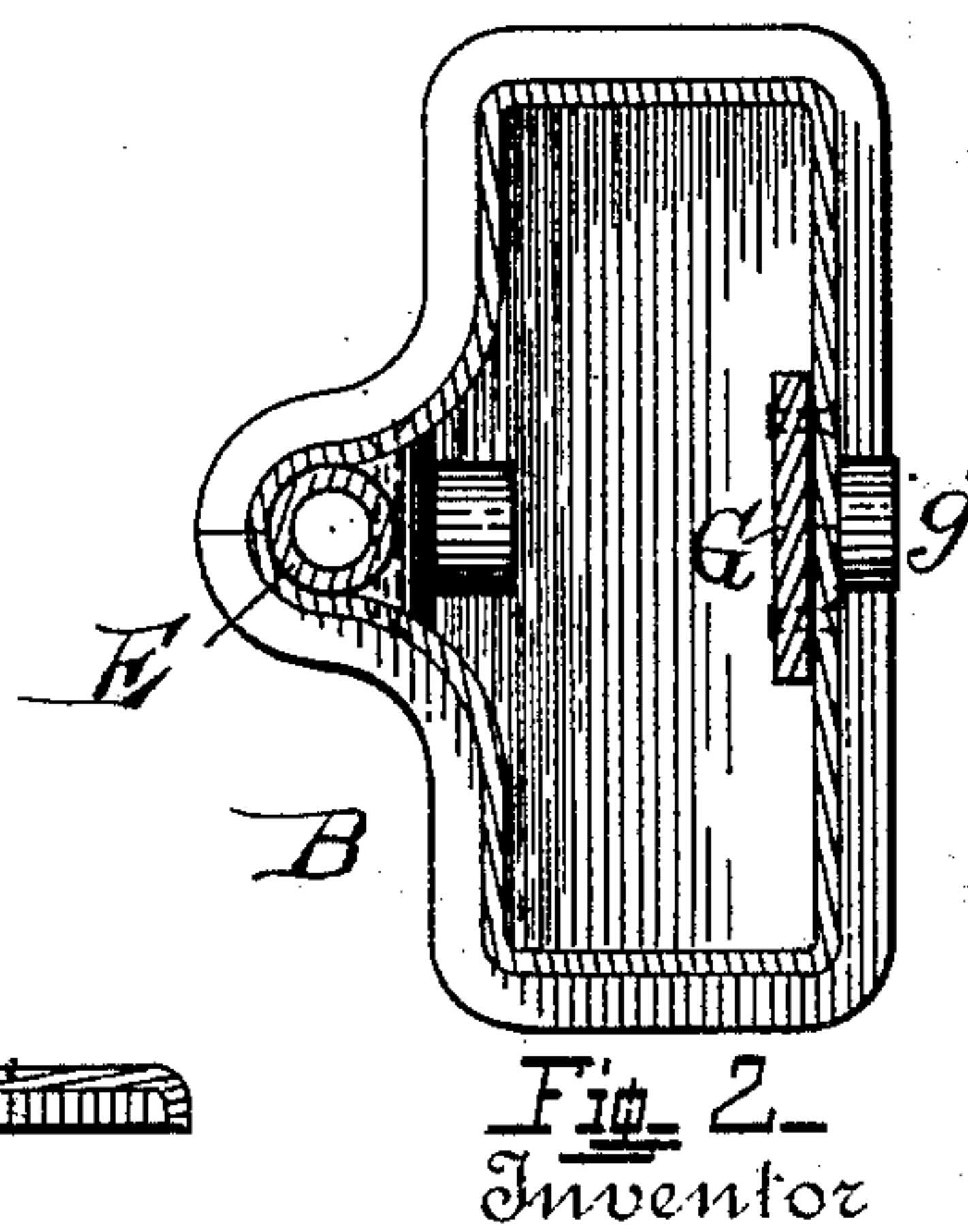
