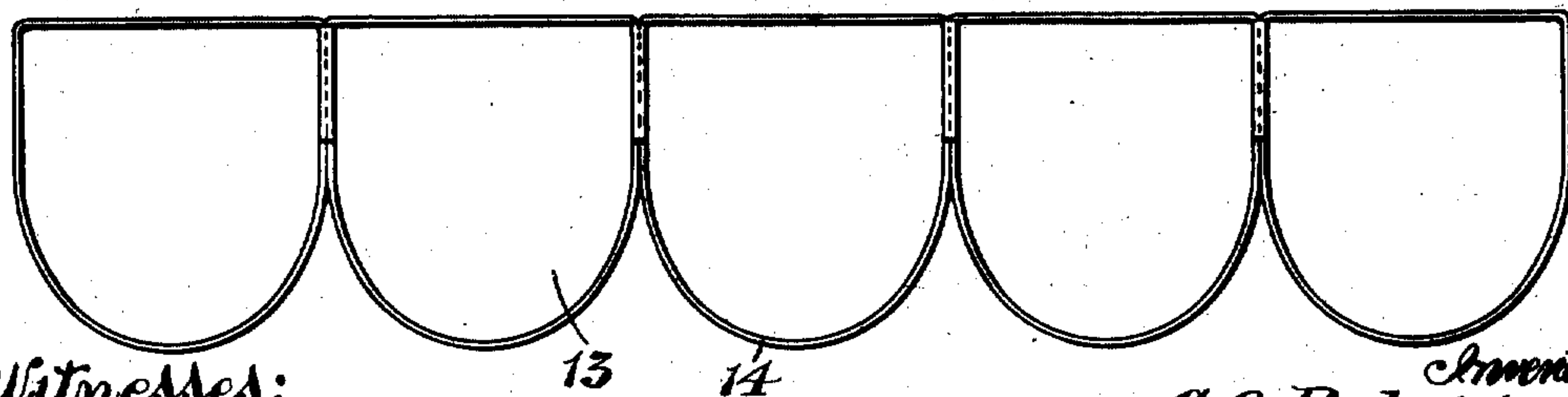
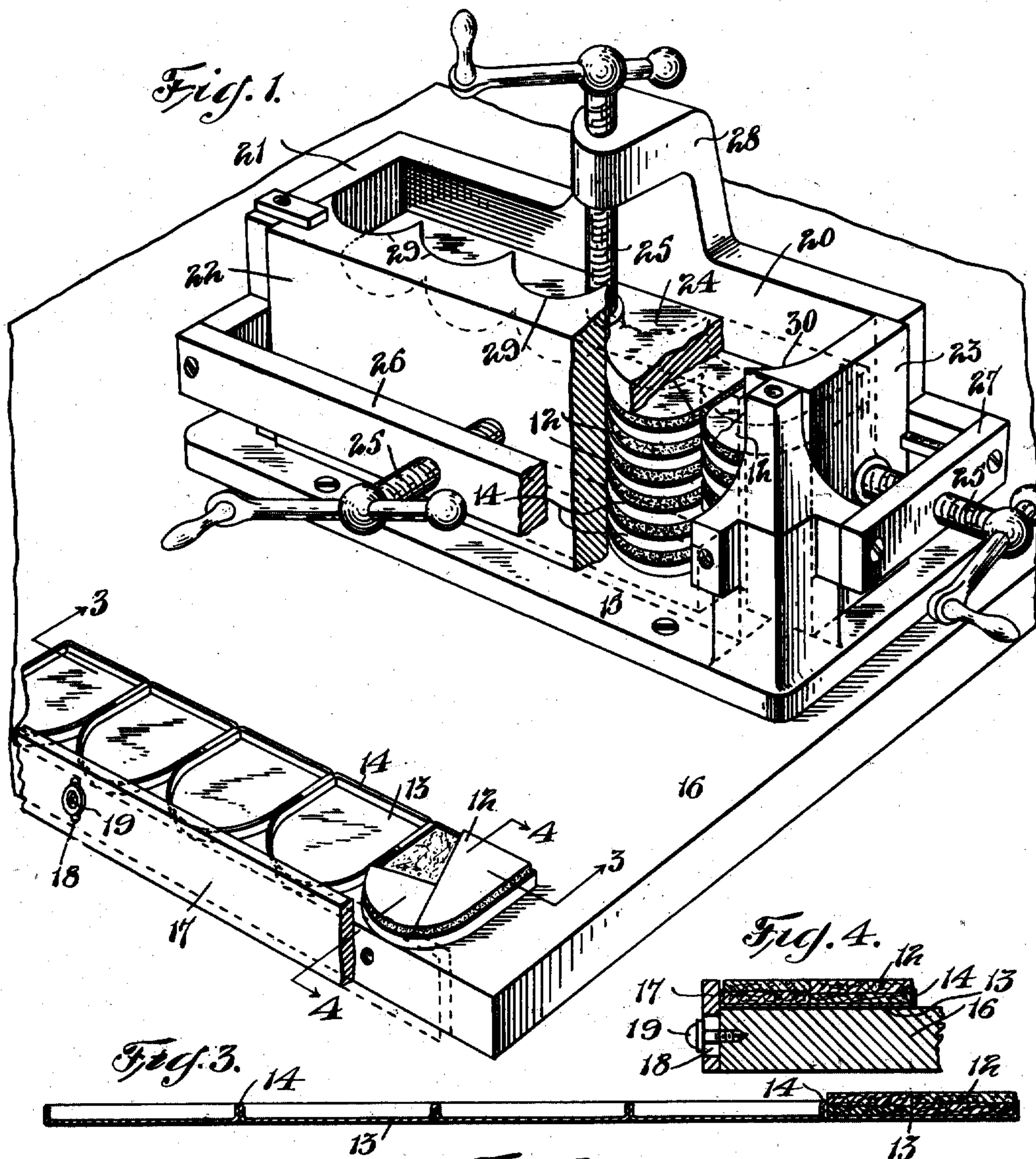


