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COMBINATION SHOE RACK

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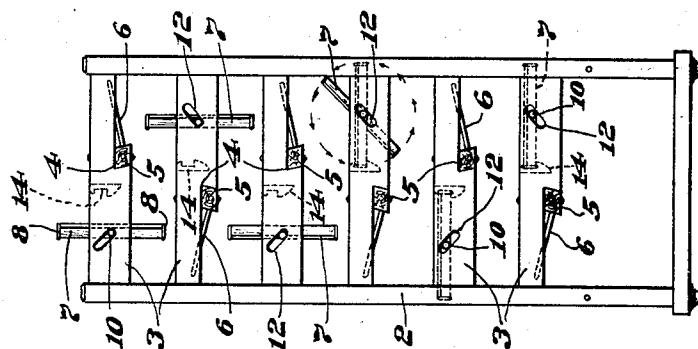


FIG. 2

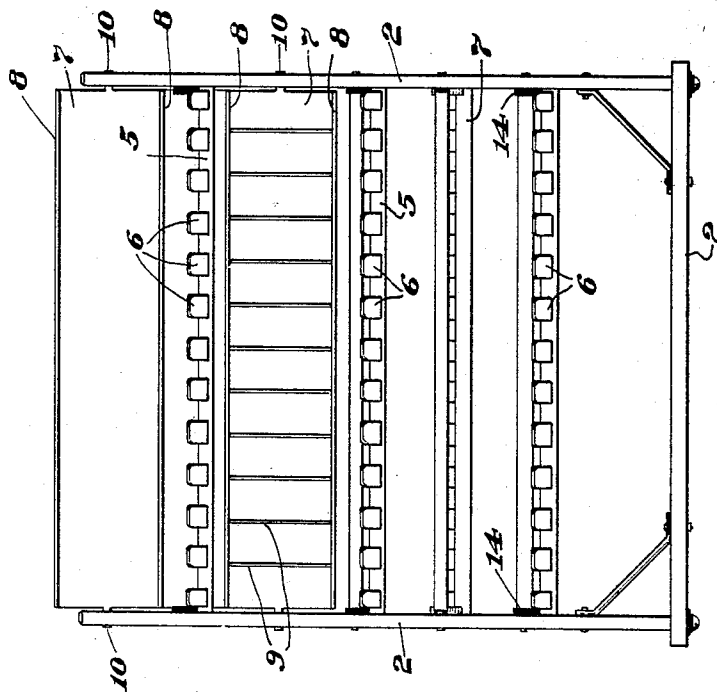


FIG. 1

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COMBINATION SHOE RACK

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This invention relates to racks of the type used to convey shoes from one manufacturing operation to the next.

According to the usual practice the shoes go on to the racks in the assembling room and they are carried on racks until the manufacturing operations have been completed and they are ready to be packed. At the present time there are two types of racks used chiefly and ordinarily referred to as "pin" or "paddle" racks and "shelf" racks. It is a common practice also to use two types of shelf racks, one in which the shelves are divided into compartments, each adapted to receive a shoe, and another in which the shelves are not so divided, but in which the shelves are covered with cloth, this rack being used more particularly to hold the shoes while they are being transferred from one finishing operation to another. It is a very common practice to place the shoes in a partitioned shelf rack immediately after the assembling operation, to transfer them to a pin or paddle rack at some point in the making process, this type of rack being adapted to hold the shoes separate from each other and in inverted positions, and then to transfer the shoes to a cloth covered shelf rack in the treeing room.

It will be evident that where this practice is followed three different rack constructions are required, and that the transfer of the shoes from one type of rack to another necessarily involves congestion at the point where this transfer is made. For this reason it has been customary not to make the transfer as an incident to some manufacturing operation, but to transfer the shoes as a separate operation at some convenient station.

The present invention aims to devise a rack which will dispense with the necessity of transferring the shoes from one rack to another. In other words, it aims to provide a rack in which the shoes can be supported throughout the entire process of manufacture, and which will, nevertheless, have all of the advantages of the three different types of racks now used.

The nature of the invention will be readily understood from the following description

when read in connection with the accompanying drawings, and the novel features will be particularly pointed out in the appended claims.

In the drawings,

Figure 1 is a side view of a rack embodying this invention; and

Fig. 2 is an end view of the rack shown in Fig. 1.

The construction shown comprises a frame 2 which usually is made of wood, although it may also be made of metal if desired. At the opposite ends of the rack the upright corner pieces are rigidly connected by horizontal end members 3, and in the construction shown each of these end members is cut away for a portion of its length to provide a notch or shoulder 4 in which a horizontal bar 5 is secured. Each of these bars carries a series of paddles or pins 6 which are secured rigidly in the bar and are inclined upwardly at a slight angle. The paddles are so located that a suitable space is provided between each pair of paddles to receive a shoe in an inverted position. That is, the ankle portion of the shoe rests on and between the pins or paddles with the bottom of the shoe uppermost. Each bar with its cooperating set of paddles is adapted to support a dozen shoes, or six pairs, as will be obvious from an inspection of the drawings, and the bars are reversely arranged with three on each side of the rack so that the entire rack will support thirty-six pairs.

