Feb. 12, 1935. E. HERZOG 1,990,648

CUSHION MANGLE DRUM

Filed Feb. 23, 1933

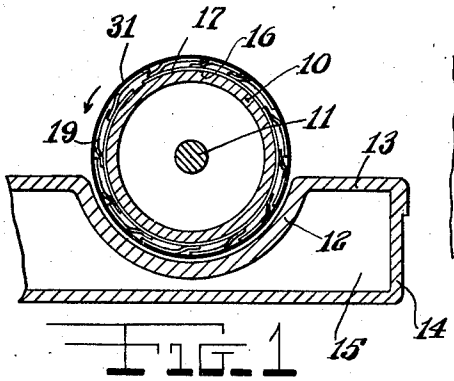


FIG. 1

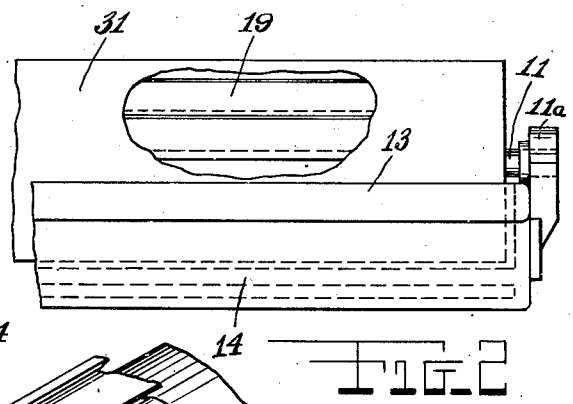


FIG. 2

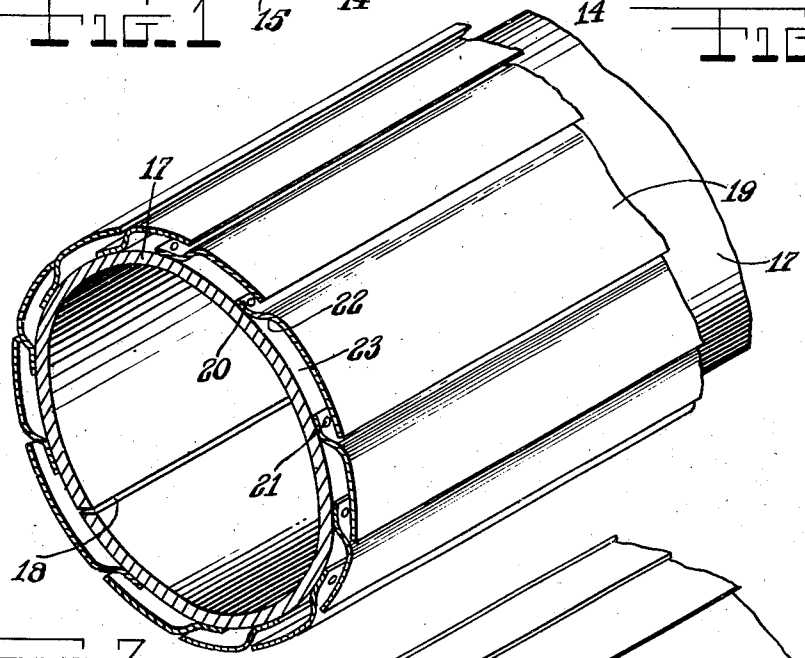


FIG. 3

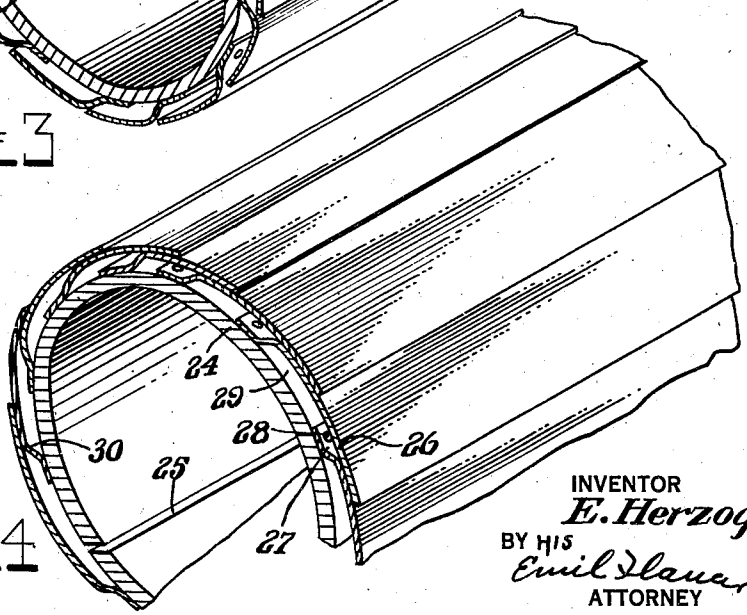


FIG. 4

INVENTOR
E. Herzog
BY HIS
Emil Flamer
ATTORNEY

Patented Feb. 12, 1935 1,990,648

UNITED STATES PATENT OFFICE

1,990,648

CUSHION MANGLE DRUM

Edward Herzog, Brooklyn, N. Y.

