Feb. 23, 1937. J. STROOP 2,071,365

WAX APPLICATOR AND METHOD OF MAKING THE SAME

Filed Nov. 27, 1934

Fig. 1.

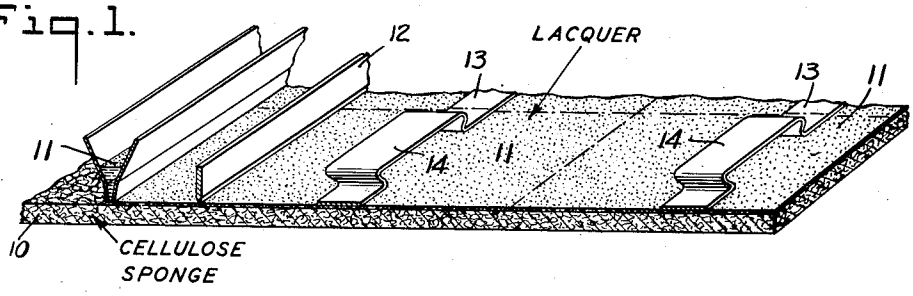


Fig. 2.

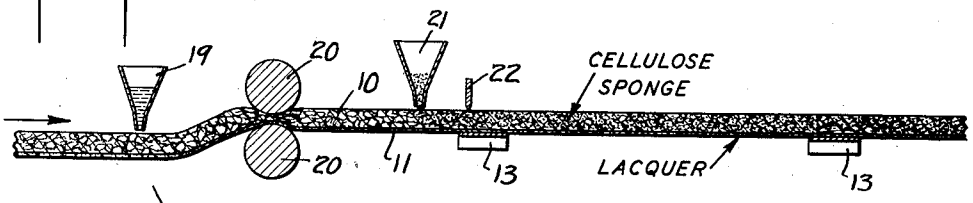


Fig. 4

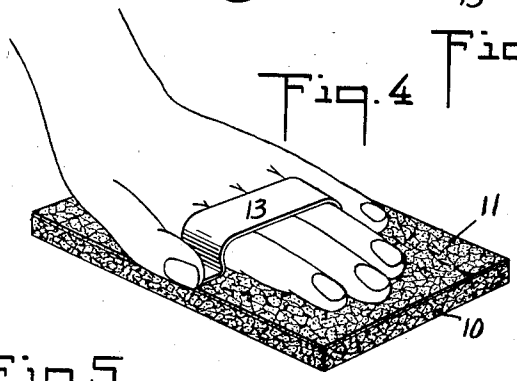


Fig. 3.

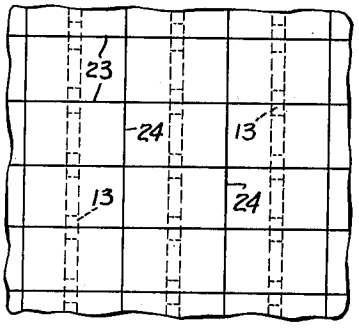


Fig. 5.

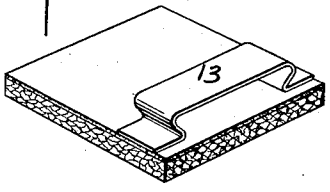


Fig. 6

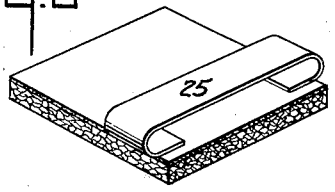
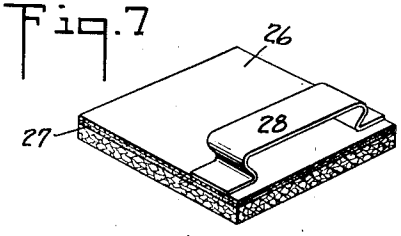


Fig. 7



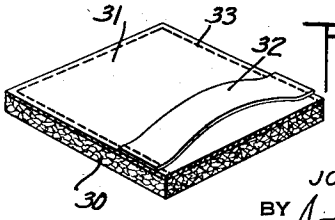


Fig. 8.

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WAX APPLICATOR AND METHOD OF MAKING THE SAME

John Stroop, New York, N. Y., assignor to Pad-Y-Wax Company, Inc., a corporation of New York

Application November 27, 1934, Serial No. 754,951

13 Claims. (Cl. 91—62.5)

The present invention relates to wax applicators and methods of making the same.

The present invention contemplates a form of wax applicator which is a complete article of manufacture provided with a quantity of wax substance and solvent held in a porous reservoiring structure suitable for direct application to a surface to be waxed and of a nature to gradually give up the wax as it is rubbed on the surface, and yet require no extraneous means (as a cover) to hold it together.

