Nov. 28, 1933. R. F. WERK 1,937,076

PRESS MAT

Filed Oct. 11, 1930 3 Sheets-Sheet 1

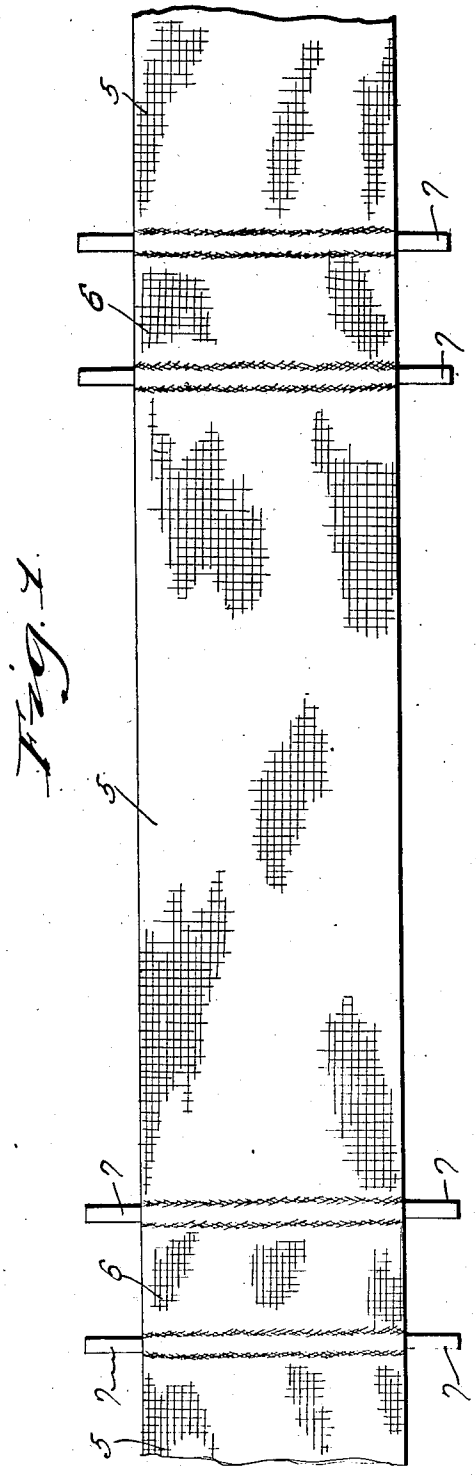


Fig. 1.

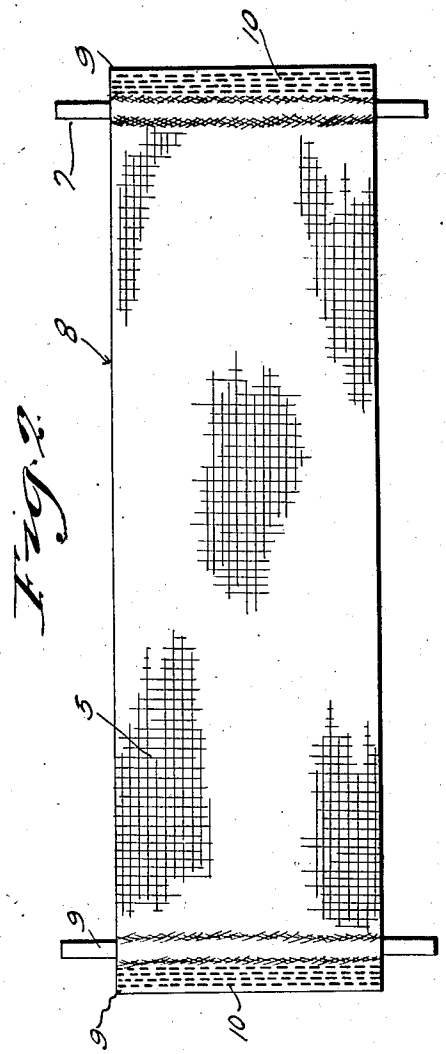


Fig. 2.

