Sept. 4, 1928.

E. E. WINKLEY

1,683,115

HEEL PRESS

Original Filed Sept. 22. 1922 3 Sheets-Sheet 1

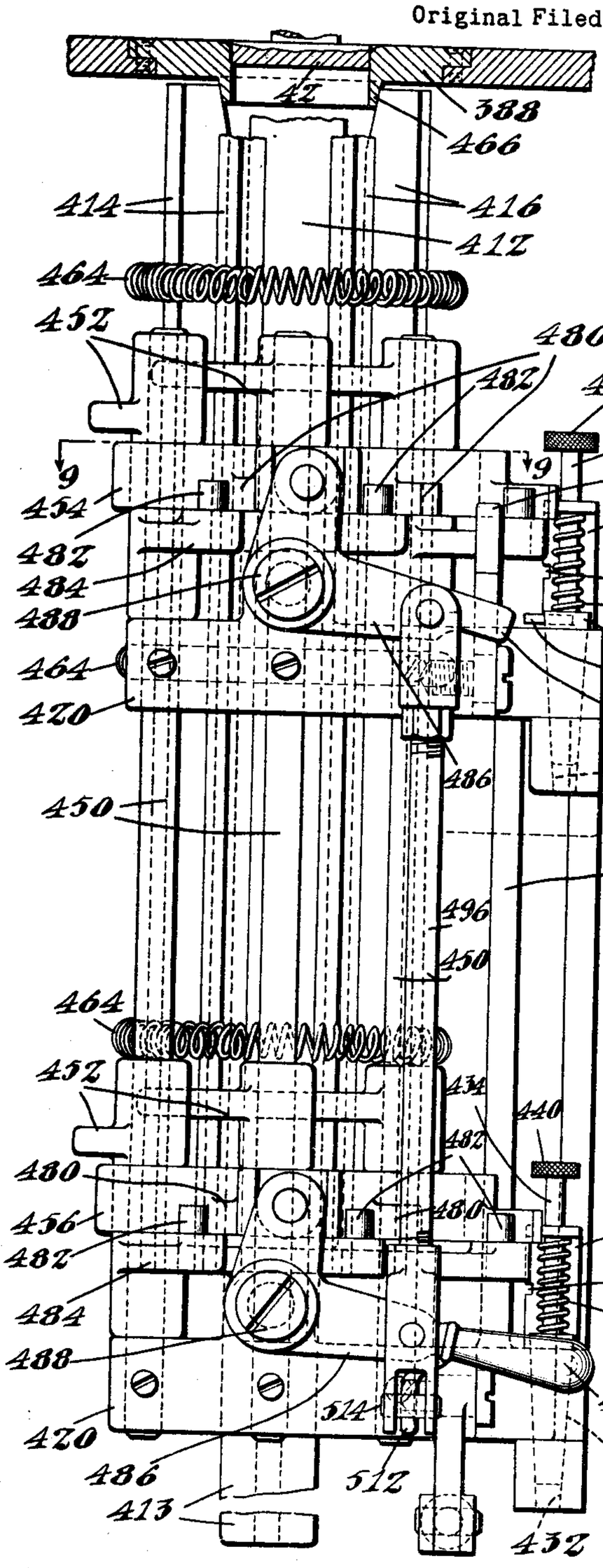

Fig. 1.

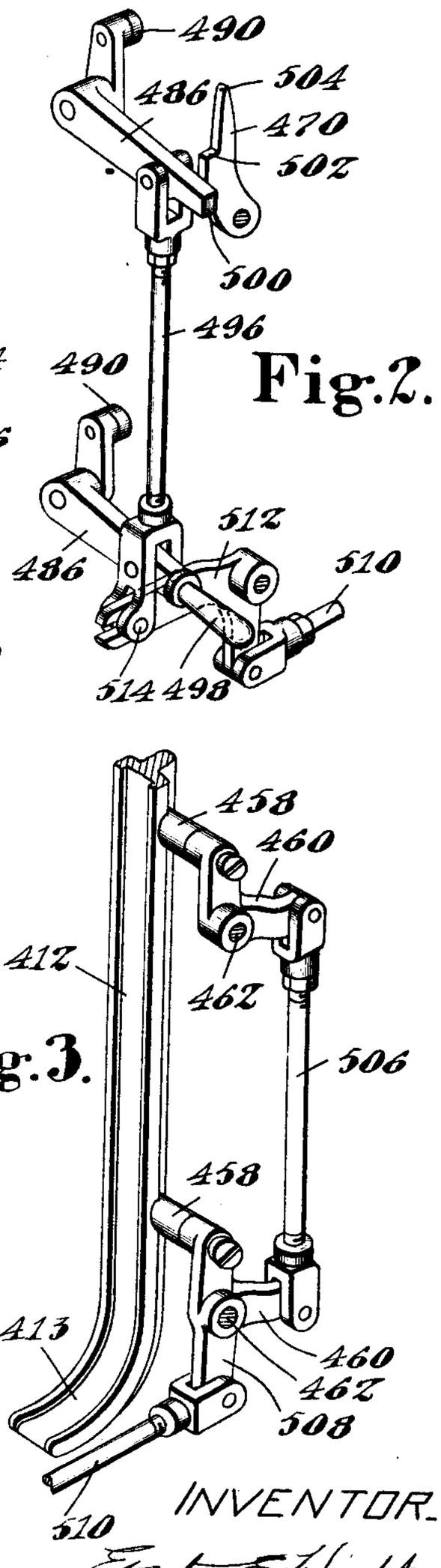

Fig. 2.

Fig. 3.

