TOOL FOR APPLYING FOOTWEAR IDENTIFICATION

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This invention relates generally to improvements in tools for applying identification tags to various articles of clothing and more particularly to a press-like device by which small metal identification or initial tags may be applied to such articles of footwear such as rubbers, galoshes, and the like.

As described in my prior co-pending application Serial No. 96,873, filed June 3, 1949, for Footwear Identification, now abandoned, I propose to solve the long standing problem of positively identifying rubbers and like footwear by the application thereto of three or more metal initial tags carrying the initials of the owner.

Such tags in their preferred form are made from sheet metal to a generally rectangular shape with the initials embossed or otherwise applied and they are provided with teeth on opposite edges for clinching attachment to the footwear.

To render this method of identification completely practical, it is necessary that some form of simple and readily operated tool be provided so that the storekeeper at the time of selling the footwear may apply the initial tags with a minimum of time and maximum of convenience. It is accordingly the primary object of my present invention to provide a tool meeting these requirements and which is extremely simple in construction and operation and compact enough to be stored away in a kit with an assortment of initialed tags all as will be presently set forth.

Another object of my present invention is to provide for such a tool a tag holder or carrier into which a minimum of three initialed tags may be quickly inserted with the fingers and held in proper aligned relation while being clinched into the footwear.

Still another object of my invention is to provide a tool of this kind which may be used in applying the identification tags to footwear of all types and which embodies a number of features and refinements as will be described in the following specification.

A further object is to provide a tool wherein the tag holder or carrier is positionable in two distinct positions at right angles to each other, whereby to adapt the tool to application of the tags to various types of wearing apparel.

These and other more detailed and specific objects will be disclosed in the course of the following specification reference being had to the accompanying drawings, which—

Fig. 1 is a side elevation of a tool of my invention and illustrating parts thereof in the position they assume when clinching the tags into the footwear in dotted lines.

Fig. 2 is a similar view but taken from the front of the tool and also showing a portion of a rubber in position for application of the tags.

Fig. 3 is an enlarged detail elevation and section of the lower part of the plunger and associated tag holder or carrier and showing one of the tags in place therein.

Fig. 4 is a similar view but showing a modified form of tag holder.

Fig. 5 is a perspective view of one of the identification tags alone.

Fig. 6 is a side elevation of a modified form of tool.

Fig. 7 is an enlarged horizontal sectional view along the line 7—7 in Fig. 6.

Fig. 8 is an enlarged, fragmentary plan view along the line 8—8 in Fig. 6.

Fig. 9 is a plan view of the tool in use as applying identification tags horizontal across the upper part of heavy footwear, such as stadium boots.

Referring now more particularly and by reference to the drawing the tool as shown in Figs. 1 and 2 comprises a frame, designated generally at 10, preferably the form of a casting having a base 11, a back 12, and a head 13 overlying the base thus forming a yoke-like frame with a recess 14 into which a rubber or other footwear such as indicated at A may be placed. A rectangular anvil 15 is secured upon the upper forward face of the base 11 and is secured thereto by means of screws 16. This anvil 15 has a pair of parallel grooves 17 running from front to rear ends and in vertical alignment with the center of the anvil the frame head 13 is provided with an upright bore 18 to slidable receive an upright press plunger or ram 19. This plunger 19 is thus mounted for up and downward movement toward and away from the anvil 15 and the plunger is formed with a longitudinal groove adapted to slidably engage a pin 21 entering the bore 18 to prevent the plunger from turning about its axis. The plunger 19 is also provided with a hardened cap at its upper end and a light expansion coil spring 23 is coiled around the plunger and braced between the cap and the head 13 in order to yieldably bias the plunger assembly in an upward direction. Such movement of the plunger under influence of the spring 23 is limited by the upward contact of a tag holder or carrier, designated generally at 24, with the underside of the head 13, as clearly shown in Fig. 1.

As stated hereinafore, the tool is for the purpose of applying initialed tags to footwear A and at this point attention is directed to Fig. 5 wherein one of such tags is designated at 25. In the form best adapted for use and application by the tool such tags comprise rectangular pieces of metal suitably embossed to define the initials and provided on opposite edges with teeth 26. Also as will be noted the corners of the tag are rounded as indicated at 27. For practical purposes three of such tags carrying the owners
initials must be applied to the footgear and the tag holder or carrier 24 here shown is adapted to this purpose as will now be described.

