

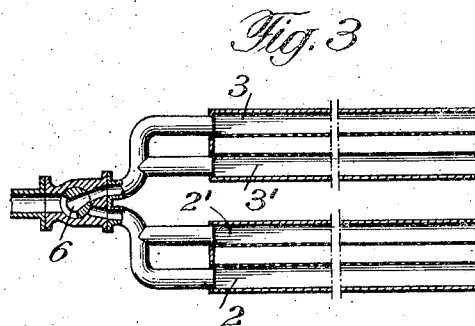
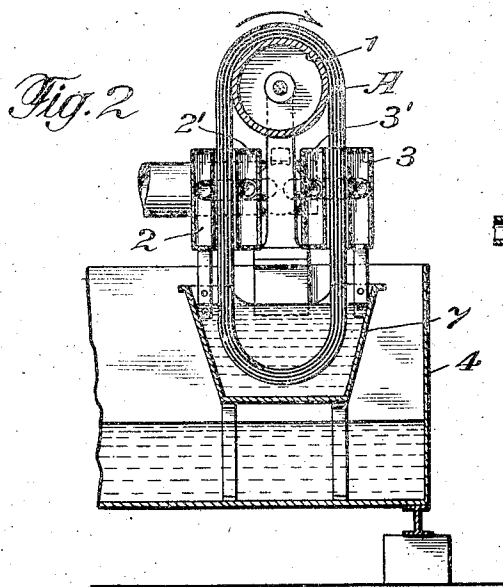
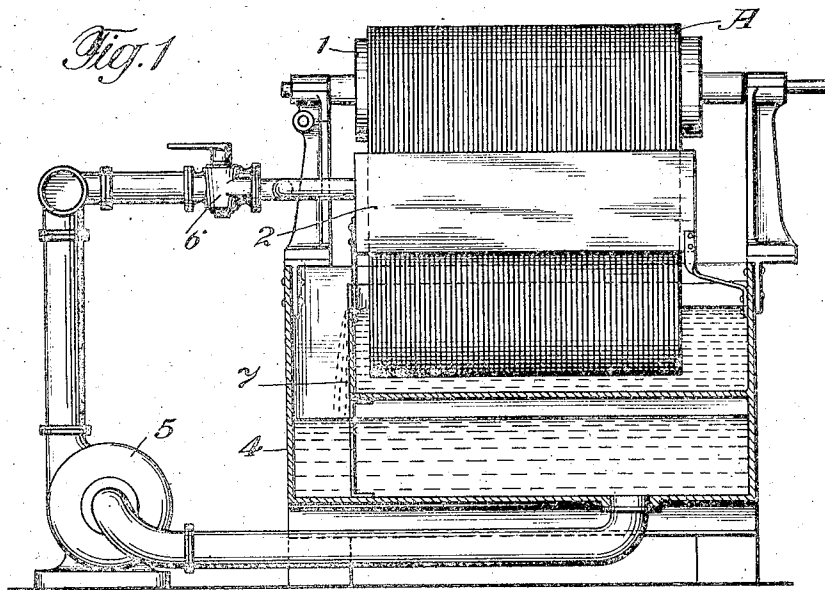
Nov. 29, 1932.

A. HAGGENMACHER

1,889,048

DEVICE FOR THE WET TREATMENT OF TEXTILE PRODUCTS

Filed Nov. 8, 1930



Inventor

August Haggenmacher,
By Henry Orth
att.

UNITED STATES PATENT OFFICE

AUGUST HAGGENMACHER, OF WINTERTHUR, SWITZERLAND

DEVICE FOR THE WET TREATMENT OF TEXTILE PRODUCTS

Application filed November 8, 1930, Serial No. 494,426, and in Germany November 16, 1929.

This invention relates to a device for the wet treatment of textile products.

Devices for the wet treatment of suspended textile products, for instance, in the form of an endless band (such as fibres twisted into strands or hanks) are known, wherein the vertically extending parts of the band are passed between spray devices to which the treatment liquid is fed by circulation from a reservoir. Thereby the textile products are freely suspended for instance from a drum above the reservoir. The said drum is rotated by mechanical means to obtain a liquid treatment as uniform as possible.

The object of the invention is to provide a rotational movement of the drum by causing only one half of the hanks or the like to be subjected to the liquid treatment. By this means a considerable simplification of the device is accomplished, inasmuch as mechanical means for causing the rotation of the drum are avoided.

In the accompanying drawing a constructional form of the invention is illustrated, by way of example only, wherein

Fig. 1 shows a sectional side elevation of the device;

Fig. 2 is a vertical section of the device, and

Fig. 3 shows a section of a detail.

The textile products A in the form of an endless band are suspended from a rotatably mounted drum 1. The vertical portions of the band are passed between spray devices 2, 2' and 3, 3' respectively. The treatment liquid is caused to circulate from a reservoir 4 through a centrifugal pump 5 to the spray devices 2, 2' and 3, 3' and back into the reservoir. In the circulating conduit a control means in the shape of valve 6 is included which, as will be seen in Fig. 3, enables to selectively operate the spray devices 2, 2' for the left hand vertical portion of the band and 3, 3' for the right hand portion of the band. Above the reservoir 4 a tank 7 is provided in which the lower part of the band A is continuously submerged. By submerging the band it is imparted an uplift which reduces the tension in the fabric and prevents

the formation of breakages. Moreover, the colouring bath can be mixed in the reservoir without causing unequal colouring in the goods the latter not being submerged in the reservoir, but in a special tank.

As only the spray device associated with the one vertical portion of the band is operative and the other inoperative this portion is treated with an excess of liquid which flows downwardly alongside of the respective portion, thus automatically causing the band to move in the direction of this flow and inducing the drum to turn. The uplift acting on the goods submerged in the tank 7 substantially contributes to assist the movement of the band. On reversing the control means spraying of the other vertical portion of the band is effected and thus moves the band in the opposite direction.

Therefore, with the simplest means the endless band is caused to move past the spray devices which, heretofore, was only attained by the aid of special mechanisms, such as means for rotating the drum or bucket wheels for moving the band. In this manner the invention is bound to bring about a substantial technical advance in the art of dyeing.

I claim:

1. In a device for the wet treatment of suspended textile products with a circulating liquid, a combination of a freely rotatable member for suspending the textile products therefrom in an endless band, and a means for contacting a liquid with said textile products suspended on one side only of said rotatable member, whereby the rotatable member will turn due to the greater weight of the absorbed liquid.

2. In a device for the wet treatment of suspended textile products by means of a circulating treatment liquid, in combination, a rotatable member for suspending the textile products therefrom in the form of an endless band, a spray device for each vertical portion of the suspended products adapted to project the treatment liquid thereon, and distributing means to render operative the spray device acting on one vertical portion and the other spray device inoperative to cause an automatic rotation of said member.

3. In a device for the wet treatment of
suspended textile products by means of a cir-
culating treatment liquid, in combination, a
rotatable drum for suspending the textile
5 products in form of an endless band there-
from, a spray device for each vertical portion
of the suspended products adapted to pro-
ject the treatment liquid thereon, a reservoir,
a conduit and a pump between said reservoir
10 and said spray devices, and control means in
said conduit for selectively connecting said
spray devices to cause said treatment liquid
to circulate through said conduit and either
one of said spray devices in an amount that
15 the respective vertical portion of the sus-
pended products is moved downwards by
gravitation and said rotatable drum auto-
matically turned.

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

AUGUST HAGGENMACHER.

25

30

35

40

45

50

55

60

65