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Fig. 4.

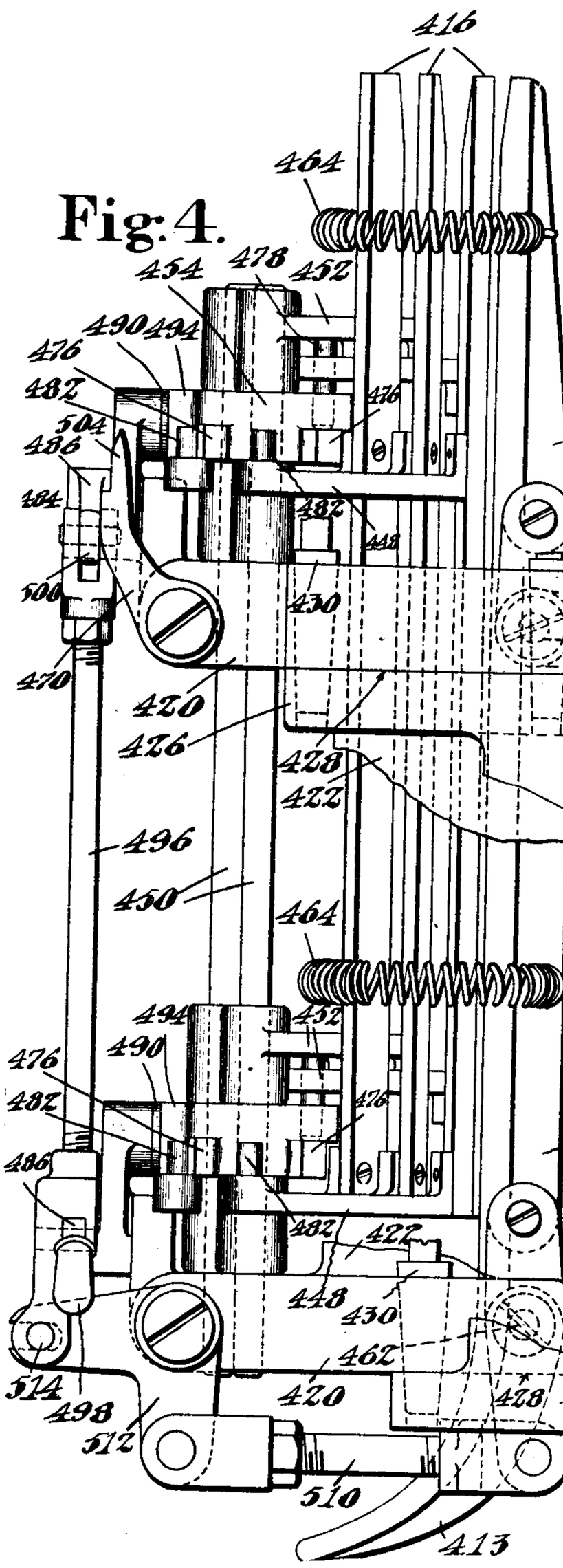


Fig. 5.

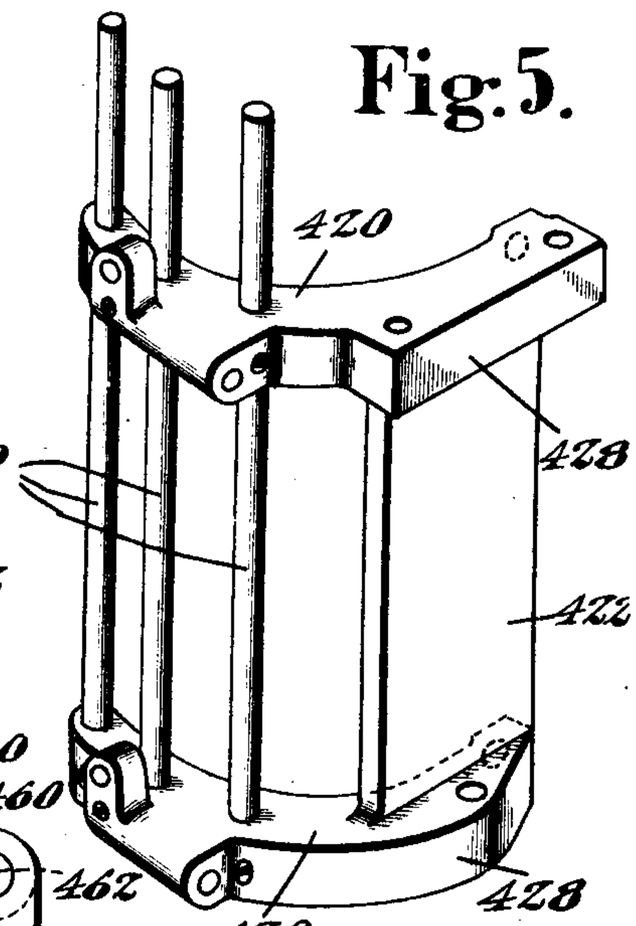
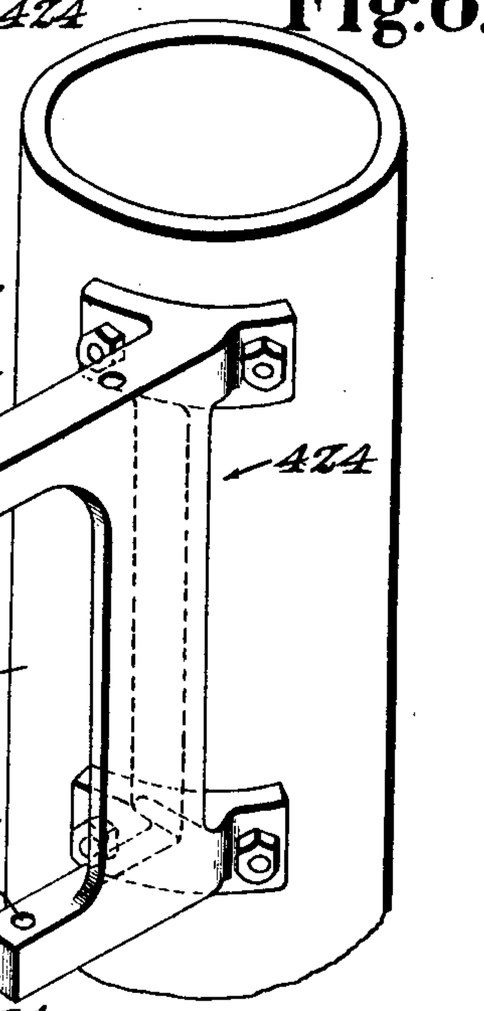


