Jan. 18, 1938. T. KRASSELT 2,106,119

MANUFACTURE OF ASBESTOS RINGS

Original Filed May 16, 1936

Fig. 1.

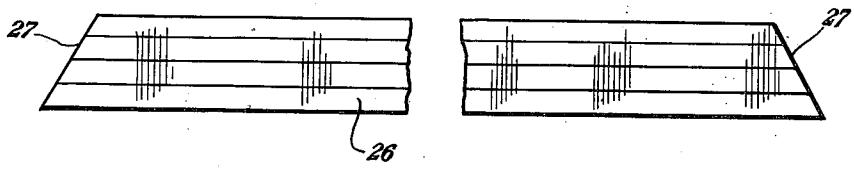


Fig. 2.

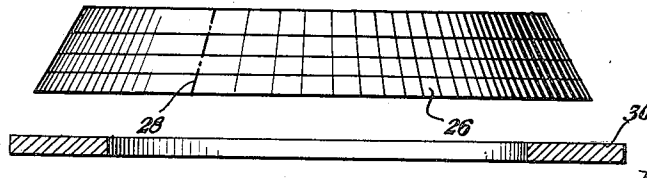


Fig. 3

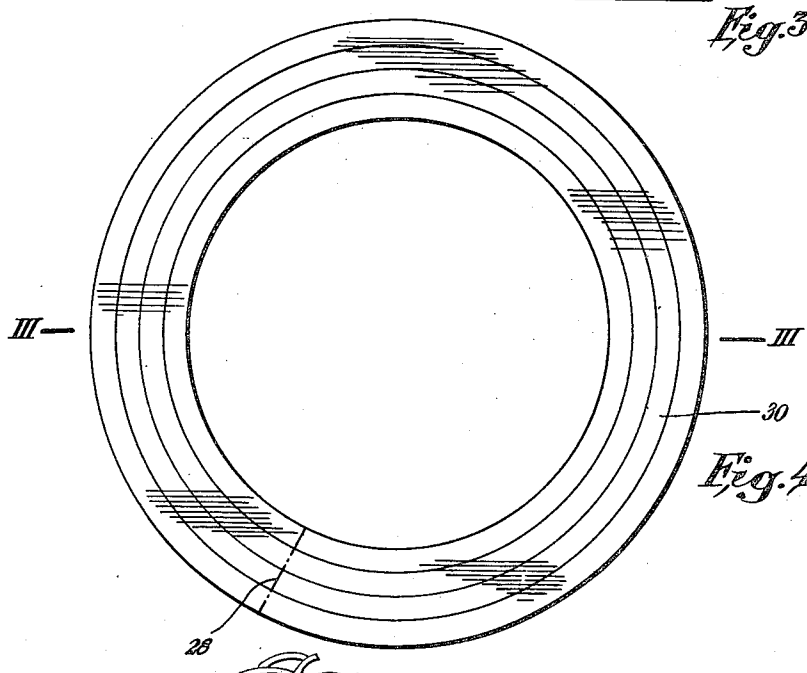


Fig. 4.

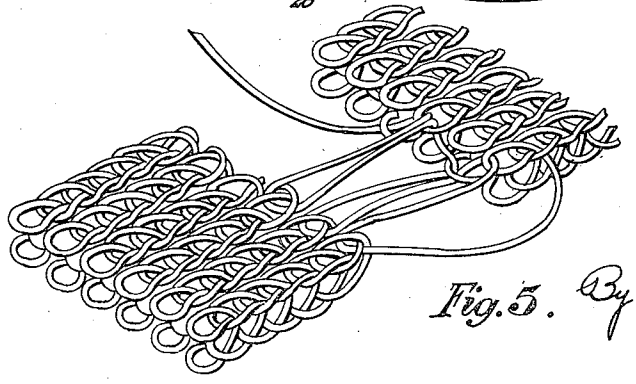


Fig. 5.

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MANUFACTURE OF ASBESTOS RINGS

Theodor Krasselt, Reuth v/Neumark, Germany, assignor of four-fifths to Maurice Presburg, Paris, France, and one-fifth to George Angus & Company Limited, Newcastle-on-Tyne, England, a British company

Original application May 16, 1936, Serial No. 80,154. Divided and this application October 10, 1936, Serial No. 105,142. In Germany June 25, 1935

2 Claims. (Cl. 28—1)

This invention relates to the manufacture of asbestos rings for packing, jointing, brake linings, clutches and like purposes. Hitherto such rings have generally been stamped out from woven sheet with consequent considerable waste of material.

In my United States application Serial No. 80,154 filed 16th May 1936, from which the present application is divided, I have described a method of treating asbestos yarn so as to render it for the first time susceptible of being knitted on a machine without tearing and the object of the present invention is to provide a method of manufacturing rings from knitted asbestos fabric.

The method according to the invention will now be explained with reference to the accompanying drawing in which,

Figure 1 is a plan view of a strip of knitted asbestos,

Figure 2 shows the strip bent to conical form,

Figure 3 is a plan view of the finished ring, and

Figure 4 is a section along the line III—III in Figure 3.

Figure 5 is a diagram illustrating the method of knitting together the ends of a flat strip to form the ring of the present invention.

The method of procedure is as follows:—

The rings are made by knitting asbestos yarn in the form of a strip in the ordinary way on a standard flat knitting machine. This machine has two opposed banks of needles, extending upwardly at an angle of 45°, long and short needles alternating in each bank, a long needle in one bank being opposite a short needle in the other. The operation of such machines in the knitting of flat strips is well known, and need not be described. Said strip is cut into sections after removal from the machine by cuts running aslant the length of the strip. One such section is shown at 26 in Figure 1, the slanting cuts being indicated at 27. The section is then bent into a conical form as shown in Figure 2 and the ends knitted together at 28 this operation being performed manually according to the method of Figure 5. All that is necessary is to pick out the material constituting the loops which have actually been severed and then to use the end of yarn unpicked from one end for threading through the exposed loops of the two ends, the end of this yarn being finally tucked into the fabric so that it can't come loose. When the annulus so formed is pressed flat a knitted asbestos ring 30 is obtained which is of perfect circular form and exhibits no trace of any seam. This ring is shown in plan in Figure 3 and in section in Figure 4.

Where the ring is formed by cutting from a woven asbestos sheet, the edges are weakened owing to the fact that the woven material is cut across the warp and weft threads. The mechanically knitted rings made according to the invention do not suffer from this disadvantage as they are knitted with finished edges, which is of great importance in the case of rings used for packing, jointing, brake linings, clutches and like purposes.

After manufacture the ring may be treated with any suitable impregnant such as rubber.

The term "asbestos" as used herein includes not only pure asbestos, but also asbestos mixed with other fibrous material, such as cotton, and asbestos reinforced with brass wire or other material.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A method of manufacturing asbestos rings for packing, clutches, brake linings and like purposes, which consists in bending into frusto-conical form a flat strip of the fabric formed by knitting asbestos on a machine, knitting the ends of the strip together and finally pressing the strip flat to give a circular ring.

2. A method of manufacturing asbestos rings for packing, clutches, brake linings and like purposes, which consists in knitting asbestos on a machine to form a flat strip, dividing the strip into sections by cutting it aslant its length, bending into frusto-conical form a section so obtained, knitting the ends of the section together, and finally pressing it flat to give a circular ring.

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