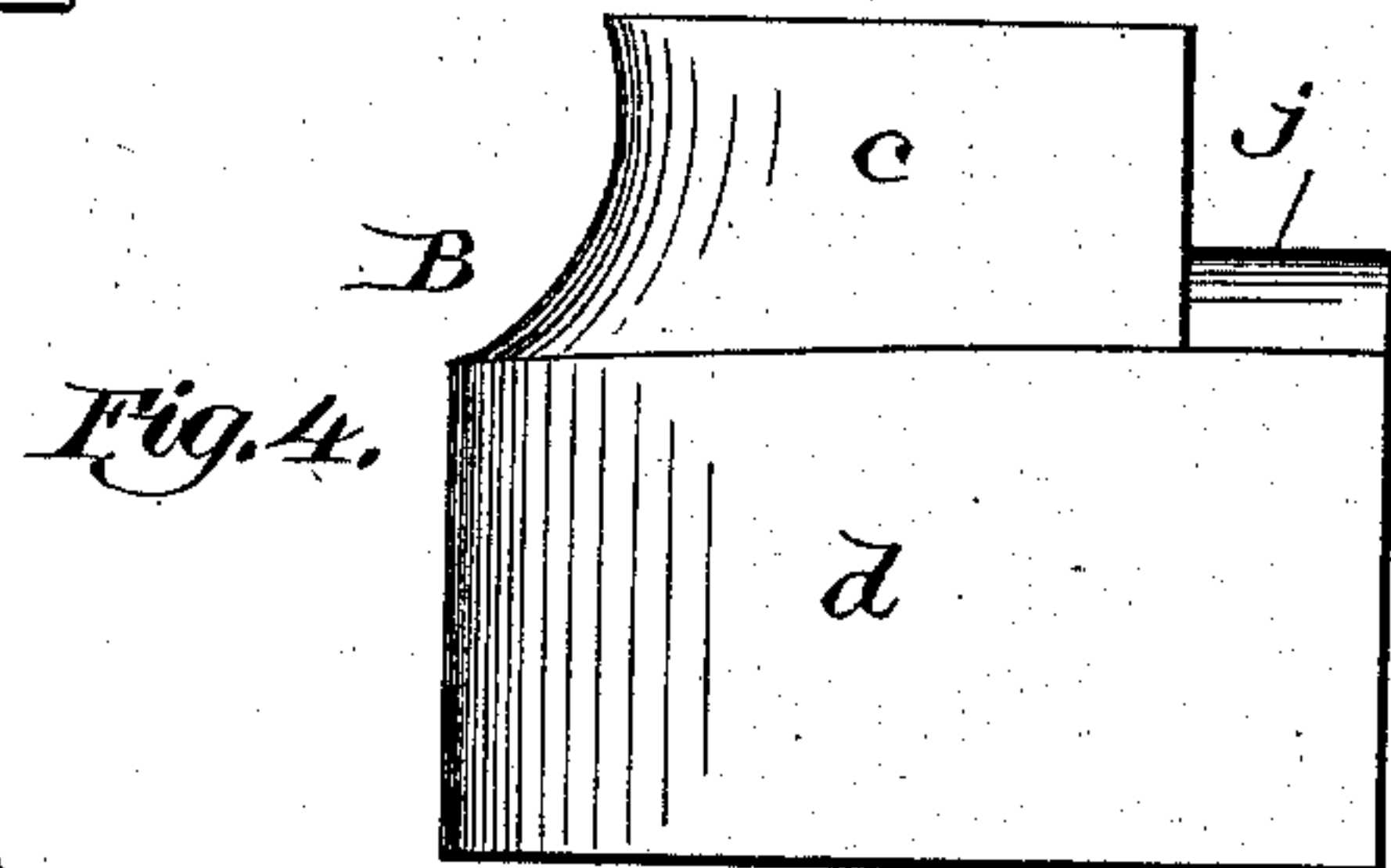
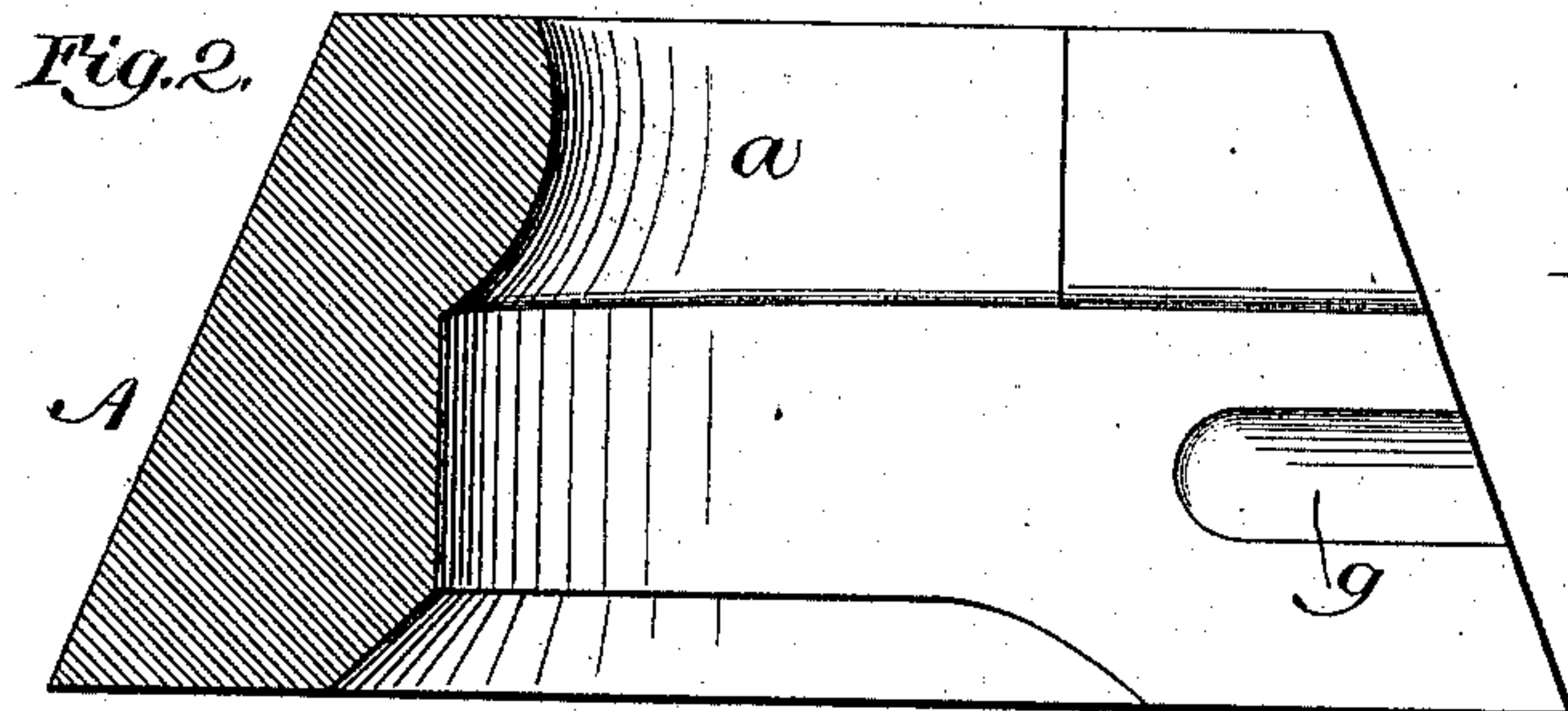