C. O. RYBERG.
HEEL BUILDING AND PRESSING MACHINE.
APPLICATION FILED AUG. 9, 1910.

990,598.

Patented Apr. 25, 1911.



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UNITED STATES PATENT OFFICE.

CHARLES O. RYBERG, OF BROCKTON, MASSACHUSETTS.

HEEL BUILDING AND PRESSING MACHINE.

990,598.

Specification of Letters Patent.

Patented Apr. 25, 1911.

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To all whom it may concern:

Be it known that I, CHARLES O. RYBERG, of Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Heel Building and Pressing Machines, of which the following is a specification.

This invention has for its object to provide a machine or appliance whereby pieced heel lifts may be assembled in heel form and confined in their predetermined relation to each other and subjected to compressive pressure while paste or cement, applied to the lifts while they are being assembled, is setting or hardening.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings which form a part of this specification—Figure 1 represents a perspective view of a heel building and pressing machine embodying my invention, parts being broken away and shown in section; Fig. 2 represents a top plan view of one of the lift-holding trays hereinafter referred to; Fig. 3 represents a section on line 3—3 of Fig. 1; and Fig. 4 represents a section on line 4—4 of Fig. 1, and shows in section a portion of the table and gage hereinafter referred to.

Similar reference characters indicate the same or similar parts in all the figures.

In carrying out my invention I provide a series of lift-holding trays, each adapted to support an assemblage 12 of pieced heel lifts and to guide the operator in properly assembling the pieces to form an assemblage having the desired heel shape. Each tray is preferably made of sheet metal and has a flat bottom 13, and a plurality of lift-confining walls 14, projecting above said bottom. In practice the flat bottom of the tray may be made up of a series of heel-shaped sheet metal plates bent upwardly at their edges to form edge-confining walls 14, externally and internally curved portions conforming to the curved edge of a heel lift, the whole forming an elongated tray of the general form illustrated in the drawings, each tray being independent of the others and the whole, when charged with heel lifts, being adapted to be superimposed on a press bed 15, to form a stack, as shown by Fig. 1.

16, represents a table having a substantially horizontal upper surface, and 17 rep-

resents an edge gage adjustably secured to one end of the table and adapted to project adjustably above the same, the gage being provided with vertical slots 18 which receive clamping screws 19 engaged with the table 16.

When the gage 17 is adjusted to project to the desired height above the table, one of the described trays is placed upon the table and caused to abut against the inner side of the gage. The operator then assembles the pieced heel lifts on the tray, the lifts being coated with cement. The height of the heel, or the thickness of the assemblage of lifts, is determined by the height of the gage 17, the operator building up the assemblages of lifts until the upper surfaces of the assemblages are flush with the upper edge of the gage, as shown by Fig. 4. When the desired number of trays have been thus charged they are superimposed on the press bed 15 to form a stack as above stated.

The bed 15 forms a part of a press adapted to exert vertical pressure on the stack to compress the lifts side-wise, thus reducing their thickness, and having means for exerting horizontal edge-wise pressure on the vertical sides of the stack to prevent edge-wise expansion or enlargement of the lift assemblages and to support the confining walls 14 of the trays so that they will not be caused to bulge outwardly by the vertical pressure exerted on the lifts.

