

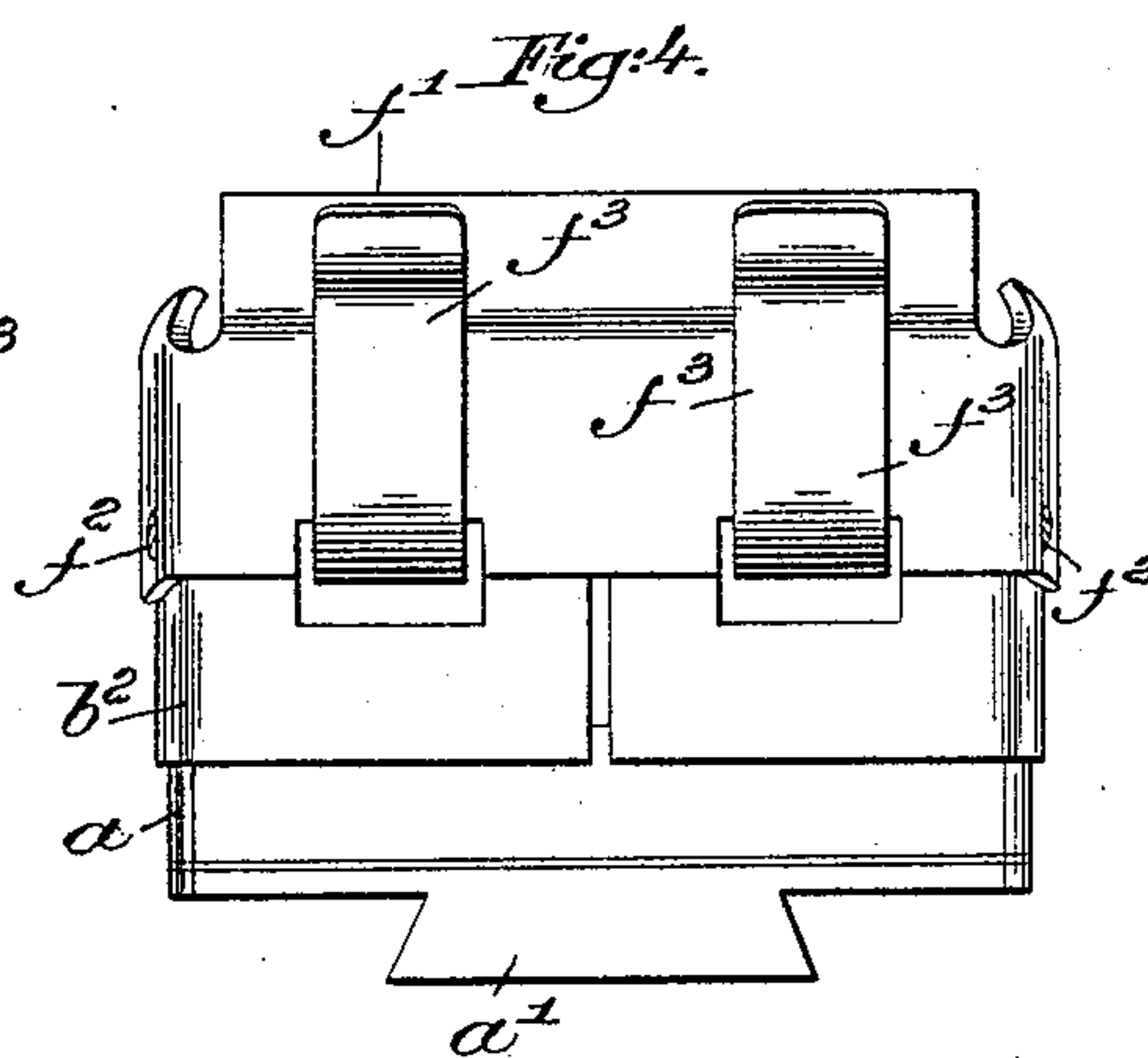
