

R. J. MANN.

Improvement in Stamps for Forming Metallic Sieve-Bodies.

No. 130,513.

Patented Aug. 13, 1872.

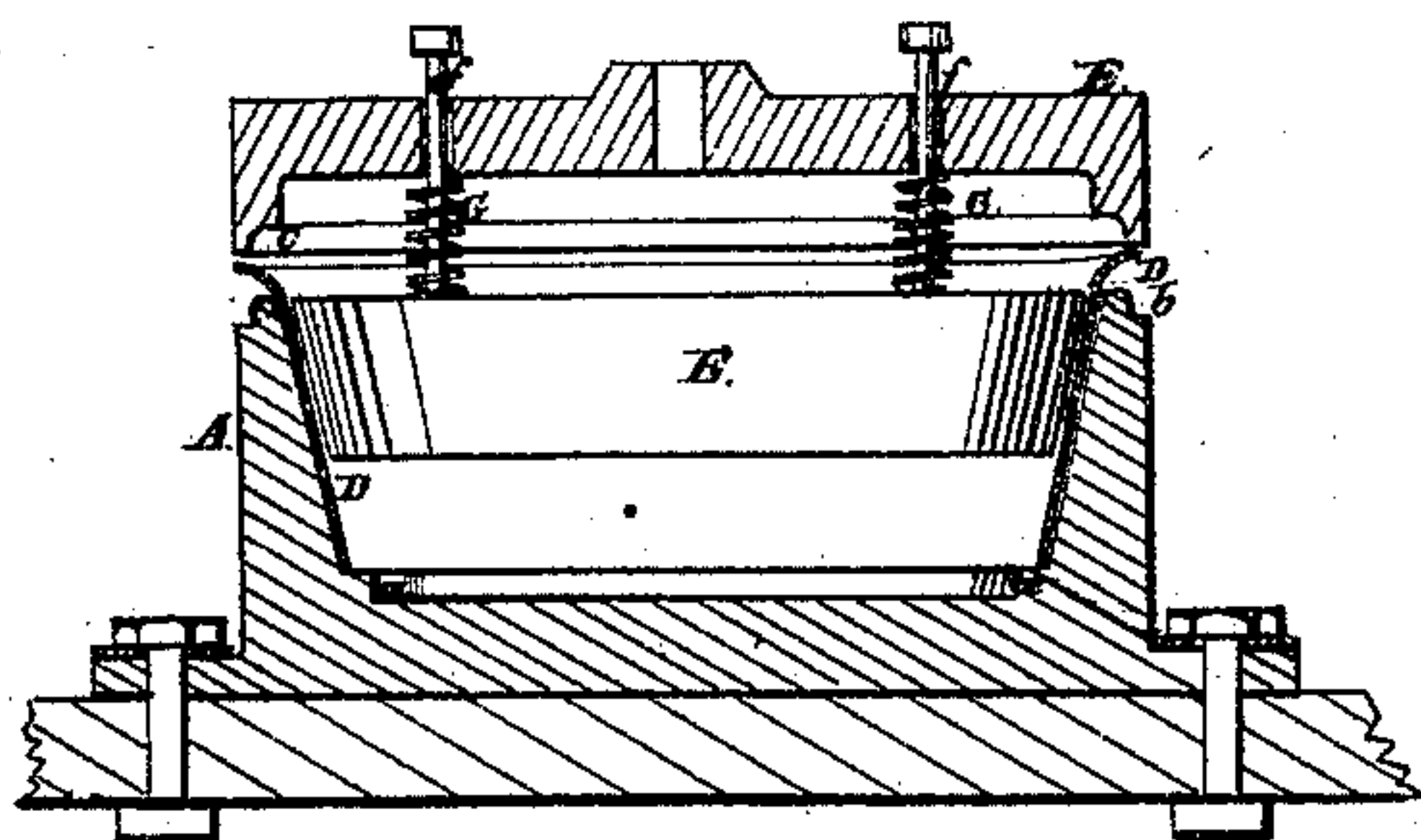


Fig. 1.