Fig. 6.



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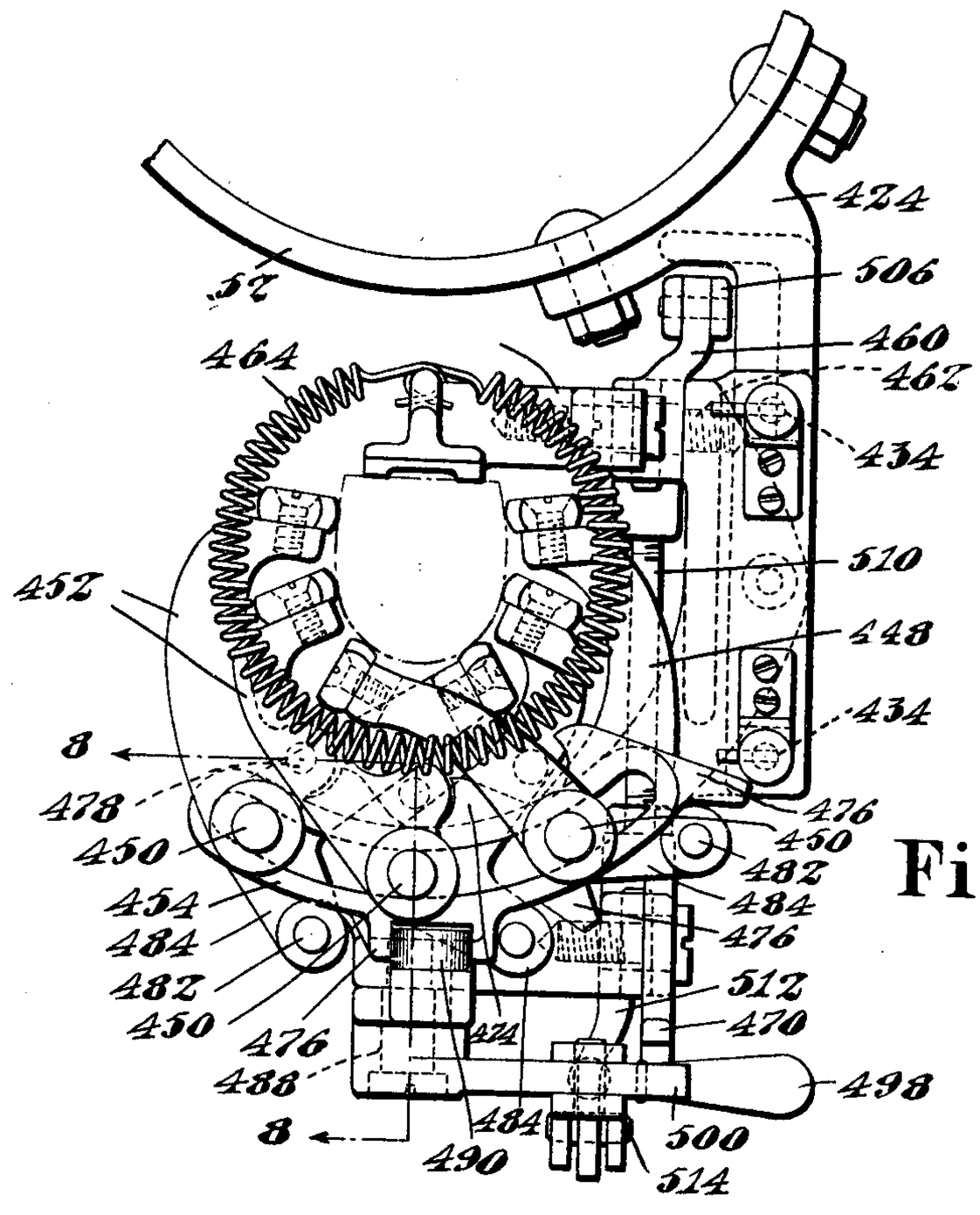

Fig. 7.