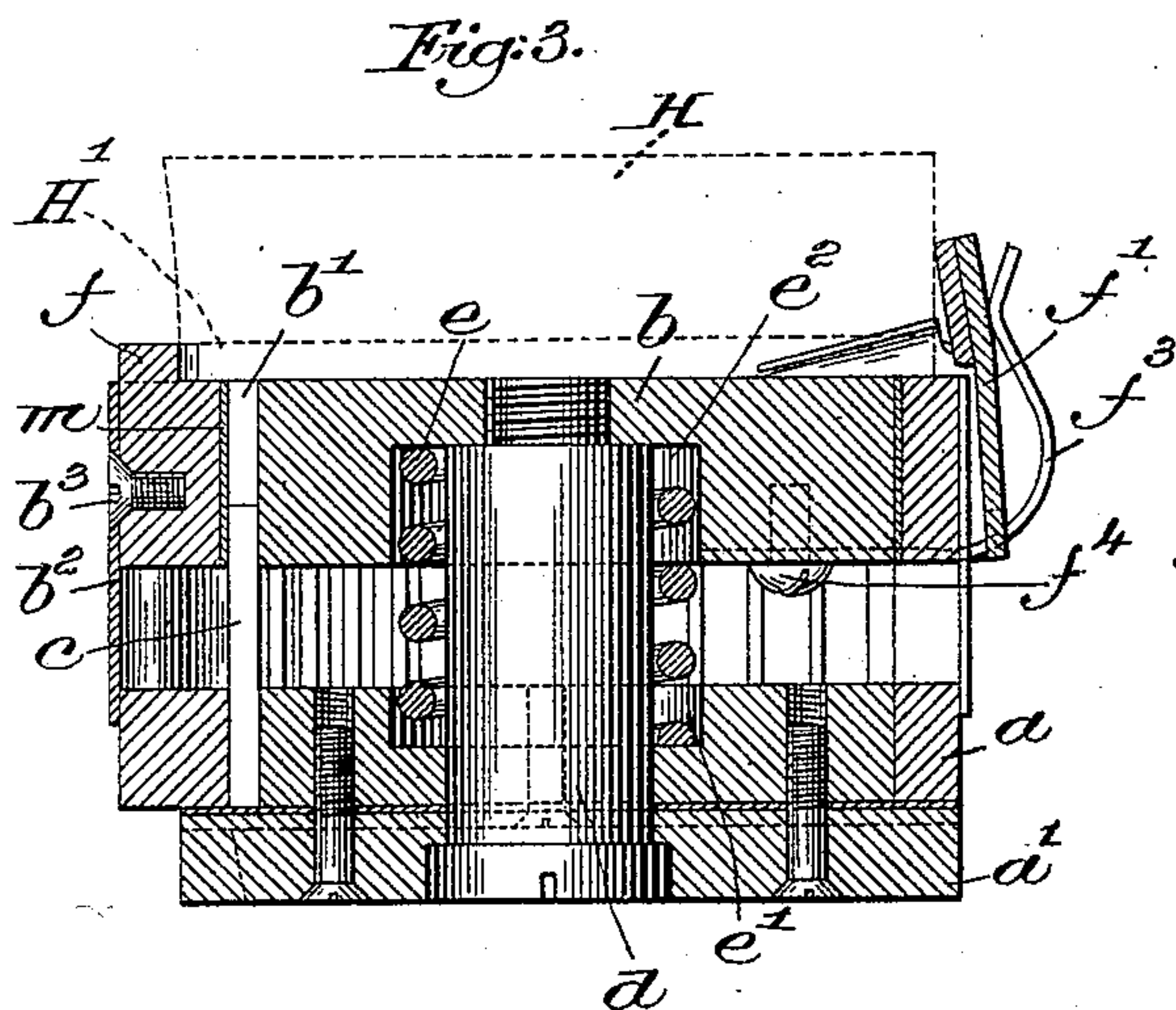