Located between and alternating with the pin bars or paddle bars are shelves 7 which can be reversed or rotated to bring either side uppermost. These shelves may be of very simple construction, each consisting of a board with suitable end pieces and preferably provided with marginal strips 8 to prevent the shoes from sliding off the shelves. One side of each shelf is left smooth or substantially uninterrupted, as will be seen from an inspection of the uppermost shelf shown in Fig. 1, this side of the shelf preferably being covered with cloth. The opposite side is divided by partitions 9 into a series of compartments, preferably twelve in number. Each shelf has pivots 10 projecting centrally from opposite ends thereof, and these pivots

are located in inclined slots 12 formed in the end pieces 3. Secured to the inner side of each of the end pieces 3 is a stationary locking piece 14 having a notch in one side thereof of such dimensions that the edge of a shelf 7 will fit freely into it. It will be clear from an inspection of the lowermost shelf 7 in Fig. 2 that the inclined slots 12 at the opposite ends of the shelf cooperate with the two pivot pins for this shelf to hold it by gravity in its locked position in the locking devices 14. In other words, the shelf at this time is locked against reversal. At the same time by moving this shelf toward the right and sliding the pivot pins upwardly in the slots 12, the shelf can be disengaged from its locking devices 14 and can then be reversed and replaced in the locking devices.

This arrangement thus permits the use of the shelves with either their partitioned or cloth covered sides uppermost, as desired. The shelves can readily be reversed to bring either side uppermost, and they can be quickly locked in either position where they will be securely held, but can be quickly released, from the locking means whenever desired.

In using a rack of this construction the shoes are placed in the compartments between adjacent partitions 9 of the shelves immediately after the assembling operation, and they usually remain in this position between successive manufacturing operations until they reach the last operation in the lasting room, namely, tack pulling. In performing this operation the workman takes a shoe from the shelf, pulls the tacks, and then places the shoe between the stationary pins or paddles 6 with the sole uppermost. Usually the shoes go through the making and finishing rooms in this position, but when the shoes are finished and go to the treeing room the treer turns the shelves, and as he completes the treeing operation on each shoe, he places it on the uninterrupted or cloth covered side of one of the shelves. From this point on it is desirable to have the shoes stand right side up since the uppers would be marred if they were placed bottom side up between the pins or paddles. The cloth covering on the shelves protects the bottoms of the shoes from becoming scratched or soiled.

The shoes thus are carried through the entire manufacturing operations on a single rack, transferring of the shoes from one rack to another being avoided. They are supported in substantially the same manner that they are in the racks heretofore used, and they are protected as effectually from contact with each other and from becoming scarred or injured as in shoe racks of prior constructions. This rack, also, has the advantage of being cleaned more easily than shelf racks of the usual type since practically all of the dirt will drop off the shelves when they are reversed.

While I have herein shown and described a preferred embodiment of my invention, it will be understood that the invention may be embodied in other forms without departing from the spirit or scope thereof.

Having thus described my invention, what I desire to claim as new is:

1. In a shoe rack, the combination of a frame, a plurality of reversible shelves supported in said frame, each of said shelves having pivot pins projecting from the opposite ends thereof, said frame having inclined slots to receive said pivot pins, and stationary locks for the shelves, said inclined slots cooperating with said pins to hold the shelves by gravity in cooperative relationship to their respective locks.

2. In a shoe rack, the combination of a frame, a plurality of reversible shelves supported in said frame, each of said shelves having a smooth substantially uninterrupted surface on one side and being provided with marginal pieces cooperating with the shelf to form a tray, transverse partitions on the other side of each shelf dividing the latter side of the shelf into compartments each adapted to receive a shoe, means supporting said shelves for reversal whereby either side may be presented uppermost in position for supporting a series of shoes, and means for locking said shelves against reversal.

3. In a shoe rack, the combination of a frame, a plurality of shelves reversibly supported in said frame, each shelf being constructed to support a series of shoes in either of its positions, means for locking said shelves against reversal, and rows of paddles located between adjacent superposed shelves and adapted to support shoes in inverted positions.

4. In a shoe rack, the combination of a frame, a plurality of shelves pivotally supported in said frame for reversal whereby either side of each shelf may be presented uppermost in position for supporting a series of shoes, means for locking said shelves against reversal, and means supporting each shelf and its locking means for relative gravitational movement, whereby the weight of the shelf and the shoes thereon will be effective to lock the shelf against reversal with either of its sides uppermost.

5. In a shoe rack, the combination of a frame, a plurality of shelves pivotally supported in said frame for reversal whereby either side of each shelf may be presented uppermost in position for supporting a series of shoes, means for locking said shelves against reversal, and means supporting each shelf for gravitational movement relative to its locking means, whereby the weight of the shelf and the shoes thereon will be effective to lock the shelf against reversal with either of its sides uppermost.

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