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H. KÜTTNER
METHOD OF TREATING CAKES OF ARTIFICIAL SILK
MANUFACTURED BY THE CAN SPINNING PROCESS
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1,708,583

Fig. a

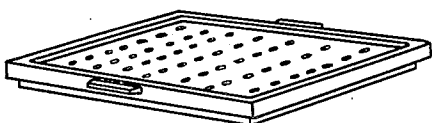


Fig. b

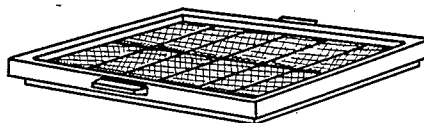


Fig. d

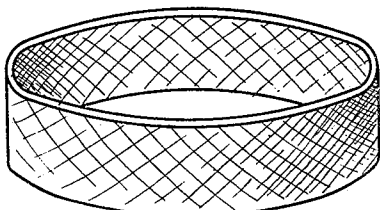


Fig. c

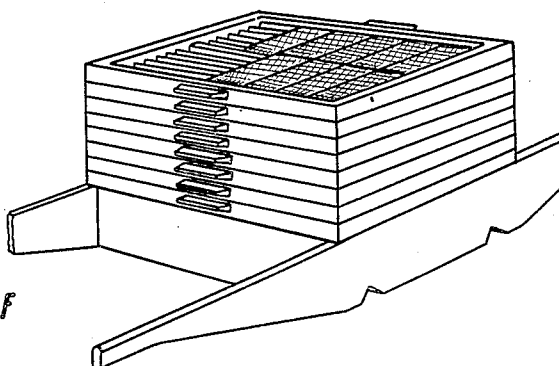


Fig. e

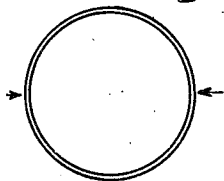


Fig. f



Fig. g



Fig. i

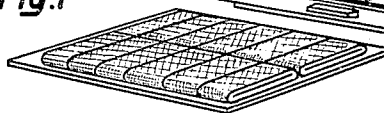


Fig. h

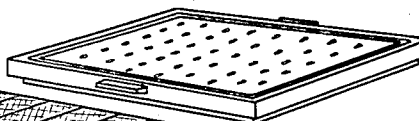


Fig. l

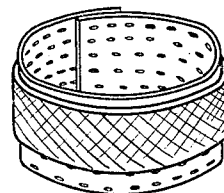
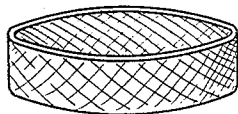


Fig. k



H. Küttner
INVENTOR

By Marks & Clark
ATTY'S

UNITED STATES PATENT OFFICE.

HUGO KÜTTNER, OF DRESDEN, GERMANY, ASSIGNOR TO THE FIRM FR. KÜTTNER AKTIENGESellschaft, OF PIRNA-ON-THE-ELBE, GERMANY.

METHOD OF TREATING CAKES OF ARTIFICIAL SILK MANUFACTURED BY THE CAN SPINNING PROCESS.

Application filed March 9, 1928, Serial No. 260,396, and in Germany March 14, 1927.

Hitherto in the can spinning process the rinsing and the subsequent further treatment have been carried out in the hank. After being removed from the cans, the cake which, according to the particular spinning process employed, contains precipitant or other chemical substances had to be placed on the reel in the form of a hank and was thereupon first rinsed and subjected to further treatment. Owing to the manufacturing conditions the cakes could not be passed directly to the reel after spinning, but had to be stored for a greater or less period of time. This involved all manner of disadvantages which would easily cause damage to the filament.

It is the object of the present invention to overcome this drawback in a simple manner. The invention consists substantially in this, that the material is not rinsed and further treated in the hank, but in a peculiar manner in the cake. The spun cakes, after being removed from the can are folded together, i. e. are flattened, which may be readily effected by hand without disturbing the convolutions of the filament. They can be stacked in the folded state next to each other and one upon the other and, if packed neatly, form a close layer without spaces. The cakes, when placed together, may for instance be packed in a simple manner in a container having perforated walls, whereupon water may be forced through or drawn through by suction. Thus, a thorough rinsing will take place in a short time. Apparatus constructed in the manner of the known mechanical dyeing apparatus working on the packing system may suitably be used for this purpose with success.

The process which is extremely simple is very effective and of great importance. The

artificial silk in the form of a cake and folded together lies in a steady position during treatment, the liquid which is in motion flowing through it, so that the material is well protected from being damaged. The silk may be rinsed and acidulated, and in the case of viscose silk freed from sulphur, bleached and even dyed and avivated in the same apparatus.

The treated cakes can be readily brought back into their original shape and reeled.

In the accompanying drawings:

Fig. a top box, packed and covered with a celluloid sieve.

Fig. b single box, containing 12 cakes.

Fig. c a block composed of a number of separate boxes. The top box shows the fluted bottom. The block rests on an underframe for shifting it about.

Figs. d and e show a cake removed from the spun centrifuge.

Figs. f and g the same cake pressed flat.

Fig. h shows the box in which the layer of cakes is covered with the celluloid sieve for protection when removing the box.

Fig. i shows the layer of cakes lying on the celluloid sieve after the box has been removed.

Fig. k shows a single cake opened out.

Fig. l shows the opened out cake slipped on to a resilient celluloid band.

What I claim is:

A process for the treatment of cakes of artificial silk manufactured by the can spinning method, consisting in pressing the cakes flat and thereupon rinsing them and subjecting them to any further treatment.

In testimony whereof I have signed my name to this specification.

HUGO KÜTTNER.