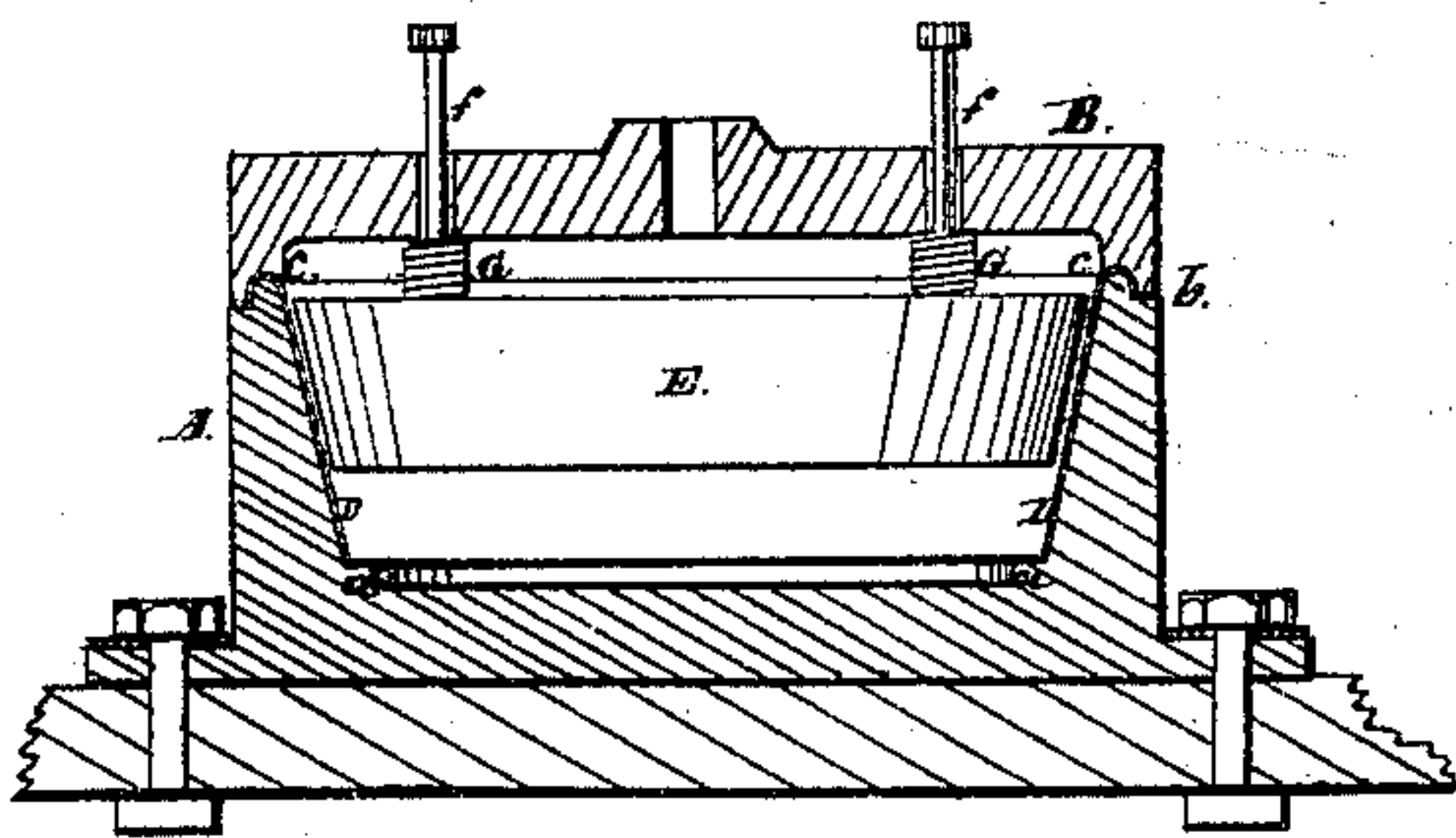


Fig. 2.