The tag holder comprises a rectangular metal block 20 having a centrally located opening to accommodate a reduced lower end extension 29 formed on the plunger 18 and the block is secured in such position by means of a pin 30 so that it is parallel with the anvil 15 and particularly with the groove 17 therein. Along one lower lateral edge of the block 20 there is formed a depression head or flange 31 and secured to the opposite side of the block is a rectangular flat leaf spring 32 mounted by screws 33 and depending at its lower edge beneath the block to the same level as the aforesaid head. The width of the opening or space between the head 31 and lower edge of the spring 32 is very slightly less than the width of the tags 25 so that the tags may be slipped one at a time endwise between these parts until three of such tags have been fed to the underside of the holder. The spring 32 is forced slightly away from the block at its lower edge in this process so that it then resiliently grips the tags and forces them into frictional contact with the opposite head 31. A stop 34 is depended from the rear end of the block 20 in order to contact the tag first inserted and thus as each successive tag is put in place they will be brought to side by side contact and held properly aligned beneath the holder. In order to facilitate the insertion of the tags into the holder the lower side of its block 20 is upwardly recessed as indicated at 35 between the bead 31 and spring 32 thus reducing the area of frictional contact between the tags and the block and causing the former to be held almost entirely by their edges. Inasmuch as there may be minor irregularities in the dimensions of the tags I form the spring 32 with two spaced slots 36 extending upwardly some distance from the lower edge so that in effect the spring is divided into three sections each of a width such as to provide for individual gripping tension upon the three tags as will be clearly apparent in Fig. 1.

The frame 10 is formed with an upwardly extending handle mounting gear 37 at the forward end of the head portion and secured by means of a pin 38 to this gear is a handle 39 preferably made in the form of a stamping of U-shaped cross section. Adjacent its pivotal end the handle 39 is formed with rounded ends 40 which are hardened and which in the uppermost position of the plunger 19 stand immediately adjacent the cap 32 thereon. It will be noted that the handle 39 is slightly shorter than the overall length of the head portion 13 of the frame so that in the lowermost position of the handle shown in dotted lines in Fig. 1 the entire tool will assume an almost square and very compact shape permitting it to be packaged and stored with the greatest convenience.

In the operation of the tool, with the plunger 19 in its upper position three of the tags 25 bearing the initials in their proper order are inserted one at a time in the pin 21 and the teeth 28 aligned with the groove 17 in the anvil 15. The article of footgear or other clothing desiring to be identified is then placed on the anvil 15 as seen in Fig. 2 and the operator starts the plunger 19 downward with the thumb until the cap 22 reaches a level at which the handle 39, operated by the same hand may be swung over and downward to complete the downward motion of the plunger. The teeth 25 obviously will then pierce the article A and, coming in contact with the grooves 17, will be turned over and clinched thereby after which the handle 39 is again raised and the holder 24 will readily pull itself free of the applied tags as the holder rises. It will thus be noted that the operation is completely straightforward and may be carried out with a minimum of time and effort on the part of the operator.

As will be noted in the drawing the lateral surface of the block 20, to which the spring 32 is affixed, is inclined from the vertical so that the spring itself is formed in the direction of the arrow and may be termed an inward direction as referenced to the center of the space into which the tags are placed. As a result the spring has a tendency to slightly "hook" under the adjacent edges of the tags and pull them up against the underside of the block. This angle of the spring is somewhat exaggerated in the drawing for the sake of clarity.

In Fig. 4 I show a modification of the tag holder again indicated at 24 but in this case the block 20 is formed with beads 31a and 31b along both of its edges. In this case however, I contemplate making the block itself in the form of a permanent magnet preferably using the material known to the trade as "Alnico" and when used with tags which are themselves of ferrous material it will be obvious that the magnetic attraction will be much greater in place.

It may be desirable to provide means for positioning the tag holder or carrier 24 at right angles to the position shown in Figs. 1 and 2, for example in applying the tags 25 across the upper part of such footgear as stadium boots 13 as seen in Fig. 2. It will be noted in Figs. 6-9 permits the carrier 24 to be used in either position as will now be described.

