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PATENTED DEC. 31, 1907.

J. W. BADDOCK.

TOP LIFT OR HEEL HOLDER FOR HEEL ATTACHING MACHINES.

APPLICATION FILED JAN. 30, 1907.

2 SHEETS—SHEET 1.

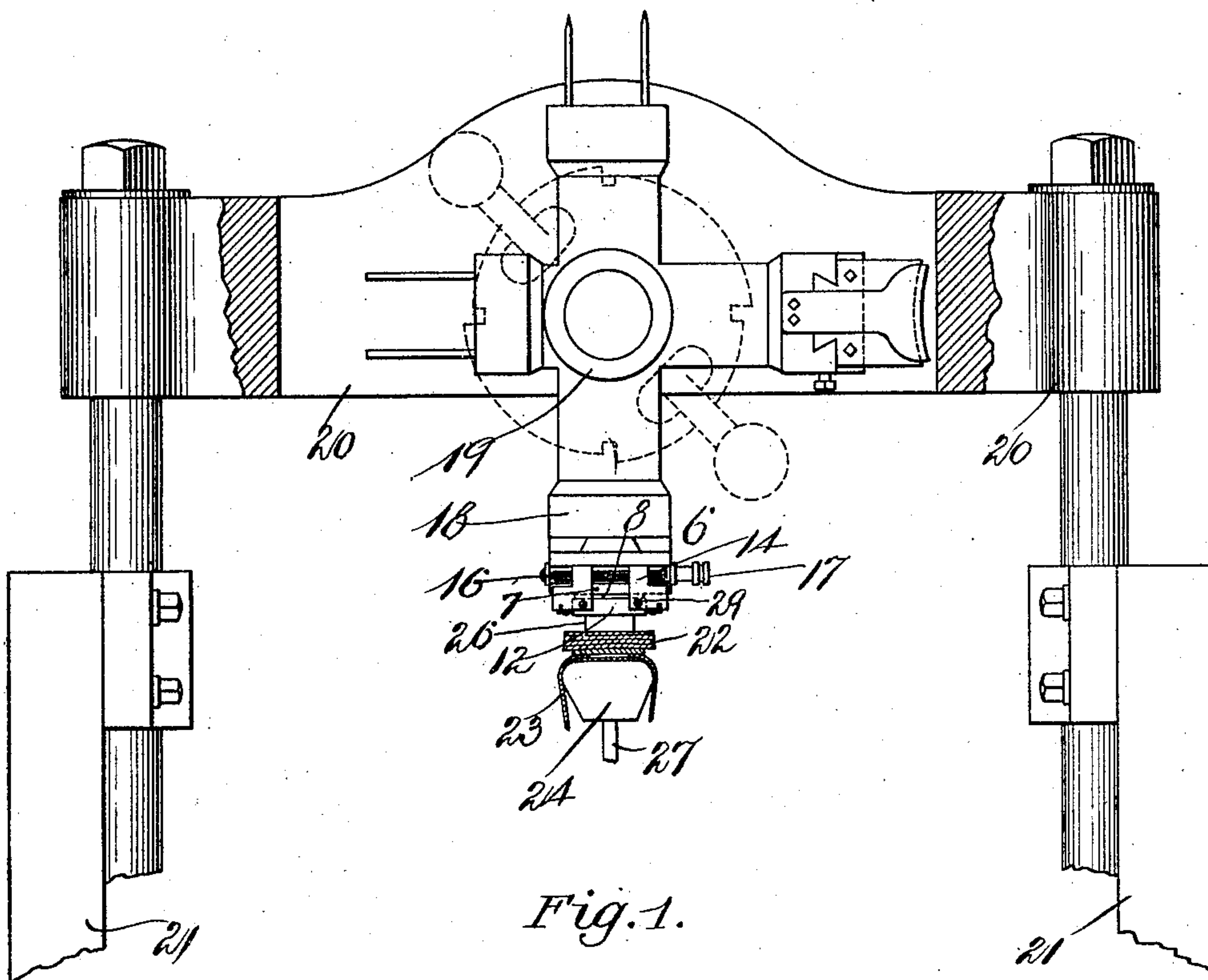


Fig. 1.

