

(No Model.)

F. A. WALSH.
DIE SEAMING MACHINE.

No. 445,740.

Patented Feb. 3, 1891.

Fig. 2.

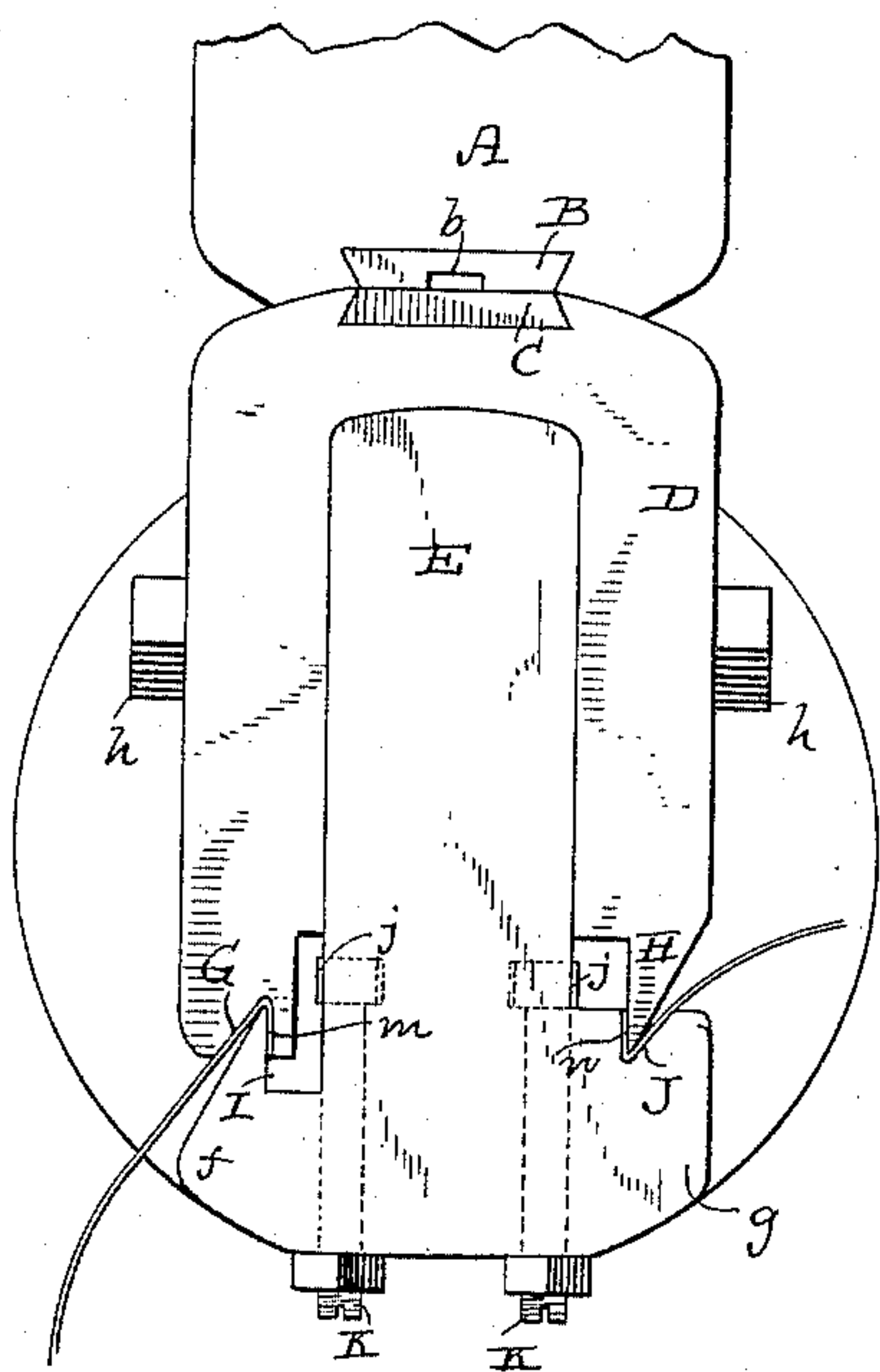


Fig. 1.