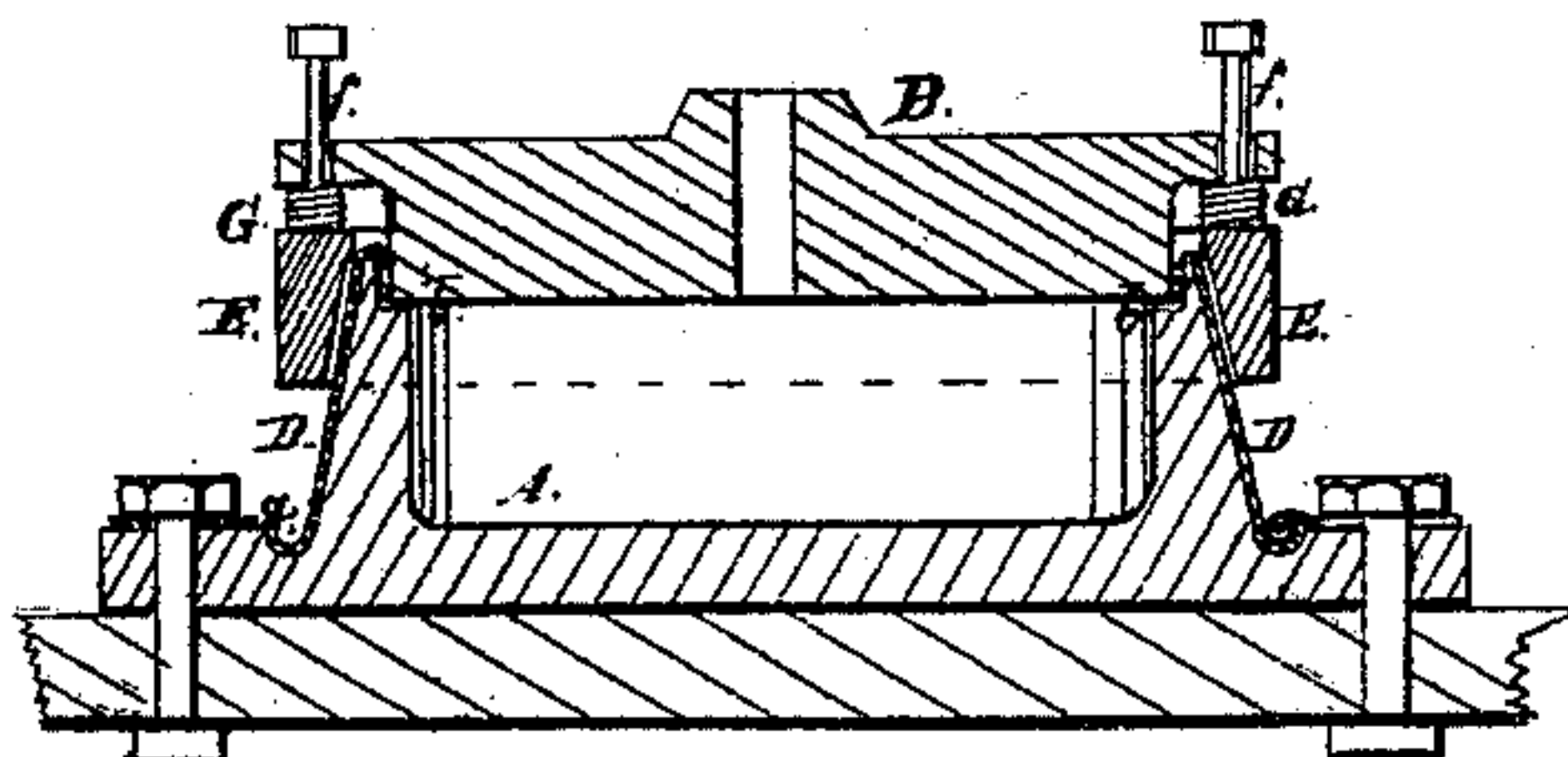


Fig. 4.