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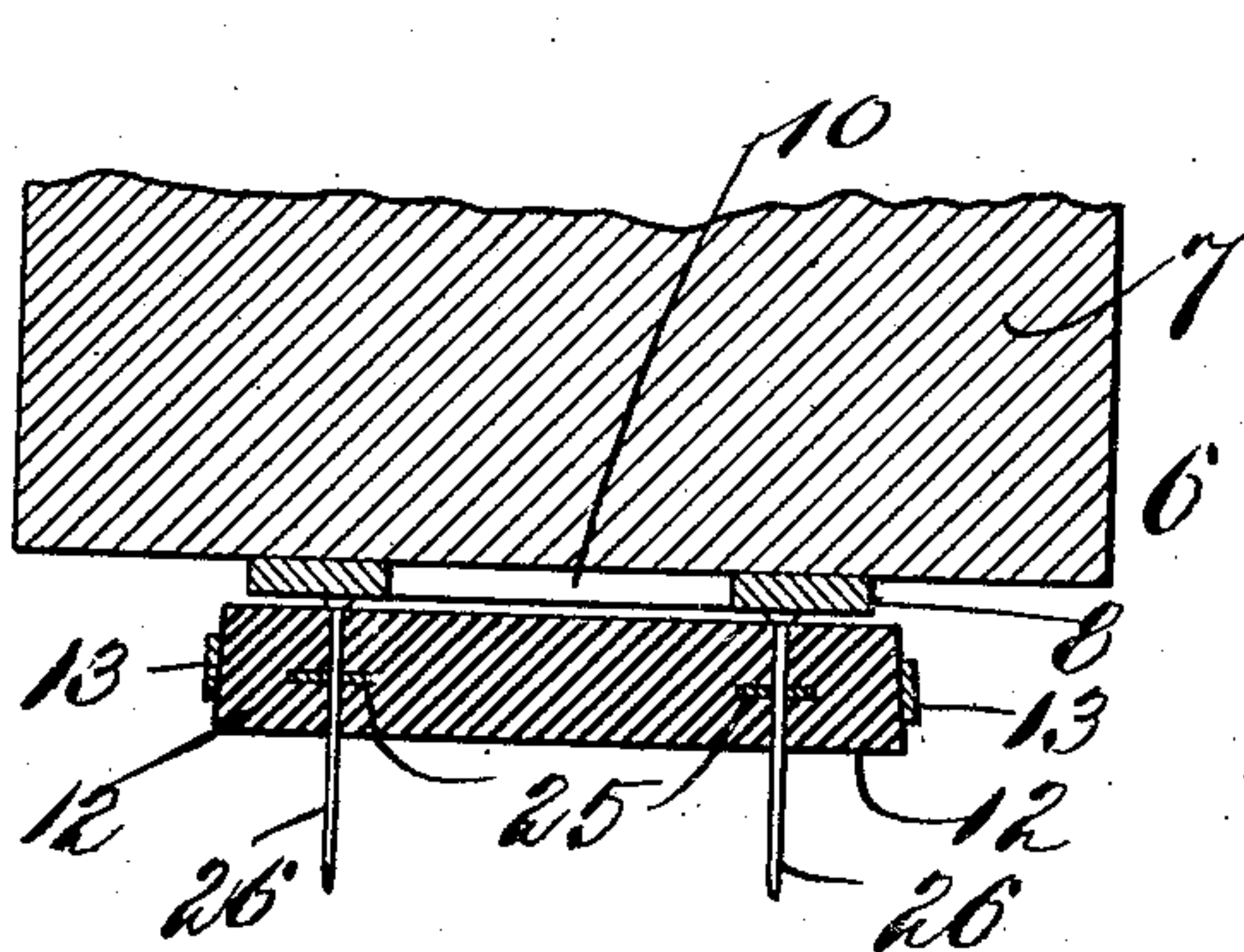
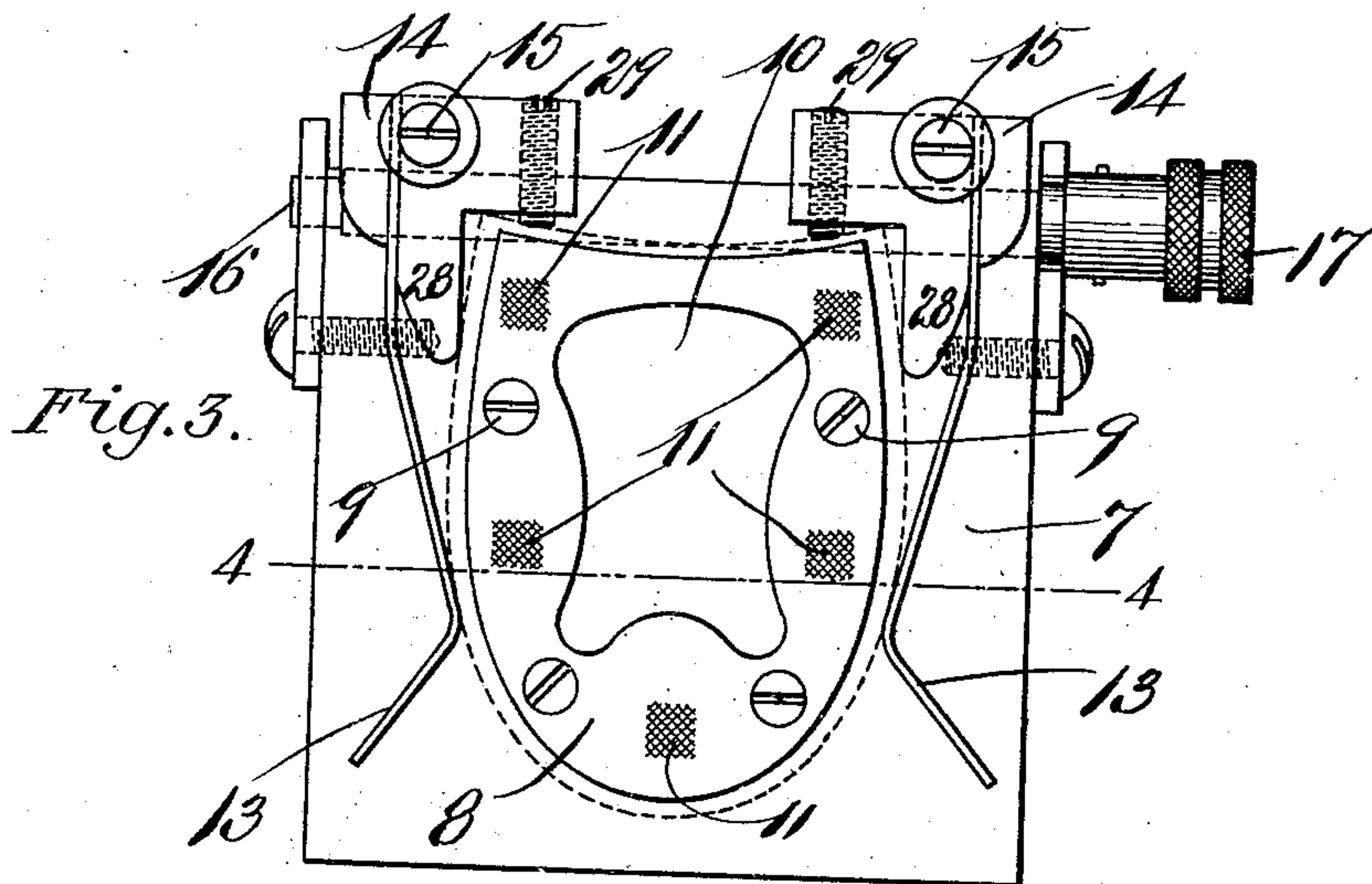
