TEXTILES

New Fabrics Defy Wrinkles, Damp, And Even Germs

Wool Is Now Made Unshrinkable and Shoe Linings Sanitary; U. S. Bureau Kept Busy With Tests

"CREASE-RESISTANT sports cottons, ginghams, and lawns are now available, as well as the more familiar voiles that defy wrinkling, and these fabrics are practically a 'must' in every woman's wardrobe."

So the American Home Economics Association, meeting in Cleveland, was told by Miss Margaret S. Furry of the U. S. Bureau of Home Economics.

The crease-resisting process, she declared, is beyond doubt the outstanding development in fabric finishing since mercerizing was discovered, which was a good many years back.

One job of the Bureau is testing and comparing durability of the new specialized fabric finishes, which are coming thick and fast these days. The Bureau itself has even developed some finishes.

Here are some of the newest ideas and suggestions, reported by Miss Furry:

How long crease-resistant fabrics remain that way depends largely on laundering care. Rayons and linens particularly need lukewarm water, neutral soap. For cottons, laundering methods are not so important.

Fabrics that need no starching are on the market, stiffened by dissolving some of the cellulose so that the woven yarns tend to fuse where they cross. The process is especially good for voiles and lawns, Miss Furry said.

There are voiles even that manufacturers claim will not soil so easily as untreated cottons, that will not wilt in dampness or become linty after washing.

To prevent rayon linings from fraying or becoming distorted at seams, they can be coated with synthetic resins, which interlock the warp and filling yarns, firming the cloth.

The sheen of glazed chintz is preserved when it is treated with synthetic resins, crystal clear and insoluble either in soap and water or in dry cleaning solvents.

Wool is being made unshrinkable by treatment with sulphuryl chloride. Manufacturers say the wool is usually stronger, too.

Shoe lining fabrics can be made antiseptic and germicidal. And by applying sanitary finishes to certain goods, such as mattresses, manufacturers are claiming that these products reach the consumer in sterile condition regardless of handling.

A new water-repellant finish suitable for silk, cotton, rayon, and linen, is radically different from other types on the market. Achieved by a complicated chemical compound, it is not removed by washing or dry cleaning, and it makes the fabric resistant to perspiration and stains.

No less than 30 good ways of protecting from mildew such materials as unbleached cotton duck have been found by the Bureau of Home Economics in efforts to develop finishes that may be applied at home. Ten of the 30 could be applied at home, and the Bureau is now testing their effectiveness in battling mildew after exposure to weather, repeated laundering, and storage.

Although the various new finishes are intended to be permanent, at present they rarely last the full life of the fabric, Miss Furry explained, but proper care will often prolong their effectiveness. Shoppers, these days, do well to examine guarantees and informative labels on materials, she advised, for most of the special finishes increase serviceability, without changing appearance of the fabric. Labels should tell the buyer how durable the finish is, what she can expect in wearing quality, and how to care for the fabric to get the best service.

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CHEMISTRY

Synthetic Cleansing Agents May Be Used Against Germs

Discovery That New Soaps and Shampoos Can Stop Bacterial Growth May Aid Fight Against Tooth Decay

DISCOVERY of the germ-stopping power of modern synthetic cleansing agents—soaps and shampoos to the layman—may provide scientists with a new class of chemical weapons against disease, including tooth decay.

Experiments in this direction are now under way at the University of Chicago, Dr. Benjamin F. Miller and Dr. Zelma Baker report. (*Science,* June 28)

Three of the cleansing agents, with the trade names Damol, Emulsol-605 and Emulsol-606, are relatively non-poisonous and non-irritating to mice and rabbits, the Chicago scientists have discovered. They stop the growth of germs in the test tube. Their protective action towards experimentally induced germ diseases is now being investigated.

One of the cleansing compounds, Zephiran, is already under study as an anti-tooth decay weapon. The germ-killing power of this substance was announced by Prof. G. Domagk, of Germany, the man who gave sulfanilamide to the world. Tests of Zephiran by the Chicago scientists showed that it promises to fight tooth decay in two ways: 1. by killing germs; 2. by stopping production of lactic acid which, in high concentration, can destroy tooth enamel and thus give decay a chance to start.

The new cleansing agents were developed to meet various special demands of industry. More than 1,000 of them have been patented within the past decade. They have long, chemical names. Zephiran, for example, is alkyl dimethyl benzyl ammonium chloride. Another, with the trade name of a much advertised shampoo, is triethanolamine lauryl sulfate. One of them is sulfonated castor oil.

The killing power of some of these chemicals is effective against germs of both gram negative and gram positive groups. All germs belong to one or the other of these groups, depending on how they take a certain stain. Alkalinity and acidity can enhance or decrease the germ-stopping power of the cleansing agents. This depends on whether the cleanser is a cationic (electropositive) or anionic (electronegative) compound.

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