

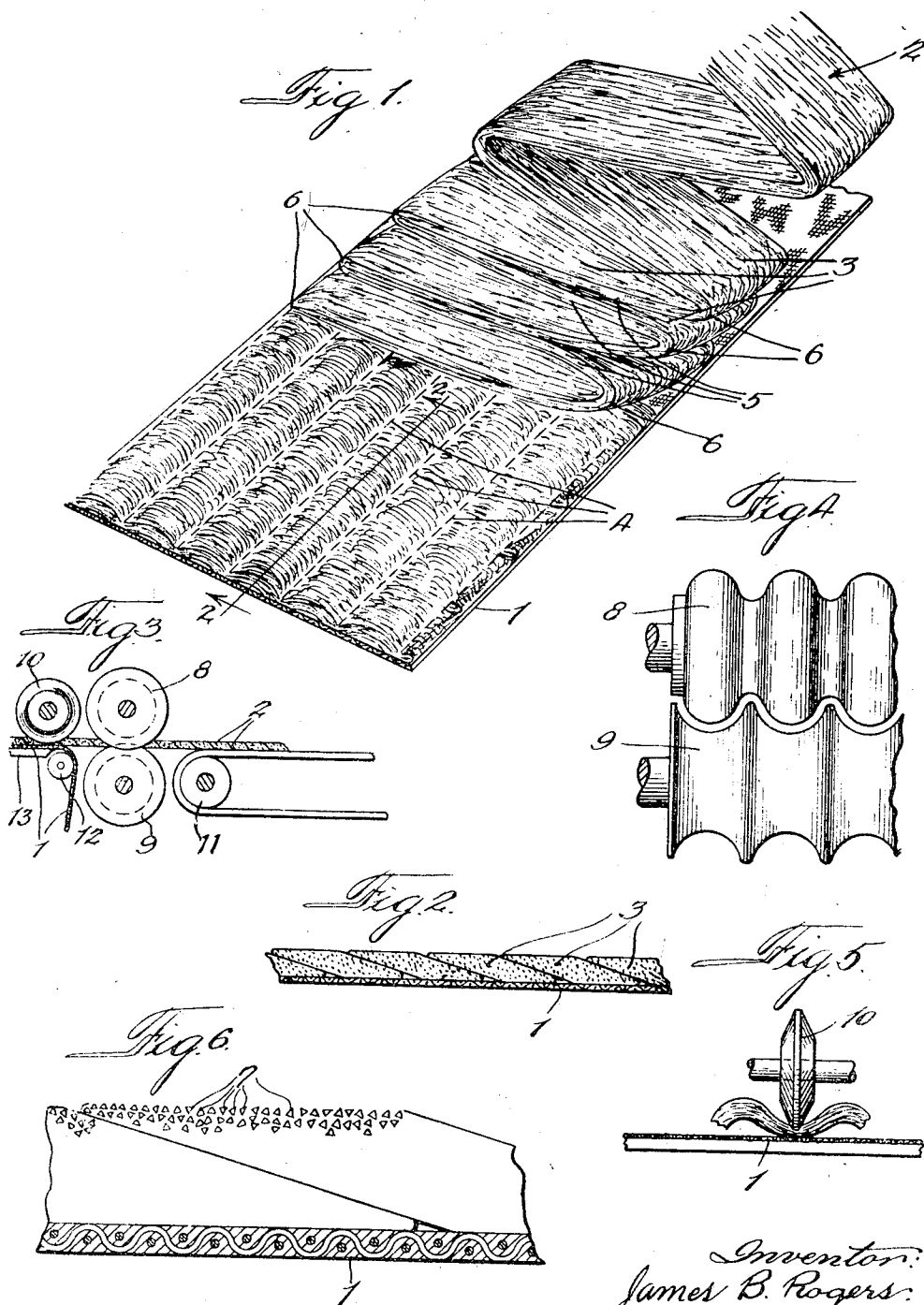
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METAL WOOL PAD

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METAL WOOL PAD

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1 Claim. (Cl. 15—209)

My invention relates to metal wool pads.