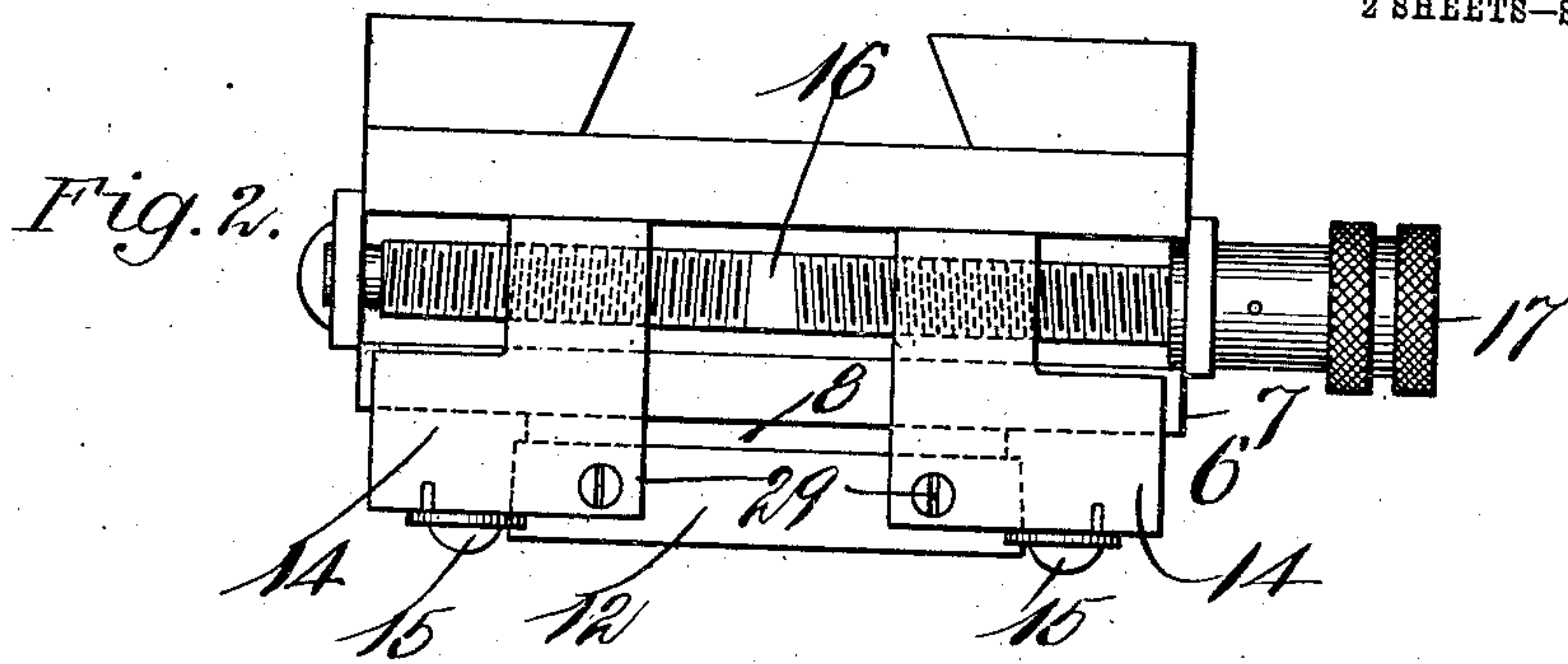