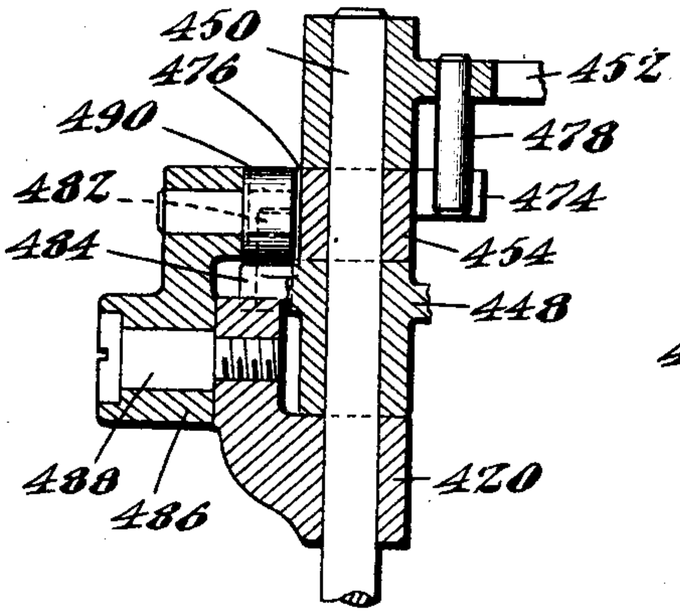

Fig. 8.

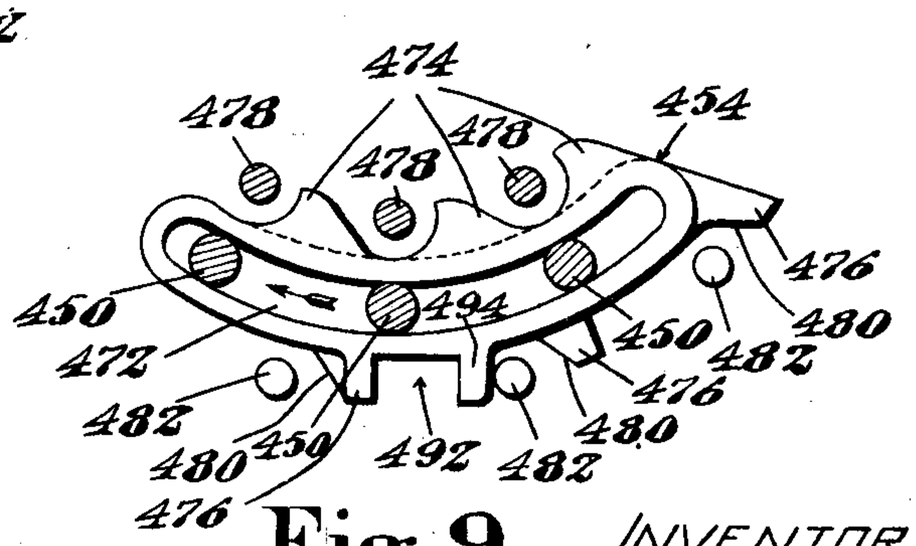

Fig. 9.

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Patented Sept. 4, 1928.

1,683,115

UNITED STATES PATENT OFFICE.

ERASTUS E. WINKLEY, OF LYNN, MASSACHUSETTS, ASSIGNOR TO UNITED SHOE MACHINERY CORPORATION, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

HEEL PRESS.

Original application filed September 22, 1922, Serial No. 589,794. Divided and this application filed July 25, 1925. Serial No. 46,001.

This invention relates to the art of making heels, heel-sections and the like for boots and shoes and more particularly to heel presses of the tube type that function, after having been primed, to hold all such articles being fed therethrough in an orderly arrangement and under pressure for a length of time sufficient to permit a setting of the paste that secures the lifts or layers together.

The tube press of the present invention is especially adapted, although not necessarily so limited, for use in the machine for building pasted heel-sections disclosed in Letters Patent of the United States No. 1,568,118 granted January 5, 1926 on my co-pending application Serial No. 589,794, filed Sept. 22, 1922, of which this present application is a division.

One object of the invention is to provide a heel press, of the type that maintains heels in column formation, that will exert an even, but not too great, pressure on the peripheral surfaces of the heels being forced therethrough and thus maintain all the heels of the confined column under pressure endwise of the column while yet permitting the column to be advanced intermittently through the press, one step for each addition of a newly built pasted heel at the receiving end thereof.

Another object of the invention is to insure that each heel delivered from the press is discharged separately, that is, detached from the heels that were adjoining when in column formation.

A further object of the invention is to provide a substantially instantaneous adjustment of the pressure members, to accommodate the press to heels of varying size, without an injurious change in the amount of pressure, but with an accurate determination of the extent of the adjustment.

Accordingly one feature of the invention comprises a plurality of pressure members, that together form the wall of the tube press, so arranged as to bear at separate points on the whole peripheral surface of each heel that is received within the press. Each pressure member bears yieldingly on the heels within the press, said pressure being in the same degree on each member throughout its length. Preferably a plate-like member is disposed opposite a plurality of rod-like members, the former bearing on the breasts of the heels in the column within the press and the latter bearing on the sides and backs of said heels. A further feature of the invention comprises means at the delivery end of the press for breaking apart any heels that may have adhered to each other, due to exudation of paste from between the lifts composing a heel, heel-section, or other similarly built-up article. This means may be in the form of a curved shoe, conveniently attached to the delivery end of the breast pressure plate, that, by causing the heel column to assume a curved form as it emerges from the press will break apart all adjoining heels that may be lightly secured together by the excess of paste referred to, and thus finally discharge the heels separately from the press. In accordance with another feature the pressure members are all adjustable simultaneously to increase or decrease the cross-sectional area of the tube of which they form the wall. A single actuating device is connected to all the pressure members which operates to separate these members and increase said area and thus accomodate heels of larger size. The pressure means for holding the pressure members against the confined column of heels acts to move said members in the opposite direction to decrease said area and thus accommodate heels of smaller size. Associated with the adjustable breast plate and side rods, which are yieldingly pressed inward by surrounding coiled springs, is a member for limiting said inward movement. This member is in the form of a heel-shaped mouth at the receiving end of the tube press, having a flange that extends within the press and acts as a stop for maintaining the pressure members so spaced that the normal cross-sectional area of the tube is slightly less than the cross-sectional area of said mouth. The mouth member is removable and replaceable by another member having a mouth and flange to accommodate heels of a different size.

