July 7, 1936. I. L. KEITH 2,046,327

CEMENTING MACHINE

Filed May 28, 1935

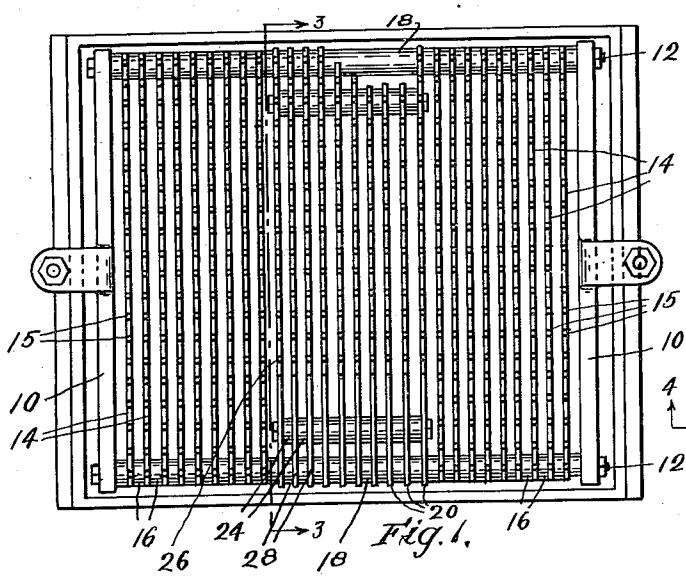


Fig. 1.

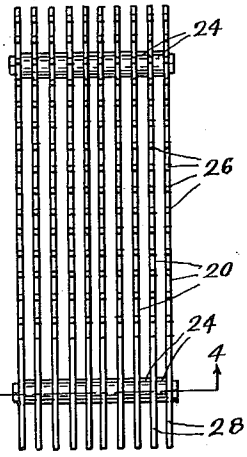


Fig. 2.

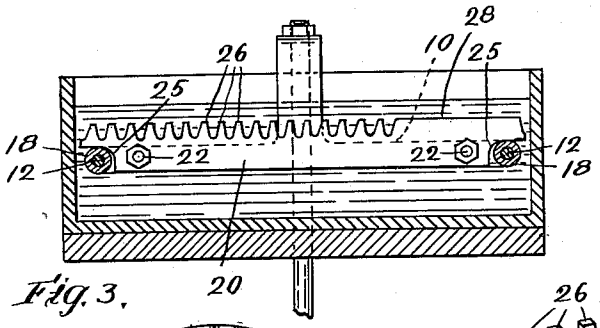


Fig. 3.

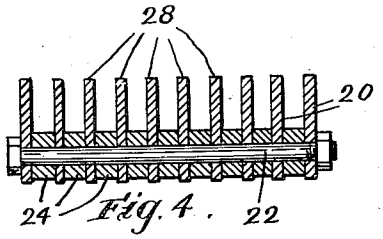


Fig. 4.

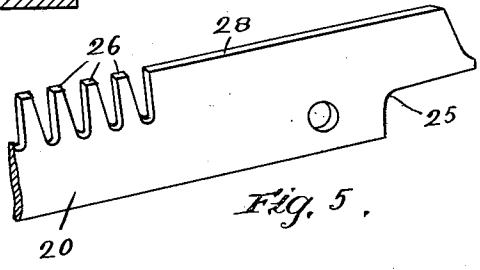


Fig. 5.

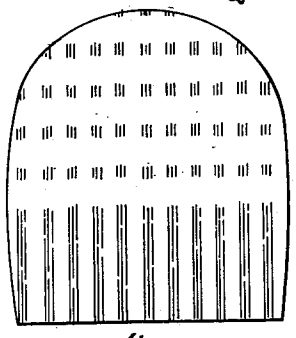


Fig. 6.

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CEMENTING MACHINE

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6 Claims. (Cl. 91—47)

This invention relates to cementing machines usually employed in shoe factories for cementing linings, doublers, etc. and more particularly to machines of the type shown in the patent to McMurray #1,298,147, dated February 4, 1919, in which a grid is arranged to be raised and lowered in the adhesive, the work being applied when in raised position, and in which the adhesive is applied in a multiplicity of dots by means of upright fingers mounted in the grid.

In machines of this character textile material, to which the adhesive is usually applied, often has loose fibers on its surface, which frequently become transferred to the grid. The greater portion of the operation is performed by placing the material on the middle portion of the grid, so that this portion frequently becomes clogged with these loose fibers. As a result it frequently is necessary to remove them and to do this effectively and conveniently it is necessary to remove the grid from the machine, although this operation is somewhat difficult.

In practice the greater portion of the work is usually performed by placing the material to be cemented on the portion of the grid nearest the operator, and, at times, it is desirable, when performing operations of this character on certain parts of shoes, to apply a heavier coating of adhesive to some portions than to others, while other parts merely require the application of adhesive in separate dots over the entire surface, and, while this result may be accomplished by employing the insertable supplemental cement applying devices of my prior Patent No. 1,960,341 of May 29, 1934, this arrangement is not always conveniently available.

The objects of my invention are to provide a form of grid, for a machine of the type above referred to, which will enable the portion thereof, to which the work is usually applied, to be readily cleaned, and which at the same time, will enable a heavier coating of adhesive to be conveniently applied to one portion than to another, when necessary, and also to enable a uniform application of adhesive to the entire surface at other times, with practically no inconvenience to the operator in making changes in the machine.

I accomplish these objects by providing the grid with a readily removable section in the middle part thereof and by providing such removable section with adhesive carrying surfaces of much greater area in one portion thereof than another, and arranging said section so that the portion of increased area may be supported in a position which will be convenient for use, or in a position in which it will not interfere with the use of the grid in the normal way.