Fig. 4.

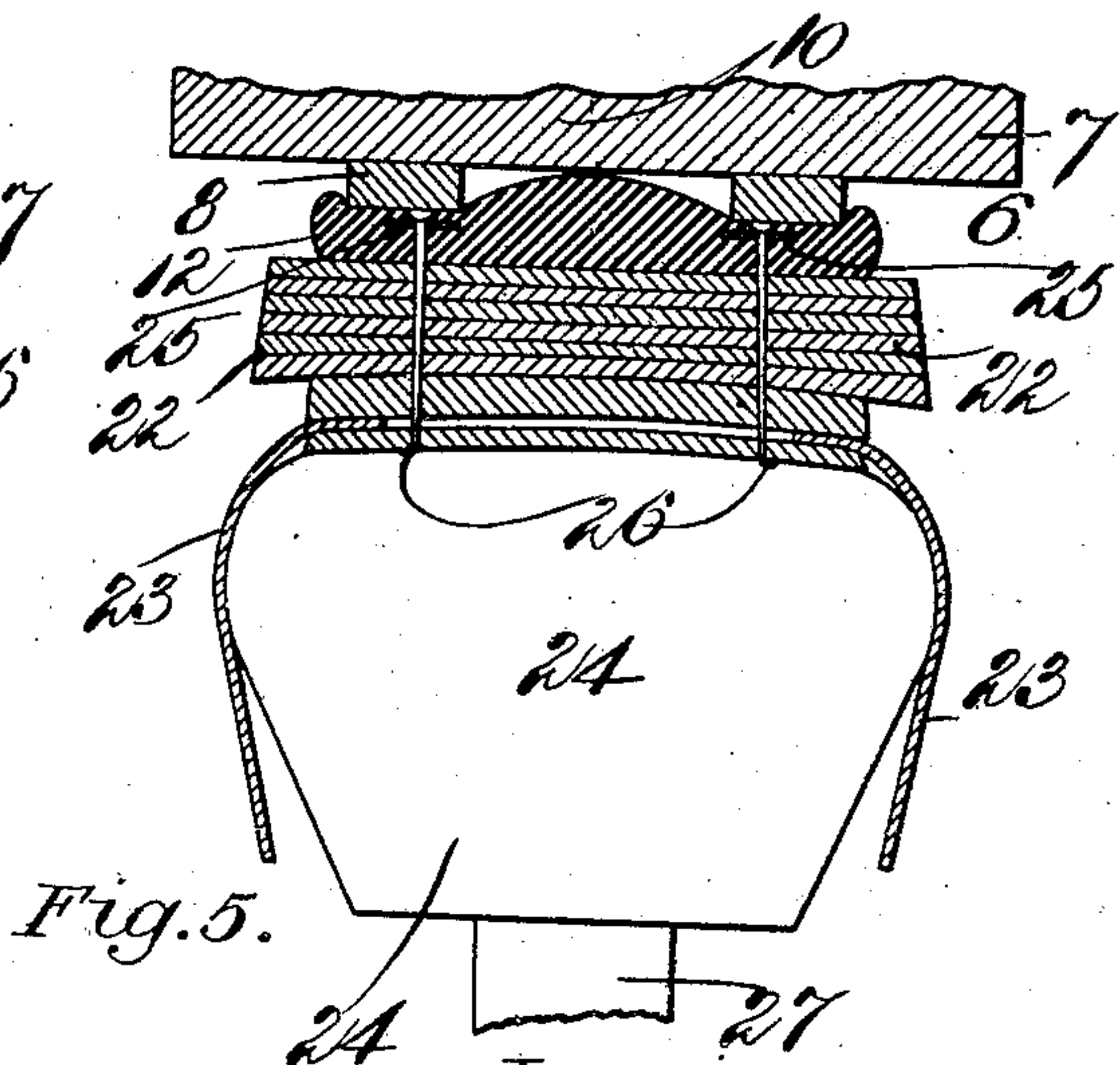


Fig. 5.

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UNITED STATES PATENT OFFICE.

JOHN W. BADDOCK, OF LYNN, MASSACHUSETTS.

TOP-LIFT OR HEEL HOLDER FOR HEEL-ATTACHING MACHINES.

No. 874,921.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed January 30, 1907. Serial No. 354,846.

To all whom it may concern:

Be it known that I, JOHN W. BADDOCK, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Top-Lift or Heel Holders for Heel-Attaching Machines, of which the following is a specification.

This invention relates to an improved holder for top lifts or heels adapted to be used in connection with machines for attaching top lifts or heels to boots and shoes.

The object of the invention is to provide a top lift or heel holder for attaching rubber top lifts or heels to boots and shoes by means of nails or like fastenings. In attaching rubber top lifts or heels to boots and shoes by means of nails or the like it is essential that the head of the nail should be buried in the top lift or heel to a considerable depth. In the case of a top lift it is customary to drive the nails into the leather heel of the shoe until the head of the nail is buried in the top lift to a depth of about one-half the thickness of said top lift. The ordinary devices used in connection with heel and top lift attaching machines are not adapted to sink the head of the fastener or nail below the tread of the top lift and it has been the custom heretofore when attaching rubber top lifts or heels to boots and shoes by means of nails to perform the work by hand instead of by power machines. It is, therefore, the object of this invention to so construct the top lift holder that it may be attached to a power driven machine and when the holder is forced downwardly against the boot or shoe said boot or shoe being supported upon a suitable shoe support, the nails contained in the top lift will be driven into the shoe and clenched in the ordinary manner, and simultaneously the heads of the nails will be forced downwardly into the top lift or heel as the case may be, until said heads are embedded to a considerable extent beneath the tread of said top lift or heel.

The invention consists in a top lift or heel holder for heel attaching machines constructed as hereinafter described and particularly as pointed out in the claims, and further the invention consists in the combination of said holder with a support for a boot or shoe in a machine for attaching top lifts or heels to boots and shoes and mechanism for moving either the holder toward and away from said support or vice versa.

