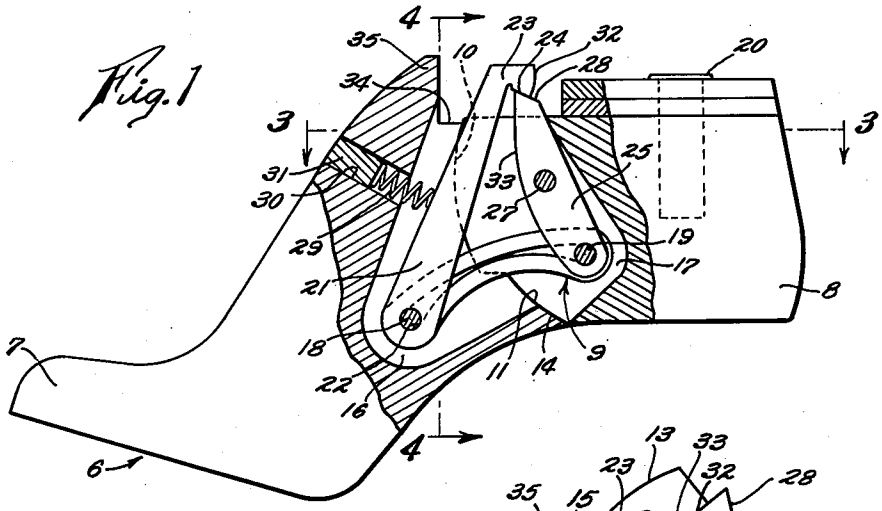
Dec. 23, 1952 H. G. CLAUSING 2,622,253

SHOE LAST

Filed July 23, 1951

Fig. 1



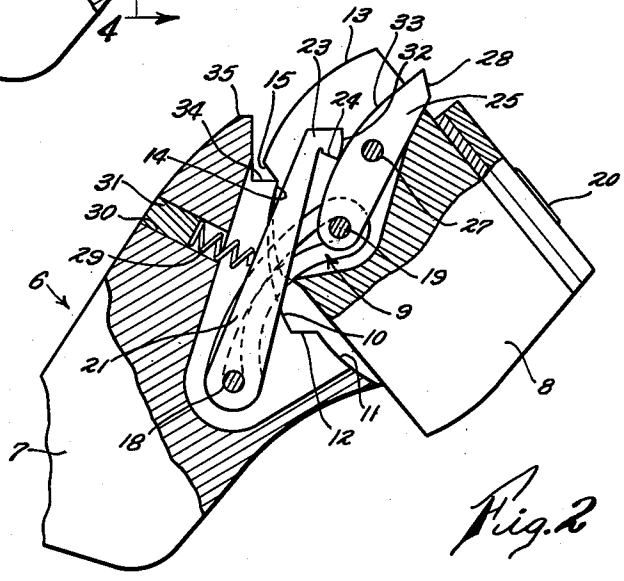


Fig. 2

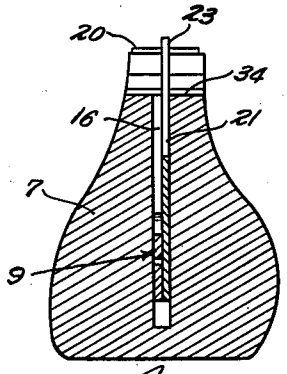


Fig. 4

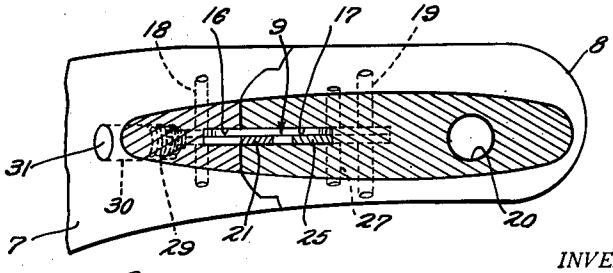


Fig. 3

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SHOE LAST

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4 Claims. (Cl. 12—136)

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This invention relates to shoe lasts and is particularly directed to an improved means for maintenance of the relatively movable parts of a shoe last in operative, expanded positions.

An object of the invention is to provide a last that is not confined to the manufacture of "slip lasts" but can be used in making all kinds of shoes including the manufacture of welts, McKays, stitch downs, etc.

Another object of the invention is to provide a positively acting lock for the linked parts of a shoe last which is durable and has its locking and release means disposed beyond the body of the last in a convenient and a readily accessible position.

A still further object of the invention is to provide a stabilizing means for the collapsed positions of the last parts, so that the last may be readily withdrawn from a finished shoe.

Another object of this invention is to provide a slip last for shoes which has a novel arrangement of parts and lock pieces to effect the foregoing objects of the invention, consisting in the general assembly and particular parts and combination of parts hereinafter described, and defined in the appended claims, reference being had to the accompanying drawing which is illustrative of my invention.

In the drawings:

Fig. 1 is a vertical section through the longitudinal center of my slip last depicted in expanded position, parts thereof being shown in elevation.

Fig. 2 is a view similar to Fig. 1 showing my last in contracted position, a portion of the forepart being broken away.

Fig. 3 is a section taken on line 3—3 of Fig. 1.

Fig. 4 is a section taken on line 4—4 of Fig 1.

