F. E. EWELL.

METHOD OF MAKING BOOTS AND SHOES.

APPLICATION FILED SEPT. 11, 1909.

1,017,742. Patented Feb. 20, 1912.

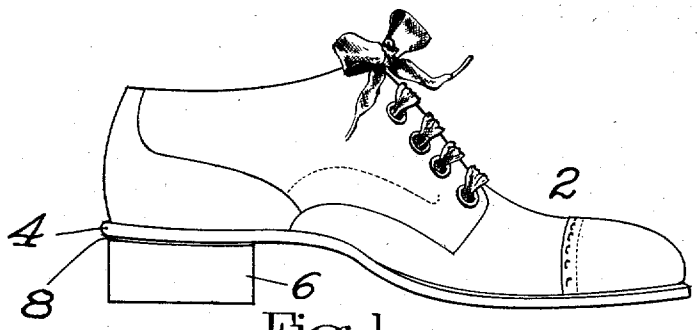

Fig. 1.

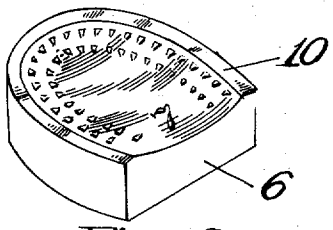

Fig. 2.

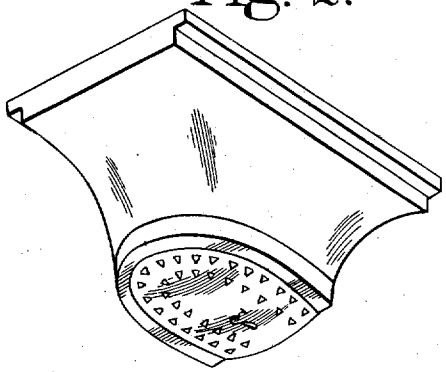

Fig. 3.

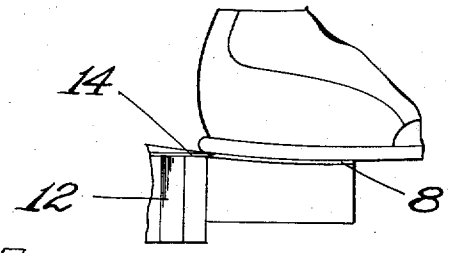

Fig. 4.

WITNESSES.
Edith C. Holbrook
Elizabeth C. Coupe

INVENTOR.
Frank E. Ewell
By his Attorney,
Nelson W. Howard

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANK E. EWELL, OF EAST BRIDGEWATER, MASSACHUSETTS, ASSIGNOR TO UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

METHOD OF MAKING BOOTS AND SHOES.

1,017,742. Specification of Letters Patent. Patented Feb. 20, 1912.

Application filed September 11, 1909. Serial No. 517,230.

To all whom it may concern:

Be it known that I, FRANK E. EWELL, a citizen of the United States, residing at East Bridgewater, in the county of Plymouth and State of Massachusetts, have invented certain Improvements in Methods of Making Boots and Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the drawings indicating like parts in the several figures.

This invention relates to boots and shoes and more particularly to that type of boot or shoe in which the rear portion of the outer sole projects beyond the edge of the heel for the purpose of giving a distinctive or ornamental appearance to the boot or shoe.

In the manufacture of boots and shoes it is customary to trim the sides and rounded end of the heel after the latter has been attached to the shoe by means of a rotary cutter, the heel of the shoe being pressed into operative engagement with the cutter and the shoe thereafter manipulated so as to progressively subject the different portions of the sides and curved end of the heel to the action of the trimming tool. In order to assist the operator in manipulating the shoe in the heel trimming operation the rotary cutter is commonly provided with a peripheral guard adapted to enter the crease which lies between the rear portion of the outer sole and the upper of the shoe. This guard projects within the crease between the outersole and the upper as the shoe is manipulated about the trimming tool, so that it serves to position the shoe in a direction substantially parallel with the axis of the rotary cutter, the result being that the operator is enabled to hold the shoe in operative engagement with the rotary tool more accurately than would otherwise be the case. In that type of shoes, however, in which the rear portion of the outersole projects beyond the edge of the heel it has been found impractical to employ a guard adapted to enter the crease between the outersole and the upper of the shoe to position the shoe in its movement about the trimming tool as the presence of the projecting part of the sole has interfered with the use of such a guard.

To avoid the above difficulty it has been proposed to provide shoes of the above type with a marginal crease between the outer edge of the heel seat face of the heel and the lower surface of the outersole and to employ this crease in coöperation with the guard upon the rotary trimming tool to assist the operator in positioning the shoe relative to the tool in the heel trimming operation.