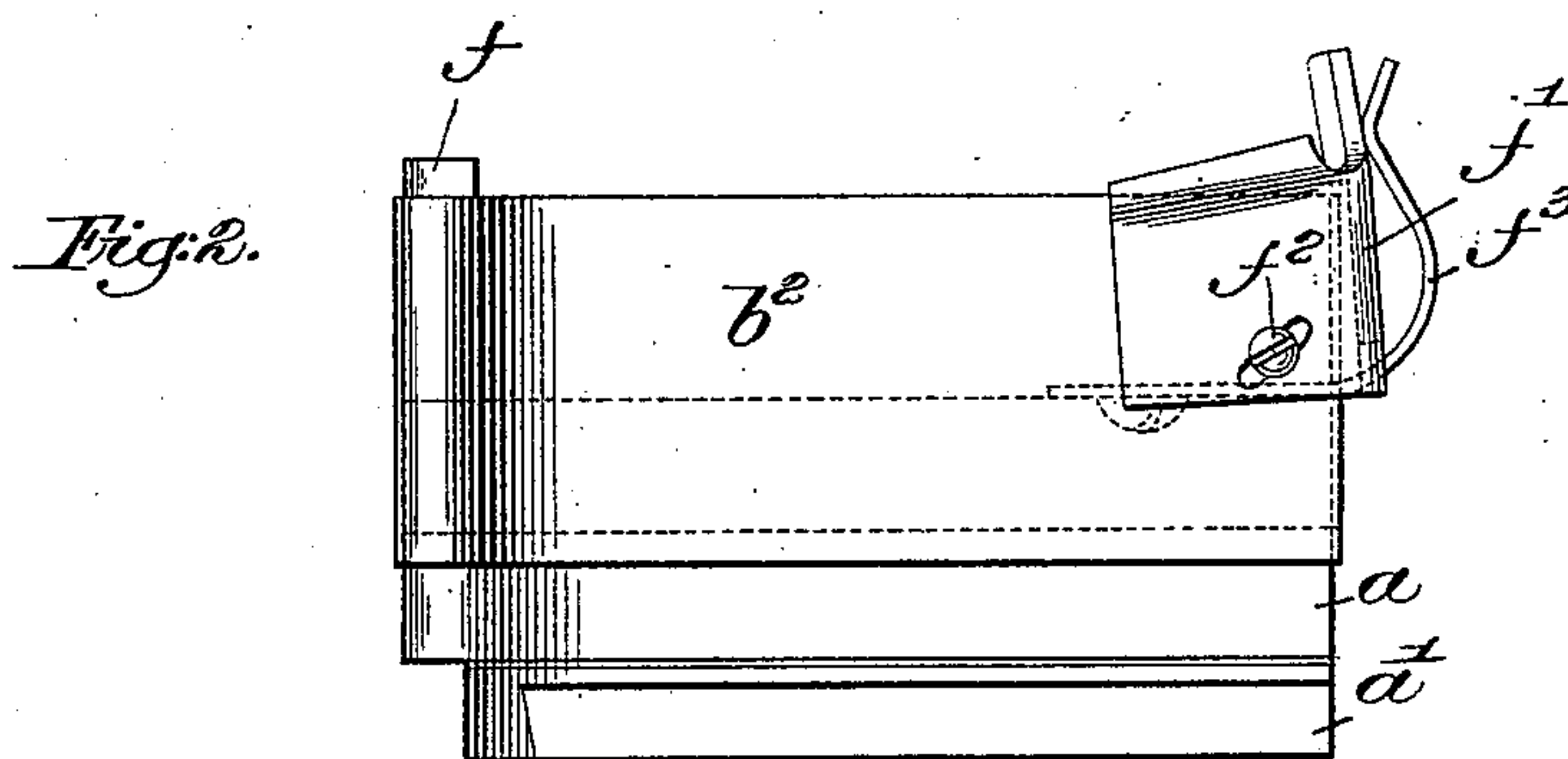