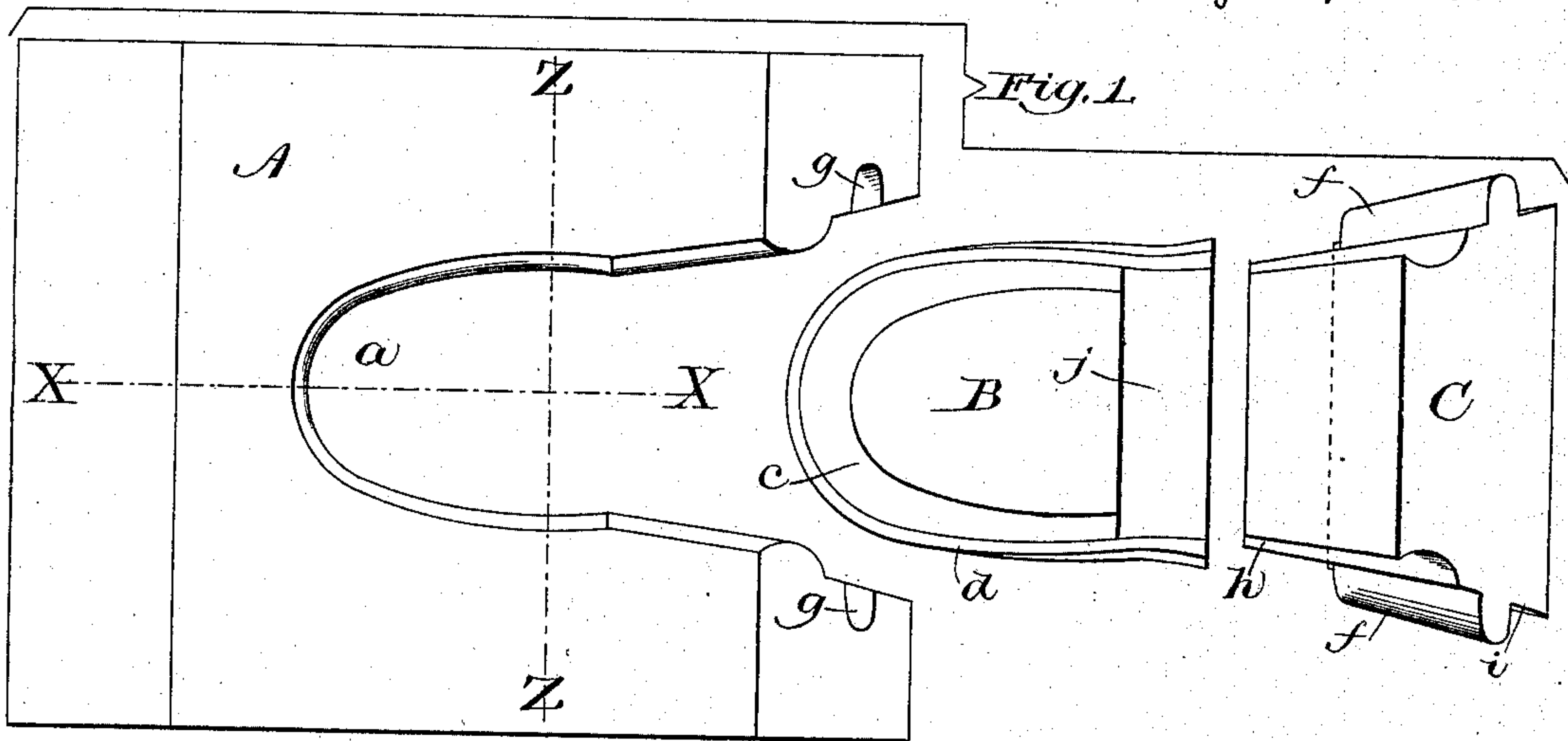