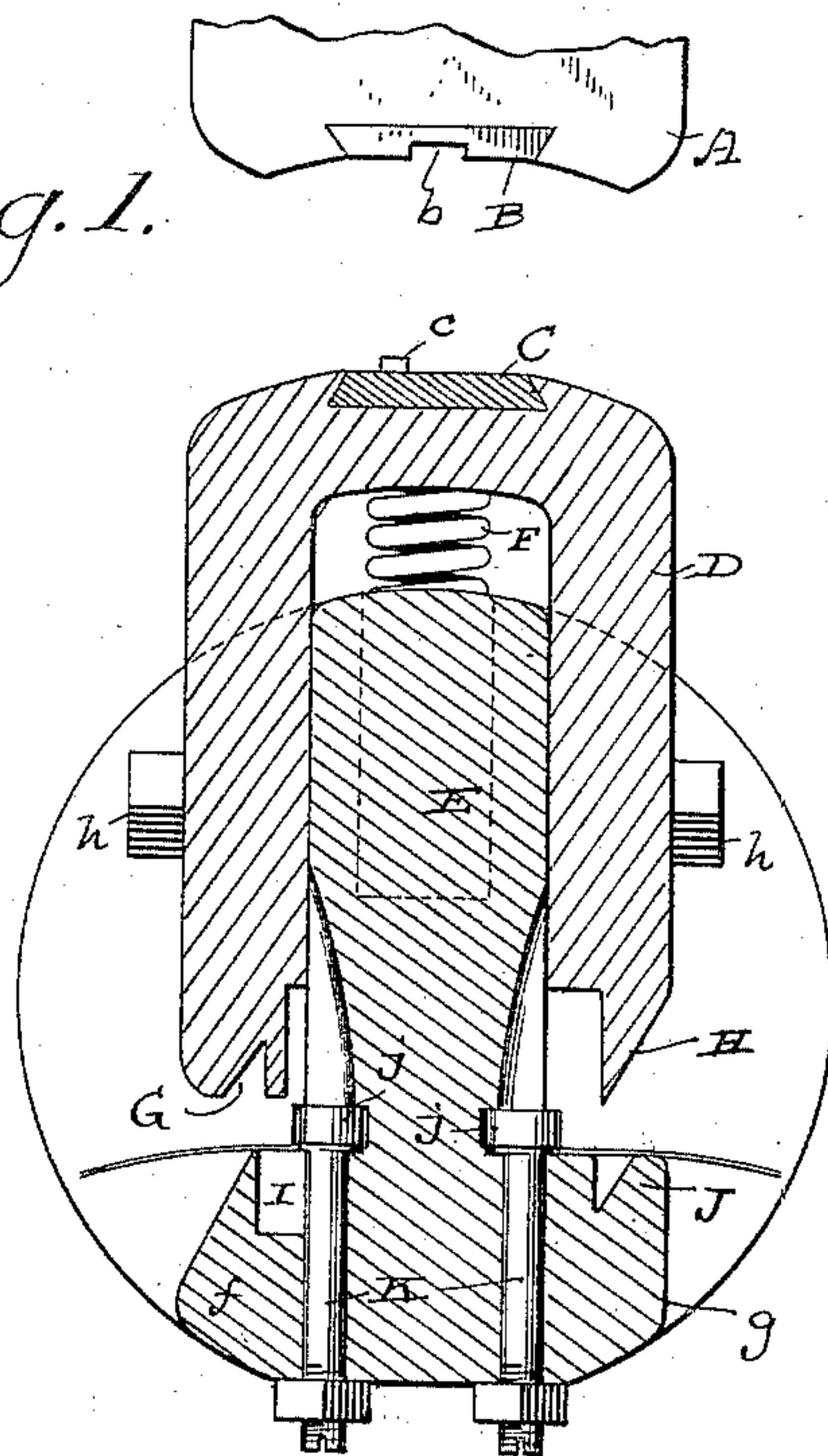


Fig. 4.