To the accomplishment of these objects and such others as may hereinafter appear, as will readily be understood by those skilled in the art, the invention comprises the features and combinations of parts hereinbefore described and then particularly pointed out in the appended claims.

The features and scope of the invention

will best be understood from a description of the preferred embodiment thereof illustrated in the accompanying drawings, in which:—

Figure 1 is a view of the tube press in vertical, front elevation, showing one of the replaceable mouth pieces associated with its heel receiving end and the end of a loading plunger for forcing heels into the press just entering the mouth piece;

Fig. 2 is a perspective view of a portion of the mechanism for adjusting the size of the press;

Fig. 3 is a perspective view showing the manner of mounting the breast member of the press, and should be read with Fig. 12;

Fig. 4 is a view of the tube press in right side elevation;

Fig. 5 is a perspective view of the rigid framework of the press;

Fig. 6 is a perspective view of a portion of a machine column illustrating the supporting bracket upon which the framework shown in Fig. 5 is mounted;

Fig. 7 is a top plan view of the tube press shown attached to a portion of a machine column or other supporting structure, the dot and dash line indicating a heel within the press;

Fig. 8 is a detailed sectional view taken substantially on the line 8—8 of Fig. 7; and

Fig. 9 is a detailed view, in plan, of a portion of the means for adjusting the size of the press taken substantially on the line 9—9 of Fig. 1.

In the following description and claims the term "heel" will be used, for simplicity, as inclusive of heels built from a number of lifts, heel-sections, heel-bases and like articles. While the tube press is illustrated as mounted on the column of a machine such as the heel-section builder of my Patent No. 1,568,118 above referred to it will be understood that its use is not so limited. The press of the present invention may be employed to receive and press heels brought to it on a conveyer leading from a heel-building machine, and it may be of such length that the pressed heels are delivered on another floor of the factory from that on which they are built. It will be understood that the heels loaded into the press are all of the type comprising two or more layers or members secured to each other by fresh paste, and that the time required for these heels to pass through the press is sufficient to deliver them in a dry condition.

In the embodiment of the invention illustrated in the drawings the tube press consists of a tube-like structure comprising an elongated vertical breast member 412 (Figs. 1 and 7) adjustably supported on a frame to be described and adapted to engage the breast edges of the heels confined within the press, and six elongated vertical side members, three of which, indicated at 414, are adapted to engage the curved surface at one side of the said heels, and the other three of which, indicated at 416, are adapted to engage the curved surface at the opposite side of the said heels. The side members 414, 416 are movable relatively to each other and are spring pressed inwardly to frictionally resist the passage through the press of the heels. By reason of this frictional resistance, the successive loading operations, conveniently through the operation of a loading plunger 42 (Fig. 1), results in transmitting a succession of pressure impulses to the column of heels in the press so that said heels are firmly pressed together and are held under continuous endwise pressure during the setting of the paste. Means is also provided, as will hereinafter appear, for adjusting the side members 414, 416 inwardly or outwardly to vary the cross-sectional area of the press to accommodate heels of different sizes.

All of the side members of the press are carried by a frame which is indicated generally at 418 in Fig. 5. The supporting frame 418 comprises upper and lower horizontal arms 420, that are curved to partially encircle the press, and a vertical web 422 connecting one extremity of the upper arm 420 with the corresponding extremity of the lower arm 420. The supporting frame 418 is rigidly but removably secured to a bracket 424 (Fig. 6) having two outwardly extending arms 426 that may be secured to a heel-building machine pedestal 52, or to any other suitable support.

Although the side members of the press are adjustable transversely to vary the size of the press, the range of adjustment of these members is necessarily limited and in order that heels larger or smaller than those which the press may be adjusted to accomodate may be operated upon by the machine, it is contemplated the entire press shall be removable as a unit in order that other presses may be used interchangeably, these other presses being adapted for adjustment to accommodate either larger or smaller heels than those which may be accommodated by the press which has been removed.

To this end the press supporting frame 418 is removably secured to its bracket 424 in the following manner. As shown in Fig. 5, the press supporting frame 418 is provided with a pair of ledges 428 which severally project laterally beyond the web 422 at the opposite side thereof from the curved portions of the arms 420 and these ledges 428 are adapted to rest upon the arms 426 of the bracket 424. The frame 418 is secured to the bracket 424 by means of taper pins 430 (Fig. 1), two of which are provided in the upper ledge 428 and one in the lower

ledge 428. The taper pins 430 are seated in taper openings in the ledges and are arranged with their lower extremities extending beyond said ledges and projecting into tapered holes 432 in the arms 426 of the bracket 424.

To facilitate the attachment of the press to the machine or its removal therefrom, a stem 434 rises from the end of each taper pin 430 and extends through an aperture in a bracket 436 which is secured to the corresponding arm 420 of the frame 418. Each taper pin 430 is normally held in the position in which they appear in Fig. 1 by means of a spring 438 which is coiled around the stem 434 between the upper end of the pin 430 and a shoulder formed on the bracket 436. Each stem 434 is provided with a knurled head 440 by means of which the taper pins 430 may be raised to lift them out of the openings 432 in the bracket 424 to permit the removal of the press from the machine. To latch the taper pins 430 in their released positions, a small pin 442 projects laterally from the upper end of the taper pin and when the taper pin has been raised clear of the hole 432, it may be turned by means of its knurled head 440 until the pin 442 enters a notch 444 in the bracket 436. The taper pin will then be held in its released position until the knurled head 440 is turned in the opposite direction.