Fig. 3.

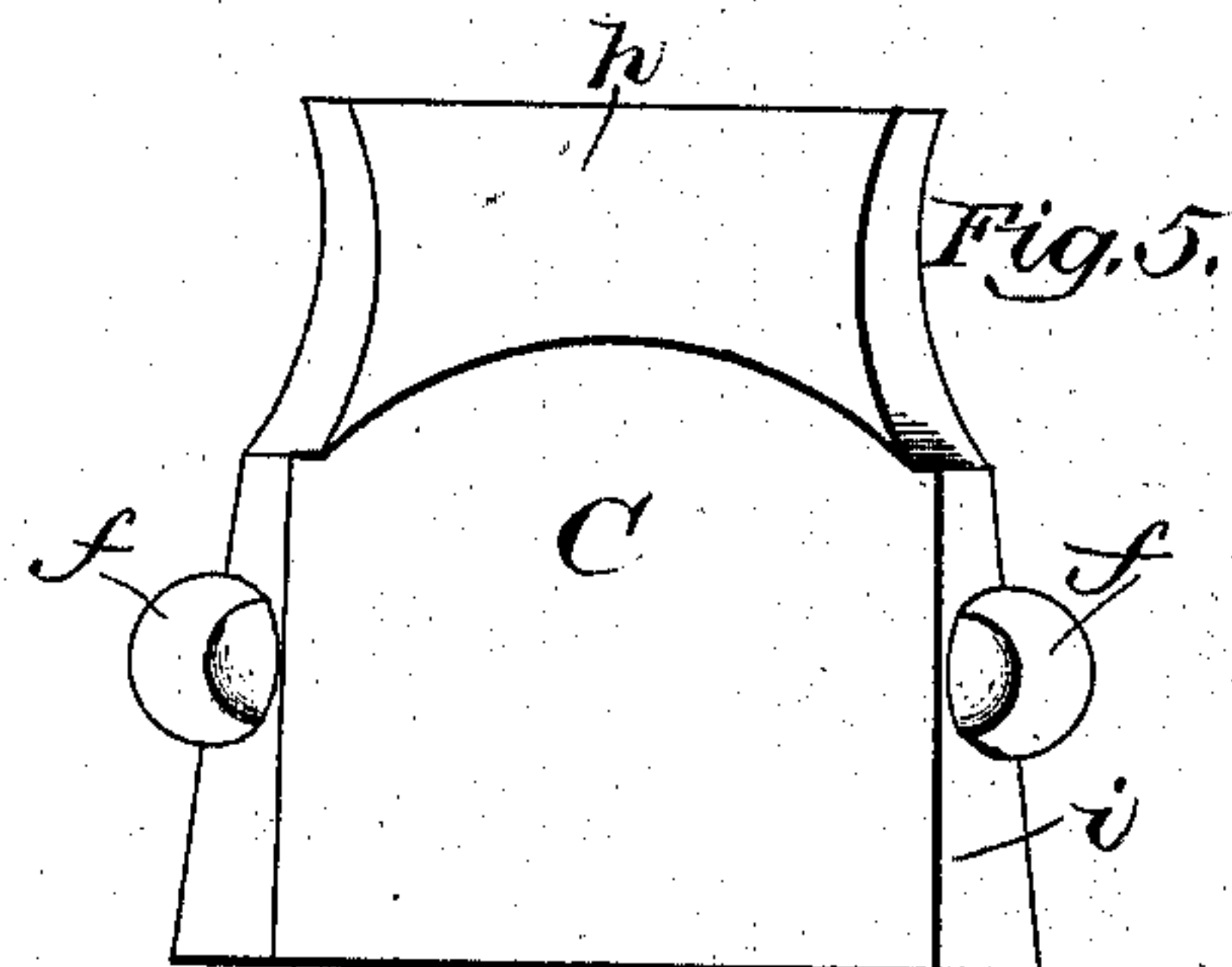


Fig. 5.

