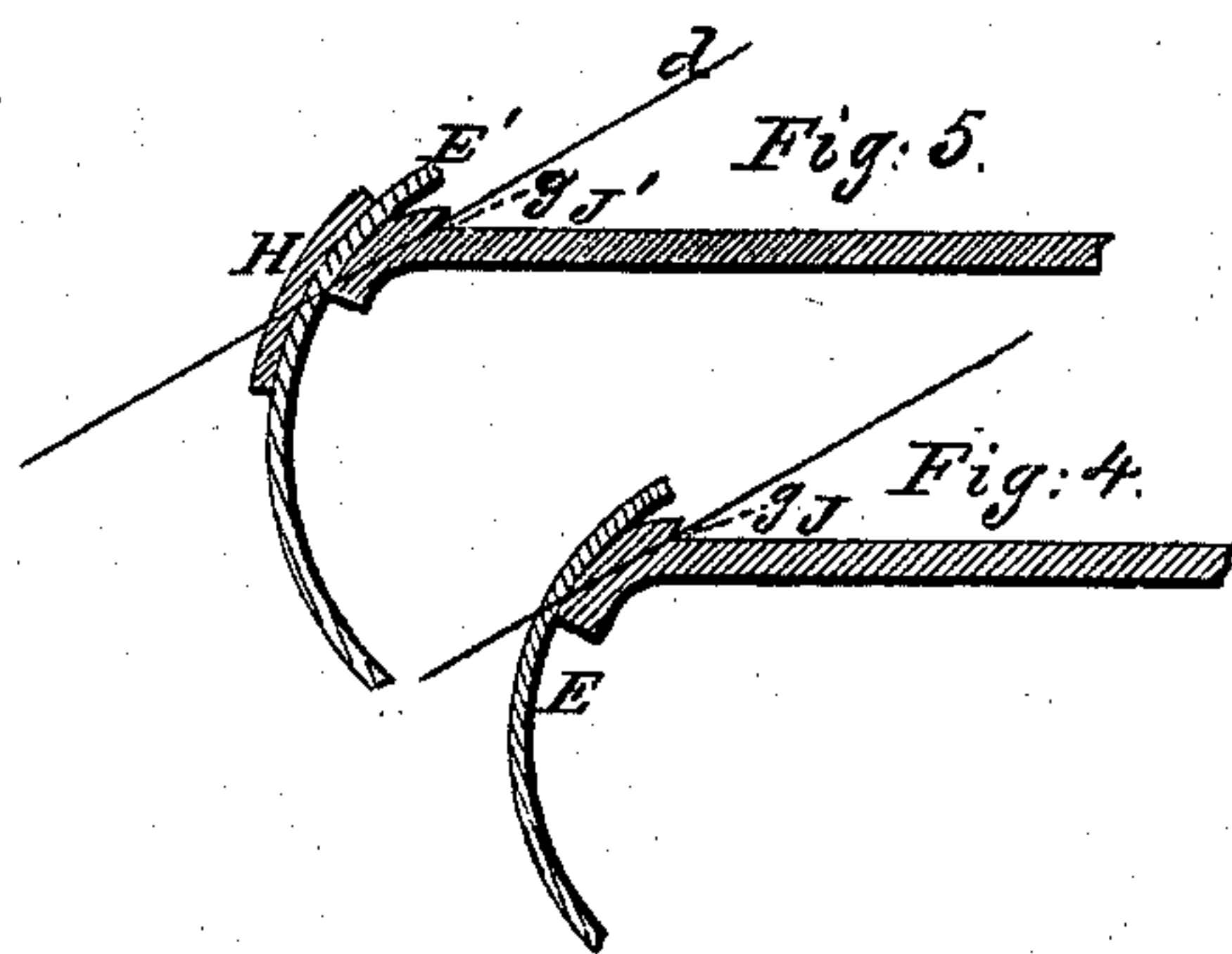
