May 30, 1933. N. STRAMAGLIA 1,911,294

SUPPORTING DEVICE

Filed May 31, 1929

Fig. 1

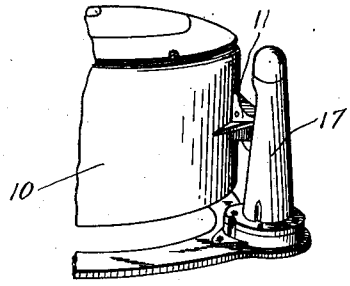
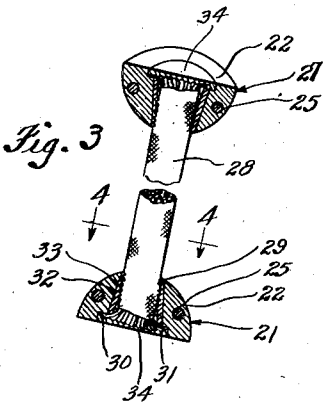


Fig. 3



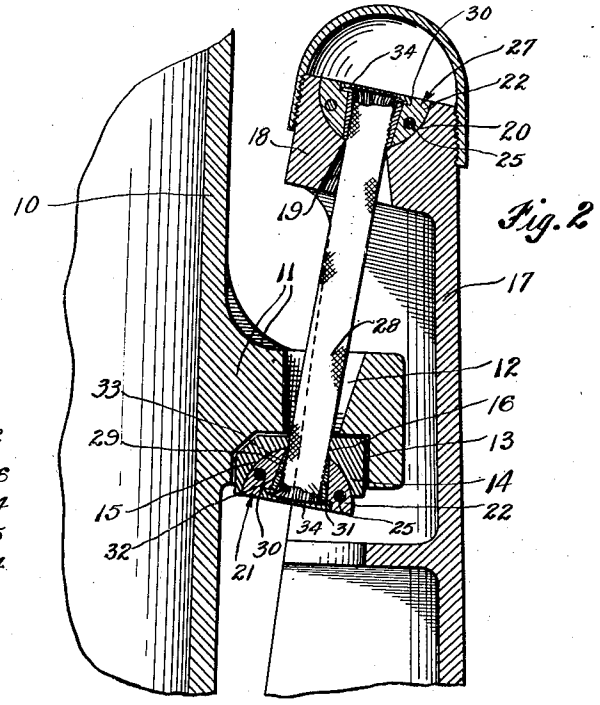


Fig. 2

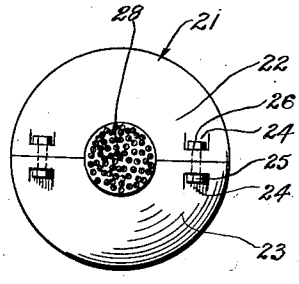


Fig. 4

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UNITED STATES PATENT OFFICE

NICOLA STRAMAGLIA, OF CHICAGO, ILLINOIS

SUPPORTING DEVICE

Application filed May 31, 1929. Serial No. 367,537.

This invention relates to certain novel improvements in supporting devices and particularly to supporting devices such as are used with clothes dyeing apparatus and has for its principal object the provision of an improved construction of this character which will be highly efficient in use and economical in manufacture.

It is among the objects of my invention to provide a supporting device for the tub of a centrifugal dyer or the like which will be arranged so as to permit free movement of said tub in various directions and this is accomplished by providing a flexible member.

Another object of the invention is to provide a simple and effective arrangement for connecting the ends of the flexible portion of the supporting member.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing, showing the preferred form of construction and in which:

Fig. 1 is a fragmental perspective view depicting the type of apparatus with which my device is employed;

Fig. 2 is a vertical sectional view of a preferred form of construction of my invention in association with the mechanisms illustrated in Fig. 1;

Fig. 3 is a side view partly in elevation and partly in section depicting a preferred form of construction for my invention; and

Fig. 4 is a sectional view taken substantially on the line 4—4 on Fig. 3.

In the accompanying drawing wherein I have illustrated a preferred form of construction for my invention 10 generically indicates the tub of a centrifugal dyer or the like which has an arm or bracket 11 extending outwardly from one end thereof. In the arm or bracket 11 an opening 12 is provided which opens into an enlarged recess 13 provided in the lower end of the arm or bracket 11. In the recess 13 a block 14 is arranged which has a substantially semicircular recess 15 formed therein and which also has an opening 16 therein which establishes communication between the semicircular recess 15 and the opening 12 in the bracket 11.

