J. J. MALLOY.

HEEL BUILDING DEVICE.

APPLICATION FILED JULY 22, 1912.

1,068,684. Patented July 29, 1913.

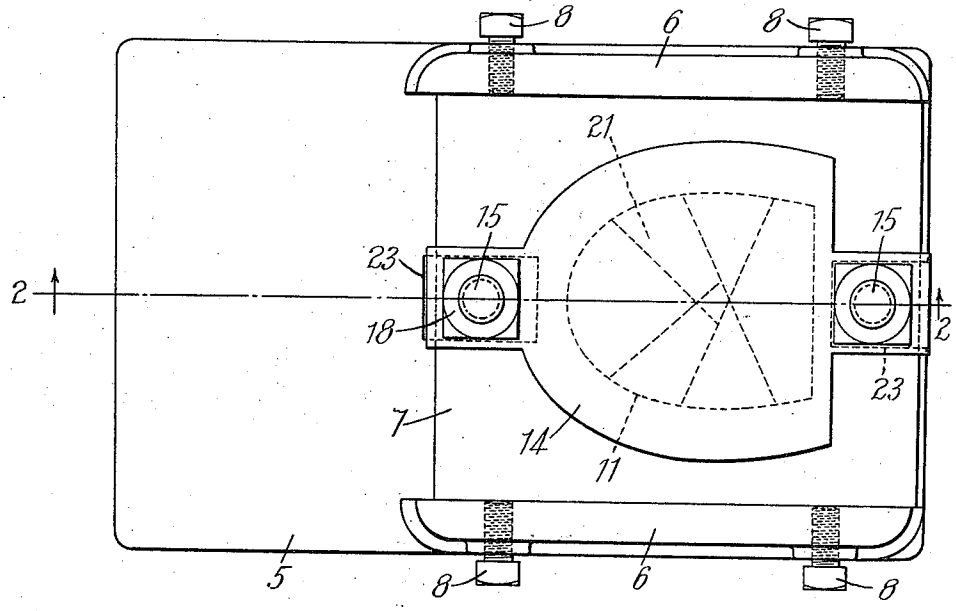


Fig. 1.

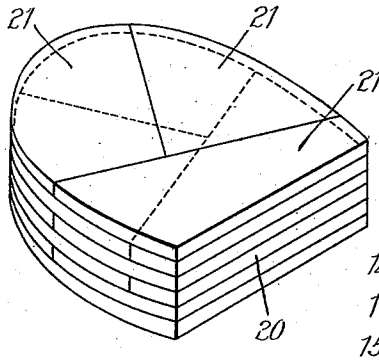


Fig. 3.

Fig. 2.

Witnesses.
Franklin E. Low.
Annie J. Dailey.

Inventor:
John J. Malloy,
by his attorney, Miles V. Fooding.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN J. MALLOY, OF BROCKTON, MASSACHUSETTS.

HEEL-BUILDING DEVICE.

1,068,684. Specification of Letters Patent. Patented July 29, 1913.

Application filed July 22, 1912. Serial No. 710,749.

To all whom it may concern:

Be it known that I, JOHN J. MALLOY, a citizen of the United States, residing at Brockton, in the county of Plymouth and State of Massachusetts, have invented new and useful Improvements in Heel-Building Devices, of which the following is a specification.

This invention relates to improvements in heel building devices and has for its object to provide an inexpensive, simple and durable device adapted to facilitate the building of nailless heels from a plurality of layers of sheet material which may be formed of small pieces of leather or other suitable material fitted together, or from a single sheet of material.

The object of the invention is further to provide a device comprising holders and separators alternately arranged one above the other with said separators constituting a top for one of said holders and a bottom for the holders adjacent thereto.

The invention consists in the combination and arrangement of parts whereby the above objects and certain other objects hereinafter appearing are attained, as set forth in the following specification and particularly pointed out in the claims.

Referring to the drawings: Figure 1 is a plan view of a device embodying my invention. Fig. 2 is a section taken on line 2—2 of Fig. 1. Fig. 3 is a perspective view of a heel formed by the device illustrated in Figs. 1 and 2.

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

In the drawings, 5 is a base, preferably, provided with lugs 6 between which is detachably secured a plate 7 by screws 8, said plate 7 constituting a bottom-piece for a holder 9 constituting the lowermost holder in a series of holders 10 surmounting said base 5.

The lowermost holder 9 together with all of the holders in said series 10 is provided with a hole 11 extending therethrough from the bottom face 12 to the upper face 13, this hole 11 being preferably heel-shaped and may be tapered or not according to the style of heel which is to be built therein.

