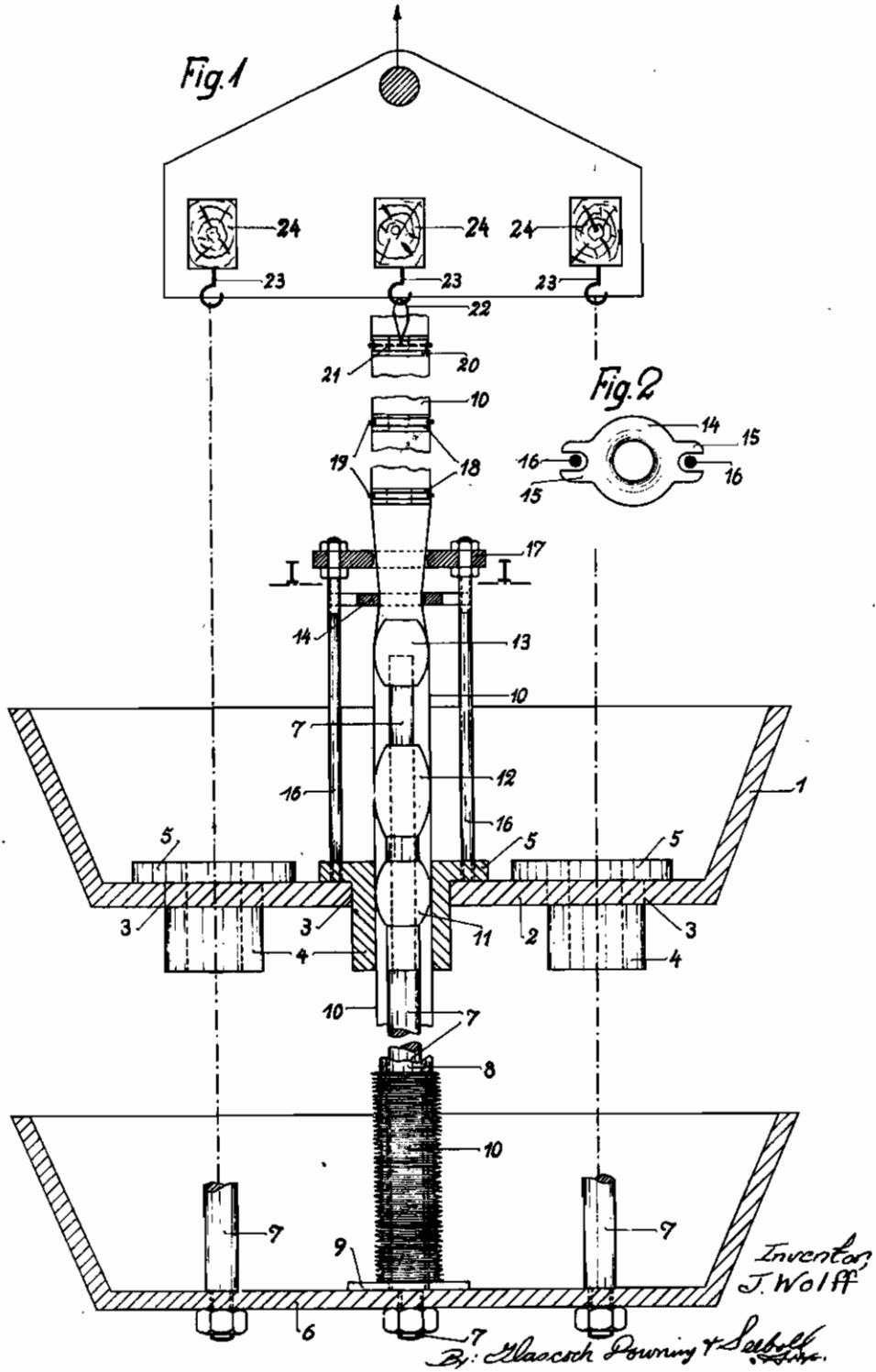


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J. WOLFF
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ARTIFICIAL SAUSAGE SKINS
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DEVICE FOR THE MANUFACTURE OF ARTIFICIAL SAUSAGE SKINS

Julius Wolff, Amstenrade, Holland; vested in the
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The present invention relates to devices for the manufacture of artificial sausage skins from impregnated tubular fabrics, whereby the tubular fabric is withdrawn from a vertical support, pulled upwardly through the impregnation mass and then suspended for the purpose of drying.