Referring to the drawing the numeral 6 is a shoe last illustrative of the present invention and comprises a forepart 7 and a heel part 8 connected together for relative swinging movements by a single link arrangement 9. The forepart has an upper meeting surface 10, and a lower meeting surface 11 offset rearwardly with respect to the surface 10, to form an upwardly facing shoulder 12 on said forepart. The heel part is provided with an upper meeting surface 13 and a lower meeting surface 14 which respectively engage the surfaces 10 and 11 on the forepart when the last is in the expanded position shown in Fig. 1. The heel part surfaces 13 and 14 therefore form between them a downwardly facing shoulder 15 which engages the shoulder 12 on the forepart to determine the operative, expanded

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positions of the last parts for carrying out shoe lasting operations thereon. Preferably the meeting surfaces of the forepart are concave whilst the complementary meeting surfaces on the heel part have a convex form.

The last parts are connected together for relative swinging movements by the link 9 which is made from a spring steel stamping in the form of an elongated loop. This link is of great importance in that it is non-deformable and can be longitudinally flexed to place it under resilient tension when the last parts are locked in operative, expanded condition. The link has a flat configuration and has its forward portion disposed in a narrow rout 16 formed centrally in the rear portion of the forepart and its rearward portion positioned in a narrow rout 17 formed centrally in the forward portion of the heel part. The link is connected to the forepart by a transverse pivot pin 18 and to the heel part by a transverse pivot pin 19 whereby the last parts may be swung to and from their operative positions illustrated in Fig. 1 to the collapsed last position shown in Fig. 2 of the drawing. The heel part is provided with the usual jack thimble 20.

The novel locking device for the movable parts of a last connected together as set out hereinbefore consists of a latch arm 21 having its lower end disposed in the rout 16 along side of the link 9, said arm being rotatably mounted on the forepart by means of an annular hole 22 formed in its lower end and through which the pivot pin 18 passes. The free end of the latch arm extends upwardly into and beyond the body of the heel part 8 and is provided at its upper extremity with a rearwardly extending lug 23 which has a substantially flat under-surface 24 disposed in a plane normal to the center line of the said latch arm. The latch arm cooperates with a catch plate 25 fixed to the heel part by means of the pivot pin 19 which passes through a bore in its lower end, and a spaced, transverse pin 27 which passes through a hole in said plate at a point near the upper end of the body of the heel part. The catch plate projects above the body of the heel part and has a substantially flat latch arm engaging surface 28 at its upper end which lies in a plane that is convergent downwardly and rearwardly with respect to the longitudinal center of the last (Fig. 1). The latch arm 21 and the catch plate 25 are positioned in their respective last part routs 16 and 17 on the same side of the link 9.

The latch arm is biased toward latched position with the catch plate by an expansile spring

29 located in a bore 30 that has its outer end closed by a suitable plug 31. When the last parts are swung between fully expanded and fully contracted positions the rear edge 32 of the lug 23 slides along the curved forward edge 33 of the catch plate and because both surfaces are metal, friction is reduced to a minimum and little or no wear will result therefrom.

A shelf 34 is formed between the cone portion 35 of the forepart and the upper portion of the meeting surface 10 of the forepart. As most clearly shown in Fig. 2 the shoulder 15 on the heel part will engage this shelf when the last parts are in contracted positions. The engagement of the shelf with said shoulder 15 precludes rotation of the heel part relative to the forepart when rotatory forces are exerted on the heel part, as for instance, when the last has been broken and moved to its contracted position and the forepart of the last is in the process of being maneuvered from within a finished shoe.

The operation of removing the last from a finished shoe is initiated by applying a forward force on the rear surface 32 of the latch arm lug until the catch plate and arm are released whereby the last will collapse, the heel part moving forward in the shoe. The lifting of the last forepart from the toe of the shoe is accomplished by normally grasping the heel part and swinging it into the position shown in Fig. 2 so that the shoulder 15 on the heel part engages the shelf 34 on the forepart. The engagement of the shelf and shoulder precludes relative movement of the parts in the lifting direction of the heel part from the shoe such that the forepart may have imparted thereto maneuvering forces so that it is moved easily from the toe of the finished shoe.

What is claimed is:

1. A shoe last comprising a forepart and a heel part each having two offset meeting surfaces forming cooperative shoulders for maintaining the last parts in operative, expanded positions, a link between the forepart and the heel part, a first pivot pin connecting the link to the forepart, a second pivot pin connecting the link to the heel part, a latch arm pivoted at its lower end to the first pivot pin and extending upwardly beyond the body of the shoe last, a heightwise catch plate fixed at its lower end to the second pivot pin and extending upwardly beyond the body of last, a transverse pin positioned in the upper portion of the heel part and fixed to an intermediate portion of the catch plate, the upper free end of said latch arm having a rearwardly extending lug engageable upon the upper edge of the catch plate, and means between the latch arm and a portion of the forepart for biasing the said arm toward the catch plate.

2. A shoe last according to claim 1 characterized by the fact that the link between the forepart and heel part is longitudinally flexible.

3. A shoe last according to claim 1 characterized by the fact that the latch arm lug and the catch plate have substantially flat cooperative engaging surfaces.

4. A shoe last comprising a heel part having an upper meeting surface and an offset lower meeting surface forming a downwardly facing shoulder on the part between said surfaces, a forepart having an upper meeting surface and a lower meeting surface cooperating with the respective meeting surfaces of the heel part to position said parts in last expanded condition, a link extending between the forepart and heel part, a pivot pin anchored in the forepart and connecting said part to the link, a pivot pin anchored in the heel part and connecting said part with the link, and a shelf formed in the forepart adjacent the upper end of the upper meeting surface of said forepart for engagement with the shoulder on the heel part when the last parts are in fully collapsed positions.

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