B. F. McCOY.

METALLIC COUNTER FOR SHOES.

APPLICATION FILED JUNE 20, 1914.

1,143,294. Patented June 15, 1915.

Fig. 1.

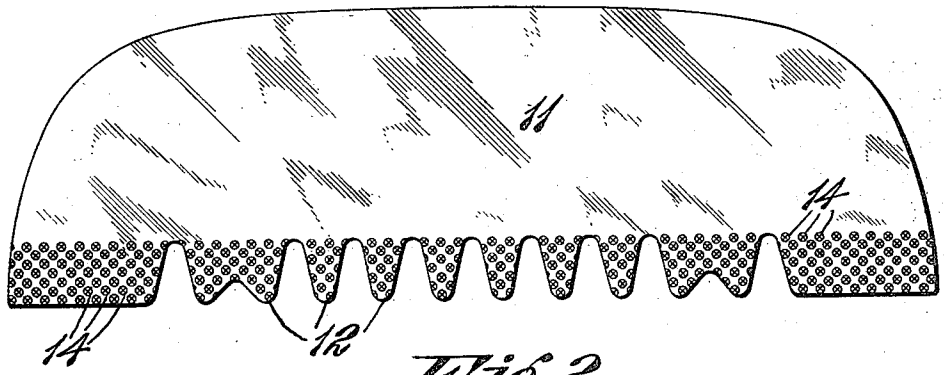


Fig. 2.

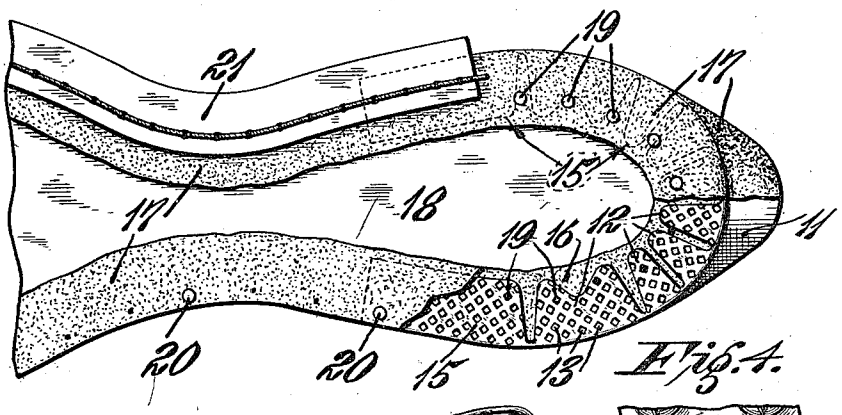
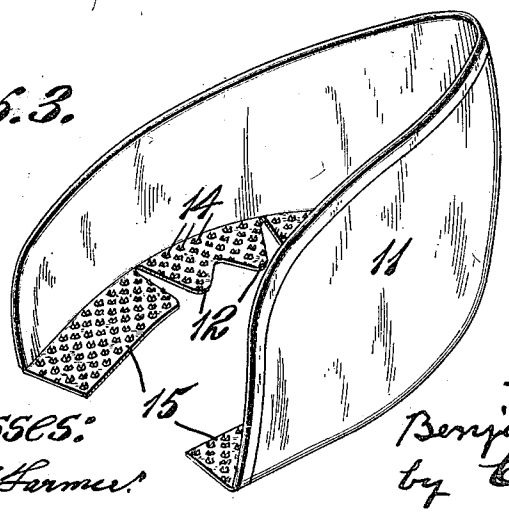


Fig. 4.

Fig. 3.



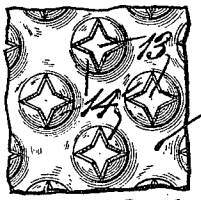


Fig. 5.



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UNITED STATES PATENT OFFICE.

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METALLIC COUNTER FOR SHOES.

1,143,294. Specification of Letters Patent. Patented June 15, 1915.

Application filed June 20, 1914. Serial No. 846,221.

To all whom it may concern:

Be it known that I, BENJAMIN F. McCOY, a citizen of the United States, and a resident of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Metallic Counters for Shoes, of which the following is a specification.