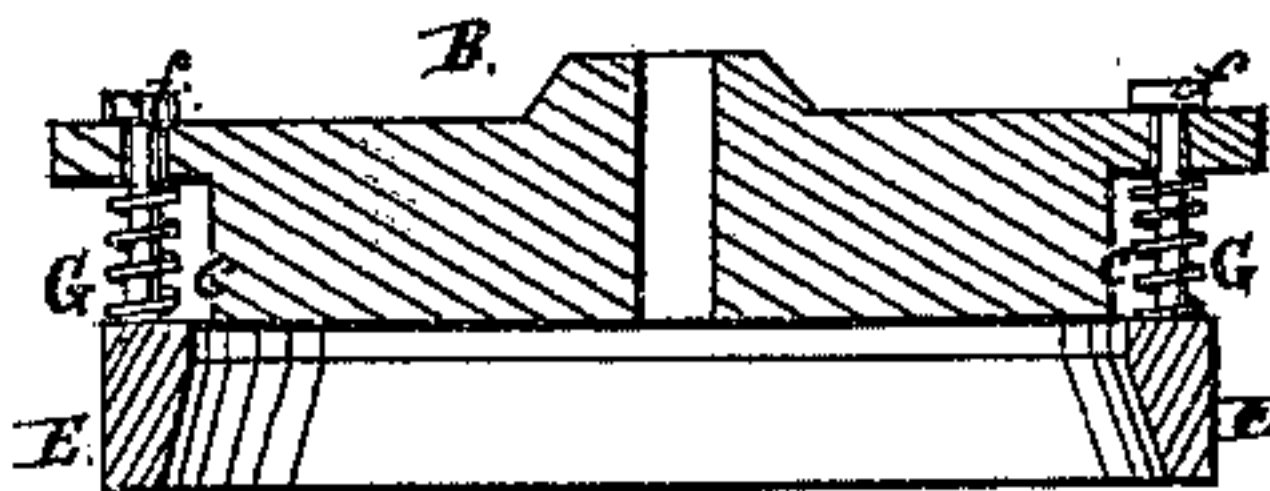
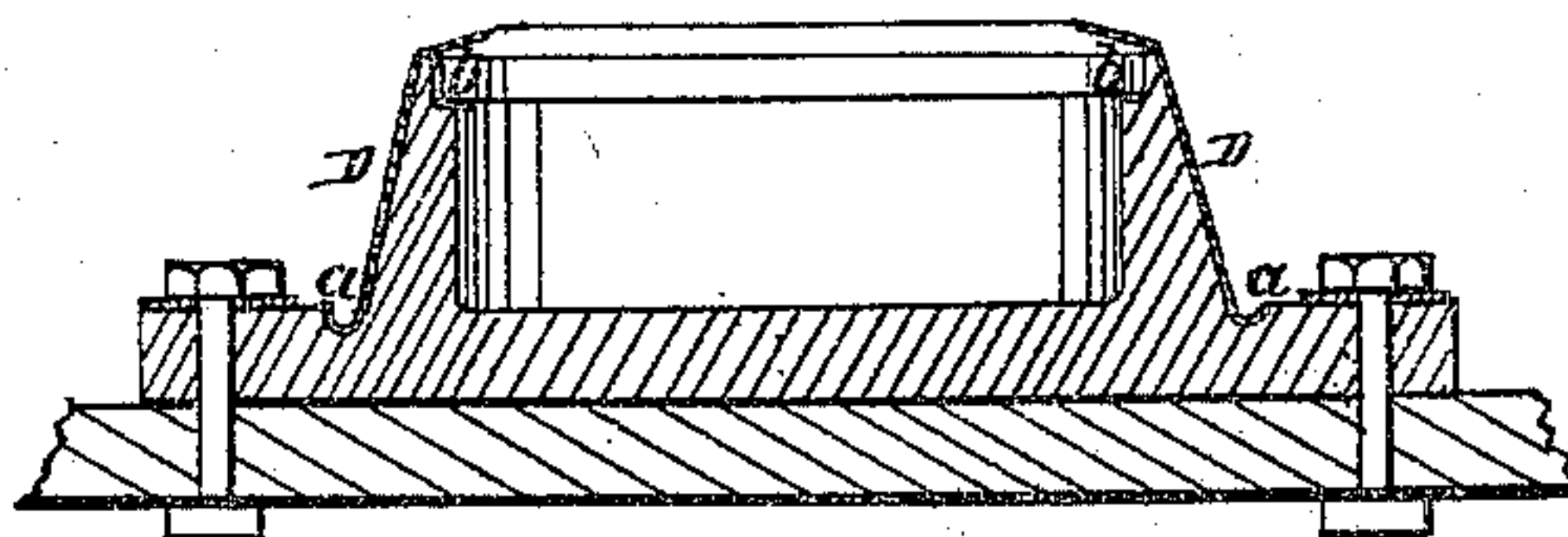


Fig. 3.



Witnesses:

Hein. F. Bruns
R. B. Bacon

Inventor:

R. J. Mann
by *Coburn & Munday*
his attys

UNITED STATES PATENT OFFICE.