A plurality of plates 14 are inserted between the holders which constitute the series of holders 10 and are adjacent to the top face of one of said holders, but engage the bottom face of the holder next above said plate. Means are provided for alining the various holders in the series of holders 10 and the plates 14 with each other, said means preferably consisting of bolts 15 vertically disposed in holes 16 formed in the plate 7 and passing through holes formed at opposite sides of the holders 9 and 10 and plates 14, said bolts being screw-threaded at 17 while nuts 18 engage said screw-threaded portions and are adapted to be moved on said bolts to engage the uppermost plate 14. The bolts 15 are also provided with heads 19 which are preferably square and rest in slots 23 formed in the base 5 which prevent the rotation of the bolts 15 and permit the turning of the nuts 18 on said bolts, whereby the various plates 14 may be forced toward the plate 7.

The general operation of building heels with the device hereinbefore described is as follows: The first holder 9 is placed upon the plate 7, as illustrated in Fig. 2, with the bolts 15 passing through the holes in said holder 9. A plurality of layers or heel lifts 20, each of which may be formed from one piece of material or preferably from a plurality of pieces 21, as shown in Fig. 3, are then placed within the hole 11 one at a time with a layer of cement or glue between the successive layers. The pieces 21 are placed together to form the several layers and are so arranged relatively to the adjacent layers constituting said heel that the abutting edges of the pieces of one of said layers will be held together or supported by a solid portion in the next or adjacent layer or layers. Upon the completion of the pile of lifts in the holder 9, the uppermost lift thereof will project slightly above the face 13 of said holder. The plate 14 is then placed upon the bolts 15 with the bottom face thereof resting upon the uppermost lift constituting the plurality of lifts 20 contained in the hole 11. Another holder 10, which may be provided with a hole of the same size and contour as is the hole 11 in the holder 9 or may be of any desired shape or size according to the design of heel desired, is then placed above the plate 14 resting upon the upper surface 22 thereof and engaging the bolts 15 while into this holder are placed another series of lifts or layers of sheet material constructed and arranged similar to those in said holder 9 and in like manner other holders and plates are alternately added

until the desired number of heels have been built, whereupon the nuts 18 are screwed down to engage the uppermost plate whereby said several series of heel lifts will be compressed and in this condition they may be held until the cement or glue has set. When a lesser pressure is desired to compress said lifts than will be possible by the use of the nuts 18 the weight of the various holders and plates will be sufficient and the nuts 18 need not be employed.

Any desired shape or configuration for the plates 7 and 14 and the holders 9 and 10 may be employed, but it is preferable that all of said members be the same thus facilitating the removal of said members upon the completion of the several heels held therein.

Furthermore it will be evident that by the construction or form of the various holders and plates no special order must be maintained, but that said elements will be interchangeable.

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

1. A heel building device comprising a base, a plurality of interchangeable holders surmounting said base and provided with heel-shaped holes extending therethrough adapted to contain a plurality of heel lifts, a plurality of plates alternating with said holders, and means adapted to force said plates together to compress said heel lifts within said holders and between said plates.

2. A heel building device comprising a base, guides mounted on said base, a plurality of interchangeable holders surmounting said base between said guides, said holders each being provided with a recess adapted to hold a plurality of heel-shaped layers of sheet material, a plurality of plates also surmounting said base between said guides alternating with said holders and engaging said layers of sheet material upon opposite faces of said holders, and means adapted to force said plates together whereby said layers of sheet material will be compressed therebetween.

3. A heel building device comprising a base, a pair of guides mounted on said base, a plurality of holders surmounting said base between said guides, said holders each being provided with a recess extending therethrough adapted to hold a plurality of heel-shaped layers of sheet material, a plurality of plates also surmounting said base between said guides and alternating with said holders, each of said plates adapted to engage the top layer of the plurality of layers of sheet material contained in one of said holders and the bottom layer of the plurality of layers of sheet material contained in the next one of said plurality of holders, and means adapted to force said plates together whereby said layers of sheet material will be compressed.

4. A heel building device comprising a base having lugs at opposite sides thereof, a plate detachably secured between said lugs, a plurality of interchangeable holders surmounting said plate, said holders each provided with a recess extending therethrough from top to bottom adapted to hold layers of sheet material, plates alternating with said holders constituting the bottom of one and the top of the next adjacent holder, and means to force said separating plates together to compress the layers of sheet material within said holders therebetween.

5. A heel building device comprising a base having lugs at opposite sides thereof, a plate detachably secured between said lugs, a plurality of interchangeable holders surmounting said plate, said holders each provided with a recess extending therethrough from top to bottom adapted to hold layers of sheet material, plates alternating with said holders constituting the bottom of one and the top of the next adjacent holder, bolts vertically disposed in said bottom plate adapted to retain said holders and said plates in alinement with each other, said bolts having heads engaging recesses in said base adapted to prevent turning thereof, and nuts on said bolts adapted to force said plates together to compress the sheet material within said holders therebetween.

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

JOHN J. MALLOY.

Witnesses:
DANIEL A. ROLLINS,
ANNIE J. DAILEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."