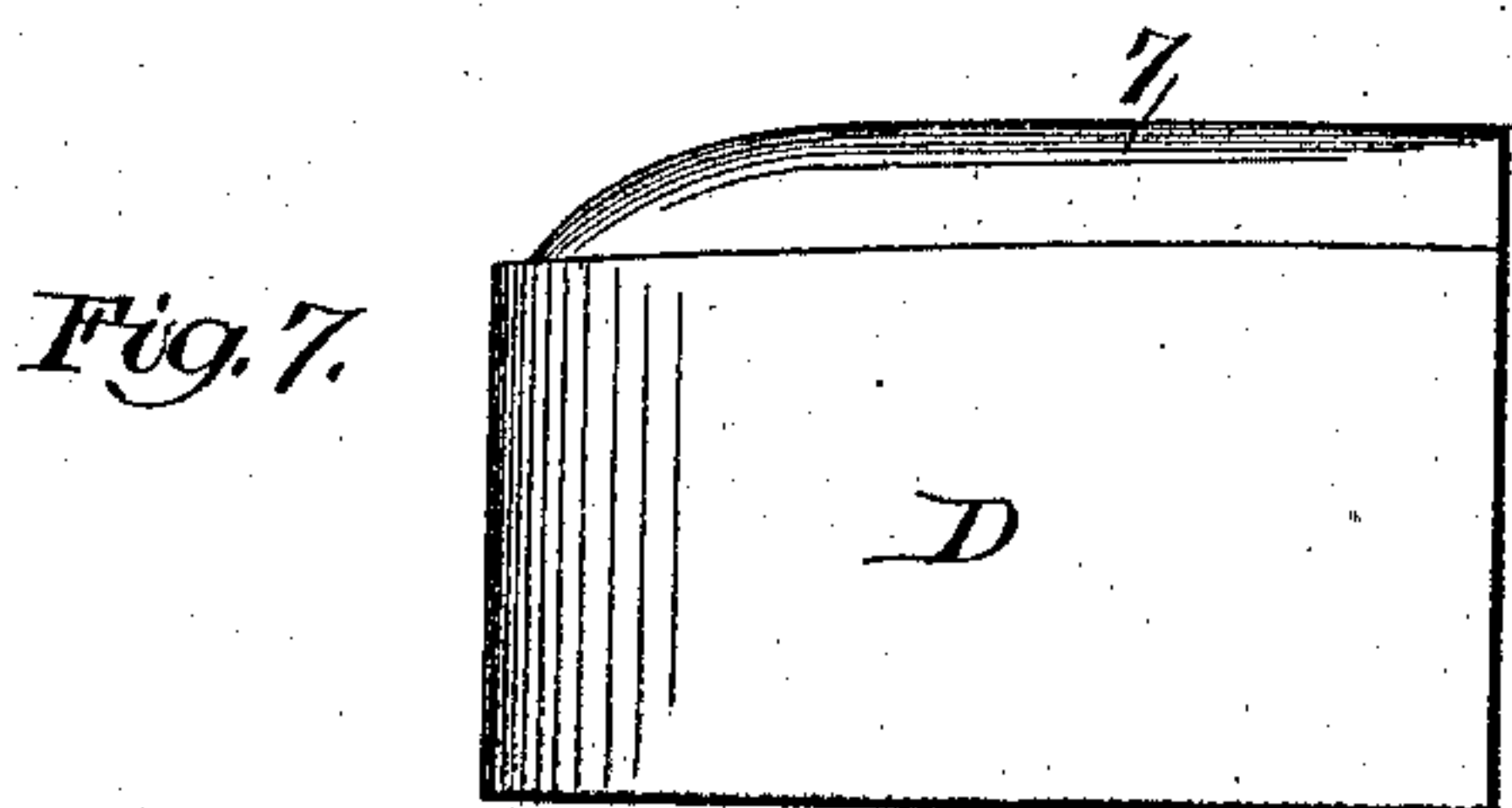


Fig. 7.

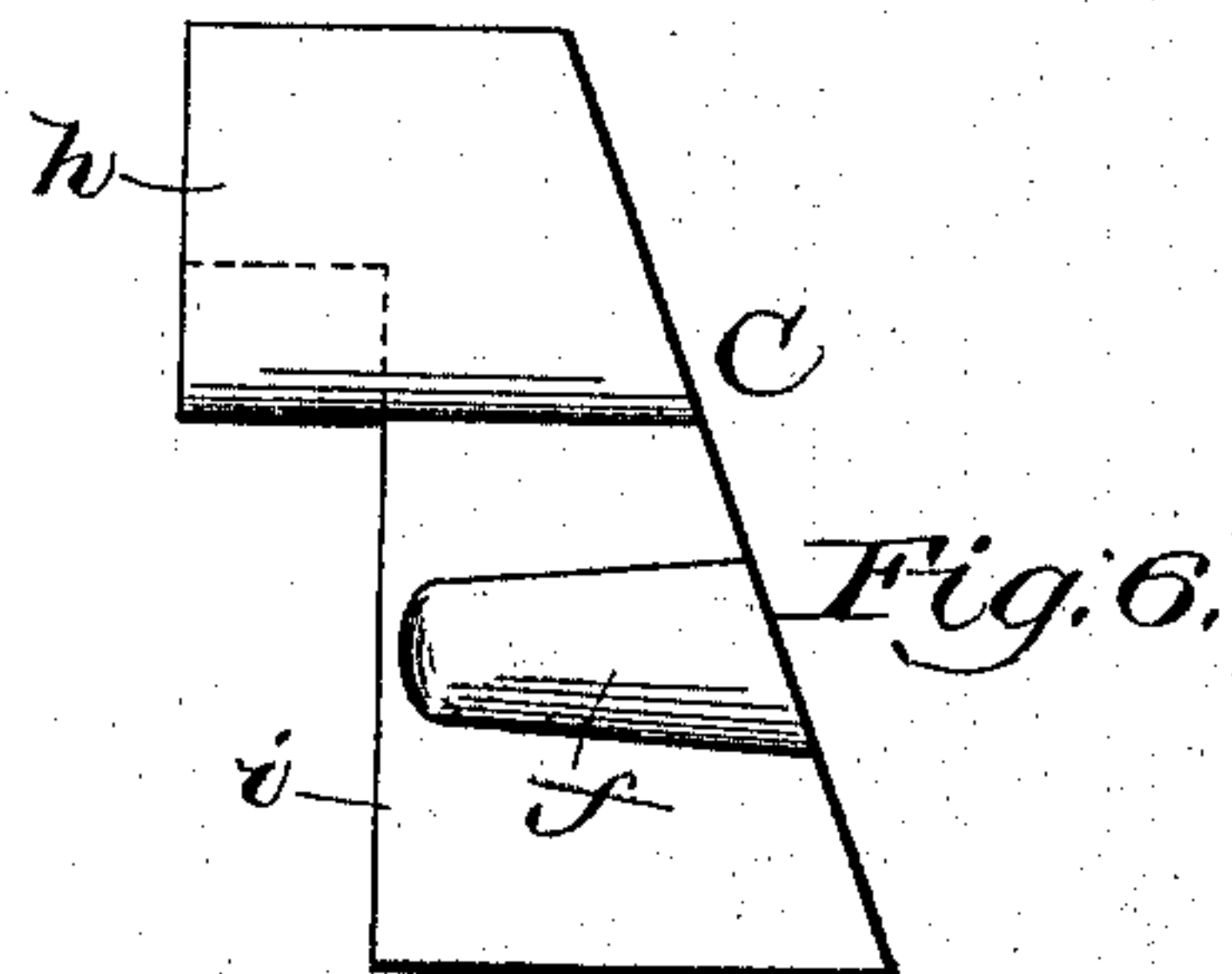


Fig. 6.