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PRESS MAT

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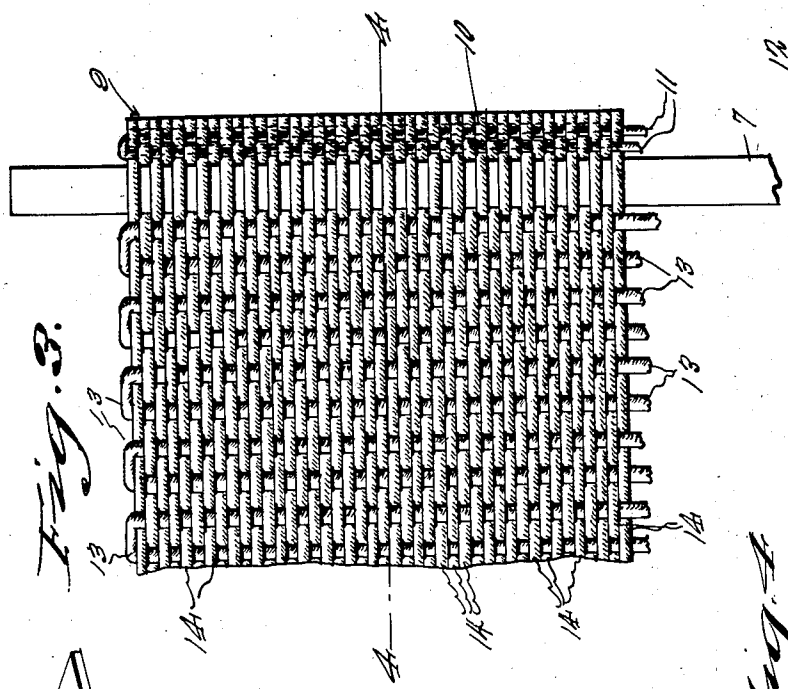


Fig. 3.

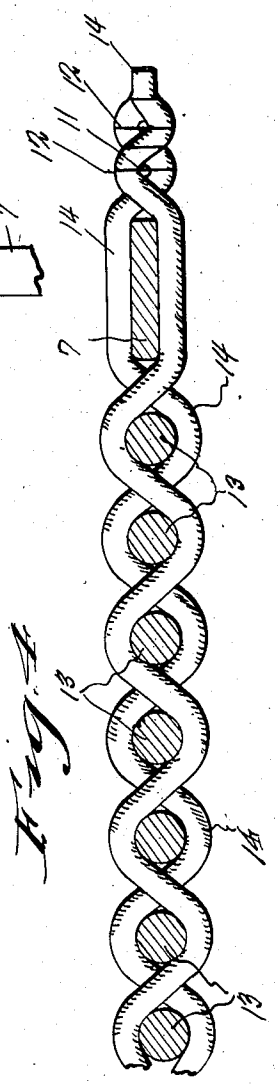


Fig. 4.

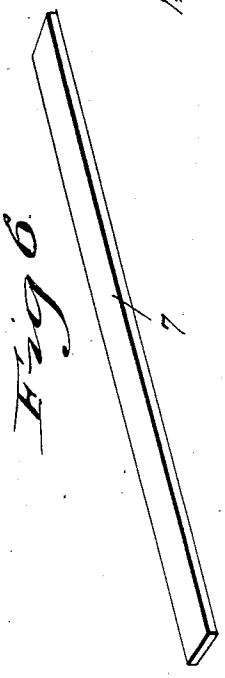


Fig. 6.

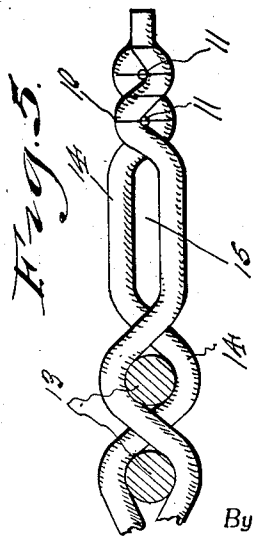


Fig. 5.

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PRESS MAT

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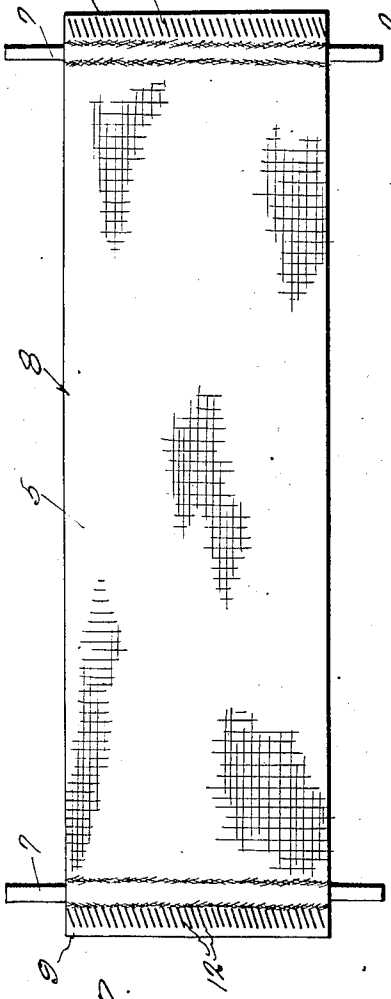


Fig. 7.