Referring to the drawings: Figure 1 is a front elevation, partly in section and partly broken away, of a portion of the upper part of a well known heel attaching machine showing my improved top lift holder thereon with the top lift held in position and about to be attached to the heel of a shoe supported upon a last, said shoe being shown in section. Fig. 2 is a front elevation of my improved top lift holder with a top lift held thereon. Fig. 3 is an underneath plan view of the same showing a top lift dotted in position thereon. Fig. 4 is a detail section, enlarged, taken on line 4—4 of Fig. 3, showing a top lift in section supported upon the top lift holder with nails therein shown in elevation. Fig. 5 is a section similar to Fig. 4 illustrating the top lift and its holder in the position occupied by the same when the nails have just been driven through the heel of the shoe and clenched therein, the heel of said shoe being shown together with a portion of the upper supported upon a last.

In the following specification I shall describe my invention as applied to the attaching of the top lift to the heel of a boot or shoe, but it will be understood that the same applies equally to a rubber heel, the only difference being that the heel is thicker than the top lift, the operation of attaching the same, however, being substantially the same.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 6 is a holder, the same consisting of a top lift block 7 to the lower face of which is fastened a plate 8 by means of screws 9, 9. The plate 8 constitutes in effect a projecting portion on said holder as compared with the block 7. Said plate has a recess or hole 10 in its lower face, this recess preferably extending entirely through said plate. The lower face of the plate 8, that is, the face adjacent to the tread of the top lift is corrugated or roughened at 11, 11 in order to prevent the heads of the nails when being driven from slipping upon said plate, said corrugated surfaces thus assisting in driving the nails in a straight line through the heel. The rubber top lift 12 is held upon the holder 6 adjacent to the plate 8 by flat springs 13, 13 and by clamp plates 14, 14 to which said springs are fastened by means of screws 15, 15. The clamp plates 14, 14 are arranged to slide laterally upon the block 7 and are adjusted toward and away from each other by means of a right

and left screw 16 which is rotated by means of a handle 17.

It will be noted by reference to Fig. 2 that the clamp plates 14, 14 have arms 28, 28 5 formed thereon and adapted to bear, respectively, against opposite sides of the top lift. I also provide in said clamp plates screws 29, 29, the inner ends of which are adapted to bear against the breast of the top lift so 10 that by adjusting these screws 29, 29 the top lift may be brought into proper alinement or position with relation to the holder and also necessarily with relation to the shoe to which said top lift is to be attached. The arms 28, 15 28 locate the top lift laterally upon the holder and the screws 29, 29 locate the top lift with the breast thereof in correct alinement relatively to the holder and consequently with the shoe to which the top lift 20 is to be attached.

The holder 6 is adjustably fastened to the arm 18 of the rotatable head 19, said head being rotatable upon the cross head 20 of the 25 heeling machine illustrated in Fig. 1. The head 20 is adapted to be reciprocated vertically upon the side standards 21, 21 of the heeling machine in order to bring the block and the top lift supported thereon downwardly and attach the same to the heel 22 of 30 the shoe 23 supported upon the last 24, said last being supported upon a suitable work-support 27.

The rubber top lift 12 has washers 25, 25 35 molded therein before it is placed in the holder preparatory to being attached to the shoe and a hole extends outwardly from each of said washers to the tread of the top lift. Before placing the top lifts in the holder they are provided with nails 26, 26 which are in- 40 serted in the top lift by hand, said nails projecting through the washers 25 with their heads substantially flush with the tread of the top lift, as illustrated in Fig. 4. The top lift 12 after being thus loaded with nails is 45 then attached to the holder by inserting the same between the springs 13, 13, as shown in dotted lines, Fig. 3, the springs 13, 13 bearing against opposite sides, respectively, of the top lift and thus assisting the clamp 50 plates 14, 14 in holding the top lift upon the holder 6. After the heel 22 has been attached to the shoe 23 in a well known manner the top lift holder is brought over the heel in readiness to attach the top lift 55 to said heel by rotating the head 19 until the same stands in the position shown in Figs. 1 and 4. The cross head is then brought downwardly by suitable mechanism driving the nails 26 through heel 22 and clenching 60 the same upon the last 24.

Simultaneously with the driving of the nails the projecting plate 8 is forced downwardly into the top lift compressing the same at certain portions thereof until the heads of

the nails contact with their respective wash- 65 ers 25, 25.