Application February 23, 1933, Serial No. 657,968

1 Claim. (Cl. 68—9)

The main object of this invention is to provide a drum unit for mangles which is so constructed that the periphery of the drum may be deflected as the laundering work passes between the steam chest and the drum.

Another object of the invention is to provide a drum for mangles used in laundering with longitudinal shields which resiliently are deflected by the work as the latter passes between the steam chest and the drum.

The above and other objects will become apparent in the description below in which characters of reference refer to like named parts in the drawing.

Referring briefly to the drawing, Fig. 1 is a cross sectional view through my mangle drum and its cooperating steam chest.

Fig. 2 is a side elevational view of Fig. 1.

Fig. 3 is a perspective view of the modified type of ring and shield the fabric casing or cover and drum being omitted therefrom for purposes of clarity.

Fig. 4 is a view similar to Fig. 3 showing the preferred type of ring and shield.

Referring in detail to the drawing, the numeral 10 indicates a relatively long cylindrical drum which, in laundering establishments, is 120''. This drum has end walls not indicated and is mounted concentrically upon a shaft 11.

The drum is superimposed directly over the semi-circular trough 12, of a steam chest 13, whose foundation walls 14 and bottom enclose a chamber 15. The sides of the steam chest have erector bearings 11A, mounted thereon in which the ends of the shaft member 11 are journalled.

The periphery of the drum 16, has, in the modified form of cushion mechanism, a sprung ring 17, which is provided with a longitudinal slot 18. The exterior surface of this sprung ring has a plurality of feet 20 mounted thereon which are curvedly deformed at 22 and extend thereafter above the surface of the ring being formed into curved shields 19. These shield portions provide a pocket 23 therebeneath so that resiliency of the shield members inwardly and toward the center may be had. The feet of these shield members are secured to the circular sprung ring 17 by rivets or any other desirable means.

In the preferred type of cushion drum illustrated in Fig. 4, I used a sprung ring or apron 24 which may be securely anchored to the drum 10 of the mangle and is also provided with a longitudial slit 25 so that a tight and desirable fit may be had on the drum 10. The cushioning mechanism embodies a plurality of curved shields 26 which are provided with deformed portions 30 and have legs 27 extending therefrom. These legs are secured to the periphery of the apron 24. The construction of the shields on legs being connected by the deformed portion, provide pockets beneath the shield elements 26 so that a pressure inwardly will permit the deflection of these shields.

In both the modified and preferred forms of cushion mangle illustrated in the accompanying drawing, the entire faces of the shields are enveloped by a fabric coat 31 so that frictional contact is had between the rotating drum and the work which passes between the steam chest and drum.

In use, the drum is so constructed as to resiliently give way to different thicknesses of laundering work which passes between the steam chest and the mangle drum. The shields 19 in the modified type of device are constructed in an abutting fashion that is the entering edge of the shield at one position abuts the emergent end of the preceding shield member. This construction I call the abutment cushion drum. The drum shown in Fig. 4 has its shields partly superimposed one over the other in a curved course and this construction I call the overlapping mangle drum. The function of both the modified and preferred types of drums are identical, the purpose being to cause the coat 31 to frictionally contact with the work and compensate for various thicknesses which are being fed to the mangle. The present day type of drum is not as efficient as my drum. In this present day type the relatively heavy pad and a coat 31 is soon subjected to dry rot by the continuous high temperature of the mangle steam chest, and the life of the pad is thereby impaired. With this type of device I use no padding whatsoever, merely using a coat such as 31 which may be readily replaced when this member becomes worn.

It is to be noted that certain changes in form and construction may be made without departing from the spirit and scope of the invention.

I claim:

In a mangle, an annular rotatable drum, a steam chest beneath said drum, said steam chest and drum cooperating and in contact with each other, a sprung apron mounted on said drum, said apron being slitted lengthwise and in contact with said drum, thruout its length, a plurality of irregularly formed shields having curved surfaces mounted rigidly on said apron, said shields overlapping each other to form a cylindrical unit, and a fabric coat encasing said shields and drum.

EDWARD HERZOG.