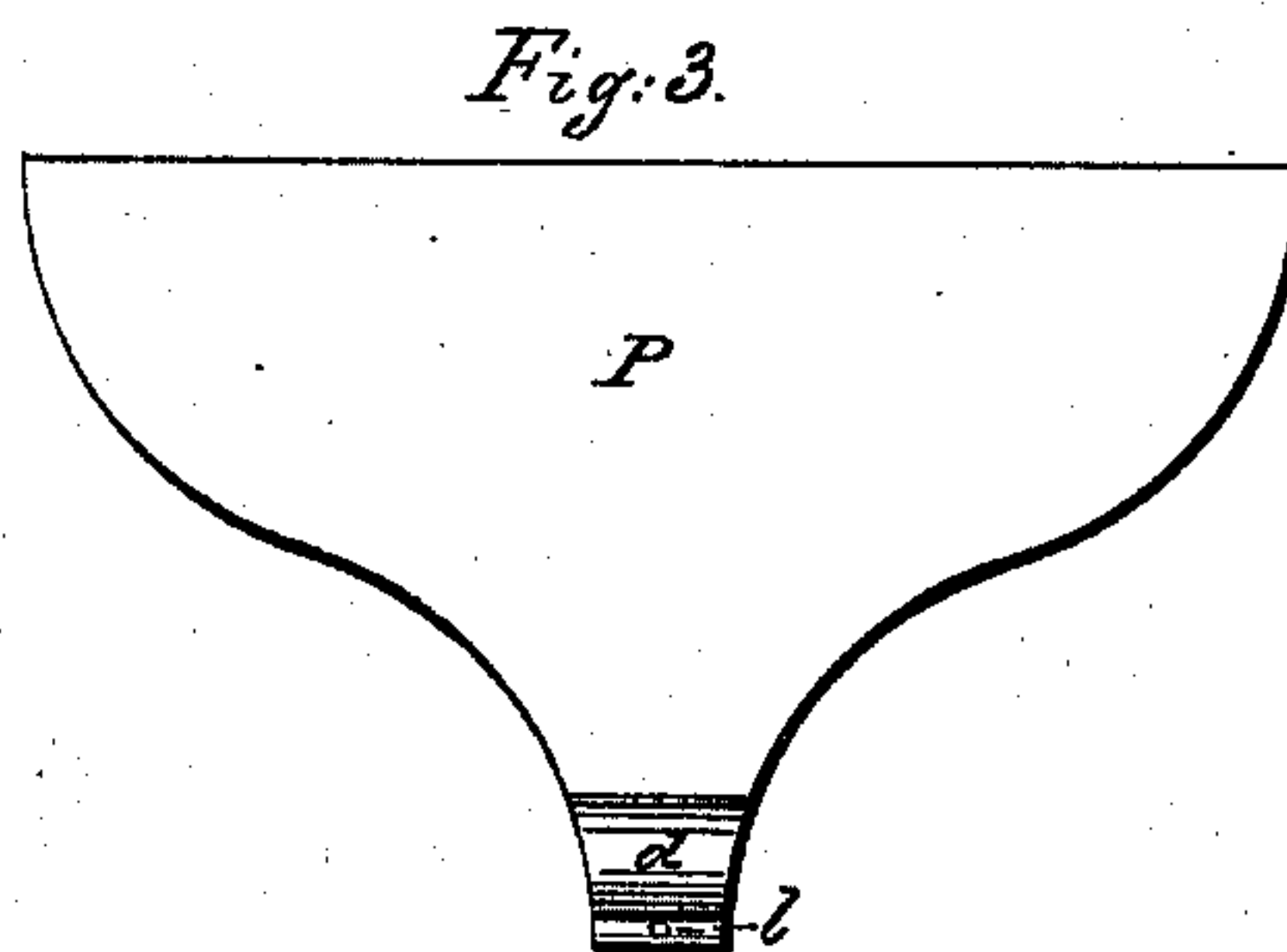