The present invention is concerned with an improved process of forming a peripheral recess between the outer edge of the heel seat face of the heel and the lower edge of the sole by the use of which the recess may be formed without increasing to any appreciable extent the cost of making the shoe. In accordance with this process the heel seat face of the heel is provided with a marginal portion arranged to be out of contact with the outersole after the heel is attached to the shoe, the arrangement being such that the shoe is provided with a narrow peripheral recess between the heel and the outersole.

Preferably the heel seat face of the heel is so molded in the usual heel compressing operation that a narrow marginal portion of this face will be out of contact with the shoe after the heel has been attached to the shoe. By shaping the heel in the usual heel compressing operation so that a marginal recess is formed between the heel seat face of the heel and the outersole the cost of forming a shoe of this type is not increased over that of an ordinary shoe as it is customary to compress heels before they are attached to their respective boots or shoes. Moreover, by thus suitably shaping the marginal portion of the heel in the heel compressing operation the peripheral recess between the heel seat face of the heel and the sole may be made more even and regular in appearance than would otherwise be the case.

In the drawings,—Figure 1 is a view in side elevation of a shoe, of the type in which the rear portion of the outersole projects beyond the heel, provided with a peripheral recess between the heel seat face of the shoe and the outersole. Fig. 2 is a perspective view of a heel provided with a molded marginal portion around its heel seat face arranged to be out of contact with the shoe after the heel is attached to the shoe; Fig. 3 is a perspective view of the die employed in the heel compressing machine to produce

a heel provided with a molded heel seat face such as shown in Fig. 2; Fig. 4 is a view in side elevation showing a rotary trimming tool in operative engagement with a shoe made in accordance with the present invention.

In the drawings 2 designates a shoe of the type in which the rear portion of the outersole 4 projects beyond the heel 6 of the shoe for the purpose of giving an ornamental appearance to the shoe.

The peripheral recess 8 between the heel seat face of the heel and shoe is formed by an improved process in accordance with which a molded marginal portion 10 (Fig. 2) is formed around the heel seat face of the heel arranged to be out of contact with the shoe after the heel is attached to the shoe. The marginal portion 10 may be conveniently formed in the usual heel compressing operation by the employment in a suitable heel compressor of a follower or die, such as shown in Fig. 3, for molding the heel seat face of the heel. By molding the marginal portion 10 around the heel seat face of the heel the finished heel is more symmetrical and even in appearance than would otherwise be the case. After the heel seat face has been molded to the shape shown in Fig. 2 the heel may be attached to the shoe in the usual way. In the subsequent heel trimming operation the shoe is presented to an ordinary rotary cutter 12 (Fig. 3), so that the peripheral guide 14 of the cutter enters the marginal recess 8 between the heel and shoe and the shoe is then manipulated to progressively subject the edge of the heel to the trimming action of the tool, the guide 14 and recess 8 coöperating to position the shoe in proper relation to the tool in this operation.

It will be seen where the peripheral recess between the heel and shoe is formed by suitably shaping the heel that it is unnecessary to operate upon the rear portion of the projecting edge of the sole so that this portion of the edge of the sole may be of the same thickness as the remaining or front portion of the edge of the sole. With this construction the shoe has a pleasing appearance and the apparent thickness of the sole at the rear of the shoe is not decreased as might be the case if the surplus material were removed from the margin of the outersole.

Having described my invention what I claim as new and desire to secure by Letters Patent of the United States is:—

1. The process of making boots and shoes which consists in molding a marginal portion around the heel seat face of the heel arranged to be out of contact with the outer sole of the shoe after the heel is attached thereto, attaching the heel to the shoe and thereafter trimming the heel employing the peripheral recess formed between the heel and the shoe to coöperate with the guard of the trimming tool in positioning the shoe relative to said tool.

2. The process of making boots and shoes of the type in which the rear portion of the outersole projects beyond the heel which consists in forming a marginal portion around the edge of the heel arranged to be out of contact with the shoe after the heel is attached to the shoe, attaching the heel to the shoe and thereafter trimming the heel employing the marginal recess formed between the heel and shoe in coöperation with the guard of the trimming tool to assist the operator in positioning the shoe relative to the tool.

3. The process of making boots and shoes of the type in which the rear portion of the outersole projects beyond the heel which consists in molding a marginal portion around the heel seat face of the heel arranged to intersect the usual concavity in said face, attaching the heel to the shoe and thereafter trimming the heel employing the peripheral recess between the heel and shoe in coöperation with the guard of the trimming tool to assist the operator in positioning the shoe relative to the tool.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK E. EWELL.

Witnesses:
WILLIAM E. PATCH,
GEO. W. GORDON.