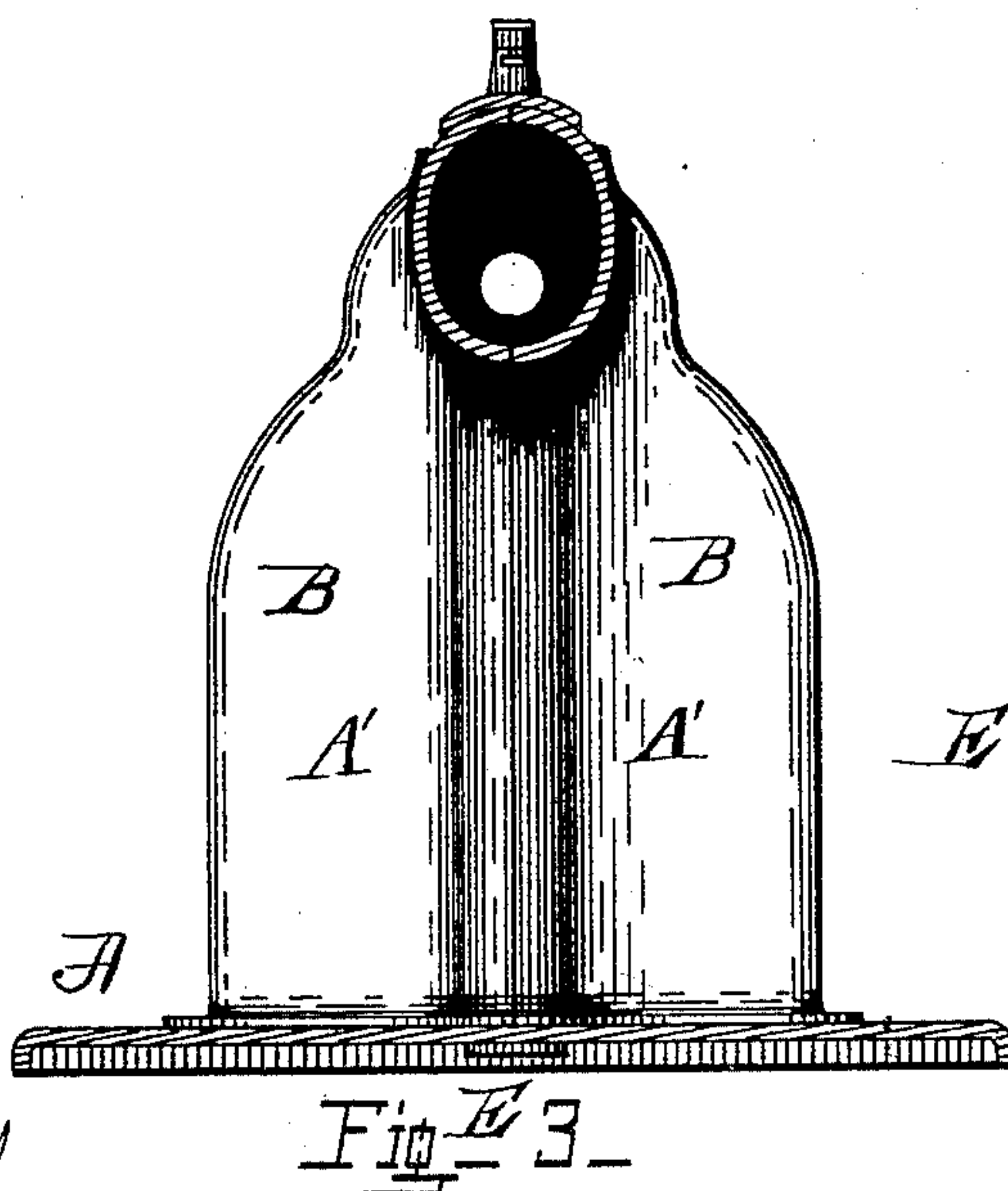
