

Toile de Soie—Part I

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The French word "toile" means cloth. It is generally followed by an indication of the material from which the cloth is woven, such as "Toile de Lin" (linen), "Toile de Chanvre" (canvas), but the term "toile" alone conveys the impression of linen, indicating freshness and washability.

"Toile de Soie" designates a group of taffeta weaves of medium weight, using as warp a two ply spun silk yarn and in the filling either spun silk or raw silk (tram or crepe twist). Toile de Soie (all silk cloth) can in fact only use the two threads derived from the silk cocoon, one by the reeling process: raw silk, the other by the spun silk process: spun silk also called "schappe."

While lighter taffeta weaves made from raw silk warps and spun silk single filling are theoretically "Toile de Soie," they are known as the group of "Lyonesse Pongees" abroad, and in this country as "Tub Silks," the latest development being "Lavelle," the washable all silk cloth established in accordance with the minimum standard construction of the Spun Silk Research Committee.

The outstanding quality of a well constructed Toile de Soie is its excellent *washability*. Submitted to innumerable tubbings it will not shrink. Repeated washings, instead of hurting the fabric, will on the contrary enhance its silky qualities and soft feel and accentuate its original lustre and life. In this country Toile de Soie is generally made of a two ply spun silk (60/2** English spun silk count) filled with tram silk (broadcloth) or crepe silk (broadcloth crepe). While these constructions have very good washing qualities, the Toiles de Soie evolved during the last few years in Europe, with spun silk both ways, constitute the highest washability possibly obtainable.

The increasing interest of the feminine world in sports and the latest developments of

fashion makes *washability* one of the essential requirements for the following reasons:

1) The modern trend towards active outdoor life and participation in sports by the fair sex, and the generalization of motor transportation, call for practical, inexpensive and easily washable dresses.

2) The "little dress" (petite robe) originally created for sport purposes, is being more and more adopted for general day time wear by all classes of society.

3) While, after a few years of excessive development of masculine modes, more elaborate fashions have returned for formal afternoon and evening wear, the simple "little dresses" have held and very likely will hold their own for every informal occasion of the daily life.

4) The blouse has staged a comeback. It has to look at all times fresh, and washability is one of its main requirements.

5) Silk shirtings of heavier "Toiles de Soie" weaves are strongly coming to the front in European fashion centers, supplanting the somewhat effeminate shirtings made from silk pongees.

"Toile de Soie" constitutes the ideal fabric for these purposes. Its elegant subdued lustre is in line with fashion's tendency towards dull faced fabrics. The simple cut of the "little dress" leaves little opportunity for the expression of feminality, but the all-silk eminently serviceable "Toile de Soie" is made to satisfy the delicate taste of its wearer.

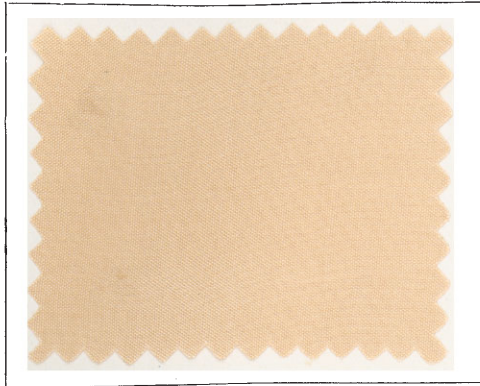
Outside of being practically unshrinkable, and in this direction superior to other fabrics, Toiles de Soie possess over weaves generally sponsored for sports wear, the following advantages:

1) They are less expensive than the better class of silk crepes, and, therefore, are suitable for popular priced dresses.

2) They give service, while low priced and heavily weighted silk crepes are of an ephemeric nature.

3) Light woolens, seen at European seashore and resort places, where temperature

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** 60/2 English spun silk is equivalent to 120/2 English cotton count. Single spun silk yarns are numbered the same as single cotton yarns.



Petite Reine*—Plain



Petite Reine*—Printed



Toile Deauville*

changes between the mid-day and evening hours, are important even in mid-summer, are not equally justified on this side of the Atlantic.

4) Over cotton and linen fabrics they have the appeal of being all-silk.