Witnesses
A. O. Orme
S. W. Howel

Inventor
Edward J. Le Gay
per T. W. Porter, Atty.

(No Model.)

2 Sheets—Sheet 2.

E. J. LE GAY.
MOLD FOR FORMING BOOT OR SHOE HEELS.

No. 322,301.

Patented July 14, 1885.

Fig. 8.

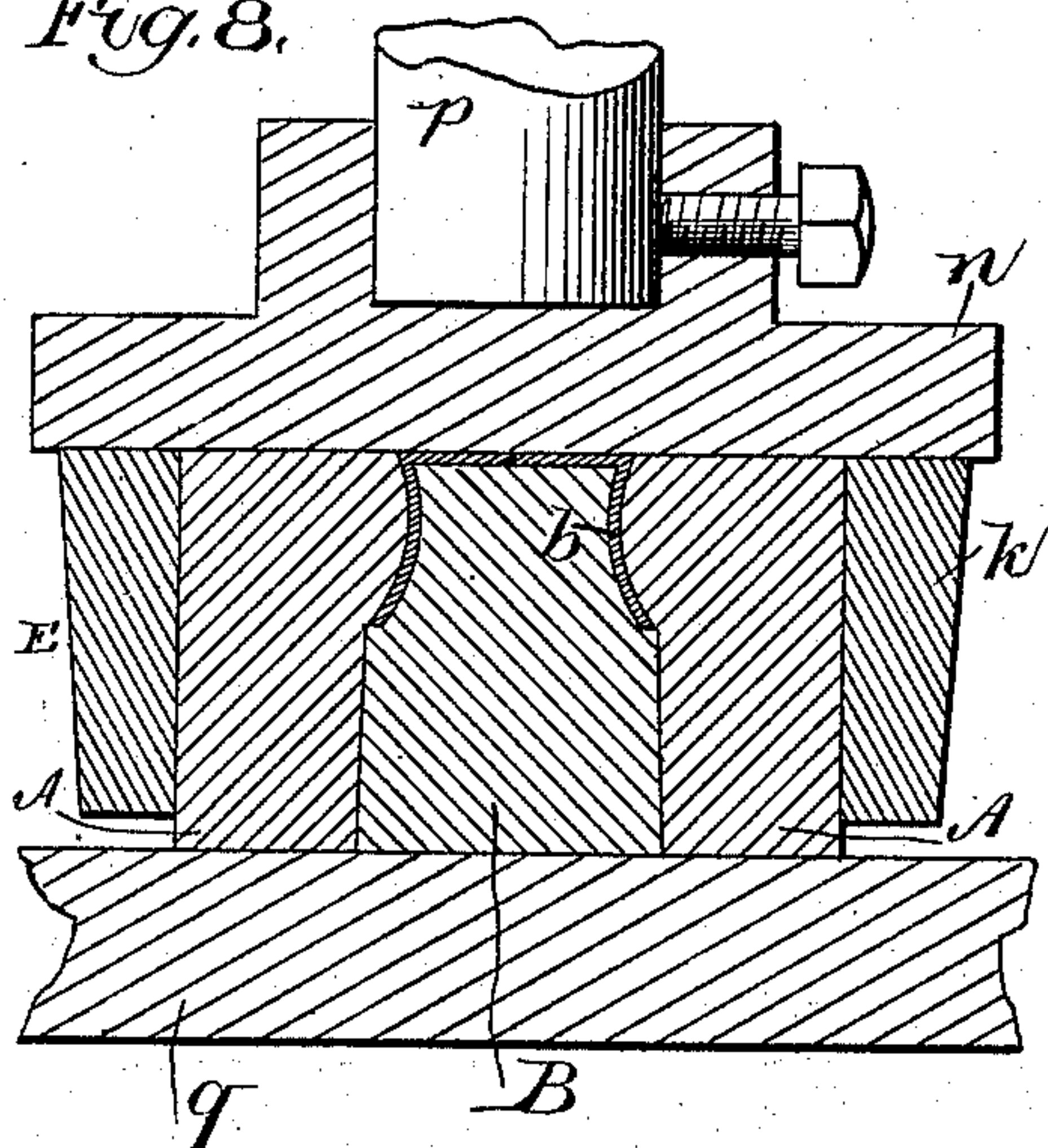


Fig. 9.