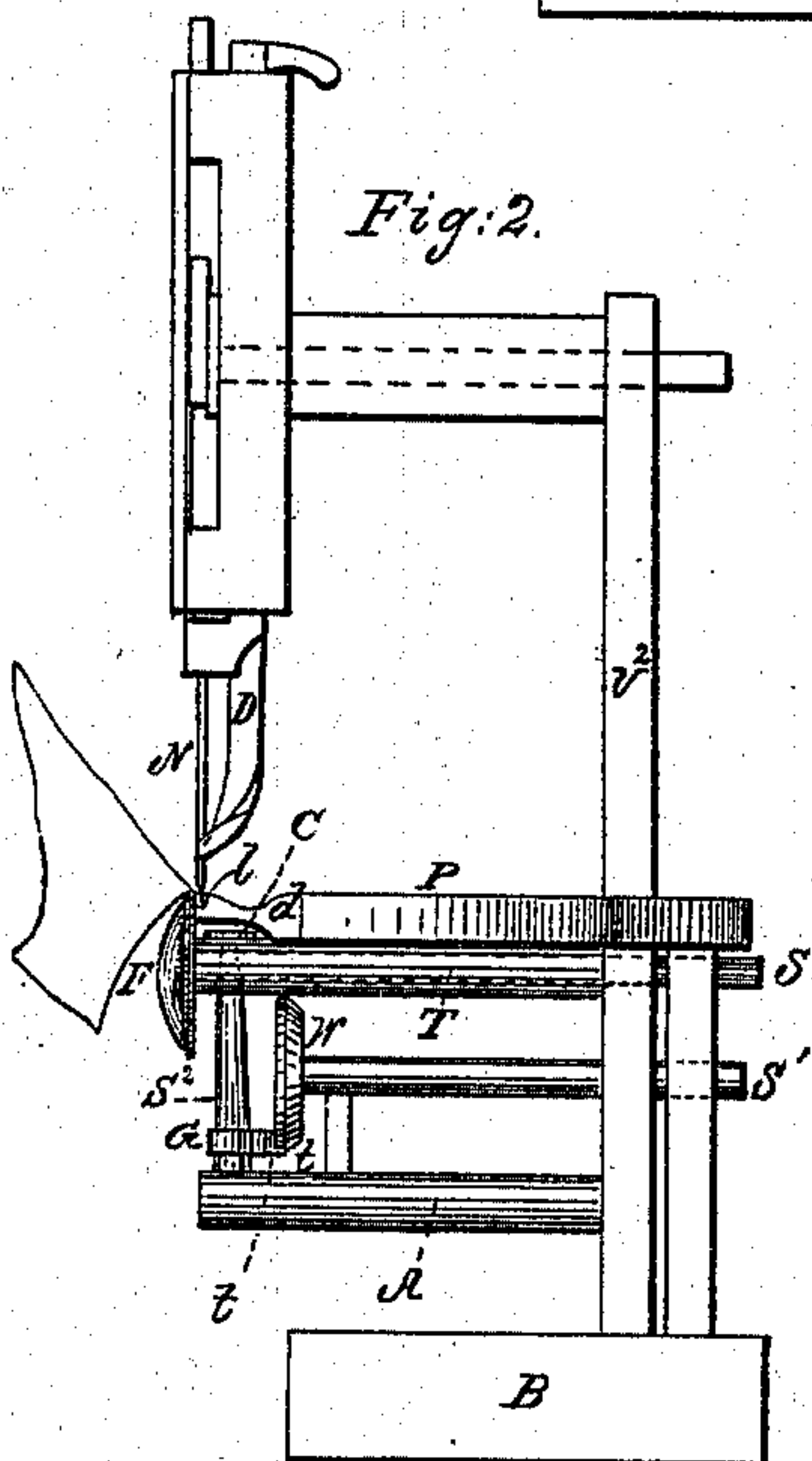
