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PROCESS FOR TREATING AND COMPOSITION FOR COVER CLOTH

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This invention relates to the art of fabric treatment and has for its object more particularly the production of an improved cover cloth for a hot ironing press such as is commonly used in laundries and clothes pressing establishments.

The cover cloth is the outside covering of the padded member between which and the heated ironing member the garment is pressed in the usual power operated ironing machine. In the buck type of ironing press the cover cloth is the outside covering for the padded buck and in the cylinder type of machine, a cover cloth is used as the outer covering of one or more padded cylinders which roll in contact with a heated iron member or cylinder. In all cases the cover cloth is subject to very severe destructive action from the heat, pressure and steam of repeated pressing operations and must be frequently renewed. The cost and loss of time for such renewals is considerable even in a small laundry plant.

Heretofore woolen cloth has been the commonly accepted fabric for cover cloth particularly in laundry presses which work on garments containing starch. While not as durable as the same weight of cotton cloth in withstanding the charring action from the heated press, the woolen cloth has been preferred because it is more repellent to starch than cotton with the result that a starched garment after being closed in the press will not stick to a cover cloth of wool as it would stick to a cover cloth of ordinary cotton. When the press is opened it is desirable that the pressed garment be lifted off the cover cloth with a minimum of sticking thereto not only as a matter of saving time and muscular effort for the operator but also as a precaution against tearing the garment.

However, the woolen cover cloth as now known is not very durable. In the ordinary running of a laundry press such a cover cloth will last about two and one half working days before requiring renewal. By means of my improved treatment as hereinafter described I can increase the life of a woolen cover cloth by at least 100%. But the more important feature of my improved treatment is that when applied to cotton cloth of the same weight and texture as the woolen cover cloth now used, it will make said cotton cloth three to four times more durable than the woolen cover cloth in hot press ironing work. Furthermore my treatment of cotton cloth will render the same starch repellent so that ironed garments will not stick to it after the pressing operation. In this manner cotton cloth which is lower in cost and more durable, weight for weight, than woolen

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cloth, is made serviceable as a practical cover cloth for hot press ironing machines of all types and for all kinds of ironing and pressing operations.

My method of fabric treatment comprises essentially the impregnation of the fabric with a previously prepared mixture of linseed oil, egg white and a relatively small quantity of synthetic resin such as ester gum. The linseed oil is preferably thinned down with about an equal quantity of petroleum spirits, which together will be in predominance over the egg white. The exact proportions for the mixture may be widely varied to come within the essential characteristics of having the mixture in easy flowing condition for ready impregnation into the fabric and to avoid such a thickening condition as will clog up or close the pores of the fabric. A composition which I have found very satisfactory for my purpose comprises in approximate proportions by volume one to two parts of linseed oil, (preferably boiled or purified linseed oil), one to two parts of petroleum spirits, one part of egg white and from one tenth to two tenths part of ester gum or an equivalent synthetic resin.

By the term "part" as above used I mean any usual volumetric unit such as a liquid quart measure. As a specific example, my composition may consist of 1.35 quarts of linseed oil, 1.50 quarts of petroleum spirits, .15 quart of ester gum, and 1 quart of egg white. As heretofore stated, the composition based on the use of one quart (or part) of egg white, may have the other ingredients in as widely varying proportions relative thereto as 1 to 2 quarts (or parts) of the linseed oil, 1 to 2 quarts (or parts) of the petroleum spirits, and $\frac{1}{10}$ to $\frac{2}{10}$ quart (or part) of the ester gum.

In the preparation of the mixture, the ester gum is first liquefied by heat and then the linseed oil also in a heated condition is added thereto. Thereafter the petroleum spirits is added. The foregoing mixture when completely cooled is then poured into an empty vat containing the egg white and the whole composition is thoroughly stirred and agitated to produce a uniform homogeneous mixture.

The next step is to impregnate the fabric with said mixture as thus prepared and this may be accomplished either by rubbing the liquid composition into the cloth by hand or by the use of any suitable tools or machinery.

The composition is applied to the fabric in a manner and in such quantity as not to completely close the pores of said fabric or to form an air

tight skin film thereon. The impregnation serves rather to coat the individual fibers or strands leaving the completed fabric in slight degree porous but water repellent. After impregnation with the composition the fabric is dried, preferably by the application of heat and smooth ironing pressure. This may be done in an ironing press or machine. One advantage of the process is that the fabric may be initially treated or retreated by rubbing in the composition while the fabric is mounted on a buck of a laundry press. The heat of closing the press will quickly and thoroughly dry the impregnating mixture into the fabric. As respects service and durability of fabric the best results are obtained by putting the fabric to work in the ironing press immediately after being freshly treated with the composition described.

In making up the composition of the mixture above described the proportions are not critical and may be widely varied, although for best results the mixture should be an easy flowing liquid so as to readily penetrate the pores of the fabric. When dry it should not clog said pores or form an impervious skin on the fabric. It will be found that when the fabric is so treated it becomes more or less water repellent although not absolutely water proof. The tensile strength of the fibers and strands of the fabric will be greatly increased which may be one reason for the lasting qualities of the treated fabric as compared with the untreated fabric, in withstanding the heat and pressure of the ironing machine.

The egg white ingredient of the composition is desirable when cotton cloth is to be treated for use on starched goods as it contributes to making said cotton cloth repellent to starch. If ordinary woolen cloth is to be treated the composition may be made up without the egg white ingredient since woolen cloth is naturally repellent to starch. Likewise if cotton cover cloth is to be used only in flat iron work in the absence of starch the composition need not contain the egg white ingredient.

When the mixture is thoroughly stirred and agitated it will remain in a short of emulsified

state for a long period of time without any stratification. If too large a proportion of linseed oil is used in the mixture some stratification may occur after a long period of standing. In any event for best results it is desirable before using the composition to thoroughly stir and shake it into a homogeneous mixture.

I claim:

1. A method of preparing cover cloth for use in a hot ironing press which consists in impregnating cotton fabric with a homogeneous mixture consisting of approximate proportions by volume one to two parts of linseed oil, one to two parts of petroleum spirits, and one part of egg white together with about one to two tenths of a part of ester gum and finally drying said impregnated fabric by the application of heat and smooth ironing pressure.

2. A method of preparing cover cloth for use in a heat ironing press which consists in impregnating cotton fabric with a mixture consisting of approximate proportions by volume one to two parts of linseed oil, one to two parts of petroleum spirits, one part of egg white, and a relatively small fractional part of ester gum and drying said impregnated fabric in smooth condition.

3. A method of preparing cover cloth for use in a hot ironing press which consists in impregnating said fabric with a homogeneous mixture of linseed oil, petroleum spirits, and egg white together with a relatively small amount of an ester gum in proportion to the whole mixture and drying said impregnated fabric in smooth condition.

4. A cover cloth for use in a hot ironing press the product comprising woven cotton fabric impregnated with a homogeneous mixture of linseed oil and petroleum spirits and egg white together with a relatively small amount of ester gum in proportion to the whole mixture.

5. For a use in impregnating cover cloth for a hot ironing press, the composition of matter which consists of approximate proportions by volume, one to two parts linseed oil, one to two parts petroleum spirits, one part egg white and one to two tenths of a part of ester gum.

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