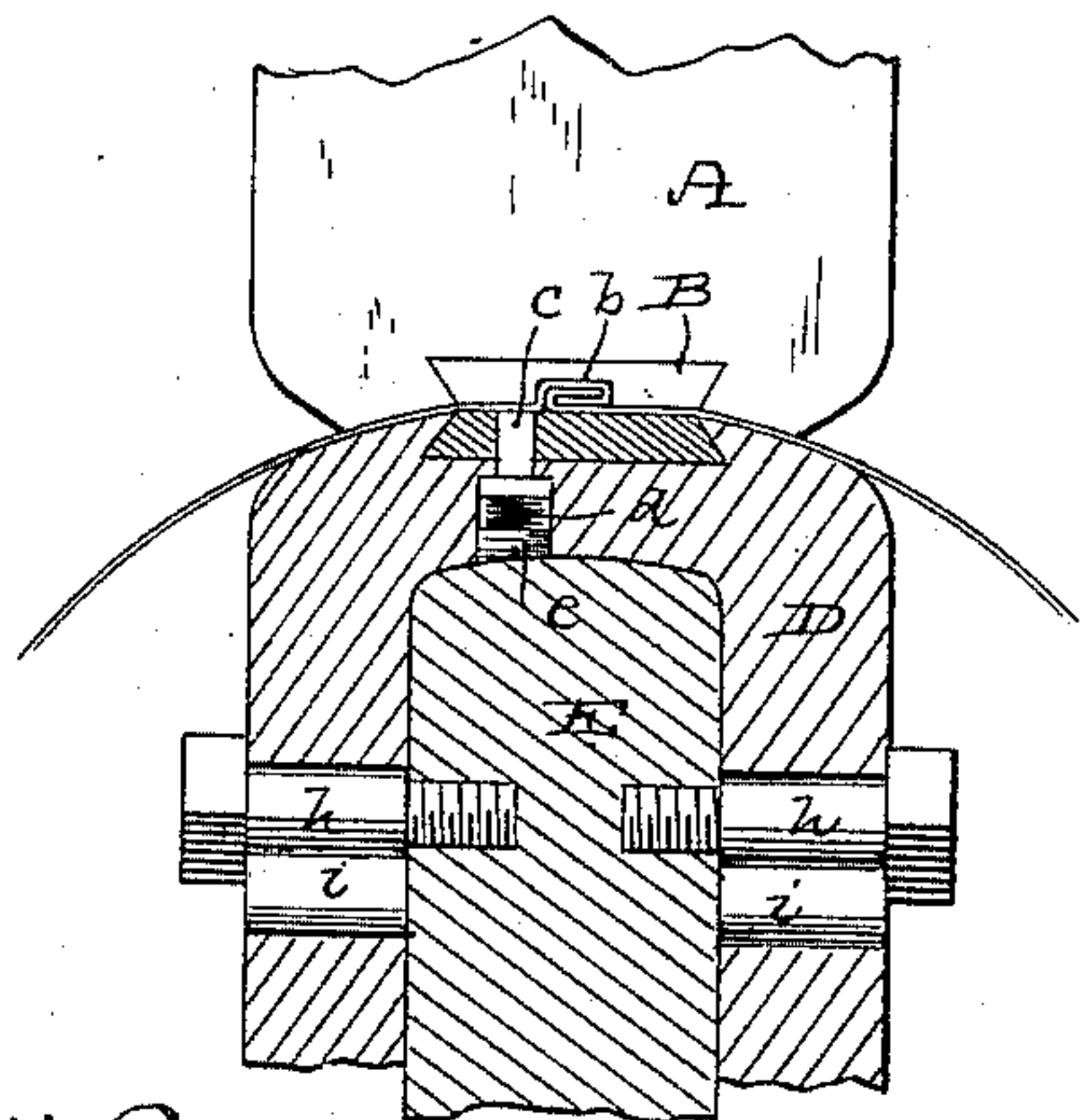