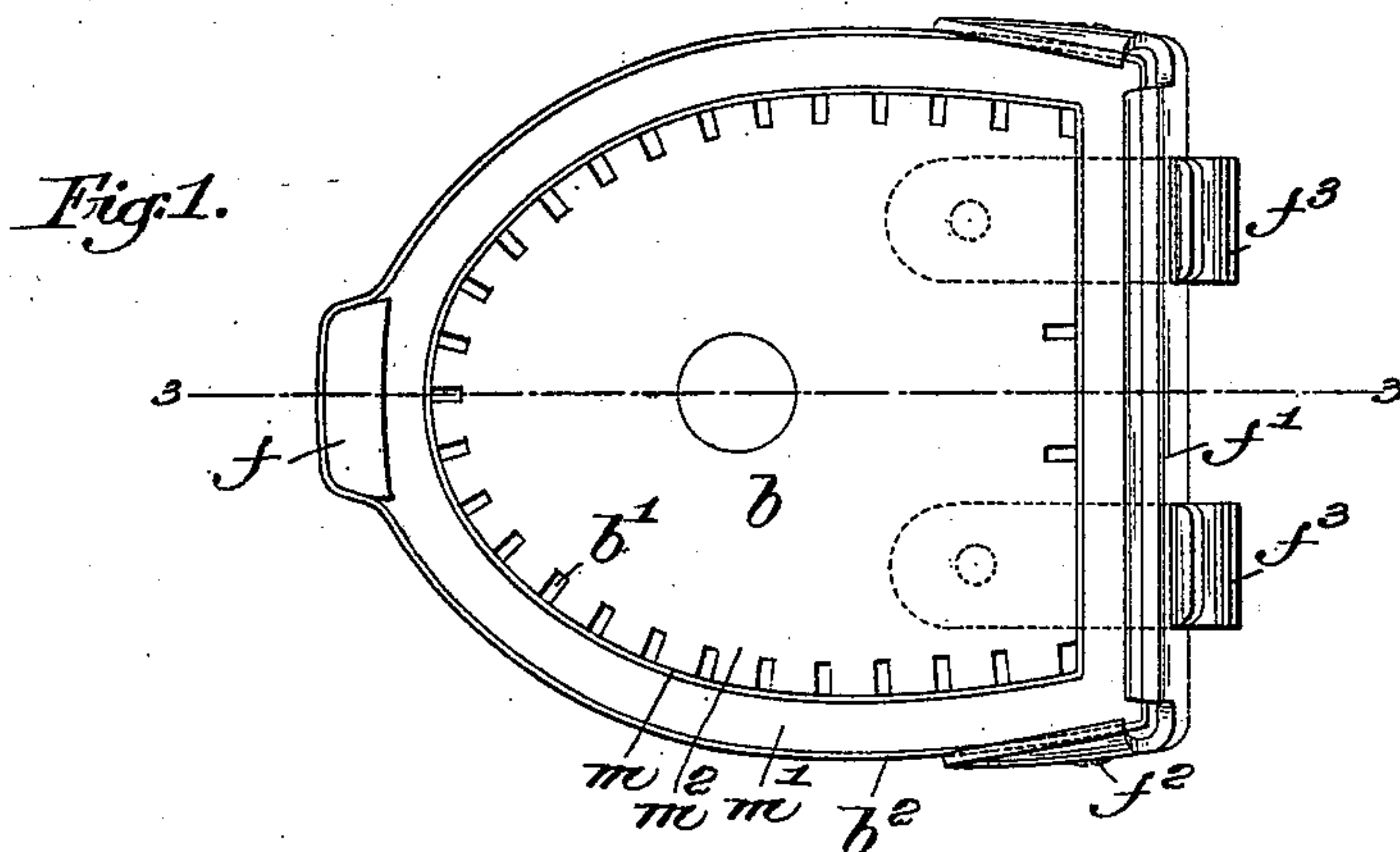
(No Model.)

