J. E. GLIDDEN.

HEEL.

APPLICATION FILED JAN. 9, 1907.

1,007,687. Patented Nov. 7, 1911.

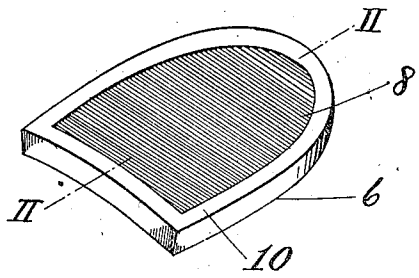

Fig. 1.

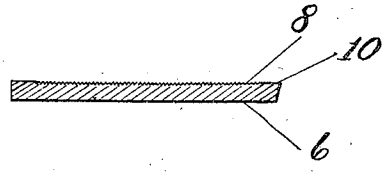

Fig. 2.

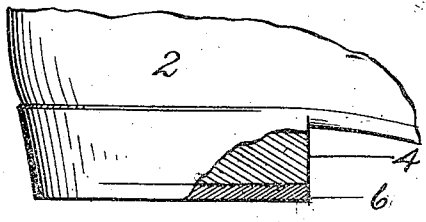

Fig. 3.

WITNESSES.

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HEEL.

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To all whom it may concern:

Be it known that I, JOHN E. GLIDDEN, a citizen of the United States, residing at Beverly, in the county of Essex and Commonwealth of Massachusetts, have invented certian Improvements in Heels, 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 heels for boots and shoes and more particularly to leather top lifts for heels.

While the invention is of general application and of value in connection with the manufacture of surface nailed heels, it is especially useful as applied to "blind nailed heels" in which the top, or outer, lift is secured to the body portion of the heel, commonly known as the "heel blank", after the lifts of which the blank is composed are assembled and usually after the blank has been attached to the shoe, the said top lift being "spanked" or pressed down upon the ends of the heel attaching nails which project beyond the face of the blank a distance somewhat less than the thickness of the top lift so that when the heel is completed the ends of the attaching nails do not extend through to the tread face of the heel. For the better grades of work, also, an adhesive or cement, such as glue, is applied to the inner surface of the top lift to aid in securing it firmly to the blank. According to the best practice, the top lift is also highly compressed and condensed before it is attached, and, as fully explained in Letters Patent of the United States No. 781,236, granted January 31, 1905, the top lift is not only condensed and hardened by the compressing operation, but its surfaces, even including the flesh face of the leather, are rendered smooth and dense. Since the glue or other adhesive used does not attach itself with sufficient firmness and in sufficient quantity to such a smooth, dense surface, it is a frequent custom to roughen or corrugate the inner surface of the top lift, as stated in the specification of said patent, thus increasing the holding surface and forming depressions to receive the adhesive, as a result of which the adhesive is more effective in securing the top lift and the heel blank firmly together.

Prior to the present invention, so far as applicant is aware, the corrugations have always extended to the edge of the top lift. Hence, after the heel has been completed the ends of the corrugations are visible in the line between the top lift and the next adjacent lift. Even if the row of small triangular spaces formed by the corrugations are all filled by the glue, or are closed up in the operation of finishing the heel, yet an irregular line resembling saw teeth in appearance may be discerned at the junction of said lifts. This injures the appearance of the heel since it is desired to conceal this joint as completely as possible. A further objection to a top lift in which the corrugations extend to the extreme edge is that these corrugations constitute channels or grooves which conduct the glue, or other adhesive, to the exterior surface of the heel, so that when the top lift is spanked on the other lifts the glue easily escapes along these channels, often flying upon the workman and upon the machine and daubing and impairing the appearance of the shoe. As the workman usually finds it necessary to watch the top lift closely while it is being positioned upon the blank and being attached, the glue sometimes flies into his eyes.

In order to overcome the above objections and to obtain other desirable results, the inner face of the top lift, according to the present invention, is provided with an inner depressed, roughened or corrugated portion, to receive and retain the adhesive, and with a smooth, flat rim around its margin, this rim having a plane surface which is adapted to contact with and fit closely upon the corresponding plane surface of the adjacent lift of the heel. Thereby a more perfect line of junction between the top lift and the heel blank is secured and, furthermore, the rim on the top lift serves as a closing wall or dam around the inner depressed or roughened portion containing the adhesive, closing the ends of the spaces or corrugations so as substantially to prevent the adhesive from exuding as the top lift is spanked on.