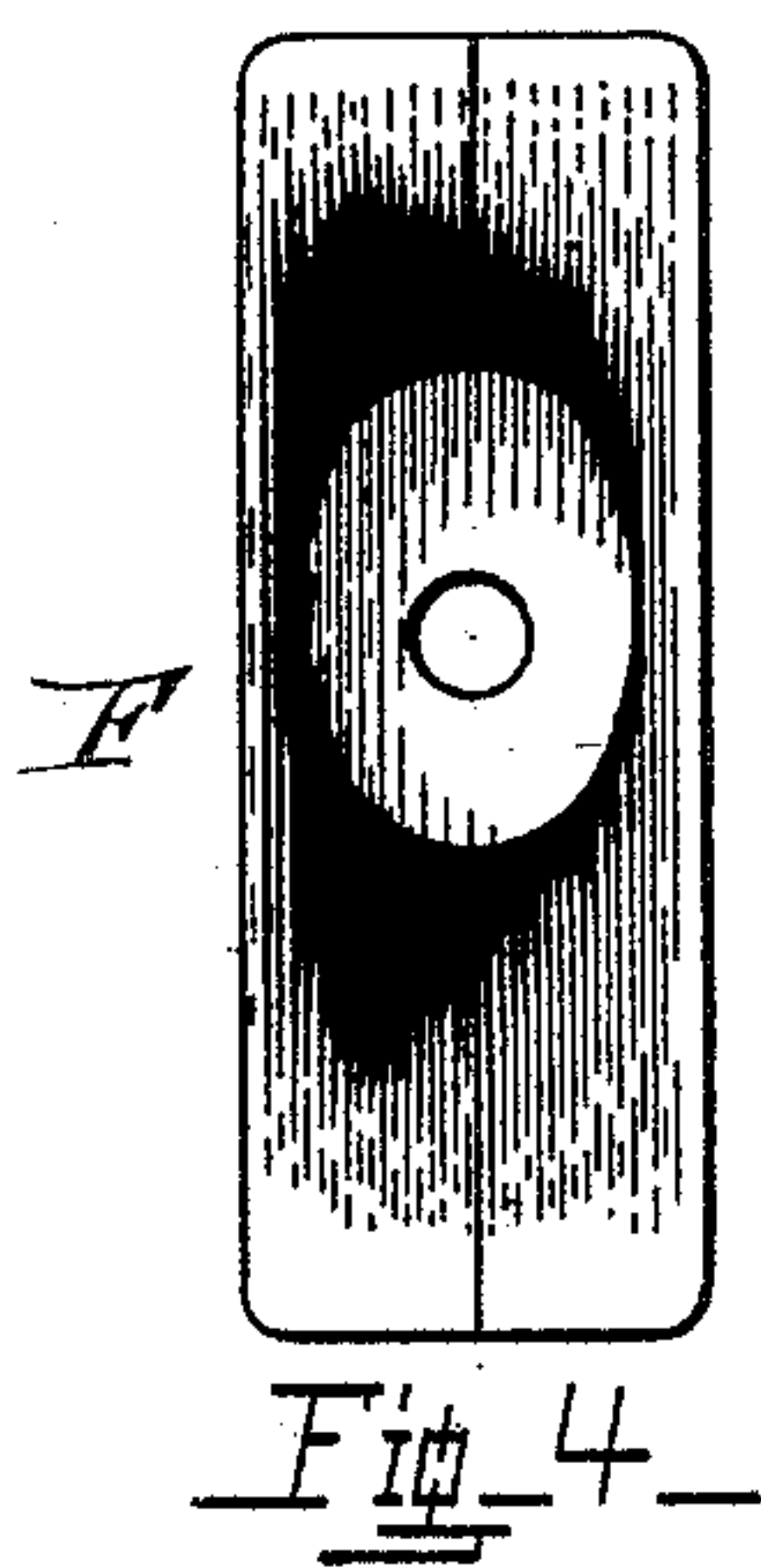