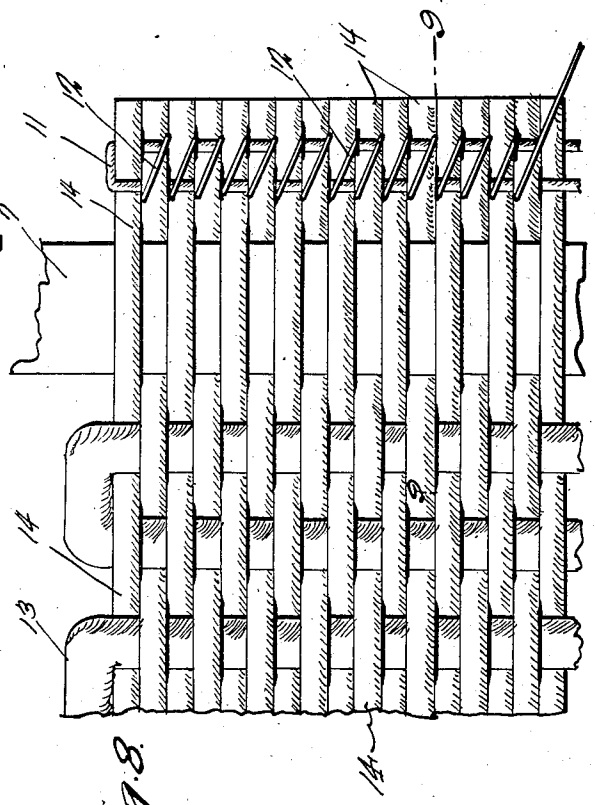


Fig. 8.

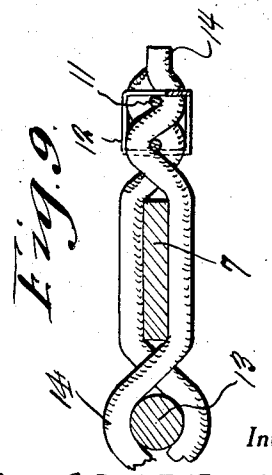


Fig. 9.

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Patented Nov. 28, 1933 1,937,076

UNITED STATES PATENT OFFICE

1,937,076

PRESS MAT

Robert F. Werk, New Orleans, La.

Application October 11, 1930. Serial No. 488,153

6 Claims. (Cl. 100—54)

This invention relates to new and useful improvements in press mats for use in the manufacture of stearine and oils. This mat is of the type now used in this industry in conjunction with a hydraulic press.

Considerable difficulty has been experienced heretofore with the supporting bars of these conventional mats, which pull loose from the mats, due mainly to the fact that only one flight of warps passes over the bars and sustain the weight of not only the mat but also the material undergoing treatment in the mat. Moreover, in the operation of producing stearine and other products, the cakes of tallow are dropped in to the press mat, and in this operation, they knock against the portions of the warp threads of the mat passing over the supporting bars thereof, and these impacts in time wear the warp threads through and result in the ruination of the mat. Furthermore, tools are frequently used to pry the mat supporting bars apart at the pressing operation, and this also injures the warp or other threads securing the supporting bars to the mat.

The principal object of this invention is to provide a mat wherein the bars are snugly woven over in the manufacture of these mats on looms.

Another important object of the invention is to provide a flexible extension at each end of the press mat, which will effectively serve to absorb the shock of tallow cake impact, before-mentioned, and also serve to retard displacement of the oil content of the cake between the supporting bars when the mat is under pressure.

Another important object of this invention is to provide a mat wherein the supporting bars are woven over in the manufacture of the mat wherein the mat is continued on beyond the bars to provide extensions to reinforce the ends of the mat.

Another important object of the invention is to provide a fastener constructed of human hair for the express purpose of imparting both strength and durability thereto.

Other equally important objects and advantages of the invention will be found in the following specification and claims.

In the drawings:

Figure 1 represents a top plan view fragmentarily showing a strip of cloth before it has been cut into mats.

Figure 2 represents a top plan view of a completed mat.

Figure 3 represents a fragmentary top plan view showing one corner of the mat and the manner of reinforcing the mat extension at its end by transverse stitching.

Figure 4 represents a sectional view taken substantially on line 4—4 of Figure 3.