Such parts of this tool as are identical to those described heretofore are for convenience designated in Figs. 6-9 by the same reference characters, but the plunger 19 in this case has a circumferential groove 40 and in addition to the longitudinal groove 20 to slidably engage the inner end of pin 21 has a second, parallel groove 20a located ninety degrees from the first. The arrangement is thus such that, when the plunger is rotated in a direction to engage the pins 21 of Fig. 1 the groove 40 will register with the pin 21 so that the plunger may be rotated on its axis. By so turning the plunger either the groove 20 or groove 20a may be aligned with the pin 21 and the tool thus operated with the tag holder or carrier in either of two right angularly related positions. In order that the turning motion of the plunger will be restricted to a quarter turn I provide a stop pin 41 which is fastened crosswise through the plunger in the groove 40 with its ends so located with respect to the open upper ends of grooves 20 and 20a as to contact the inner end of pin 21 as the plunger is turned. Either groove 20 or groove 20a will thus be registered with the pin 21 as the plunger is turned and the ends of pin 41 will strike pin 21 as will be understood. Thus the holder 24 may be positioned to the pins 21 and the handles 39 of two pluners may be swung to and locked to each other, allowing the tags to be applied as best suited to the various types of articles to be identified. The anvil 15 in this case is also made square and has two sets of parallel grooves 17-17a at right angles to properly turn over the teeth on the tags in the two positions of the tag holder.

It is understood that suitable modifications may be made in the structure as disclosed, provided such modifications come within the spirit
and scope of the appended claims. Having now therefore fully illustrated and described my invention, what I claim to be new and desire to protect by Letters Patent is:

1. A tool for applying toothed initial tags of the character described to articles of clothing, comprising a frame having a base, a back and a head overhanging the base, an anvil on the base and the head being so spaced thereabove that an article of clothing may be rested on said anvil, a plunger mounted through the head for up and down movement toward and away from the anvil, means yieldably biasing the plunger in an upward direction, means for forcing the plunger downward, means for holding a plurality of toothed initial tags in a row on the lower end of the plunger, the anvil having grooves for engaging and clinching the teeth on the tags as the plunger is forced downward, cooperating guide means on the head and plunger whereby the plunger may be rotated through a quarter turn to either of two angularly related positions, and the anvil having two sets of grooves at right angles to each other to engage the teeth on the tags in either position of the plunger.

2. A tool of the character described for clinching identification tags on clothing, comprising a frame having a base, back and head overlying the base, an anvil on the base, the said head having a bore at right angles to the base and anvil, a plunger reciprocally and rotatably mounted in the bore for movement toward and away from the anvil, means on the lower end of the plunger for holding tags for clinching, means for moving the plunger toward and away from the anvil, the said plunger having at least two longitudinal grooves spaced apart angularly around the plunger and a circumferentially extending groove joining these grooves, a pin in the head of the frame extending into the bore to enter the grooves whereby the plunger may be rotated to and between two angularly related positions and then reciprocated in either, and the anvil having angularly related tag clinching grooves for clinching tags in either position of the plunger.

3. In a tool for clinching toothed initial tags on articles of clothing, a frame having base, back and head portions with the head portion overlying the base portion and having a bore at right angles thereto, an anvil on the base portion, a pin fixed in the head portion and entering the bore therein, a plunger slidable in the bore toward and away from the anvil and on the lower end adjacent the anvil having a head and means for holding a row of initial tags for clinching by the anvil, the said plunger having two longitudinal grooves spaced apart angularly a quarter turn and a joining circumferentially extending groove for receiving the said pin and permitting the plunger to be rotated to align either of the longitudinal grooves with the pin and thereby position the head at two right angularly related positions.

4. In a tool for clinching toothed initial tags on articles of clothing, a frame having base, back and head portions with the head portion overlying the base portion and having a bore at right angles thereto, an anvil on the base portion, a pin fixed in the head portion and entering the bore therein, a plunger slidable in the bore toward and away from the anvil and on the lower end adjacent the anvil having a head and means for holding a row of initial tags for clinching by the anvil, said plunger having a longitudinal groove slidably engaging the pin, an upwardly extending handle mounting ear on the head portion of the frame, a handle of a U-shaped stamping pivoted on said ear and having spaced cam edges for engaging the adjacent upper end of the plunger to force same downward toward the anvil, and a spring biasing the plunger in an upward direction.

JOHN C. LINDEQUIST.

REFERENCES CITED

The following references are of record in the file of this patent:

<table>
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<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
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<tbody>
<tr>
<td>562,331</td>
<td>Wirth</td>
<td>May 11, 1897</td>
</tr>
<tr>
<td>1,288,704</td>
<td>Shafer</td>
<td>Dec. 24, 1918</td>
</tr>
<tr>
<td>1,312,026</td>
<td>Ewald</td>
<td>Aug. 5, 1919</td>
</tr>
<tr>
<td>2,349,339</td>
<td>Cloer</td>
<td>May 23, 1944</td>
</tr>
<tr>
<td>2,480,619</td>
<td>Talboys</td>
<td>Aug. 30, 1949</td>
</tr>
</tbody>
</table>