One of the objects of my invention is to provide a metal wool pad in which the filaments in general extend crosswise of the backing sheet.

A further object is to provide such a pad in which the stitching in general extends crosswise of the filaments.

A further object is to provide such a pad in which the filaments are assembled into a ribbon-like shape, arranged in zigzag, overlapping, continuous formation on the backing sheet.

A further object is to provide such a pad in which the material will be arranged uniformly on the sheet and firmly secured thereto.

Further objects and advantages of the invention will be apparent from the description and claim.

In the drawing in which an embodiment of my invention is shown,

Figure 1 is a perspective view showing a part in process of formation;

Fig. 2 is a section substantially on the line 2—2 of Fig. 1;

Fig. 3 is a diagrammatic view showing steps in the method of making the pad;

Fig. 4 is an enlarged fragmentary view showing the corrugating rolls;

Fig. 5 is an enlarged view showing one of the grooving rollers; and

Fig. 6 is an enlarged sectional view substantially on the line 2—2 of Fig. 1.

The construction shown comprises a backing sheet 1 which may be a fabric such as coarse canvas or the like, a continuous ribbon-like formation 2 of filaments of steel wool or the like extending in general lengthwise of the ribbon and arranged in zigzag overlapping sections 3 to form a layer on the backing material, and a plurality of parallel rows of stitching 4 extending through the steel wool and backing strip to secure the ribbon-like layers to the strip.

The ribbon is applied to the strip in a zigzag overlapping shingle formation. The edges 5 of the ribbon-like formation 2 are arranged obliquely to the edges of the sheet so that there is an offsetting or staggering of the corner edges 6 of the loops. I have found it satisfactory to have this offsetting of such an extent that the meeting corner edges of one loop will be about half the width of the ribbon from the meeting corner edges of the adjacent loop.

After the ribbon of steel wool has been applied to the pad, it may be run through a multiple needle sewing machine which will form all of the rows of stitching 4 simultaneously. Since the filaments of the steel wool ribbon in general will extend lengthwise of the ribbon and crosswise of the sheet of backing material, the rows of stitching will extend crosswise of the filaments thus firmly securing the filaments to the back-

ing. The manner of application of ribbon to the backing results in general in a substantially uniform disposition of the steel wool on the backing strip.

The layers of steel wool are folded back and forth, each fold being superposed on the preceding fold to form a steel wool mat or ribbon. The steel wool threads extend beyond the edge of the fabric backing a distance substantially equal to the curvilinear distance between the depressions before the corrugating and grooving apparatus hereinafter described takes effect. The strands of parallel steel wool filaments 7 have a cross section which is in general triangular as shown in Fig. 6, thus providing sharp cutting edges extending crosswise of the backing sheet for burnishing the surfaces to which the pad may be applied. The steel wool mat is made from parallel strands of the triangular cross section indicated, cut from wire of definite diameter.

The fluted or corrugated surface of the pad is formed prior to stitching by passing the overlapping zigzag formation of ribbon under mating corrugated rollers 8 and 9 (Figs. 3 and 4), which corrugate the mat of filaments, and after being thus corrugated the mat is passed underneath the creasing rollers 10 which press the mat down on the backing 1 and form creases in line with the needles which serve to stitch the mat of filaments to the backing. A suitable conveyor 11 is provided for supplying the backing 1 to the corrugating rollers 8 and 9. A guide roller 12 may be provided for guiding the backing 1 and causing it to enter between the wool mat and the table 13.

Further modifications will be apparent to those skilled in the art and it is desired, therefore, that the invention be limited only by the scope of the appended claim.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

A metal wool abrasive pad comprising a sheet of backing material and a mass of metal wool filaments secured thereto to provide an exposed abrasive face, said mass comprising a continuous ribbon-like formation of metal wool filaments, said ribbon-like formation being so folded back and forth on one side of said sheet from side to side thereof that each fold partly covers an adjacent fold in overlapping shingle-like formation, and so that the exposed edge of the ribbon lies in a zigzag formation between the edges of the sheet, said metal wool filaments extending substantially longitudinally of the ribbon and having cutting edges extending longitudinally thereof.

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