The side members 416 of the press comprise elongated flat bars, each of which is rigidly secured to the inner ends of a pair of upper and lower supporting arms 448 and so arranged that the inwardly facing longitudinal edges of the bars are adapted to engage the lateral surface of the column of heels within the press. The three pairs of supporting arms 448 are loosely mounted upon three vertical rods 450 (Figs. 1, 5 and 7) which are rigidly secured to the upper and lower arms 420 of the bracket 418. The rods extend between said arms 420 and their upper ends project above the upper arm 420, as shown best in Fig. 5. The upper side member supporting arms 448 rest upon the upper press frame arm 420 (Fig. 8), while the lower arms 448 rest upon the lower press frame arm 420. The side members 414 are identical in construction to the side members 416 and each of said side members is rigidly secured to the inner ends of a pair of upper and lower supporting arms 452. There are three pairs of arms 452 and each pair is loosely mounted upon one of the rods 450 above the arms 448. (See Fig. 8.) The uppermost of each pair of arms 452 rests upon a slotted cam segment 454 (Figs. 8 and 9) which is interposed between the hubs of said arms 452 and the hubs of the uppermost of the arms 448 and which is utilized for the purpose of adjusting said arms inwardly or outwardly, as will be hereinafter explained. The lowermost of each pair of arms 452 rests upon a slotted cam segment 456 (Fig. 1) which is identical in construction to the cam segment 454 and is interposed between the hubs of said arms 452 and the hubs of the lowermost of each pair of arms 448. The segment plate 456 is actuated concurrently with the cam segment 454 to secure the inward or outward adjustment of the side members 414 and 416 of the press.

The breast member 412 (Fig. 3) consists of a T-bar arranged with its cross web facing toward the interior of the press toward the side members 414 and 416 in a position to engage the breast edges of the confined column of heels, and is provided with upper and lower laterally projecting bosses 458. To these bosses are pivotally connected the substantially vertical arms of a pair of bell-crank levers 460. The function of these bell-crank levers will presently be explained and they are referred to at this time because the breast member 412 is supported on the frame 418 by studs 462 on which the bell-cranks are fulcrumed.

All of the six side members 414 and 416 of the press are forced inwardly by means of a plurality of coiled springs 464 which are wrapped around the side members intermediate the upper and lower ends of the press. As shown in Fig. 7, the opposite ends of the spring 464 are secured to the breast member 412. The tension of the springs 464 forces the side members of the press inwardly and normally holds them with their upper extremities in engagement with a depending flange 466 on the under side of a plate 388 in which is formed a heel-shaped mouth through which the heels enter the press at its receiving end, preferably by pressure from the loading plungers 42. As shown in Fig. 1, the upper ends of the side members are beveled slightly to conform to a corresponding bevel of the outer face of the flange 466. The flange 466 limits the inward movement of the several side members of the press and thus determines the size of the press in accordance with the size of the blanks which are to be operated upon. If it is desired to operate upon blanks of a different size, the mouth plate 388 is removed from the machine and replaced by another having an opening and flange 466 corresponding in size to the size of the heels to be pressed.

To prevent the collapse of the press upon the removal of the plate 388 and to obviate the resulting difficulty in adjusting a new plate in the machine with its flange 466 properly positioned to limit the inward movement of the side members 414 and 416 of the press, means is provided for opening up the press by moving the side mem-

bers outwardly and for maintaining them temporarily in their opened position. The means for moving the side members outwardly comprises the cam segments 454 and 456 (Fig. 1) already referred to, manually operated actuating mechanism interconnecting said segments, and a latch 470 (Figs. 1, 2 and 4) for co-operating with said mechanism. As described, the cam segments 454 and 456 rest upon the hubs of the adjacent arms 448 which support the side members 416 of the press. As shown in Fig. 9, each of the cam segments is constructed with an elongated arcuate slot 472 through which the vertical rods 450 extend, the slot 472 being of sufficient length to permit longitudinal endwise movement of the cam segment in an arcuate path determined by the contour of the slot. Each cam segment is provided with three actuating lugs 474 which project inwardly from the inner edge of the segment and with three actuating lugs 476 severally projecting outwardly from the outer edge of the segment. The lugs 474 are so arranged that when the cam segment is shifted in the direction of the arrow in Fig. 9, the lugs are brought into engagement with three studs 478 which depend from laterally off-set portions of the arms 452 and operate to swing the arms in a counter-clockwise direction to move outwardly the side members 414 of the press. The actuating lugs 476 are severally provided with inclined cam faces 480. When the cam segment is shifted in the direction above described, the cam faces 480 engage with three studs 482 severally rising from three arms 484, formed integrally with the arms 448 and so disposed in relation thereto as to constitute bell crank levers, as clearly shown in Fig. 7. Thus the arms 448 are swung in a clockwise direction to move outwardly the members 416 of the press.