ROBERT J. MANN, OF BURLINGTON, IOWA.

IMPROVEMENT IN STAMPS FOR FORMING METALLIC SIEVE-BODIES.

Specification forming part of Letters Patent No. 130,513, dated August 13, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, ROBERT J. MANN, of Burlington, in the county of Des Moines and State of Iowa, have invented certain Improvements in Stamps for Forming Metallic Sieve-Bodies; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, which, together with the letters and figures marked thereon, form part of this specification, and in which—

Figure 1 is a vertical central section of a stamp for forming the upper edge of the sieve-body to receive the stiffening wire. Fig. 2 is a view of the same in an altered position of the parts, showing the die brought down. Fig. 3 is a vertical central section of a stamp for forming the lower edge of the sieve-body to receive the wire-cloth bottom, the die being shown lifted to admit of the insertion of the blank; and Fig. 4 is a similar view, showing the die brought down upon the blank, as in the case of Fig. 2, above.

Like letters of reference made use of in the several figures indicate like parts.

Nature of the Invention.

This invention relates to a stamp for forming the bodies of metallic-bodied sieves. In the manufacture of such sieve-bodies they are first cut and soldered in the form of a plain annular band slightly flaring, being wider at the top than at the bottom, to admit of being nested together for transportation when complete. This blank is taken to a stamp, which forms the bead or gutter at the top edge by turning the metal over. The blank is then taken to a crimping-machine or former, which bends the lower edge squarely in, after which the blank is again stamped by a stamp, which forms the turned-in lower edge into the shape proper to receive the wire-netting; and the present invention consists in providing the movable die of the stamp with a holder having an inclined surface to fit the sides of the blank, which holder is carried below the moving die upon springs, so that when the die descends the holder first engages the blank and prevents any drawing or motion thereof, while the yielding springs allow the die to continue its descent and produce the desired form, all

of which will presently be more fully explained.

To enable those skilled in the art to make and use my invention, I will proceed to describe the same with particularity, making use in so doing of the aforesaid drawing, by letters of reference thereto.

General Description.

A represents the stationary dies or forms, made of a size and shape to receive the metallic sieve-band. These forms are made to surround the sieve-band D, as at Figs. 1 and 2, where the upper edge of the band is to be operated upon, and vice versa, as in Figs. 3 and 4, where the lower edge is to be operated upon. These forms are of a height so that when one of the edges of the band rests at the support *a* the other edge will project over or above the upper rim *b* of the form, which is made of a shape to give the desired molding to the edge of the band. B B are the movable dies, attached when in operation to any appropriate mechanism, not shown in the drawing, which shall cause them to move vertically up and down, at the pleasure of the operator, with a steady press-motion, descending until in contact with the lower die, and capable of raising high enough to admit of the insertion of the blank-band. The lower edge *c* of this movable die is constructed to fit upon the rim *b* of the stationary die to give the requisite shaping-pressure to the substance of the sieve-band D. E represents the holders, placed between the movable die B, and stationary die A being attached to said movable die by means of the sliding rods *f* surrounded by spiral springs G, or equivalent means, so that the holder will engage the stationary die before the moving die, which is permitted to follow by the yielding of the springs. These holders are made of a shape to fit the conical sides of the form A, either in the form of a conical core, as at Figs. 1 and 2, or in the shape of an annular band, as in Figs. 3 and 4, the object being to compress the metal of the sieve-band between the conical surface of the form A and the surface of the holder, to retain said sieve-band duly and firmly in position while the shaping portions *b c* of the dies operate.

The principle and operation are, of course, identical in both the above constructions, the

difference being simply that in the one case the sieve-band is placed upon a concave former and held by a convex holder, while in the other case it is placed upon a convex former and held by a concave holder.

Claim.

Having thus fully described the construction and operation of my invention, what I claim, and desire to secure by Letters Patent, is—

The stationary die A with conical sides and forming edge *b*, in combination with the moving die B having forming-edge *c*, and the holder E mounted between the dies upon springs G, and made convex if the die A is concave, or concave if the said die is convex, substantially as specified.

ROBERT J. MANN.

Witnesses:

JOHN W. MUNDAY,
HEINR. F. BRUNS.