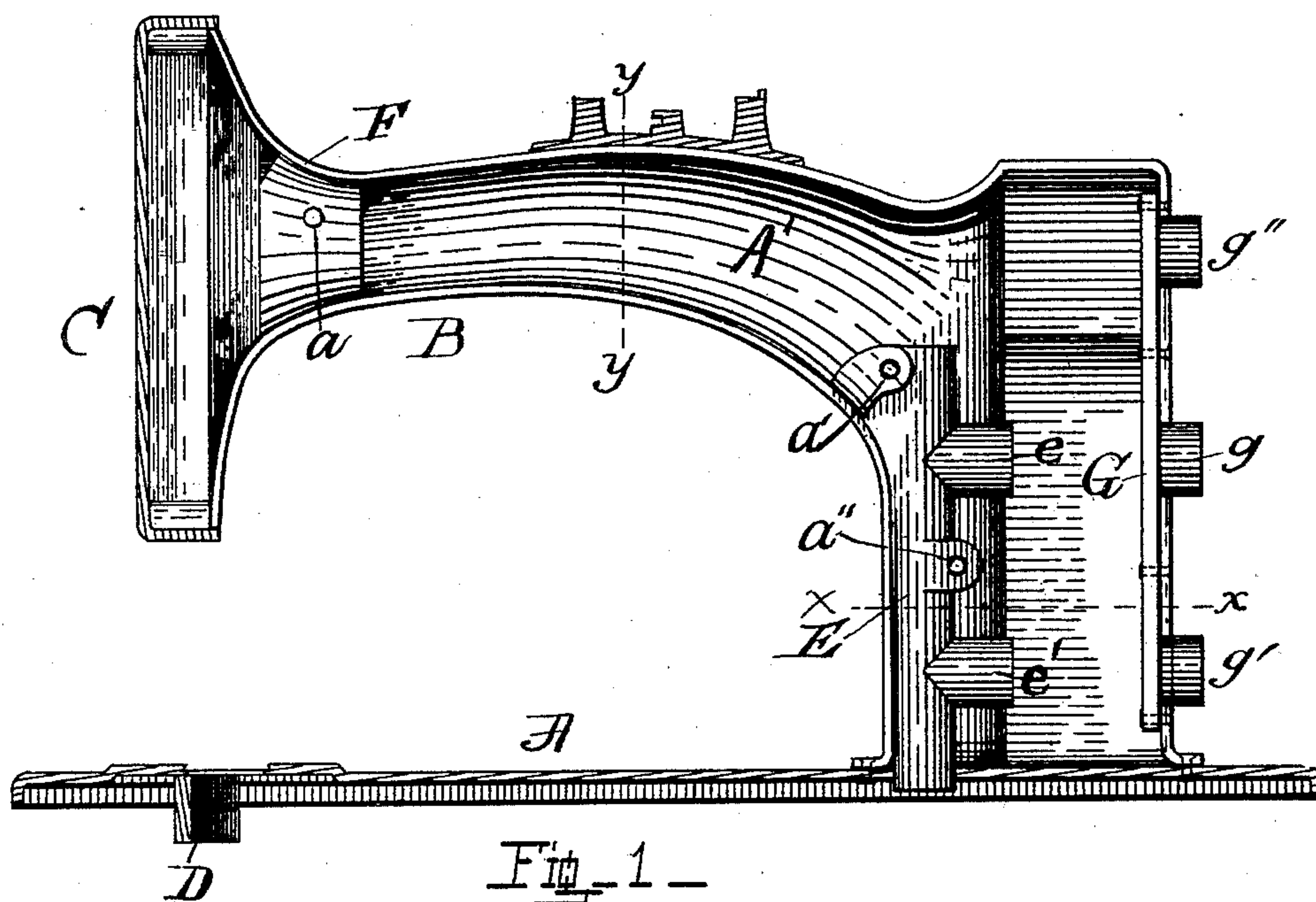