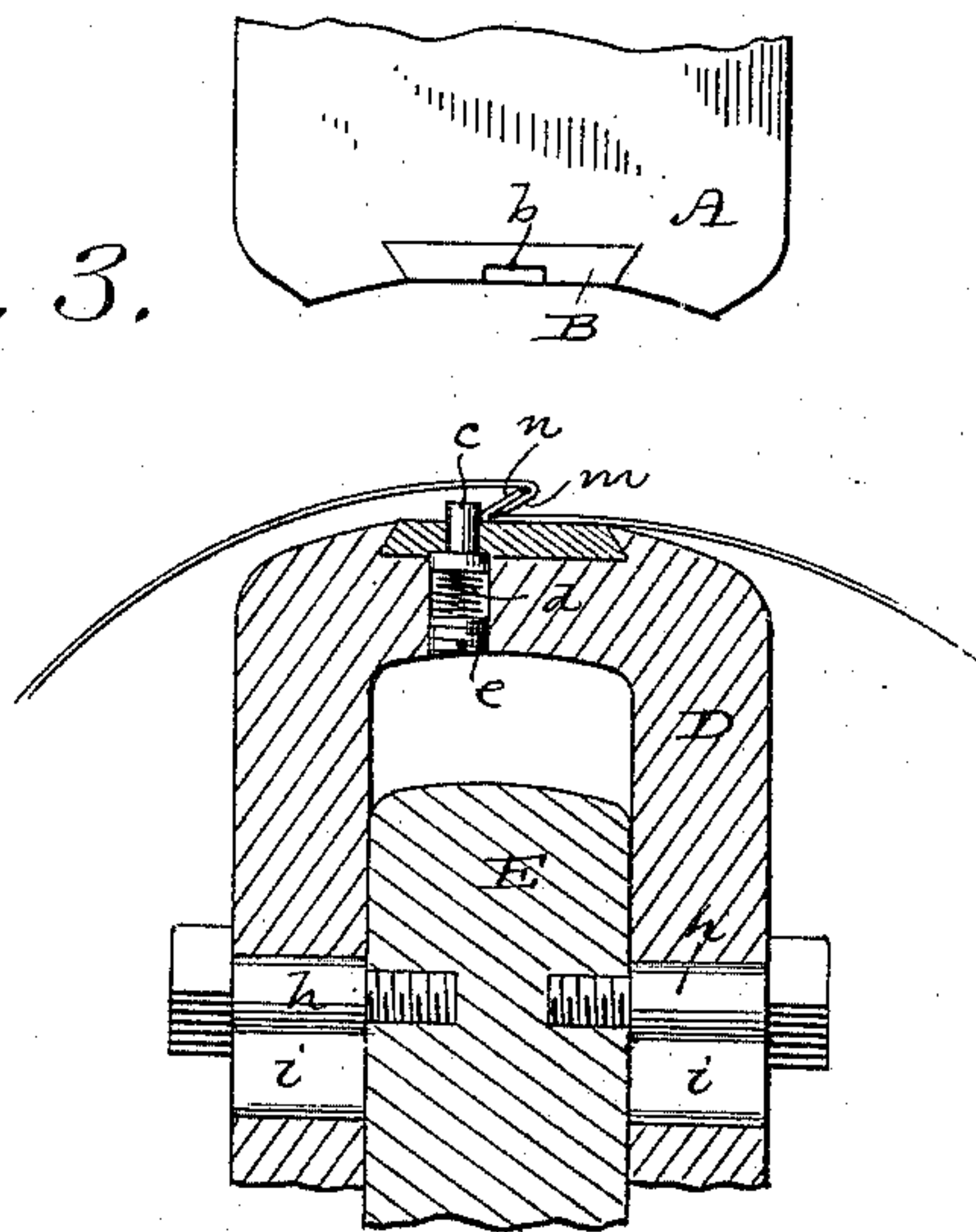