This invention relates to counters for boots and shoes, and the principal object of the invention is a counter made of sheet metal and adapted for machine made shoes, including sewed, nailed and pegged shoes.

A further object of the invention is a metallic counter adapted to be lasted, sewed and nailed in place by means of the machines in general use for making shoes.

Further objects of the invention are to improve the construction of shoes and cheapen their manufacture by the use of metallic counters made in accordance with the invention.

Metallic shoe counters as heretofore made must be pre-formed exactly to fit the shoe, and are not suitable for lasting by machine. A metallic shoe counter made in accordance with this invention has sufficient flexibility combined with the necessary rigidity to enable it to be fitted to the shoe on the last and lasted by machine.

The invention consists in a metallic shoe counter, as hereinafter described and claimed; and the invention further consists in the process of making a metallic shoe counter, as hereinafter described. No claim is made in this application for the process of making the counter, and the right is reserved to file a separate application for said process.

In the accompanying drawings, in which the same reference characters are used to designate like parts in the several views, Figure 1 is a view of the prepared metal blank from which the counter is formed, looking at the side of the blank which becomes the inside of the counter; Fig. 2 is a bottom plan view of a partly finished welt shoe embodying a metallic counter, showing the upper lasted in place and part of the welt sewed to the insole, part of the upper being broken away to disclose the counter and lining; Fig. 3 is a perspective view of the finished metallic counter prior to placing it in a shoe; and Figs. 4 and 5 are respectively a plan view and a cross-section, drawn to an enlarged scale, of the perforated flange of the counter.

The process of making the metallic counter shown in the drawings is as follows: A narrow strip or blank 11 of sheet metal of the desired thickness is sheared or punched in any suitable manner to produce the outline shown in Fig. 1, leaving the two corners at the ends of one long edge rounded, and the opposite long edge notched along its middle portion to form a series of spaced tongues 12. The notches extend in from the outer edge of the strip one half to three-quarters of an inch.

The notched margin of the counter blank is punched along its entire length with small holes 13, spaced close together. The punch for forming the holes 13 is provided with rows of four-sided pyramidal points, and the die has mating rows of circular holes of slightly larger diameter than the diagonal thickness of the punches at their bases. The punched portion of the blank has a large number of jagged points 14 projecting from one side of the sheet, and the opposite side of the sheet is formed into a series of depressions with holes at their centers, no portion thereof being flat, as shown in Figs. 4 and 5. The blank is next formed to the shape desired for the counter in a suitable die press, and the punched margin of the blank is bent approximately at right angles to the remaining portion thereof, forming an inturned flange 15. The points 14 formed by the punching operation project in, that is, they are on the inside of the counter, the outside surface of the flange 15 being a succession of hollows with a hole in the center of each. The flange 15 is continuous for an inch or more at each end of the counter, the intermediate portion of the flange being composed of the separate tongues 12. The notches between the tongues are close together, and extend in to the corner at the junction of the flange with the top or heel portion of the counter, thereby enabling the heel portion of the counter to be readily bent or shaped to fit the last, as is required for the lasting operation. The rounded corners and top edge of the counter are turned over or doubled in any suitable manner to form a rounded or beaded edge extending from one end of the flange 15 to the other end thereof at the opposite end of the counter. This beaded edge stiffens the top portion of the counter without interfering with its flexibility to accommodate itself to different widths and shapes of last.

The counter may be covered with cloth, leather or leather board, as is desired; but a cover is not necessary for its successful use.

The metallic counter is made into the shoe in the same way as a leather counter. That is, the counter is placed between the lining 16 and the upper 17 by hand, and the upper is pulled over the insole 18 on a last and tacked in any of the usual machines for this purpose. The tacks 19 around the heel can be driven home and clenched without trouble, for the reason that the points of the tacks, if they strike the metal of the tongues 12, are deflected by its cupped or hollowed shape through the holes 13. The loosely driven tacks or nails 20 around the shank and toe can be driven through the continuous end portions of the flange 15 without difficulty by means of the usual loose nailing machine for the same reason.