C. L. KEENE.

SLUGGING HEAD FOR HEEL ATTACHING MACHINES.

No. 582,504.

Patented May 11, 1897.



witnesses.

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UNITED STATES PATENT OFFICE.

CHESSMAN L. KEENE, OF WEYMOUTH, MASSACHUSETTS, ASSIGNOR TO THE
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SLUGGING-HEAD FOR HEEL-ATTACHING MACHINES.

SPECIFICATION forming part of Letters Patent No. 582,504, dated May 11, 1897.

Application filed July 1, 1896. Serial No. 597,663. (No model.)

To all whom it may concern:

Be it known that I, CHESSMAN L. KEENE, of Weymouth, in the county of Norfolk and State of Massachusetts, have invented an Improvement in Slugging-Heads for Heel-Attaching Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention is an improved slugging-head for use in heel-attaching machines, one object thereof being to insure the driving of the slugs into the top lift of the heel with greater evenness and regularity than has been hitherto possible, thereby giving to the attached heel an exceedingly neat and handsome finish, another object thereof being to increase the life and service of the head.

In the process of simultaneously attaching a heel to a sole and driving slugs into the top lift the heel is subjected to great pressure and invariably squats out or flattens more or less. Heretofore this lateral yielding of the heel to the pressure has taken place in the direction of least resistance, or rearwardly away from the breast-gage, against which the breast of the heel has been invariably placed. This yielding of the heel back from the breast-gage results in carrying the top lift back, so that its trimmed edge is thrown out of proper alignment with the slug-drivers, and consequently it is impossible to preserve the symmetrical arrangement of the slugs with relation to the edge of the top lift, and the finished heel is imperfect and the sale of the shoe is injured. In a perfect heel the nails or slugs should stand in an even row, perfectly aligned and uniformly adjacent the edge of the top or tread lift of the heel.

Accordingly one feature of my invention resides in providing means whereby any squatting out of the heel will take place forwardly, or in the direction of the breast of the heel, and the rounded back end of the trimmed top lift is not displaced with relation to the path of the slug-drivers, and consequently the slugs show in the top lift in perfect regularity and at the precise distance desired within the edge thereof. Again, in driving the slugs into a heel, the slugs being driven in close to the edge of the heel, as is usual, there is a tendency for

the slugs to work toward the edge, for the reason that the resistance offered toward the edge of the heel is less than toward the center of the heel. This tendency of the slugs to crowd outwardly causes the slug-guiding holes in the slug-box to be worn rapidly and necessitates the frequent renewal of the head. To overcome this rapid wear, I have therefore provided hardened outer walls for the holes of the slug-box, as hereinafter described.

My invention will be more fully apprehended and the details of construction thereof understood from the following explanation, reference being had to the accompanying drawings, illustrative thereof, in which—

Figure 1 is a plan view, and Fig. 2 is a side elevation, of the slugging-head embodying my invention. Fig. 3 is a central vertical section thereof, taken on the dotted line 3 3 of Fig. 1 and showing in dotted lines a heel clamped thereon preparatory to nailing; and Fig. 4 is a front end elevation thereof.

My improved slugging-box will be used in connection with a heel-attaching machine substantially such as shown in United States Patent No. 486,288, dated November 15, 1892, it containing mechanism inside a post or standard to drive outwardly therefrom into the sole, and then the heel, fastenings by which to attach the sole to the heel.

The driver-plate *a*, having attached drivers *c*, has a dovetail extension *a'* for securing it to the head-block of the machine referred to, the drivers entering holes in the yielding slug-plate *b* of the nail or slug box, the slugs to be driven being also placed in said holes on top of the drivers while the box is inverted, as in Fig. 3, and then a heel *H* with a top lift *H'* temporarily attached is laid on the plate *b*.