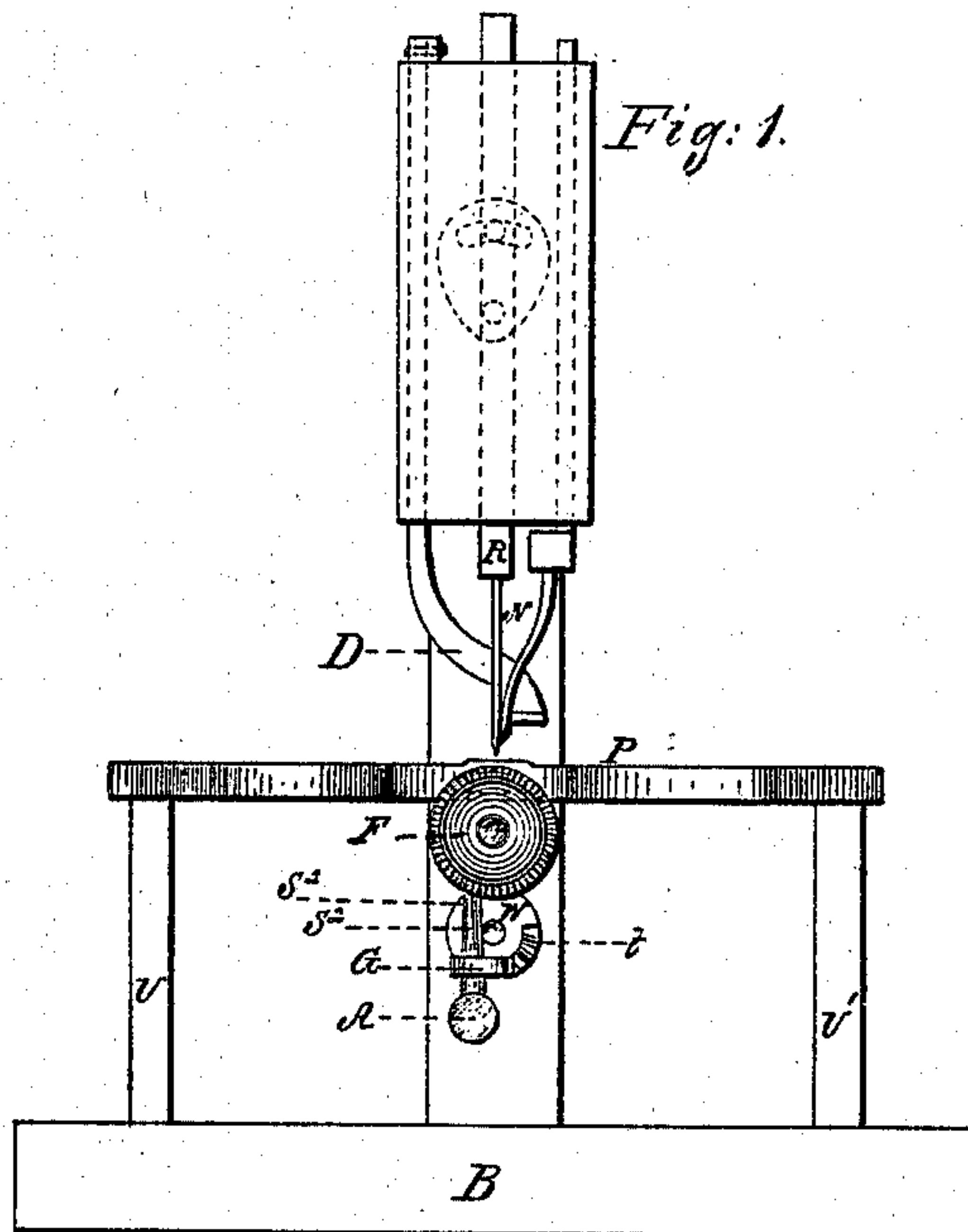