In welt shoes the loose nails 20 must be driven close to the outer edge of the last into the wood, and most of them have to be removed before the welt 21 is sewed on, the few that are left being removed afterward. A metallic counter constructed with a cupped and perforated flange does not interfere with either the loose nailing or sewing of welt shoes. In McKay and screw nailed shoes the lasting tacks are all driven at a considerable distance in from the outer edge of the last, and likewise can pass through the counter without difficulty.

The needles and awls of the machines for sewing the welts and outsoles are heavier than the lasting tacks, and pass through the perforated flange of this metallic counter without difficulty. Likewise, the heel nails are heavier than the lasting tacks, and when the heel is nailed in place, the counter is solidly secured thereby. The projections or points 14 are forced through the lining 16 and into the insole 18 by the pressure of the heeling machine, and thereby assist in holding the lining and counter in place.

It is evident from the preceding description that metallic counters made in accordance with this invention may be fitted to the last and lasted in the same manner as leather counters in the usual types of pulling over and lasting machines, the lasting operation giving the counter the desired form for the particular shoe. Accordingly, this invention obviates the necessity for making metallic counters lefts and rights, and also enables a few sizes of counter blanks to be used for an entire run of shoes of assorted sizes. This invention also enables a welt shoe to be made with an all metal counter which laps the welt and stiffens the shank of the shoe.

Although the invention has been described in detail, I do not restrict it to the particular form of the device shown and described; and although particularly adapted for welt shoes, the invention is not restricted thereto.

The part of the invention which consists in the combination of a metallic counter and a shoe is expressly reserved for the subject-matter of a future application for Letters Patent.

I claim the following as my invention:

1. A flexible metallic counter for machine made welt shoes, said counter having its ends provided with inturned portions adapted to lap the ends of the welt, the entire surface of said inturned portions being formed with closely spaced depressions whereby a sewing machine needle will be prevented from glancing off said surface.

2. A flexible metallic shoe counter having inturned projections closely spaced around its lower edge, said projections being perforated throughout their extent by closely spaced holes, the outer surface of said projections sloping in toward said holes whereby said counter can be lasted by machine and the lasting tacks will be deflected through said holes.

3. A counter for machine-made shoes, said counter consisting of a single piece of sheet metal formed into counter shape, said counter having a flexible heel portion conformable to lasts of different sizes and of different heel contours, said counter also having a series of projecting tongues along its lower edge provided throughout their areas with closely spaced perforations, said tongues being spaced close together near the back part of the heel, and inturned portions near the ends of said counter provided with similar perforations and constituting sewing flanges, whereby said counter may be machine-lasted and said sewing flanges may be machine sewed in a shoe.

4. A counter for machine-made welt shoes, said counter consisting of a single piece of sheet metal formed into counter shape, said counter having a flexible heel portion conformable to lasts of different sizes and of different heel contours, said counter also having a series of projecting tongues along its lower edge provided throughout their areas with closely spaced perforations, said tongues being spaced close together near the back part of the heel, and inturned portions near the ends of said counter provided with similar perforations and constituting sewing flanges adapted to lap the ends of the welt along the line of stitching, whereby said counter may be machine-lasted and said sewing flanges may be machine sewed in a shoe.

5. A metallic shoe counter consisting of flexible side walls and a flexible heel portion arranged to be bent and fitted to lasts of different contours, said counter being provided along its lower edge with narrow

inturned projections spaced around the heel portion, the arrangement and relative spacing of said projections being such that the counter may be machine-lasted in a shoe, the side walls of said counter having perforated inturned flanges adjacent to their ends adapted to be machine-sewed to a shoe.

6. A counter for machine-made shoes, said counter consisting of a single piece of sheet metal formed into counter shape, said counter having a flexible heel portion conformable to lasts of different sizes and of different heel contours, said counter having along its lower edge at its heel portion a series of closely spaced inturned tongues perforated throughout their areas, and having at each end an inturned extension perforated throughout its area and constituting a sewing flange, whereby said counter may be machine-lasted and said sewing flanges may be machine sewed in a shoe.

Signed at St. Louis, Missouri, this 18th day of June, 1914.

BENJAMIN F. McCOY.

Witnesses:
A. M. HOLCOMBE,
M. A. SHELTON.

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