(No Model.)

J. M. BROSIUS.  
FRAME FOR SEWING MACHINES.

No. 424,854.

Patented Apr. 1, 1890.



Witnesses  
*A. P. Wood*  
*E. H. Blum*

John M. Brosius.  
By his Attorney  
*Albert H. Wood*



# UNITED STATES PATENT OFFICE.

JOHN M. BROSIUS, OF ATLANTA, GEORGIA.

## FRAME FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 424,854, dated April 1, 1890.

Application filed August 31, 1889. Serial No. 322,602. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN MOMAN BROSIUS, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Sewing-Machine Frames; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to the construction of sewing-machine frames, the object being to make them lighter, more substantial, and at a less cost.

The invention consists of such details as will be hereinafter described.

In the accompanying drawings, Figure 1 is a central longitudinal vertical section showing the interior of the arm and most of the details of construction. Fig. 2 is a horizontal section through the arm on the line  $xx$ , Fig. 1. Fig. 3 is a cross-section through the arm and bed-plate on the line  $yy$ , Fig. 1. Fig. 4 is a front view of the overhanging end of the arm, the face-plate being removed.

For the purpose of illustrating my invention, I have shown the construction that would be necessary for the form of sewing-machine frame shown in my previous application for Letters Patent, Serial No. 283,554 for an improvement in sewing-machines, the requirements being for a horizontal needle-driving shaft, a vertical rocking shaft to drive the shuttle, a common face-plate, and provision for attaching the shuttle-race and feeding mechanism. I have also shown the upright part of the arm as provided for a train of gears to drive the operative parts.

In the several figures like reference-marks indicate corresponding parts in the several views.

A is the base-plate, B the arm, and C the face-plate. The base-plate is made from a piece of malleable metal. The frame, as here shown, is principally constructed from sheet metal, preferably steel—that is to say, what might properly be called the “frame”

of the head is made from sheet metal braced and held together by blocks and rivets, as will be hereinafter described.

The sheet metal used in the construction should be comparatively thin—say about one-sixteenth of an inch in thickness. The base-plate should be from such metal, and should be flanged on the edges, as shown in the drawings, for the purpose of giving it the required stiffness, and should be set up slightly in the vicinity of the needle-opening, as shown in Fig. 1, either in a circular or rectangular form, in the latter case extending across the bed-plate. The shuttle-race D is attached to the bed-plate, preferably by riveting, as should also be the necessary fixed parts of the feeding mechanism and the hinges. The arm B is struck up in two parts from sheet metal, which form the exterior parts of said arm. The two parts A' are shown in section in Figs. 2, 3, and 4. The two sides thus formed and having continuous contact on their edges are held together by rivets  $a$ ,  $a'$ , and  $a''$ , passing through the sides and through the inserted pieces E and F. A greater or less number of these rivets may be used, according to the requirements and according to the number and form of the inserted pieces. These pieces are inserted for the double purpose of carrying the operative mechanism and to stiffen the arm. The arm may be further strengthened by plates of metal riveted across the joint between the two sides, as the plate G, which has on its outer side bosses  $g$  and  $g'$ , to correspond with the bosses  $e$  and  $e'$  on the piece E, which form journal-boxes, as required in the form of head that this illustrates. This piece G is also shown as carrying the boss  $g''$ , through which the horizontal shaft passes. The horizontal shaft also passes through the piece F. The tension device should be riveted over and across the upper seam in the arm B, as shown in Figs. 1 and 3, thus stiffening and strengthening that part of the arm.

The face-plate C is struck up in the required form from sheet metal, and the necessary parts for carrying the mechanism contained therein may be attached in any improved way.

It is obvious that heads may be constructed in this way for any form of sewing-machine,

it being only necessary to change the construction without changing the general principles on which it is constructed.

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

As an improved article of manufacture, a sewing-machine frame consisting of the base  
10 A, the arm formed of the parts A' A', formed of sheet metal, connected by suitable rivets, the inserted pieces E and F for carrying the operative parts of the mechanism and stiffen-

ing the arm, said plate E having bosses *e* and *e'* to form journal-boxes, and the piece G, riveted across the rear adjacent edges of the  
15 sides A' A' and having bosses *g*, *g'*, and *g''*, forming journals for the necessary shafting.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

JOHN M. BROSIUS.

Witnesses:

A. P. WOOD,

WILLIE KEITH.