J. CUTLAN.
Sewing Machine.

No. 97,611.

Patented Dec. 7, 1869.



Witnesses { Charles H. Evans
 { Isaac R. Oakford,

Inventor.

John Cutlan

UNITED STATES PATENT OFFICE.

JOHN CUTLAN, OF MOORESTOWN, NEW JERSEY.

IMPROVEMENT IN MACHINE FOR SEWING THE SOLE AND UPPER OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. 97,611, dated December 7, 1869.

To all whom it may concern:

Be it known that I, JOHN CUTLAN, of Moorestown, county of Burlington and State of New Jersey, have invented a new and useful Improvement in Machines for Sewing Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is, by means of a straight needle, to sew the sole to the upper of boots and shoes, while it (the upper) is turned inside out, and when the upper is turned, to assume the proper form, the stitches will all be on the inner side of the sole, and consequently are not exposed, or liable to be worn. In sewing the sole to the upper, I sometimes employ a welt. My invention consists in arranging a machine with a peculiarly-formed plate, provided at its front end with a groove or channel, in which is fitted the lower part of a presser-foot. Underneath of the said plate is placed a shaft, carrying on its front end a feed-wheel of novel construction.

Figure 1 is an end elevation of my machine for the manufacture of boots and shoes. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view of the plate detached. Figs. 4 and 5 are sectional views, showing the manner of sewing a turn or a welt.

To enable those skilled in the art to make and use my invention, I will now proceed to describe its construction and operation. The plate P, made in the shape as shown in Fig. 3, is elevated, at the proper height, on the bed-plate B, by means of uprights U and U¹. Immediately under the center of said plate is placed, and enclosed by means of the tube T, a horizontal shaft, S, which revolves in bearings formed in the tube. Secured on the front end of the shaft S is a feed-wheel, F, made bevel or oval in form, and with the periphery roughened or milled, in order to hold and prevent slipping of the material placed thereon. A short distance below the shaft S is placed, and worked in suitable bearings, a shaft, S¹, one end of which is provided with a wheel, W. The face of the said wheel has formed on a

portion of it a series of teeth, *t*. In the upright U², and a short distance above the bed-plate B, is secured an arm, A, which projects out toward the front of the machine, and serves as a bearing for the lower end of a vertical shaft, S². The shaft S² is made tapering, with the upper part passing through and working in the tube T, on one side of the horizontal shaft S, and is provided, at its upper end, with a thread-carrier, C, and near its lower end, with a segmental gear-wheel, G, the teeth of which engage with the teeth *t*, formed on the wheel W. The needle N, made perfectly straight, is secured in the needle-bar R, and is operated in the usual manner. The front end *d*, of the plate P, curves over the thread-carrier C, and is provided on its upper surface, on a line with needle-point, with a groove or channel, *l*, one side of which is raised slightly above the feed-wheel F. The lower part of the presser-foot D is curved, so as to pass in front of the needle N, with the end made tapering, in order to fit in the groove or channel *l*.

If desired, the feed-wheel F can be dispensed with, and a push-feed arranged to work in the groove or channel *l*, on top of the plate P. The wheels W and G can also be dispensed with, and the thread-carrier C operated by means of an eccentric placed on the shaft S¹, and working on a cam connected with the shaft of the thread-carrier.

The front part of the plate P is cut away on both sides, and all the working parts of the machine placed inside of the feed-wheel F, so that a boot or shoe can be placed on the wheel at any angle, and freely turned while being stitched.

In preparing a boot or shoe to be sewed on the machine, the upper E, Fig. 4, is turned inside out, and stretched in the usual manner, over a last of suitable form. The sole J, having a groove or channel, *g*, formed on its inner surface, and a short distance from the outer edge, is then placed on, with the outer surface toward the last, where it is secured; the outer edge is then turned down, and the lower part of the upper E turned over it. The sole and upper, thus prepared, is then placed on the feed-wheel F of the machine, with the projecting edges fitting in the groove or channel *l* of the plate P, while the presser-foot D rests

in the channel of the sole. The boot or shoe is held on an angle, so that the needle will pass through the sole and upper, as shown by the line *d*, Fig. 4, while the work is being carried forward by means of the feed-wheel F. After the sole and upper are sewed together, the last is removed, and the upper turned, so as to assume the proper form. The stitches, being made through the groove or channel, do not pass through or show on the under side of the sole; consequently, the boot or shoe will last longer, as the stitches are not liable to wear off. In sewing with a welt, H, Fig. 5, the groove or channel *g* is formed on the outer surface of the inner sole J'.

Having thus described my invention, its

construction and operation, what I claim, and desire to secure by Letters Patent of the United States, is—

The plate P, having a groove or channel, *l*, shaft S, feed-wheel F, straight needle N, and presser-foot D, all arranged as described, to sew the channeled sole to the upper while inside out, and leave the stitch formed on the inner side of the sole, when the upper is reversed, as herein specified.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN CUTLAN.

Witnesses:

ISAAC R. OAKFORD,
CHARLES H. EVANS.