In connection with such devices it is of great importance that the tubular fabric during drawing through the impregnation material is sufficiently tensioned from within, so that no wrinkles or folds are formed in the fabric. To this end it is known already to draw the tubular fabric over a mandrel the outer diameter of which corresponds to the inner diameter of the tubular fabric. This mandrel at the same time formed the inner limitation of an annular gap through which the tubular fabric is drawn to strip off the superfluous impregnation material and to return same into the tank. In this manner a sufficiently uniform impregnation of the tubular fabric could not be obtained. In accordance with the present invention a substantial improvement of the tensioning of the tubular fabric during impregnation is attained by the fact that within the tubular fabric at the point of impregnation one or several members having a convex surface are arranged over which the tubular fabric slides with slight tension. These members provided with a convex surface are mounted upon an interior rod arranged in the centre axis of the device. Above the uppermost member having a convex surface a smooth wiper ring surrounding the tubular fabric and slightly contracting same is loosely arranged in a manner to be moved the operative position of which is ensured by the fact that spaced in a slight distance above said wiper ring a stationary ring is provided the inner diameter of which corresponds to the outer diameter of the tubular fabric. Hereby an upwardly directed movement of the ring by the tubular fabric is prevented. An absolute uniform impregnation of the tubular fabric is obtained by this device without particular attention from the side of the attendants being required. The movable ring preferably consists of wood or horn and is rounded off at the inner side so that the impregnation material is thoroughly applied to the tubular fabric and pressed into the pores of same, while the superfluous mass is stripped off and returned to the tank. By this device the quality of the artificial sausage skin is substantially improved. The sausage skin is not only rendered closer and stronger, but its appearance also is improved due to the outer surface being smoothened.

In the accompanying drawing, a construction according to the present invention is shown by way of example.

In this drawing:

5 Fig. 1 is a broken away longitudinal vertical section through an impregnating device according to the invention, and

Fig. 2 is a cross section on the line I—I of Fig. 1.

10 The device according to the invention is provided with a tank 1 in the form of a trough which receives the impregnation mass. In the bottom 2 of this trough 1 which may be of any desired length and width circular openings 3, corresponding in number to the individual devices to be provided are present for the purpose of suspending cylindrical bushings 4 by means of a flange 5 provided at the upper end of each of the latter. Below the trough 1 a similar trough is provided for catching up impregnation mass dripping off. Fixed to the bottom 6 of the lower trough are vertically arranged mandrels 7 which extend through the bushings 4 into the interior of the tubular fabric. Shifted upon each of these 25 mandrels 7 is a tube 8 having a lower flange 9 and serving to receive the tubular fabric 10 to be impregnated. This tubular fabric is withdrawn upwardly from the supporting tube and passed through the bushing 4. Within each of the 30 bushings 4 a member 11, having a convex surface, is provided upon the upper tapered portion of the mandrel, and each of these members 11 together with the appertaining bushing 4 forms a narrow annular gap through which the tubular fabric is passed. Above the bushing 4 a second member 12, having the convex surface, is mounted within the range of the tubular fabric upon the tapered portion of each of the mandrels 7, and this second member 12 may be connected 40 to the first member 11 by a tube-like intermediate member and serves to maintain the tubular fabric tensioned at the point at which the impregnation is effected. A third member 13, also having a convex surface, is mounted upon the upper 45 end of each of the mandrels 7. This member 13 is situated out of the impregnation mass and serves the purpose of smoothly applying the mass to the wall of the tubular fabric. Above this member 13 an outer wiper ring 14 is loosely arranged in a manner to be moved the inner edge 50 of which is thoroughly rounded off. The ring 14 has a smaller diameter than the finished tubular fabric so that the latter at the point of this ring is slightly contracted. At two diametrically opposite points the ring 14 is provided with forked 55

projections 15 which are guided to be easily moved along vertical rods 16 fixed upon the flanges 5 of the bushings 4. Above the movable ring 14 the rods 16 are connected by a stationary ring 17 the opening of which corresponds at least to the diameter of the tubular fabric. Above this ring 17 annular discs 18 spaced from each other in larger distances may be fixed in the finished impregnated tubular fabric which discs prevent collapsing of the tubular fabric when the latter is withdrawn upwardly at its upper end by means of a hook or the like. The outer edge of the annular discs is provided with a groove to fix the disc into the tubular fabric by means of a cord or twine 19. If drawing up of the tubular fabric is started, the first annular disc 20 is fixed in the uppermost end of the tubular fabric. The disc 20 is provided in a centre opening with a transverse pin 21 for connecting a wire or cord 23 by means of which the tubular fabric is suspended from a hook 23 carried by a supporting beam 24. If a plurality of devices is arranged in one and the same impregnation trough 1, the beams 24 are arranged in rows for several devices and suitably connected to each

other so that all of them may simultaneously be drawn upwardly.

Before fixing the uppermost annular disc 20 two or more annular discs 18, preferably consisting of metal, are inserted from above into the open tubular fabric. As soon as a predetermined length of the impregnated tubular fabric has been drawn upwardly, the uppermost annular disc 18 inserted into the tubular fabric is fixed so that on further drawing upwardly of the tubular fabric this disc also moves upwardly and by its shape and weight maintains the tubular fabric tensioned so that the walls cannot collapse and stick together. If a further length of the tubular fabric has been drawn upwardly, the next annular disc is fixed. The lowermost disc is last fixed to the lower end of the piece of tubular fabric before the latter is cut off to draw upwardly the next piece of tubular fabric. With a plurality of tubular fabrics in one and the same impregnation device the operation is carried out in the same manner for each individual tubular fabric.

JULIUS WOLFF.