The construction of the plate 8 with its recess 10 allows the top lift to be forced inwardly into said recess, a certain amount of the top lift also being forced outwardly be- 70 yond the outer edge of the projecting plate 8. This construction of the holder 6 makes it possible, therefore, without injury to the top lift to drive the nails into the heel of the boot and also to drive said nails into the top 75 lift until the heads are embedded therein and contact with the washers 25, 25, whereas, if there were no recess in the plate 8 or if the projecting portion which said plate constitutes were not present in the device, or in 80 other words, if the face of the holder which contacts with the tread of the top lift were a flat surface it would be impossible to drive the nails downwardly into the top lift to embed them therein as illustrated in Fig. 5, 85 without injury to said top lift.

The addition of the projecting portion or plate 8 to the top lift block renders it possible to perform this operation quickly and neatly and said plate is easily attached to or de- 90 tached from the top lift block making it possible to use different forms of plate for widely differing heels if desired, although it is evident that one of the plates 8 will accommodate a large variety of sizes and shapes of 95 top lifts.

It will be noted that the plate 8 is smaller than the top lift which is to be attached to the shoe, that is, the outer edge of the plate 8 is located entirely within the outer edge of 100 the top lift, this being desirable although not absolutely essential so that preferably a space is left between said plate and the clamp plates 14, 14 into which the outer portion of the top lift when under compression as here- 105 inbefore set forth may be forced.

I have illustrated my improved top lift holder in connection with a well known type of heel attaching machine known in the trade as "The National Heel Attaching Machine," 110 but I do not wish to be understood as limiting my invention to its connection with any particular type of heel attaching machine, as it is evident that without departing from the spirit of my invention my improved top lift 115 or heel holder may be attached to other types of heel attaching machines, the only essential elements being a suitable support for the boot and a suitable mechanism for moving my improved holder with the top lift thereon 120 toward or away from a boot resting upon said support; or the holder may be fastened to a stationary portion of the machine and the support with the shoe thereon may be moved toward and away from the top lift or 125 heel holder. I also wish it to be understood that while I prefer to use a plate such as the plate 8 with a recess therein, which plate may

be detachably fastened to a block or other suitable support, it is evident that the projecting portion of the holder may be integral with the block and of varying shapes and sizes without departing from the spirit of my invention so long as said projecting portion upon the holder is adapted to force the top lift against the boot heel or to force a rubber heel against the boot and to be forced into said top lift or heel, simultaneously driving the nails into the shoe and the heads of the nails to a substantial distance below the tread of said top lift or heel.

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

1. In a machine for attaching top lifts or heels to boots a support for a boot, a holder for said top lift or heel, said holder having a projecting portion thereon adjacent to the tread of said top lift or heel, and mechanism for moving said holder toward and away from said support, whereby said projecting portion may be forced into said top lift or heel.

2. In a machine for attaching top lifts or heels to boots by nails or the like, a support for a boot, a holder for said top lift or heel, said holder having a projecting portion thereon adjacent to the tread of said top lift or heel adapted to engage the heads of said nails or the like and also the tread of said top lift or heel, and mechanism for moving said holder toward and away from said support, whereby said projecting portion may be

forced into said top lift or heel and said nails driven into said shoe with the heads thereof partly driven through said top lift or heel.

3. A holder for a top lift or heel, for heel attaching machines comprising in its construction a block and a plate fast thereto and projecting from the face of said block toward a top lift or heel held thereon, said plate having a recess in its lower face, and means for holding said top lift or heel on said block consisting of two clamp plates adjustable laterally of said block, and springs fast to said clamp plates adapted to engage and hold therebetween a top lift or heel.

4. A holder for a top lift or heel, for heel attaching machines, comprising in its construction a block and a plate fast thereto and projecting from the face of said block toward a top lift or heel held thereon, said plate having a recess in its lower face, means for holding said top lift or heel on said block consisting of two clamp plates adjustable laterally of said block, springs fast to said clamp plates adapted to engage and hold therebetween a top lift or heel, and a screw in each of said clamp plates adapted to bear against the breast of said heel for the purpose specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN W. BADDOCK.

Witnesses:

LOUIS A. JONES,
ANNIE J. DAILEY.