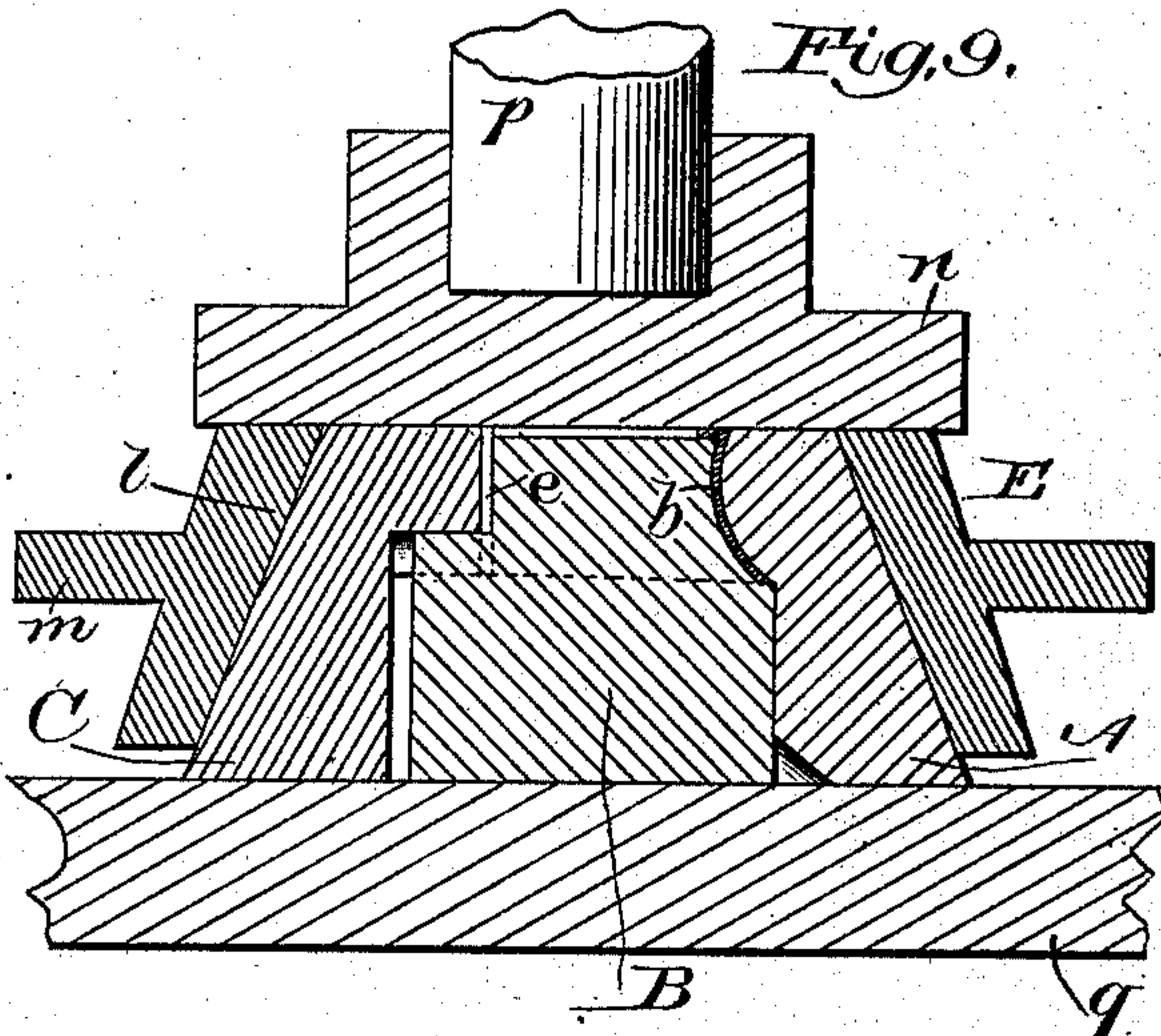


Fig. 11.