The cam segments 454 and 456 are shifted for the purpose of opening or closing the side members of the press by means of a pair of bell crank levers 486 (Figs. 1 and 2) which are fulcrumed upon studs 488 (see Fig. 8) carried by the arms 420 of the press supporting frame 418. The upwardly extending arms of the bell crank levers 486 are severally provided with rolls 490 which project into notches 492 (Fig. 9) severally formed in the cam segments between one of the lugs 476 and a lug 494 which projects from the cam segment at one side of said lug 476. The two substantially horizontal arms of the bell crank levers 486 are connected by means of a vertical link 496 and the lower bell crank lever 486 is provided with a handle 498 by means of which both bell crank levers may be actuated in unison by the operator. By lifting the handle, the bell crank levers will be rocked and the cam segments shifted in a direction to move the side members of the press outwardly. The side members of the press are temporarily maintained in their open position by means of the latch 470, the lower extremity of which is pivoted to the upper arm 420 of the press supporting frame 418. To this end the latch 470 is normally held by gravity in the position in which it is indicated in Fig. 2 with one edge face of the latch in engagement with an extension 500 of the horizontal arm of the upper bell-crank lever 486. As the handle 498 is lifted the extension 500 is raised above a shoulder 502 on the latch 470, whereupon said shoulder swings into position beneath said extension, thereby preventing the return of the bell crank levers 486 to their normal positions and consequently latching in their open position the side members of the press. The latch 470 is provided with an upward extension 504, by means of which it may be manually tripped to permit the springs 464 to move said side members of the press inwardly until their movement is arrested by the flange 466 depending from the plate 388.

In order that the breast member 412 of the press may be moved outwardly concurrently with the side members 414 and 416, the horizontal arms of the bell-crank levers 460 are connected by means of a vertical link 506 (Figs. 3 and 4) and the lowermost of said bell-crank levers is provided with a third arm 508 which is connected by a horizontal link 510 with the downwardly extending arm of a bell-crank lever 512 (Fig. 2). The bell-crank 512 is pivotally mounted upon the lower arm 420 of the press supporting frame 418, and is provided with a forwardly extending arm having an open ended slot therein through which extends a pin 514 carried by a bifurcated extension at the lower extremity of the link 496. By means of this construction, when the handle 498 is lifted, the breast member 412 will be swung outwardly concurrently with the outward movement of the side members 414 and 416 due to the forward pull on the link 510. The latch 470 thus serves to hold all seven of said press members in their opened or outermost positions. When the side members of the press have thus been swung outwardly and latched in their open position, the plate 388 may be removed and the new plate having a different sized mouth substituted therefor. Thereafter, when the latch 470 is tripped, all of said members are moved inwardly concurrently through the agency of the springs 464 until their upper ends are brought into engagement with the depending flange 466 on the lower side of the plate 388 then in position. The press is thus adjusted in accordance with the size of the heels which are to be loaded into it.

To remove the press as a whole from the bracket 424, the handle 498 is first lifted

to move the side members of the press outwardly until the latch 470 becomes operative to lock said members in their outermost positions against the force of the springs 464, and the taper pins 430 are then lifted and latched. The entire press may then be readily detached as a unit from its supporting bracket 424. A new press may be readily placed in operative position on the bracket after the side members thereof have been locked in their open position and the taper pins 430 have been lifted and held in their uppermost positions, whereupon the taper pins are seated and the latch 470 is tripped. The new press is then ready for loading.

It will be observed, see Fig. 1, that the bevels at the upper ends of the press members are so formed that the inner or heel-engaging edges of said members are brought to rest in position slightly within the peripheral wall of the heel-shaped opening in the plate 388. Heels of the same size as said opening will, when passed into the press, force the breast and side members outward against the compressing strength of the surrounding springs 464 and thus produce pressure on their peripheral surfaces. Each new heel loaded into the press, by the plunger 42 or otherwise, will force the heels ahead of it downward step-by-step until finally the column completely fills the press from the top to bottom of the side members 414 and 416.

It will be observed that the breast member 412 is longer than the side members and terminates in a curved portion 413 (Figs. 3 and 4) that functions as a chute for the delivery of the pressed heels to a suitable receptacle. The chute 413 is especially designed to fulfill a further important function, namely, to cause the pressed heels to be delivered singly. Even when paste is applied with care to the layers forming a heel, the subsequent pressure while in the press causes more or less paste to be exuded from between the layers onto the lateral surface of the heel, from whence it drips or runs across the meeting edges of the several heels in the column, creating a light bond between adjoining heels wherever this occurs. This is especially true in the manufacture of heel-sections or bases composed of only two layers or members. The curvature of the chute 413 is such that as the heel column is forced out of the press the curved path that it is constrained to follow turns each heel being delivered at a sufficient angle to the column to break the light bond referred to, if present. Thus the pressed heels are delivered separately and no inspection of the product of the press is necessary to determine if each article has no more than the desired number of layers.

While it is preferred to employ the specific construction and arrangement of parts herein illustrated and described it will be understood that such construction and arrangement is not essential except so far as defined in the appended claims, and may be variously changed or modified within the skill of the artisan without departing from the spirit and true scope of the invention.

What is claimed as new, is:—

1. A tube type heel press comprising side members with which a heel engages when within the press, a frame supporting said side members, means for yieldingly pressing said side members inward, and means mounted in fixed position at one end of the press with which said side members engage to limit their inward movement when the press is empty.

2. A tube type heel press comprising a plurality of side members yieldingly pressed inward to engage a heel therebetween, and a stationary gage extending into one end of the press for limiting said inward movement when the press is empty.

3. A tube type heel press comprising a plurality of side members arranged in the curved contour of a U-shaped series, and means for moving said members on arcs of circles to adjust the press for heels of different sizes while preserving at all times their U-shaped arrangement.

4. A tube type heel press comprising a plurality of side members arranged in a U-shaped series, and means for moving said members toward and from each other on arcs of circles, the radii of which are greater for those members at the ends of the U than for those members at the base of the U.

5. A tube type heel press comprising a plurality of side members arranged in a U-shaped series, and means for moving said members toward and from each other on arcs of circles, the radii of which increase in length as the distance of the side members from the base of the U increases.