The centrifugal dyer also embodies a supporting standard 17 which has an inwardly extending portion 18 at the upper end thereof which is preferably angularly inclined. Extending through the portion 18 is a tapered opening 19 which is preferably arranged at an angle to the vertical. The opening 19 opens into a substantially semicircular recess 20 provided in the upper edge of the portion 18. My improved device is intended to be arranged so as to interconnect the tub 10 to the standard 17 and especially my improved device extends between the bracket 11 and the portion 18.

My improved device includes a substantially semicircular member generically indicated by 21 which is preferably formed from two sections 22 and 23. In the sections 22 and 23 depressions such as 24 are formed and bolts 25 are extended from one of the depressions 24 in one of the sections to an aligned depression 24 in the other of the sections and a nut 26 is disposed in each of the aligned recesses and engages the bolt 25. In this manner the sections 22 and 23 are effectively clamped together and the depressions are of a magnitude so that the heads of the bolts 25 and the nuts 26 will not project beyond the rounded periphery of the sections 22 and 23. The member 21 is intended to be disposed in the recess 15. A similar member 27 is provided which is also formed from two sections and which sections are effectively clamped together in the manner set forth. The member 27 is intended to be disposed in the recess or pocket 20. In order to interconnect the members 21 and 27 I provide the member 28 which is preferably formed from stranded wire cable or the like and it is manifest that since this member is formed from such material it will be readily flexible and it may be moved in a plurality of directions without any detrimental effect thereon.

The ends of the cable 28 are intended to be connected to the members 21 and 27 and this is brought about in the following manner.

In the member 21 a tapered opening 29 is provided which, as best illustrated in Fig. 4, is disposed to extend into each of the sections 22 and 23 in an equal amount. The opening 29 is preferably tapered and disposed so that the narrowest portion of the taper opens into the curved periphery of the member 21. At the larger end of the taper in the opening 29 an enlarged recess 30 is provided. Fitted into the opening 29 is a tapered structure 31 which is preferably formed in two semicircular sections. The tapered member 31 rests on the taper of the opening 29. Adjacent the smaller end of the member 31 in the opening 32 extending therethrough I provide a plurality of screw thread like projections 33 which, when the member 31 is forced into the tapered opening 29, imbed themselves in the member 28 so as to securely grip said member 28. The end portions of the member 28 are preferably flared outwardly so as to be disposed in the opening 30. A molten material such as solder or the like is then poured over these flared ends so as to completely fill the opening 30 and this molten material will flow down between the strands of the member 28 and into the member 31 and it is, therefore, manifest that by reason of the tapered construction of the opening 29 and the member 31 and by reason of the projections 33 aided by the molten material which is indicated by 34 that the ends of the cable 28 will be very effectively clamped in the member 21. An analogous construction is provided in the member 27 and it is, therefore, manifest that the end of the member 28 will also be securely connected to said member 27.

By reason of the fact that the ends of the member 28 are very securely anchored in the members arranged at the ends thereof it is manifest that displacement thereof will be prevented. In view of the semicircular formation at the ends of the member 28 and in view of the flexibility of the member 28 it is manifest that substantially universal movement may be imparted to the tub 10 relative to the standard 17 so as to permit movement thereof.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification, without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:

1. A supporting structure comprising semi-spherical members formed from co-operating sections, means for joining said sections together, said sections having tapered openings therein disposed with the small ends thereof at the rounded surface of said semi-spherical members, a flexible member extended between said semi-spherical members and disposed in said openings, tapered members disposed in said openings having gripping portions on the inner surface thereof adapted to engage said flexible member, the ends of said flexible member being flared outwardly whereby a molten material may be introduced into said openings around the flared ends of said cables to effectively retain said cables in said openings.

2. A centrifugal machine including in combination a casing, a basket mounted within the casing to rotate about a substantially vertical axis; and suspension means for the casing including a plurality of fixed supports and wire cables in tension between said supports and the casing.

3. A centrifugal machine including in combination a casing, a basket mounted within the casing to rotate about a substantially vertical axis and suspension means for supporting the basket to permit substantially free gyration of the rotating basket including a plurality of flexible wire cables and a plurality of fixed supports surrounding the basket, said flexible wire cables being supported from said fixed supports.

4. A centrifugal machine including in combination an extractor basket, a member on which the basket is mounted for rotation about a substantially vertical axis, a plurality of fixed supports arranged around the periphery of the basket and spaced therefrom, and suspension means for supporting the loaded rotating basket and member to permit substantially free gyration thereof including a plurality of flexible wire cables in tension between and fastened to said supports and member.

In testimony whereof I affix my signature.

NICOLA STRAMAGLIA.