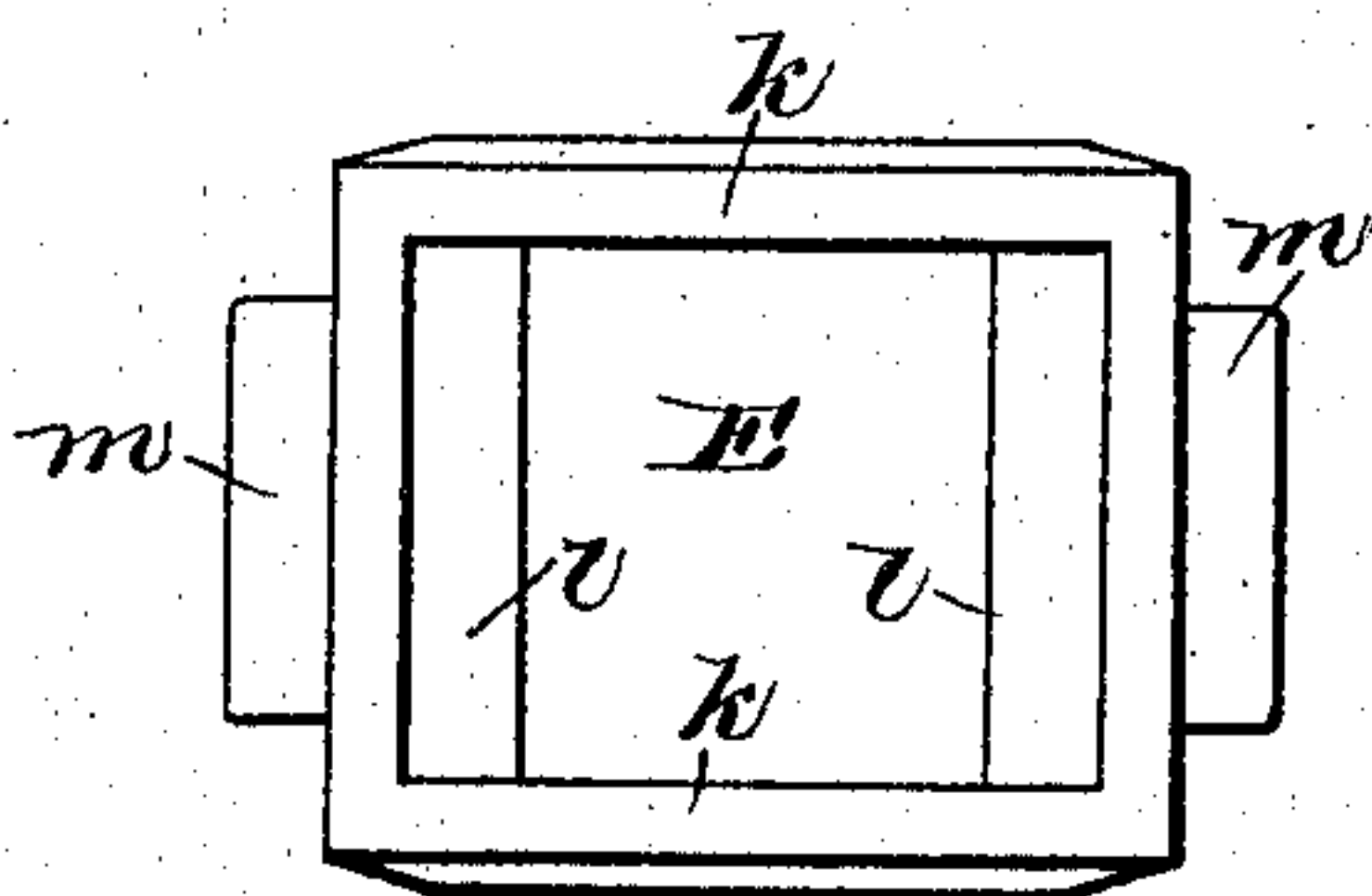
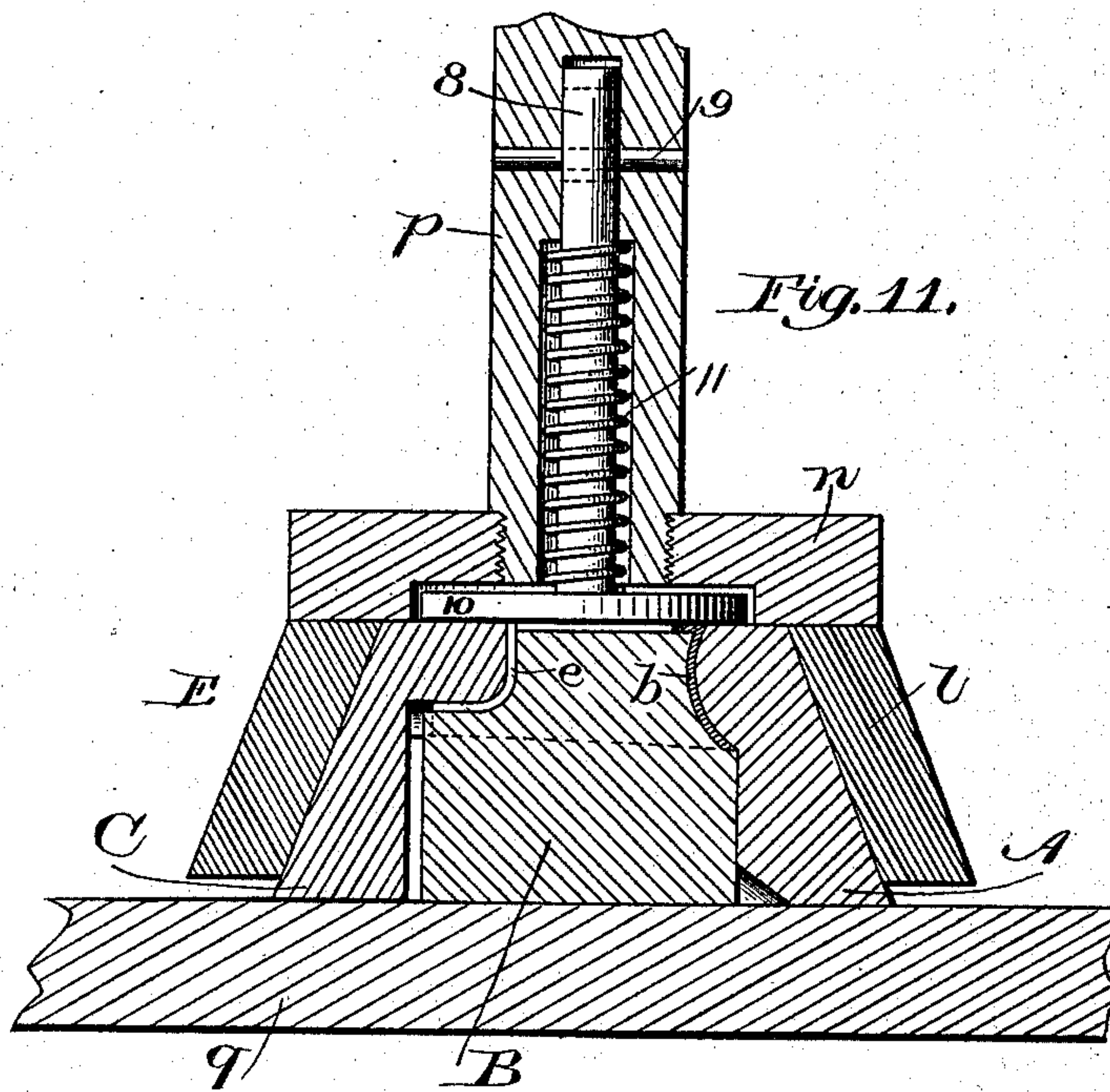


Fig. 10.

Witnesses
A. O. Orne
L. W. Howes

Inventor
Edward J. Le Gay
per J. W. Porter Atty

UNITED STATES PATENT OFFICE.

EDWARD J. LE GAY, OF BOSTON, MASSACHUSETTS.

MOLD FOR FORMING BOOT OR SHOE HEELS.

SPECIFICATION forming part of Letters Patent No. 322,301, dated July 14, 1885.

Application filed May 2, 1885. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. LE GAY, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Molds for Making Boot and Shoe Heels, which will, in connection with the accompanying drawings, be hereinafter fully described, and specifically defined in the appended claims.

10 This invention has for its object the production of molds by which to mold, from suitable moldable material, a shell or wall for the heels of boots and shoes, and also, after such shell or wall is properly dried and set to form, to
15 mold, compress, and set therein a filling-block of wood or other suitable material and an interposed layer or body of adhesive cement, which firmly connects together such outer wall and its filling-block, all as by aid of the
20 accompanying drawings will be hereinafter described and claimed.