The driver-plate and plate *b* are normally separated by a spring *e*, surrounding a headed bolt *d*, screwed into the former.

A shield *b²* incloses the opening between the driver-plate and slug-plate and is secured to the former by a screw *b³*.

The heel having been clamped in position on the slug-plate, as indicated at *H* by dotted lines, the slug-plate and heel are then turned over and placed in the heel-attaching machine.

To prevent the spreading of the heel dur-

ing the attaching operation rearwardly, and thereby removing the top lift H' out of its proper position with relation to the slug-drivers, I have provided the rear or small end 5 of the slug-plate opposite its breast end with a rigid block or heel-stop f to abut against the rear end of the heel. This block may be secured to the slug-plate in any desired way, but preferably it will be made integral there- 10 with.

At the front of the slugging-head I have mounted a yielding rather than a fixed breast-gage f' , it being shown as pivoted at either end at f^2 to the said head. This breast-gage 15 will preferably be extended upwardly and bent inwardly so as to bear against the breast of the heel and at either end of the breast-heel, and it is held in its normal position by means of springs f^3 , suitably secured, as at 20 f^4 , to the slugging-head.

It will be evident that with a slugging-head thus equipped it is impossible for the heel to spread or squat out rearwardly, for the reason that the stop f prevents all movement in that 25 direction, and the spreading must therefore take place at the breast of the heel, the breast-gage yielding as necessity may require.

A further feature of my invention resides in providing a hardened outer wall or walls 30 m for the slug-holes b' , so that as the slugs tend to work outwardly as they are driven into the heel they will be prevented from rapidly wearing away and enlarging said holes. I have herein shown these walls as formed by 35 a single piece or band of steel shrunk onto the body of the slug-box.

This is my preferred method of making the slug-box, although I in no wise restrict my invention thereto. I take a strip of steel m 40 and a strip of wrought-iron m' , weld them together, and then bend them into the required shape and size, this heel-shaped ring being then heated and shrunk onto the wrought-iron or steel body b of the slug-box, the lat- 45 ter being peripherally grooved to provide the inner and two side walls of the holes b' , the steel band m forming the outer walls of the said holes. The whole may then be tempered to the desired hardness, the steel band m 50 of course becoming relatively the hardest.

When, therefore, the slugs tend to deflect outwardly as they are driven, because of the less resistance of the leather toward the edges of the heel, this steel band m effectually resists this tendency and prevents the usual rapid 55 wearing away of the holes b' , and such a box will wear for a very long time.

I have herein set forth the preferred embodiment of my invention, but do not restrict myself thereto, inasmuch as many changes 60 may be resorted to without departing from the spirit and scope thereof.

The elongation of the heel toward its breast end may be readily removed by trimming the breast, as such trimming does not affect the 65 symmetrical appearance of the heel and its slugs.

What I claim is—

1. A nailing or slugging head, having a rigid top-lift stop at its rear side, and a coop- 70 erating yielding breast-gage to act upon the breast of the heel to thereby insure the spreading of the heel under pressure only toward the breast of the heel, substantially as described. 75

2. A nailing or slugging head, having a rigid heel-stop at its rear side, and a cooperating yielding breast-gage pivoted thereto to act upon the breast of the heel and enable 80 the spreading of the heel under pressure to take place toward the breast of the heel, and a spring to act on said breast-gage to maintain the latter normally against the breast of the heel, substantially as described.

3. In a nailing or slugging head, the com- 85 bination with a slug-box provided with slug-holding holes, of a steel strip m inclosing the slug-holes and constituting the outer walls thereof, substantially as described.

4. A nailing or slugging head, having a 90 band of steel interposed in the slug-box to constitute the outer walls of the slug-holding holes thereof, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of 95 two subscribing witnesses.

CHESSMAN L. KEENE.

Witnesses:

GEO. W. GREGORY,
AUGUSTA E. DEAN.