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANCIS A. WALSH, OF MILWAUKEE, WISCONSIN.

DIE-SEAMING MACHINE.

SPECIFICATION forming part of Letters Patent No. 445,740, dated February 3, 1891.

Original application filed April 23, 1889, Serial No. 308,317. Divided and this application filed December 2, 1889. Serial No. 332,268. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS A. WALSH, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Die-Seaming Machines; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to die-seaming machines, being a division of my application, No. 308,317, filed April 23, 1889; and it consists in certain peculiarities of construction and combination of parts, to be hereinafter described with reference to the accompanying drawings, and subsequently claimed.

In the drawings, Figure 1 represents a partial vertical transverse section of my machine at one stage of its operation; Fig. 2, an end elevation of the same, illustrating another stage of the operation; Fig. 3, a partial vertical transverse section illustrating still another stage of the operation, and Fig. 4 a similar view illustrating the completion of the operation.

Referring by letter to the drawings, A represents a pressure-block, and dovetailed or otherwise suitably secured to this pressure-block is an anvil B, the latter being provided with a recess *b*, for the purpose to be hereinafter described.

Opposed to the anvil B is another anvil C, dovetailed or otherwise suitably secured to a U-shaped head D, that straddles a horn E, the latter anvil being smooth upon its face and provided with an opening that is engaged by a gage-pin *c*, this gage-pin being supported by a spring *d*, that rests upon a screw-plug *e*, inserted in said head.

The horn E is provided with a recess for the reception of a spiral spring F, that normally supports the head D, and the ends of this head are shaped to form dies G H, opposed to dies I J in lateral extensions *f g* of said horn, the latter being provided with guide-screws *h* for engagement with slots *i* in said head.

Fitted in the horn E are adjustable stems K, provided with cam-heads *j*, the latter being preferably recessed to receive the edges of a sheet-metal blank.

In the operation of the machine above de-

scribed a sheet-metal blank L has the edges thereof laid in against the cam-heads *j* on the stems K, as shown in Fig. 1, and the head D being pushed down by the pressure-block A, said edges of the blank are acted upon by the dies G I H J to form opposing flanges *m n*, as shown in Fig. 2, the width of these flanges being gaged by the adjustment of said cam-heads. The flanges *m n* are now hooked together and placed on the anvil C against the gage-pin *c*, as shown in Fig. 3, and at the next stroke of the pressure-block A these united flanges are laid down by the recessed portion *b* of the anvil B to complete a seam, as shown by Fig. 4, it being understood that at each stroke of said pressure-block there is a yield of the spring F and said gage-pin. The anvils B C may be reversed, accordingly as the seam is wanted upon the inner or outer side of blank L, or said anvils may be omitted and the work done by the opposing faces of the pressure-block and head.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a die-seaming machine, a pressure-block, a yielding head arranged to oppose the pressure-block and having furcations terminated in dies, and dies opposed to those on the head, substantially as set forth.

2. In a die-seaming machine, a pressure-block provided with a seam-closing anvil, a yielding head arranged to oppose the pressure-block and having furcations terminated in flanging-dies, and similar dies opposed to those on the head, substantially as set forth.

3. In a die-seaming machine, a pressure-block, a yielding head arranged to oppose the pressure-block and having furcations terminated in dies, other dies arranged to oppose those on the head, and gages arranged adjacent to these other dies, substantially as set forth.

4. In a die-seaming machine, a horn provided with lateral extensions having dies therein, a yielding head astraddle of the horn and provided with dies, the latter being opposed to those in the lateral extensions of said horn, and a pressure-block opposed to the head, substantially as set forth.

5. In a die-seaming machine, a horn pro-

vided with lateral extensions having dies therein, a spring-controlled head astraddle of the horn and provided with slots, stops on the horn for engagement with the slots, dies
5 on the head opposed to those in the lateral extensions of the horn, and a pressure-block opposed to the head, substantially as set forth.

6. In a die-seaming machine, a horn provided with lateral extensions having dies
10 therein, stems adjustable in these lateral extensions and provided with cam-heads, a yielding head astraddle of the horn and pro-

vided with dies, the latter being opposed to those in said lateral extensions of the horn, and a pressure-block opposed to the head, substantially as set forth. 15

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

FRANCIS A. WALSH.

Witnesses:

N. E. OLIPHANT,
WM. KLUG.