6. A tube type heel press comprising a plurality of parallel side members arranged in oppositely disposed pairs, for engaging the side of a heel therebetween, and means for moving the individual members of said pairs equally and oppositely toward and from each other and relatively to their adjacent members to adjust the press for different sizes of heels.

7. A tube type heel press comprising a plurality of pairs of pivotally mounted parallel side members oppositely disposed in the curved contour of a U-shaped series, and means for simultaneously rotating said members individually and relatively on their pivots and in directions to increase the size of the U.

8. A tube type heel press comprising a plurality of pairs of pivotally mounted parallel side members oppositely disposed in the curved contour of a U-shaped series, and

a cam member movable to engage said members and move the individual members of said pairs equally and oppositely and relatively to their adjacent members to increase the size of the U.

9. A tube type heel press comprising a frame, parallel rods on said frame, arms pivotally mounted on said rods at one end thereof, in pairs, one arm of each pair extending to the right and the other arm to the left, said arms being so shaped that their free ends form a U-shaped opening, a like group of arms similarly mounted at the other end of said rods, longitudinal side members connecting homologous arms of each group, and means for yieldingly pressing said arms inward.

10. A tube type heel press comprising a plurality of elongated side members yieldingly pressed inward throughout their entire length to engage a heel therebetween, means for moving said members outward against the sustained yielding pressure to adjust the press for a larger heel, and means for retaining said members in their open relation.

11. A tube type heel press comprising a plurality of side members yieldingly pressed inward to engage a heel therebetween, means for moving said members outward to adjust the press for a larger heel, and means comprising a latch for retaining said members in their open relation, said latch being releasable by the operator to restore said members to the influence of said yielding inward pressure.

12. A tube type heel press comprising a plurality of pairs of side members arranged in the curved contour of a U-form and a breast member at the open end of the U, and means for moving all of said members outwardly, simultaneously.

13. A tube type heel press comprising a plurality of pairs of side members arranged in the curved contour of a U-form and a breast member at the open end of the U, means for pressing all of said members inwardly, and means for overcoming said pressure and opening said members to accommodate a larger heel.

14. A tube type heel press comprising longitudinal side members having parallel inner faces, with which a heel engages when in the press, said inner faces terminating in bevels at one end of the press, a plate at said end provided with a heel-shaped opening surrounded by a flange that projects within said side members and is beveled complementally, and means for yieldingly pressing said side members inward against said flange.

15. A tube type heel press comprising longitudinal side members having parallel inner faces yieldingly pressed inward to engage a heel therebetween, and a member having a heel-shaped mouth extending within the press at one end and engaged by said side members to limit their inward movement and position their inner faces slightly within the boundary of said heel-shaped mouth.

16. A heel press comprising breast and side members yieldingly pressed inward and forming between them a tube-like passage that is heel-shaped in cross-section, a member at one end of the press having a heel-shaped mouth of approximately the size of the heels to be pressed, and means for initially retaining said breast and side members in such position that the heel-shaped area within them is smaller than the area of said mouth.

17. A heel press comprising a longitudinal breast member and a series of longitudinal side members opposite the breast face thereof, said side members forming together the curved contour of a U-shaped wall, and providing with said breast member a tube-like passage of heel form through which heels may be forced.

18. A heel press comprising a longitudinal breast member and a series of longitudinal side members opposite the breast face thereof, said side members forming together the curved contour of a U-shaped wall, and providing with said breast member a tube-like passage of heel form through which heels may be forced, and means for adjusting the area of said passage to accommodate heels of varying size.

19. A heel press comprising a longitudinal breast member and a series of longitudinal side members opposite the breast face thereof, said side members forming together the curved contour of a U-shaped wall, and providing with said breast member a tube-like passage of heel form through which heels may be forced, and means for yieldingly pressing all of said members inward.

20. A tube type heel press comprising a plurality of side members yieldingly pressed inward to engage a heel therebetween, means for moving said members outward to adjust the press for a larger heel, means for retaining said members in their open relation, a frame supporting all of the described elements as a self-contained unit, a bracket supporting said frame, and means for removably securing said frame on the bracket.

21. A tube type heel press comprising a rigid frame, a plurality of oppositely disposed pairs of side members pivotally mounted on said frame in a U-shaped series, means supported by the frame for adjusting the size of the press by rotating said side-members on their pivots, and means for removably supporting said frame in position for the press to receive heels.

22. In combination with a tube type heel press, a frame on which the press is mounted

having upper and lower spaced arms, a bracket having two similarly spaced shelf-like arms for supporting said two frame arms, and means carried by said frame for locking it to the bracket arms but permitting removal of the press as a self-contained unit at will for replacement by a like press of a different size.

23. In combination with a tube type heel press, a frame on which the press is mounted having upper and lower spaced arms, a bracket having two similarly spaced shelf-like arms for supporting said two frame arms, sliding pins carried by said frame for locking it to the bracket arms and means for latching said pins in released position on the frame permitting removal of the press and latching means as a unit.

24. A tube type heel press comprising longitudinal members yieldingly pressed against the column of heels within the press. and means at the discharge end of said members for causing the column to assume a form of progressively increasing curvature, if the columnar formation is preserved upon discharge, whereby to break the joints between heels and deliver the heels singly.

25. A tube type heel press for receiving pasted heels at one end having longitudinal members yieldingly pressed against the column of heels thus formed within the press, and a discharge chute at the other end constructed to extend across the discharge end of the press and shaped to turn the heels being discharged into positions of increasing angularity with respect to the plane of those heels remaining in the press.

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