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HEEL FOR SHOES.

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It is known that the heels for the most part actually in use for ladies' shoes are made in a single piece from a block of wood suitably shaped to give it the desired form. This wooden heel is completed by a strip of leather glued or nailed on its base and it is fixed on the shoe with nails engaging with the interior of the shoe and entering the heel.

Heels made thus require the employment of a highly skilled workman which increases their cost price. Moreover, as it is wood which is being worked with, the surface is seldom even and as it is necessary to cover them over with leather, for example, the whole is comparatively expensive.

It is, moreover, to be noted that metallic heels filled with some stuffing material are known, but without wooden blocks, and other heels are known without a metallic casing and in the mass forming the heel of which there is embedded a vertical block with a very much reduced surface for nailing and consequently not allowing a good and lasting joint with the shoe.

In contrast with these known heels, according to the present invention a heel comprising an external metallic casing, in which is located vertically a wooden block packed in a stuffing material is essentially characterized by the fact that the upper part of the vertical block supports another wooden block located obliquely with respect to the horizontal and occupying the upper part of the heel in such a way as to allow of effective nailing of the shoe on the whole surface of the heel. Another characteristic is constituted in the fact that the upper edge of the metallic casing is provided with two lugs extending towards the middle of the heel and fixed on the upper block with the object of preventing the forcing open and deformation of the said casing which is open at its front. The invention is further characterized by the fact that this front part of the metallic casing is reinforced by interchangeable metallic threads.

The method of manufacturing this heel allows of obtaining a light, yet durable arrangement at a cost price less than that of the wooden heels with the advantage of its being fixed on the shoe in the same way as the latter. The heel, once finished, can be stove enamelled, silvered or gilded.

Two constructional forms of the invention are shown on the annexed drawing, diagrammatically and by way of example. Fig. 1 shows by itself in perspective, the arrangement of the external metallic casing of the heel. Fig. 2 shows, likewise by themselves, two blocks of wood entering into the manufacture of the heel. Fig. 3 shows the fitting of the blocks of wood into the interior of the metallic casing. Fig. 4 shows, in vertical section, the arrangement of the metallic casing and its internal fittings. Fig. 5 shows the finished heel in perspective.

Fig. 6 is a perspective view showing a modified form of the external metallic casing.

As seen in the drawing, the heel comprises an external casing a obtained in shape by stamping from sheet iron and having no front surface. The upper edge of the sheet iron is cut away and bent over at right angles to form an upper flange from which extend two lugs b on which the shoe will rest, and its lower edge is likewise bent over at right angles in such a way as to form a lower flange c to which the layer of leather intended to be in contact with the ground will be applied, two lugs d being also formed on the side edges of the sheet iron.

A block of wood e is fitted vertically into the sheet iron casing a immediately above its lower bent over edge c and it is retained by a second block f, likewise of wood, fitted into the upper space of the casing a, between the block e on which it rests and the upper lugs b of the casing. The space of the casing unoccupied by the blocks e and f is then filled in, preferably with a composition g made up of powdered cork and a solution of indiarubber. Finally, a metallic thread h is passed through and fixed in the holes made at each of the two extremities of the upper edge b of the casing and other metallic threads i are disposed similarly between the two lugs d and forward end portions of the flange c to resist forcing apart and deformation of the casing a.

When the heel is in place on the shoe, the piece of thin leather, which increases its length, closes the open side of the heel. In cases in which the sole continues over the upper surface of the heel there would be room for closing the front of the heel, by a piece of sheet metal, for example.

In the modified form shown in Fig. 6, the upper edge of the metallic casing a is not
flanged over at the part intended to form the
two lugs \( b \) and the thread \( h \) of the foregoing
arrangement is replaced by two strips \( j \) ob-
tained in the cutting out of the casing and
bent into the horizontal plane at the front of the upper edge. The free ends of these
two strips are jointed together where they
abut centrally by a spot of autogenous solder
\( k \). The side edges of the casing \( a \) are bent
over throughout their entire height to form
inwardly extending flanges from the lower ends of which extend two strips \( l \) joined to-
gether by a spot of autogenous solder \( m \).
This latter method of manufacture ensures
rigidity of the casing at its open face, while
obviating the use of the metallic threads; fur-
ther, the rear of the upper edge not be-
ing flanged will bend more easily in stamp-
ing.
This casing is fitted internally with blocks
of wood and filled up with a composition of
powdered cork and a solution of india-rub-
ber as described with reference to the preced-
ing arrangement.
From the foregoing, the advantages arising
from heels made thus will be understood.
The metallic casing obtained by cutting out and stamping a piece of sheet iron is
stove enamelled, which allows of it being
given all the shades desired. In this way the
appearance of the heel being covered with
leather can be obtained. The upper block
\( f \) of wood allows the heel to be fixed on the
shoe in the ordinary way, by means of nails
and the vertical block \( a \) allows the ground-
engaging tread \( n \) to be secured under the
heel in the usual manner by nails or other
suitable fasteners. The heel, completed and
fixed on the shoe, has the same appearance as
the wooden heels and the actual method of
attaching it is not in any way modified.
Finally, it is light and its cost price is much
less than that of ordinary heels.
A modification of the invention may con-
sist, as regards the lower edge of the external
casing \( a \), in not flanging this edge and leav-
ing it straight. In this case, one may slight-
ly vary the shape of the vertical block, which,
being at its lower part exactly of the section
of the casing which encloses it bears against
the edges of the latter and terminates with them.
It is to be understood that this method of
manufacture is not limited to any particu-
lar kind of heel but that it can be equally
well applied to heels for all shoes, the con-
structional details and dimensions varying
without altering the principle of the invention.
I claim:
1. A heel comprising a casing open at its
top and bottom, a block disposed longitudi-

ally in said casing in spaced relation to its
walls, a block resting upon the upper end of
the first block in the upper portion of said
casing and projecting transversely from
the first block, and a filler in said casing
about said blocks, the upper face of the sec-
ond block and lower end of the first block
being exposed at the open upper and lower
ends of said casing whereby fasteners may
be embedded in the blocks to secure the heel
to a shoe and a ground-engaging lift secured
against the lower end of the casing.
2. A heel comprising a casing open at its
top and bottom, a block disposed longitudi-

ally in said casing in spaced relation to its
walls, a block resting upon the upper end of
the first block in the upper portion of said
casing and projecting transversely from the
first block, the walls of said casing being pro-
vided with portions projecting inwardly in
overlapped engagement with the upper face of
the second block, and a filler in said cas-
ing about said blocks, the upper face of the
second block and lower end of the first block
being exposed at the upper and lower ends of
said casing and adapted to receive fasteners.
3. A heel comprising a casing open at its
top and bottom, a block disposed longitudi-

ally in said casing in spaced relation to its
walls, a block resting upon the upper end of
the first block in the upper portion of said
casing and projecting transversely from the
first block, the walls of said casing being pro-
vided with inwardly extending flanges at their upper and lower ends and
the upper flange having projected portions
overlapping the upper face of the second
block, and a filler packed into said casing
about the blocks and the upper face of the
second block and lower end of the first block
exposed at the upper and lower ends of
the casing.
Signed at Paris, Seine, France, this 16th day of Feb., A. D. 1926.
ANDRÉ PERUGIA.