As here shown, the press includes two fixed vertical walls 20, and 21, adapted to bear respectively on one of the longer vertical sides and one of the shorter vertical sides or ends of the stack, a horizontally movable platen 22 adapted to bear on the opposite longer side of the stack, a horizontally movable platen 23 adapted to bear on the opposite shorter vertical side or end of the stack, and a vertically movable platen 24 adapted to bear on the top surface of the stack, each of said platens being provided with operating means such as a screw 25 engaged with the threaded orifice in a fixed support, as shown in Fig. 1, where the screw which supports the platen 22 is engaged with a threaded orifice in a fixed bar 26, while the screw which supports the platen 23 is engaged with a threaded orifice in a fixed bar 27, and the screw which supports the platen 24 is engaged with a threaded orifice in a fixed ear or bracket 28.

The platen 22 is preferably removable from the press and from its operating screw to permit the insertion and removal of the trays and their contents. After a stack has
 5 been formed in the press, the platen 22 is inserted and brought to a suitable bearing on one of the longer sides of the stack, the platen 23 being also brought to a bearing on one
 10 of the shorter vertical sides or ends of the stack, suitable pressure being applied to said platens to force the remaining sides of the stack against the fixed walls 20 and 21. Vertical pressure is then exerted on the
 15 platen 24 to cause the compression of the lifts to the desired extent. The walls 20 and 21 and platens 22 and 23 support the confining walls 14 of the trays against the outward displacement, and prevent them from bulging outward under the vertical pressure ex-
 20 erted by the platen 24.

The platen 22 is preferably provided with a series of curved recesses 29 on its inner side to conform to the shape of the curved sides of the confining walls 14. The inner
 25 side of the platen 23 is also preferably curved at 30 to conform to the portion of the stack on which it bears.

The press body 15 is located in suitable proximity to the table 16 and gage 17 and is
 30 preferably screwed or otherwise affixed to a portion of said table as shown.

The sheet metal trays occupy relatively little space so that the maximum number of trays and lifts may be assembled in the
 35 press. Although the lift-confining walls 14, when made of sheet metal, are flexible, their flexibility is compensated for by the confining walls and platens which support said walls against outward displacement so that
 40 they are fully as effective as they would be if the tray were of rigid construction and therefore much more bulky.

I claim—

1. A heel-lift press comprising a bed
 45 adapted to support a stack of superimposed lift-holding trays and their contents, and means for exerting vertical and horizontal pressure on said stack to compress the assembled lifts sidewise and prevent their edge-
 50 wise expansion.

2. A heel-lift press comprising a bed adapted to support a stack of superimposed lift-holding trays and their contents, a ver-

55 tically movable platen opposed to said bed and adapted to exert vertical pressure on said stack to compress the assembled lifts sidewise, and means for exerting horizontal pressure on the stack to prevent the same from expanding edgewise under the vertical pressure. 60

3. A heel-lift press comprising a bed adapted to support a stack of superimposed trays and their contents, a vertically movable platen opposed to said bed and adapted to exert vertical pressure on said stack to
 65 compress the assembled lifts sidewise, fixed vertical walls adapted to support two of the vertical sides of the stack, and horizontally movable platens adapted to exert pressure horizontally on the other two sides of the
 70 stack.

4. A heel-lift-holding tray having a flat bottom of thin sheet material adapted to support a plurality of heel lift assemblages, and a plurality of heel-shaped confining
 75 walls also of thin sheet material projecting above said bottom and adapted to bear on the edges of said assemblages, said tray and its contents being adapted to be assembled with other trays and their contents in a
 80 press to form a stack.

5. A heel-lift press comprising a bed adapted to support a stack of superimposed trays and their contents, each tray having a flat bottom, adapted to support a plurality
 85 of heel lift assemblages, and a plurality of heel-shaped confining walls, portions of which are curved both internally and externally, a vertically movable platen opposed to said bed and adapted to exert ver-
 90 tical pressure on said stack to compress the assembled lifts sidewise, fixed vertical walls adapted to support two of the vertical sides of the stack and horizontally movable platens adapted to exert horizontal pressure
 95 on the other two sides of the stack, one of said horizontally movable platens being provided with recesses conforming to the curved portions of the confining walls of the trays.

In testimony whereof I have affixed my
 100 signature, in presence of two witnesses.

CHARLES O. RYBERG.

Witnesses:

JOHN NELSON,
 TRYGUE MICHAELSEN.