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ATTACHMENT FOR MACHINES FOR COATING MATERIAL

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*Fig. 1*

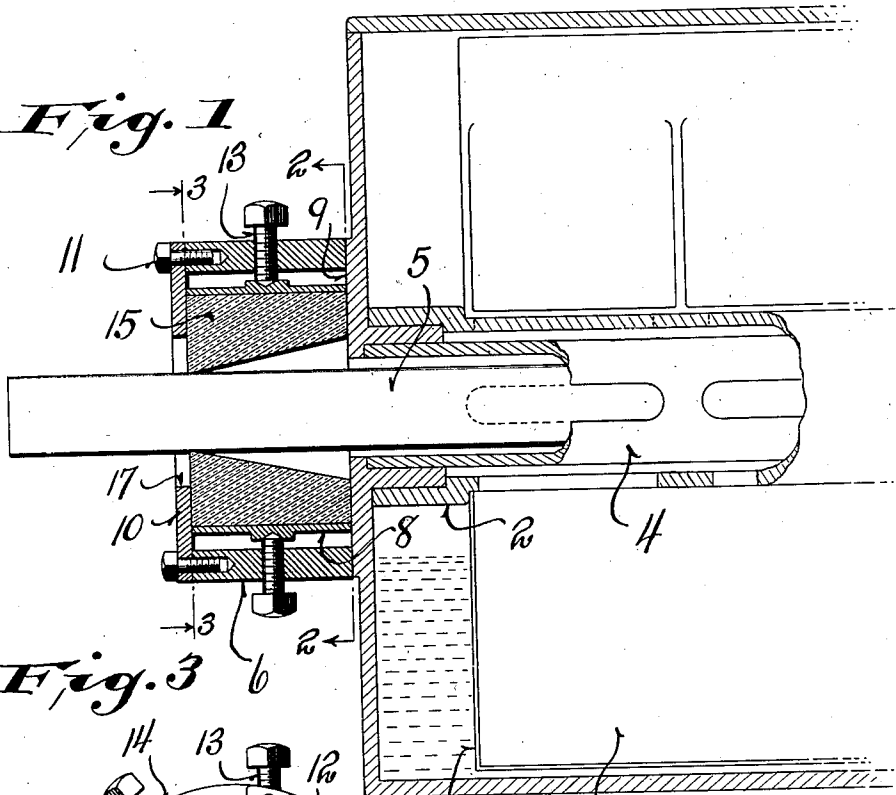


*Fig. 3*

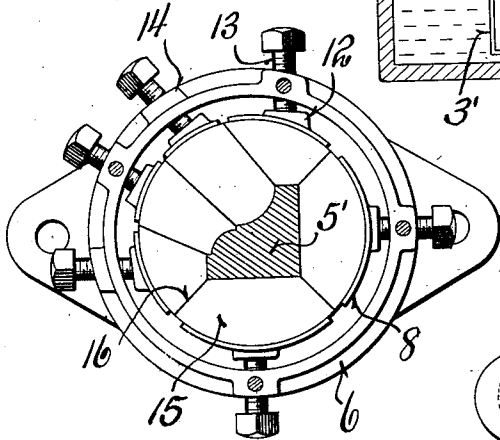


*Fig. 2*

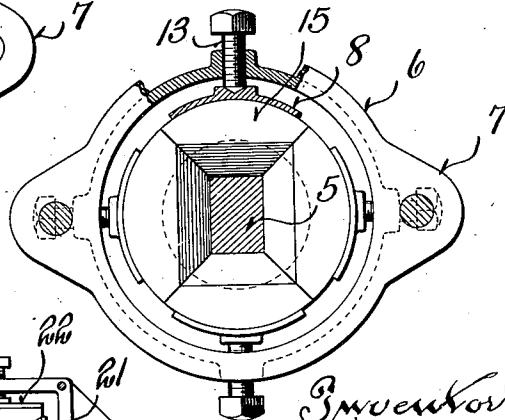
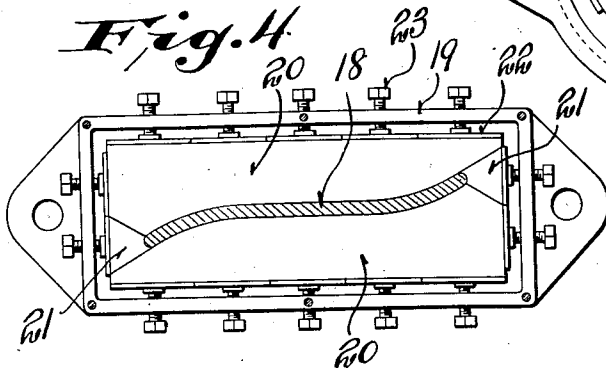


*Fig. 4*



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# UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR MACHINES FOR COATING MATERIAL.

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This invention relates to an attachment for a machine for coating material.

In machines for coating strips and material of other shapes with lacquer, varnish, shellac, or other material, it is the usual practice to provide a wiper composed of a solid block of rubber initially contoured to fit the strip. The rubber block very rapidly wears as the work is passed through the machine and very soon fails to function properly with a consequent great waste of lacquer or other finishing material.

This invention is designed to overcome the defects noted above and objects of such invention are to provide a novel form of wiper attachment for a coating machine which is so constructed that the individual portions of the wiping block are independently adjustable so as to compensate for wear, and to maintain a tight and accurate fit between all portions of the wiping block and the work as it passes from the machine.

Further objects are to provide a very simple attachment which is not expensive to manufacture, which is easy to secure upon the machine, and which may be very readily adjusted as occasion demands to compensate for wear or variations in the work.