For a more complete disclosure of the invention, reference is now made to the following specification, in connection with the accompanying drawing in which—

Fig. 1 is a plan view of a cementing grid provided with an embodiment of my invention.

Fig. 2 is a detail plan view of a removable grid section which I employ.

Fig. 3 is a sectional view at line 3—3 of Fig. 1.

Fig. 4 is a sectional view at line 4—4 of Fig. 3.

Fig. 5 is a detail view of one end portion of one of the bars and

Fig. 6 is a view of a shoe part, indicating the character of work which may be performed.

As shown in the drawing, I provide a grid of the so-called McMurray type, in which a frame is provided which comprises end sections 10, which are connected by side rods 12, said rods passing thru grid bars 14 having upright fingers 15, said bars being spaced apart by washers 16 on the rods 12 and clamped together by nuts on the ends of the rods.

According to my invention I provide, on the middle portion of each rod, a sleeve 18 which extends for approximately one third of the length of the grid and which act as spacing washers in the same manner as the washers 16.

I further provide a supplemental grid section which is composed of bars 20 thru which rods 22 pass and on which spacing washers 24 are placed, which hold the bars 20 in spaced relation in the same manner as the washers 16, said bars 20 being clamped together by nuts on the rods 22, thereby providing a complete grid section, as shown in Figs. 2 and 4. Each end portion of the bars 20 is provided with a notch 25, forming vertical shoulders at each end, the distance between which is equal to the distance between the inner portions of the sleeves 18, so that the entire grid section may be placed in the space between the bars 14, which directly engage the ends of said sleeves, and will be supported on the rods 12, as shown in Fig. 3, in a position in which the top edges of bars 20 will be at the same level as the top ends of the fingers 15 of bars 14. Said bars 20 are also provided with fingers 26 for the greater portions of the length thereof, which are the same as fingers 15, and the remaining portion of each bar 20, each at the same end thereof, is provided with a continuous top edge portion 28, the length of which may be varied, a preferable

length in proportion to the whole length of the bar being shown in Fig. 3.

In practice the supplemental section may be readily removed for cleaning purposes, and as readily replaced, and as it may be placed with either end next the operator, it may be placed in a position in which the continuous edge portions **28** may be conveniently used or not. For example, if it is desired to have the breast edge portion of a heel pad more heavily cemented than the other portions, the supplemental section will be placed in the position in which the edge portions **28** will be next the operator, so that the breast portion of the heel pad may be conveniently placed on the portions **28**, with the result that the adhesive will be applied thereto in the manner indicated in Fig. 6.

If the whole piece is merely to have the cement applied thereto in dots, the position of the supplemental section will be reversed, so that normal use will be conveniently permitted.

While I have shown a form of my invention which I consider the best for all practical purposes, it will be understood that the number of removable sections may be increased, and that the removable section may be located in different portions of the grid from that shown. Also that my invention is not limited to the particular form of cement carrying faces shown, and the cement carrying capacity of different portions of the removable section may be substantially varied from that shown, without departing from my invention.

I claim:

1. A cementing grid of the character described comprising a frame, and a grid section composed of a series of parallel bars secured together in spaced apart relation with their top edges arranged to provide a cement carrying surface, the bottom edges of the opposite end portions of said bars being similarly recessed to receive opposite portions of the frame, and to permit said section to rest thereon and to be lifted vertically therefrom, whereby ready removal of the section from the frame and replacement thereof is permitted.

2. A cementing grid of the character described comprising a frame having a series of cement carrying bars secured thereto in spaced apart relation, with their top edges at a uniform level and arranged in groups, to provide an open space therebetween, and a supplemental grid section composed of a series of similarly arranged cement carrying bars clamped together and recessed at their under sides to receive opposite portions of said frame and to occupy said open space with the top edges of its bars at said level, said grid section being vertically removable from said frame independently of said groups of bars.

3. A cementing grid of the character described comprising a frame having side and end portions, a series of spaced cement carrying bars secured on said side portions in two groups arranged one at each end of the frame with their top edges at a uniform level and providing an open space therebetween, and a supplemental grid section composed of a series of similarly spaced cement carrying bars secured together and recessed at the ends of their bottom edges to receive said side portions and to occupy said open space with the top edges of its bars at said level, said grid section being vertically removable from said frame independently of said end groups.

4. A cementing grid of the character described comprising a frame having a grid section composed of a series of parallel bars secured together in spaced apart relation with their top edges arranged to provide a cement carrying surface, said section being vertically removable from said frame and arranged to be supported thereon in opposite positions, the opposite end portions of said section having cement carrying surfaces of different cement carrying capacity.

5. A cementing grid comprising a frame having side and end portions, a series of bars spaced apart and fixed on said side portions and having cement carrying faces at their top edges, to provide a cementing face, and a supplemental grid section composed of a similar series of cement carrying bars secured together and arranged to rest on said frame side portions and to provide a cementing face which is substantially continuous with the face of said fixed bars, said section being arranged to be vertically removable from said frame and to be supported thereon in opposite positions, and the opposite end portions of said section having faces of different cement carrying capacity, one of which corresponds to that of the faces of said fixed bars.

6. A cementing grid comprising a frame having a pair of side rods and a series of suitably spaced main bars secured thereto, each bar having a multiplicity of cement carrying faces on its top edges arranged at a uniform level, and a supplemental grid section composed of a similar series of bars secured together and arranged to rest on said rods and to provide cement carrying surfaces at the level of the faces of said main bars, said section being arranged to be vertically removable from said rods and to be supported thereon in opposite positions, and the bars of said section each having a continuous cement carrying portion at one end of said sections, the remaining portions thereof having a multiplicity of cement carrying faces corresponding to those of the main bars.

IRVING L. KEITH.