In said drawings, Figure 1 is a plan view of the respective parts A B C of the mold, the same being shown as disconnected, but in proper relative position to be assembled or connected together for operative action. Fig. 2 is a longitudinal central vertical section of part A of the mold, taken on line X X, Fig. 1. Fig. 3 is an end elevation of said part A, taken
30 as viewed at the right in Fig. 1. Fig. 4 is a side elevation of said part B, taken as viewed from the near side in Fig. 1, or as viewed from the lower end of the sheet. Fig. 5 is an elevation of said part C, taken as viewed from the left in Fig. 1. Fig. 6 is an elevation of
35 said part C, taken as viewed from the near side in Fig. 1, or as viewed from the lower end of the sheet. Fig. 7 is a side elevation of part D of the mold, which replaces part B when inserting the wood filling in the previously-molded shell of the heel, said view corresponding to that of part B in Fig. 4. Fig. 8 is a transverse vertical section taken as on
45 line Z Z, Fig. 1, but showing the respective parts of the mold and the molded outer wall of the heel in their proper relative positions. Fig. 9 is a longitudinal vertical section of the parts shown in Fig. 8, taken as on line x x, Fig. 1. Fig. 10 is an inverted or underside
50 plan view of the compressor employed with my mold. Fig. 11 is a view like Fig. 9, but

showing a change in the form of the molds for overarched breasts of the heels, and an improvement in the compress-follower.

In said views, A represents the exterior body 55 of my improved mold, which is formed with a recess or cavity the upper rear portion, *a*, of which corresponds with and is adapted to impart to the side and rear wall of the heel-shell *b* the desired contour, both in horizontal 60 and vertical lines. An interior mold, B, is formed in its upper portion *c* as a counterpart of cavity *a* in body A, and to act upon the interior of the shell or wall of the heel when being molded in said cavity. A base or
65 lower portion, *d*, of said mold B fills the lower portion of the cavity in exterior mold, A, in which, for convenience of construction, the cavity is carried directly through from top to bottom. 70

For the purpose of molding the breast of the shell of the heel, I employ the follower C, which by its lugs *f* is interlocked in grooves *g* of mold A, and which is formed with an overhanging portion, *h*, which, when the several 75 parts of the mold are brought together, extends over the projecting lower portion *j* of mold B, as shown in Figs. 9 and 11, the lower portion *i* of the follower being then close to part *d* of said mold B. 80

For the purpose of forcing the respective parts of the mold together after the blank has been inserted therein for molding, I employ a strong metallic hoop or clamp, E, whose longer sides *k k* are vertically parallel, (as are the 85 side walls of the mold,) but whose ends *l l* are oblique and flaring downward, as are the outer ends of mold A and follower C. Said clamp is formed with the projections *m m*, by which to readily handle it when being employed in con- 90 nection with the mold.

When the blank from which the shell or wall of the heel is to be molded is duly moistened and placed in proper position in the mold, and said clamp E has been placed in 95 position thereon, the whole resting on a properly-supported platen or bed, *q*, the clamp is then forced downward upon the mold by a cap, *n*, actuated by plunger *p* of a press, or by other effective means, the clamp E forcing 100 the parts of the mold together by the action of the described inclines till the blank is

molded to the exact form of cavity *a* in outer mold, A, and of portion *e* of interior mold, B, and the adjacent faces of the breast of said portion *c* and corresponding part of portion *n*, as shown in Figs. 8, 9, and 11.

As above stated, the rear and side walls of the heel-shell are molded between molds A and B, the breast is molded between B and C, and the bottom between B and cap *n*. As shown in Fig. 9, the breast of the heel is a right line, while in Fig. 11 it is formed with an overarching curve.

For the purpose of securing the heel-blank in position, while parts A B C of the molds are being forced together by clamp E, I arrange in stem *p* of cap *n* a spindle, 8, which is secured by pin 9, passing through a slot in 8, as indicated by dotted lines, and so as to allow said spindle to be thrust out by the action of spring 11 to the extent of said slot, so that before the cap *n* is in contact with clamp E the foot 10 on spindle 8 will engage the part of the heel-blank *b* which is folded over the upper face of B, and by the action of said spring will secure the same in position till cap *n* acts upon clamp E and forces the parts of the mold upon the blank to shape the same. After the shell has been duly molded and dried, and the filling-block and cement have been placed therein, it is necessary to subject the same to molding pressure, in order to give the requisite seat in the top for the heel of the wearer; and as part B cannot be employed for such purpose I provide part D, the lower part of which corresponds to part *d* of B, while its upper portion 7 is of the proper contour and relief to duly form the seat for the heel of the wearer.

In my application No. 152,947, filed January 15, 1885, are shown heels such as my molds are especially adapted to produce; and I refer to said application and the patent that may

issue thereon as illustrating the product of the molds herein described and claimed.

I claim as my invention—

1. A heel-mold formed with part A, having a recess, *a*, corresponding to the rear and side walls of the heel, part B, having portion *c* of a size and form corresponding to the cavity in the heel-shell when it is inserted in cavity *a*, and follower C, formed with part *b*, corresponding to the front of part B, substantially as specified.

2. The combination, with parts A C of a heel-mold formed as specified, of cap D, having portion 7, adapted to fit and form the concave upper face of the heel-filling when molding the filling-block and cement therein, substantially as specified.

3. The combination, with a mold formed with parts A B C, having form and adaptation to mold and set to form the shell or wall of boot and shoe heels, and with parts A and C, having oblique outer ends, as specified, of band or clamp E, having corresponding internally-oblique ends, and adapted to force together the respective parts of the mold and compress the heel-shell therein, substantially as specified.

4. The combination of parts A C of the mold respectively provided with the lugs *f* and grooves *g*, adapted and arranged to interlock and secure said parts in proper relative position, substantially as specified.

5. The combination, with parts A B C of the heel-mold, clamp E, and plunger *p*, with its cap *n*, of sliding stem 8, its foot 10, and extending spring 11, all substantially as specified.

EDWARD J. LE GAY.

Witnesses:

T. W. PORTER,
EUGENE HUMPHREY.