Most porous structures, such as cloth, felt, and the like, which require no covering means to hold them intact are unsatisfactory for the purposes as they have a very limited power to absorb wax, and retain a very large proportion of what they do absorb. The more common structures of high degree of porosity, such as rubber sponge or natural sponge are not suited for these purposes. The rubber sponge is quickly disintegrated by the hydrocarbon solvent in the wax and by the wax itself so that this material cannot be employed. Natural sponge besides being too expensive is not available in satisfactory quantities and sizes and with the uniform porosity required of a manufactured article. The preferred reservoiring material is an artificial sponge of nitrated cellulose.

This sponge is artificially produced by nitrating and processing a base of cellulose stock in such a manner that a sequence of interconnected cells are created in a structure which functionally has every attribute of the natural sponge. This process is known and forms no part of the present invention. This artificial sponge forms a highly compressible structure of flexible skeleton form having interconnected voids and has the advantage of possible production in any shape or size suitable to wax applicators and in addition to this can be produced with cell or pore characteristics exactly designed to serve as the efficient reservoir for wax. The cellulose character of this sponge is unaffected by waxes or the customary hydrocarbon solvents of wax compounds. Hence a stable article may be made with wax and artificial sponge in contact.

The applicators may be produced in any size determined only by the amount of wax to be reservoired. The applicator may be of small size suitable for waxing shoes or furniture or for automobiles or may be larger to reservoir sufficient wax for floor waxing.

A further object of the present invention is to provide the sponge with an impervious back. This may, for example, be in the form of a sheet of lacquered fabric secured to the sponge by adhesive or by sewing, or may comprise a layer or coating of cellulose lacquer. Where a handle is desired, the handle may be secured in place by lacquer which acts as an adhesive, or by sewing.

The accompanying drawing shows, for purposes of illustrating the present invention several embodiments in which the invention may take form together with the method of making the pads, it being understood that the drawing is illustrative of the invention rather than limiting the same. In this drawing:

Fig. 1 is a diagrammatic view illustrating a portion of the process of manufacture;

Fig. 2 is a similar view illustrating a further portion of the process;

Fig. 3 illustrates the cutting of the waxing pads into units;

Fig. 4 is a perspective view of a waxing pad showing the manner of use; and

Figs. 5 to 8 inclusive are sectional views through pads of various forms of construction.

The artificial cellulose nitrate sponge used in making these pads has a high degree of porosity. The openings are preferably as large as possible and yet retain the wax in place. Too large holes permit large masses of wax without anything to hold them in place, and are therefore to be avoided. Too small pores hold the wax back and hinder its flow when the pad is rubbed over a surface. A sponge with the maximum size of opening of about ⅛ inch is preferred.

The sponge is cut or formed to the right thickness (approximately ¼ inch for a hand pad). For ease in processing, a large sheet or layer of sponge is employed sufficient for the manufacture of a number of pads.

The cellulose sponge in its natural state is stiff and harsh and not suitable for rubbing on a surface to be waxed. This harshness is not present when the sponge is wet. Water has a softening physical effect on the sponge, but it is not permanent. On evaporation of the water the hard state is restored. The treatment of the sponge to receive the wax involves two strips, the providing of an impervious back and the softening of the sponge. Either step may be performed first.

To render the back of the sponge sheet impervious to wax and wax solvents, the sponge may be coated with a lacquer as shown in Figure 1. The sponge layer is indicated at 10, and nitro cellulose lacquer is flowed onto it as indicated at 11. The sponge is moved to the right and passed under a scraper 12 which holds the

lacquer back, except for a thin even coat which remains. While the lacquer is still wet, handle forming strips 13 are placed on the sponge, the strips having loops 14 which project up so as to stay out of the lacquer. The lacquer dries very quickly and seals all the pores on that side of the sponge as well as secures the handles in place.

The softening may be accomplished and permanently retained if the water is mixed with a suitable hygroscopic agent to prevent evaporation. These agents may include a number of organic materials which are compatible with the wax and sponge. Glycerine is the preferred agent for this purpose. The sponge sheet is passed under a spout 19 which applies a solution of glycerine in water. From 30% to 50% of glycerine may be used. The wet sponge is then squeezed to remove as much of the glycerine and water as possible. This may be done by a wringer 20. The glycerine retained will not evaporate and will insure that the water content is always present. If desired, the glycerine and water may be applied and wrung out before the lacquering step.

The softened sponge is then passed under filler spouts 21 where the wax and wax solvent, heated slightly to melt them, is allowed to flow onto the sponge. A sufficient quantity is employed to fill all the pores. Any excess may be removed by a scraper 22. The wax solidifies, and the large sheet is then cut, as indicated at 23 and 24 of Figure 3, to form square or rectangular pads, each having a uniform charge of wax, a flexible impervious backing and a handle. Instead of hydrocarbon type of wax, one may use an emulsion type of wax. The pad is shown in Figures 4 and 5.