Figure 5 represents a sectional view taken substantially on the same line of Figure 3 on which Figure 4 is taken, but showing the bar removed.

Figure 6 represents a perspective view of a pivotal supporting bar.

Figure 7 represents a top plan view of a completed mat showing overhand stitching to reinforce the end extension of the mat.

Figure 8 represents a fragmentary top plan view showing the mat at one end with its extension reinforced by overhand stitching.

Figure 9 represents a sectional view taken substantially on the line 9—9 of Figure 8.

Referring to the drawings wherein like numerals designate like parts, it can be seen that in the operation of manufacturing this novel mat structure, an elongated fabric strip is woven as shown in Figure 1, the same being woven in sections having relatively heavy weft threads and sections 6 having relatively light or fine weft threads, so that the fabric portion 5 is substantially thicker than the fabric portion 6, and furthermore, at each end of the thin fabric portion 6 the material is woven against supporting bars 7 which project beyond the longitudinal edges of the fabric strip.

The foregoing describes the first operation in arriving at a strip of fabric having thick and thin portions determined by their weft threads, supporting bars passing therethrough and against which the warp threads are woven in the manner substantially shown in Figures 3, 4 and 8.

By observing Figure 2, it can be seen that the mat proper generally referred to by numeral 8 has extensions 9—9 at the ends thereof, which are substantially half portions of the thin fabric portion 6 of the original strip shown in Figure 1. This mat having been cut from the strip by severing through the intermediate portions of the thin areas of the fabric strips. After the mat has been acquired by thus cutting the fabric strips, these extensions 9 are stitched transversely as at 10, the stitching 10 passing through the relatively fine weft threads 11 of the extensions.

While Figures 2, 3 and 5 show the wefts 11 pierced by the transversely extending stitching 10, it has been found that overhand stitching with thread 12 is highly satisfactory and such stitching is clearly shown in Figures 7, 8 and 9.

A closer observation of Figures 3, 4, 5, 8 and 9 will show that the main portion of the mat is

made up of wefts 13 substantially heavier than the wefts 11 of the extensions 9, while the warps 14 are of uniform size in the construction of the strip shown in Figure 1, and extend for the full length thereof.

By employing finer wefts in the extensions 9 the extensions will be somewhat thinner than the main portion of the mat, so that the pressure area of the mat will be between the supporting bars and not beyond the same in the direction of the extensions 9.

As is clearly shown in Figure 5, by removing the bar 7, a passageway 15 will be provided inwardly of each end of the mat. Obviously by removing the bars, the mats can be economically shipped.

It is to be understood that it is preferable that these mats be produced from human hair, in view of the extreme strength and durability of this material for the purpose.

It can be seen that by using the stitching 10 or 12, the extension 9 will be reinforced so that there is but small likelihood of the bar 7 pulling through the extension.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size, and materials may be resorted to without departing from the spirit or scope of the invention as claimed hereinafter.

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

1. A press mat comprising a sheet of woven weft and warp threads, means at each end of the sheet for accommodating mat supporting means, and an extension at each end of the sheet employing the same warp threads and having finer weft threads than the weft threads of the sheet.

2. A press mat comprising a sheet of woven weft and warp threads, said warp threads being individual and free at points inwardly of their ends of weft threads, and a weft at each end of the sheet securing the extremities of the warp threads to define a transverse passageway at each end portion of the sheet to receive a mat supporting member, said last-mentioned weft being of finer gauge than the weft of the sheet proper.

3. A press mat comprising a sheet of flexible material, suspension bars at the ends of the sheet, and a flap-like extension at each end of the sheet to protect the portions of the sheet ends through which the bars extend when material is dumped into the sheet.

4. A press mat comprising a sheet of flexible material, suspension bars at the ends of the sheet, and a flap-like extension at each end of the sheet to protect the portions of the sheet ends through which the bars extend when material is dumped into the sheet, said extensions being thinner than the sheet proper so as to not interfere with the pressing action of the sheet.

5. A press mat comprising a sheet of woven weft and warp threads, supporting members disposed through said sheet inwardly of its ends to provide extensions outwardly thereof, and transverse stitchings on the said extensions for securing the weft and warp threads together and reinforcing the construction of these extensions.

6. A press mat comprising a sheet of woven weft and warp threads, said warp threads being individual and free at points inwardly of their ends of weft threads, and a weft at each end of the sheet securing the extremities of the warp threads to define a transverse passageway at each end portion of the sheet inwardly of the end thereof to receive a mat supporting member.

ROBERT F. WERK.