

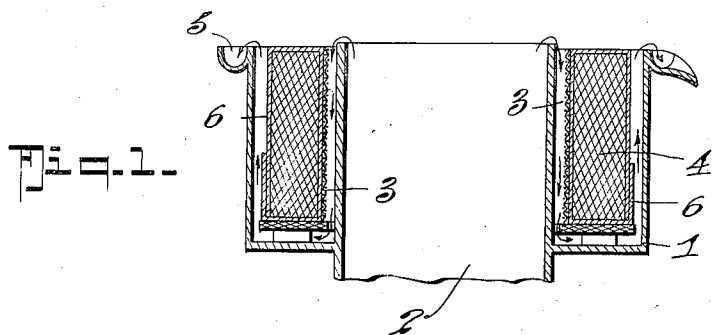
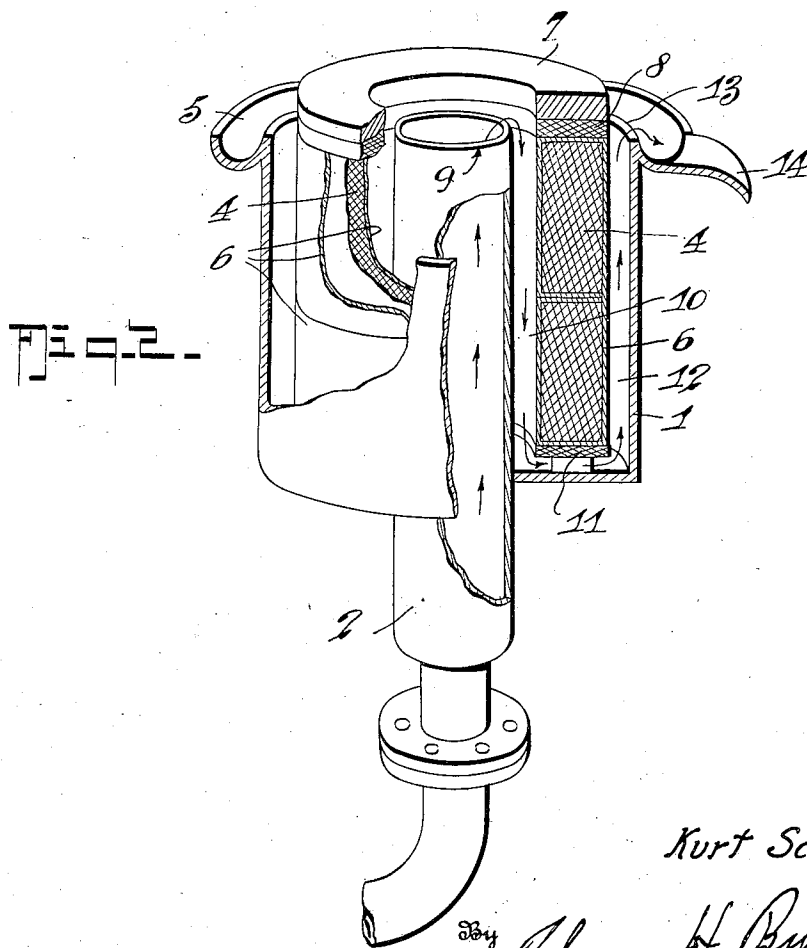
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WET TREATMENT OF ARTIFICIAL SILK CAKES

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WET TREATMENT OF ARTIFICIAL SILK
CAKES

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4 Claims. (Cl. 18—54)

The invention relates to the wet treatment of artificial silk cakes, which have been manufactured by the pot spinning process.

More particularly the invention comprises a process for the treatment of cakes, by which the treatment liquids are conducted along the walls of the cakes.

Further details are to be seen from the following description:—

10 According to numerous, previously known methods of washing cakes, the washing and after-treatment liquids are conducted through the cakes. According to the present invention, however, the liquids are substantially not con-
15 ducted through the cakes, but are made to flow along the inside and the outside of the artificial silk cakes. The wet treatment is in this case practically dominated exclusively by the powers of lixiviation or diffusion. For carrying out the
20 process the cakes, for example the viscose silk cakes, are placed into a liquid container and preferably placed pipe-like one above the other. By means of suitable inlet pipes in the bottom of the container the treatment liquid is allowed
25 to enter, to flow along the inside and outside surfaces of the cakes and then, for example, to flow away by running over.

The present invention is set forth in the accompanying drawing, in which

30 Figure 1 is a cross-sectional view of a portion of the treating vessel with a cake shown therein, and

Figure 2 is a perspective view, partially in cross-section, disclosing the manner of operation
35 of the invention.

Referring to the drawing the invention is more particularly explained in the following:

In Fig. 1 the treatment vessel is marked 1, an inlet pipe 2 for the treatment liquid, through
40 which the liquid is conducted from below and enters into the treatment vessel at the top over the edge of the pipe and into the inside of the cake 4, which is surrounded by a fabric 6 and supported by an elastic shell of wire net-work 3.
45 The liquid then flows downwards along the inner wall of the cake, enters at the bottom front side of the cake, where the cake is supported in an appropriate manner, into the outside of the vessel 1 to rise there along the outside of the
50 cake and then to flow off over the edge of the vessel through the overflow pipe 5.

According to Fig. 2 two cakes, which are also enclosed in porous fabric 6, are placed one above the other in the circular vessel 1 and secured in
55 their places by the load ring 7. Between the load ring 7 and the front side of the upper cake a ring 8 made of material porous to liquids is inserted, which facilitates the penetration of the treatment liquid to the front side of the cake.
60 As in Fig. 1 the inlet of the treatment liquid

takes place through the pipe 2 from the bottom. The liquid flows over the edge 9 of the pipe 2, flows through the circular space 10 between pipe 2 and the inside wall of the cake, flows under the cake supporting plate 11 into the outside circular
65 space 12 between the outside surface of the cake and the wall of the container 1, flows in this upwards and over the edge 13, which lies somewhat lower than the edge 9 of pipe 2, into the
70 pipe 5 and from this is discharged by the out-flow pipe 14.

Many cakes can be exposed, distributed next to each other, in the same treatment vessel on suitable perforated grids and several cops can be placed column-like one above the other. In
75 the same way a series of such grids can be arranged one above the other in the same box. In this case the treatment liquid is allowed to flow in one stream through the whole box either from the bottom to the top or from the top to the bot-
80 tom. In order that the cakes, especially at the first contact with the treatment liquid, remain firmly in position, they can be held in the desired position by suitable devices, such as load rings, elastic inner stiffenings porous to water, or the
85 like. The several cakes can also before treatment be wound round with holding threads in the well-known manner or enveloped in porous cloths to prevent the single threads and thread layers from being swept away in the wet treat-
90 ment.

Having thus described my invention, what I claim is:

1. In a process for the wet treatment of artificial silk cakes the steps of conducting the treat-
95 ing liquids downwards on the inside of the cake, underneath the cake and upwards on the outside of the cake and then leading off the liquids.

2. In a process for wet treating cakes of artificial filaments, threads, etc., the steps of sup-
100 porting the cake, passing a treating liquid downwardly over the inner face of the cake, and then passing the liquid upwardly over the outer face of the cake.

3. The process as set forth in claim 2, wherein
105 the cake is wrapped prior to the wet treatment thereof.

4. The process as set forth in claim 2, wherein a plurality of cakes are treated simultaneously, the cakes being arranged in superimposed position with respect to each other, and pressure be-
110 ing applied to the upper edge of the topmost cake.

KURT SCHMIDT.