The pad produced as described is ready for use. The user can pass the fingers through the strap as indicated in Figure 4 and easily rub the pad over a surface so as to leave a film of wax. The surface of the pad is soft and pliable and produces a very satisfactory "feel" as the pad is used. As the pad is used the wax keeps working out to the pad surface so as to be ready to be transferred to the surface of the article being waxed. The pad is pliable so that a substantially kneading action takes place. The entire supply of wax may therefore be used. Owing to the impervious layer at the back, the hand does not become soiled.

These applicators are packaged in cellophane envelopes which protect the wax from deteriorative evaporation. These envelopes are superior to cans or bottles in ease of access and are resealable in such a manner that no loss of wax occurs.

Figure 6 shows a pad similar to that of Figure 4, except that the handle strap 25 is formed to receive all four fingers. It is secured in the lacquer backing while still wet.

Figure 7 shows a pad in which a layer 26 of fabric, preferably lacquer coated (or oilcloth) is secured to the sponge body by adhesive lacquer 27. The handle 28 is secured by adhesive.

The waxing pad of Figure 8 employs a layer of sponge 30, a nitro cellulose treated fabric backing 31, a handle 32. These parts are secured together by stitching 33. These pads are preferably stitched together after the softening and before wax loading operations.

It is obvious that the invention may be embodied in many forms and constructions within the scope of the claims, and I wish it to be understood that the particular forms shown are but a few of the many forms. Various modifications and changes being possible, I do not otherwise limit myself in any way with respect thereto.

What is claimed is:

1. A container type wax applicator having a wax reservoir in the form of a compressible structure of cellulose sponge material, and a charge of wax carried therein.

2. A container type wax applicator having a wax reservoir in the form of a compressible structure of cellulose sponge material treated with hygroscopic compounds to soften the cellulose structure, and a charge of wax carried therein.

3. A container type wax applicator having a reservoir in the form of a compressible structure of cellulose sponge material having on one side an impervious adhesive layer resistant to and unaffected by wax or wax solvents, and a charge of wax carried therein.

4. In a container type wax applicator, a reservoir in the form of a compressible structure of cellulose sponge material having on one side an impervious adhesive layer resistant to wax and unaffected by wax or wax solvents, and a handle strap secured in position by said adhesive layer.

5. In a container type wax applicator, a dense and flexible layer of material having adhesive qualities serving to bond to itself on one side a wax reservoir of cellulose sponge structure and on the other side a strap, said layer of adhesive being impervious to wax and wax solvents.

6. A wax applicator comprising a layer of homogeneous cellulose sponge carrying a hygroscopic softening agent and a charge of wax and wax solvent, and an impervious layer on one face of the sponge layer.

7. A wax applicator comprising a container for wax in the form of a layer of self sustaining sponge material absorbent of and resistant to waxes and wax solvents, the layer having one face rendered impervious to wax and wax solvents, and a charge of wax and wax solvents in the sponge material.

8. A wax applicator comprising a layer of cellulose sponge rendered soft and elastic by glycerine and water, and a loading of wax and wax solvent carried by the sponge and adapted to exude upon application of pressure, and a protective cover for one face of the sponge layer.

9. A wax applicator comprising a layer of cellulose sponge rendered soft and elastic by glycerine and water, and a loading of wax and wax solvent carried by the sponge and adapted to exude upon application of pressure, and a protective cover for one face of the sponge layer, said layer being in the form of a coating of lacquer.

10. A wax applicator comprising a layer of cellulose sponge rendered soft and elastic by glycerine and water, and a loading of wax and wax solvent carried by the sponge and adapted to exude upon application of pressure, and a protective cover for one face of the sponge layer, said layer being in the form of a layer of impervious fabric secured to the sponge by lacquer.

11. A wax applicator comprising a layer of cellulose sponge rendered soft and elastic by glycerine and water, and a loading of wax and wax solvent carried by the sponge and adapted to exude upon application of pressure, and a protective cover for one face of the sponge layer, said layer being in the form of a layer of impervious fabric stitched to the sponge.

12. A wax applicator comprising a layer of cellulose sponge rendered soft and elastic by glycerine and water, and a loading of wax and wax solvent carried by the sponge and adapted to exude upon application of pressure, a protective layer of lacquer for one face of the sponge, and a handle secured in place by the lacquer.

13. The method of making wax applicators which comprises rendering one face of a layer of cellulose sponge impervious to wax and wax solvents, securing a handle to said surface, softening the sponge by glycerine and water, squeezing out the excess of glycerine and water, and then loading the sponge with a warmed solution of wax and wax solvent.

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