An embodiment of the invention is shown in the accompanying drawings in which:

Figure 1 is a sectional view through the attachment showing it in position upon the machine;

Figure 2 is a sectional view on the line 2—2 of Figure 1 with parts in section;

Figure 3 is a face view of the attachment with the front plate sectioned off, such view corresponding to a section on the line 3—3 of Figure 1;

Figure 4 is a view similar to Figure 3 showing a different shape of wiping attachment adapted for operating upon a different form of strip or work.

Referring to the drawings, it will be seen that a conventional lacquering or coating machine has been illustrated, as provided with a main container 1 which holds the coating material, such, for instance, as lacquer, and which is provided with a revolubly mounted

apertured sleeve 2. The sleeve 2 carries a plurality of vanes 3 which dip into the lacquer as the sleeve rotates and which discharge the lacquer through the apertures in the sleeve 2 and through the apertures in a stationary sleeve 4 upon the passing strip or work 5. If desired, the vanes 3 may be provided with a small marginal flange 3' to prevent the lacquer from freely running off the edges of the vanes.

The attachment comprises a ring-like member 6 equipped with a plurality of apertured ears 7 adapted to be bolted to the face of the container or member 1 of the main machine. Within the ring or holder 6, a plurality of pressure plates or bearing members 8 are mounted and are guided by the face 9 of the machine and by a face plate 10 removably bolted, as indicated at 11, to the front of the holder 3. The pressure plates 8 may be curved, as shown in Figure 3, and are each provided with a recessed or socketed boss 12 within which the pointed end of an adjusting or set screw 13 seats. The screws 13 are threaded through bosses 14 formed in the supporting member 6 and are externally adjustable to thus position the bearing plates or pressure members 8. The pressure members 8, it will be noted, substantially define a closed figure and within the outline defined by these pressure members 8 a plurality of independent rubber or other yielding rubber blocks 15 are positioned. The blocks contact with each other along slanting faces 16 and are contoured to fit the work or strip 5, as clearly shown in Figures 2 and 3. Any number of these blocks may be employed depending on the type of work. For example, in Figure 2, there have been shown four blocks to fit the rectangular strip 5. In Figure 3, six blocks have been shown to fit the moulding strip 5'. Obviously, any number of blocks may be employed without departing from the spirit of this invention.

It is clear that inasmuch as the face plate 10 is provided with a relatively large aperture 17, as may be seen from Figure 1, that the operator can observe any leak that may occur between the passing strip and the

stripping blocks. He may adjust the screw for the corresponding block and may thus maintain a perfect operative fit between the stripping blocks and the passing work with the utmost facility.

It will be seen further that as wear occurs, such wear may be taken care of by proper adjustment of the appropriate screws 13.

It is clear that the invention is not limited to the particular contour of the holder for the strip as any type of holder may be employed and any shape or number of blocks depending on the character of the work. For example, the strips previously described and discussed in detail above may not be the only type of work handled by the machine. For example, the machine may be adapted for handling other types of work. It is immaterial so far as the invention is concerned what type of work is handled as the same method of wiping the excess coating from the work is employed. For instance, as shown in Figure 4, a seat 18 is illustrated and a rectangular holder 19 is employed. The blocks 20 are contoured to fit the work and preferably end blocks 21 are employed for the ends of the work 18. The blocks are adjusted by means of pressure plates or bearing members 22 which are positioned correctly and independently by means of the adjusting screws 23, as previously described. Obviously, for an elongated block, as indicated at 20 a plurality of such pressure plates are employed and are equipped with a corresponding number of adjusting screws 23.

It will be seen that this invention is applicable to widely different types of lacquering or coating machines and may be adapted to any type of work handled by the machine with the utmost facility. It will be seen further that all wear can be readily taken care of by proper adjustment of the screws and also that the stripping blocks may be adjusted at the exact point needed without in any manner interfering with or stopping the operation of the machine.

It will be seen further that a material economy is effected by the use of this invention as there is a minimum loss of lacquer or other coating material.

Although the invention has been described in considerable detail, such description is intended as illustrative rather than limiting as the invention may be variously embodied and as the scope of such invention is to be determined as claimed.

I claim:

1. An attachment of the character described, including a housing, a removable face plate closing one side of the housing and formed with a centrally disposed opening, a plurality of blocks arranged within the housing formed with slanting contact faces and each block having its outer face

of arcuate form and its inner face of a predetermined contour, a plurality of substantial arcuate pressure plates bearing against the outer faces of the blocks and adjusting screws threaded through the housing and having engagement with the pressure plates for adjusting said plates.

2. An attachment of the character described including a cylindrical housing, laterally disposed perforated ears at one end of the housing, a face plate removably secured to the other end of the housing and provided with a centrally disposed opening, a plurality of blocks arranged within the housing and formed with slanting contact faces, the outer portions of said blocks being of arcuate contour and the inner portions of a predetermined contour for engaging the work passed between the plates, said inner portions being tapered away from the work toward the rear ends of the blocks, a plurality of substantial arcuate pressure plates engage the outer portions of the blocks, and the plurality of adjusting screws threaded through the housing and having engagement with the pressure plates for adjusting said plates.

3. A stripping attachment for a machine for coating work comprising a cylindrical housing having means for attachment to said machine, a plurality of adjusting screws threaded through said cylindrical housing, pressure plates bearing against the inner ends of said screws, a plurality of yielding blocks mounted inside of said pressure plates and adapted to engage the work and strip excess coating therefrom, and a removable face plate secured to said holder, said blocks having inner work engaging faces tapered away from the work towards the rear faces of said blocks.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee, and State of Wisconsin.

WILLIAM H. BERSSENBRUGGE.