The provision of a rim for a top lift, as just described, is particularly advantageous in a top lift which has been rendered smooth, flat and dense by compression and condensation under great pressure, as above described, such a top lift being known commercially as a "condensed top lift".

Referring now to the accompanying

drawings:—Figure 1 illustrates in perspective a top lift embodying the invention in its preferred form; Fig. 2 is a longitudinal section upon the line II—II of Fig. 1; and Fig. 3 shows in side elevation the heel portion of a shoe with the improved top lift applied.

In the drawings, 2 indicates a portion of a shoe to which is attached a heel comprising a heel blank 4 and a top lift 6. As shown, the inner face of the top lift, which ordinarily is the flesh side of the leather, is provided with corrugations or grooves 8 and with a rim or uncorrugated portion 10 which surrounds the corrugated portion. Preferably, the highest parts of the corrugations extend no higher than the plane surface of the rim, as indicated in Fig. 2, and the bottoms of the depressions are below the plane of the rim.

In blind nailed work, after the heel blank 4 has been secured to the shoe 2, the attaching nails are left projecting from it a distance somewhat less than the thickness of the top lift 6 about to be attached. The proper quantity of glue or other adhesive is then applied to the corrugated portion of the top lift, after which the top lift is spanked on in the usual manner, the rim being brought firmly into contact with the adjacent flat surface of the heel blank. The adhesive inside this rim is relied upon for holding the parts together, and therefore with the proper quantity of adhesive, none will escape from between the top lift and the heel blank as the top lift is attached, and a close joint between the two will be obtained. Even if an excessive quantity of adhesive is applied to the top lift, the film of adhesive interposed between the rim and the adjacent lift will be very thin.

As previously indicated, the invention is particularly advantageous when embodied in a top lift compressed and rendered smooth and dense by such great pressure as is sufficient to produce substantial changes in the characteristics or qualities of the top lift.

For producing the top lift of the present invention, a machine of the type shown in Letters Patent of the United States No. 776,787, granted December 6, 1904, may conveniently be used, by employing suitable dies of the character indicated in Patent No. 772,840, granted October 18, 1904. In the manufacture of the top lift shown on the drawings, the face of the die or follower which engages the flesh side of the leather will have a configuration complemental to the upper face of the top lift, as shown in Fig. 1, so that corrugations terminating within the margin of the top lift will be formed in one face while the top lift is being compressed.

It will be obvious that a top lift embodying the present invention has other advantages than those already specified. For instance, the provision of the plain rim surrounding the corrugated portion gives the surface of the top lift a distinctive and attractive appearance, a feature of considerable practical value especially since top lifts are often separately manufactured and sold. Furthermore, the price of a top lift depends to a considerable extent upon the thickness of its edge. A corrugated top lift with such a rim appears to be thicker than one of equal thickness which has its edge corrugated. The rim, also, serves to protect the ends of the corrugations so that they cannot easily be broken down or injured in handling, as might be the case with a corrugated top lift in which the corrugations extend to the extreme edge.

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

1. As an article of manufacture, a flat leather top lift for a heel having its flesh face provided with a narrow plane marginal portion and an inner adhesive-receiving portion within and wholly below said marginal portion.

2. As an article of manufacture, a flat leather top lift for a heel having its inner flesh face provided with numerous separate, relatively shallow, depressions to receive and to retain an adhesive for uniting the lift to the adjacent lift of the heel and with a relatively narrow rim having a plane surface extending around the margin of the lift and constituting a closing wall or dam for preventing the exudation of the adhesive from the depresisons when the top lift is being attached to the body portion of the heel.

3. A heel, comprising, in combination, a body portion having an outer face substantially plane, a flat leather top lift provided upon its inner face with a relatively narrow plane marginal rim and with a roughened portion inside of and extending no higher than said rim, the latter fitting closely to the plane outer face of said body portion and said roughened portion being made up of numerous ribs or corrugations with depressions between, and an adhesive within said roughened portion to aid in securing the top lift firmly to the body portion.

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

JOHN E. GLIDDEN.

Witnesses:
FREDERICK L. EDMONDS,
JOHN H. RUCKMAN.