The French Version of Toile de Soie

Before the war these fabrics were made plain and striped, principally for shirtings. The usual construction consisted of 60/2 spun silk either both ways or 75/2, 60/2 and 42/2 in the warp, the filling being spun silk, sometimes two ply, but mostly spun silk singles, varying according to quality from 50/1 to

* Samples by courtesy Chatillon, Mouly, Roussel, 385 Fifth Ave., New York.

100/1 English spun silk count. While these fabrics had unexcelled washing qualities, they looked rather lifeless and raggy, and for this reason were but little bought in the United States.

During the World War Toile de Soie was adopted by the Allies for airplane cloth (Toile Avion), the warp and filling being 60/2, 36/2, 30/2 and similar spun silk sizes. The guiding reasons for choosing spun silk weaves for airplane wings apparently were the tensile strength and evenness of spun silk, and its resistance to deterioration under varying weather conditions, liable to cause rotting and weakening of fabrics made from vegetable fibers. The stretch of spun silk fabrics under

changing moisture conditions was overcome by applying a suitable varnish to their surface.

In order to get the maximum strength of the cloth, the twists of the component yarns (principally of the filling) were increased over the twists of the yarns used in pre-war shirtings. This resulted in a firm silky touch of the fabric, entirely different from prewar Toile de Soie.

At the close of the war the French Government found itself with a large stock of this airplane cloth, which however was readily absorbed by the French women and used for lingerie, dresses, curtains and various other purposes. After the liquidation of the war stocks, the demand for Toile de Soie persisted, and 100% spun silk weaves of various weights were created to satisfy the different uses.

Among these we mention the most representative constructions, namely, the French creations "Petite Reine" (little queen) and "Toile Deauville," and the Swiss fabric known as "Forta Crepe." In Crefeld and Elberfeld similar weaves are designated either as "Toile de Soie" or simply "Schappeseide."

The table below gives the construction of these representative "Toiles de Soie":

| | Material | Size | Twist | Ends per 1-Inch | Weave |
|------------------------|-----------|-------|------------|-----------------|---------|
| <i>Petite Reine</i> | | | | | |
| Warp..... | Spun Silk | 60/2 | Warp Twist | 108 | Taffeta |
| Filling..... | Spun Silk | 100/1 | 35 turns | 80 | |
| <i>Toile Deauville</i> | | | | | |
| Warp..... | Spun Silk | 60/2 | Warp Twist | 128 | Taffeta |
| Filling..... | Spun Silk | 70/1 | 25 turns | 68 | |
| <i>Forta Crepe</i> | | | | | |
| Warp..... | Spun Silk | 75/2 | Warp Twist | 120 | Taffeta |
| Filling..... | Spun Silk | 84/1 | 50 turns | 92 | |

The principal characteristic of these weaves is the high twist of the filling. While this twist is not of the order of a crepe twist, and the cloth can be woven on an ordinary loom, it is high enough to impart to the fabric a firm silky hand and to avoid the appearance of fuzziness after repeated washings.

Special attention is called to the full hand and silky finish of the samples of French cloth. An all spun silk cloth contains both in

warp and filling a yarn which has been boiled off, practically fully, before spinning. It is clear that such a fabric requires a less energetic treatment in dyeing and finishing than a silk weave containing one way or both ways raw silk, which first has to be boiled off in order to eliminate the gum content. For 100% spun silk weaves the treatment before dyeing should be reduced almost to a scouring process, its object being to clean the fabric from impurities developed during the weaving operations.

"Petite Reine," "Forta Crepe" and similar fabrics are used abroad extensively for lingerie, blouses, day time and sports dresses, and at the fashionable seashore resorts and watering places in Europe one could notice for the last two years that every woman had several little dresses of such materials. "Toile Deauville" is a heavier version created last year principally for men's shirtings, but it proved also very suitable for women's sport dresses.

In addition to the plain Toiles de Soie, excellent washable prints have been produced, and during the last season small Dobby and Jacquard figures have enhanced the silkiness of the cloth. Prints on top of the woven small

figures are the latest development and lend additional life and delicate luster to these fabrics.

"The Washability Test made by Lever Brothers Company, Cambridge, Mass., on December 30th, last, on the 'Petite Reine' fabric illustrated in this article, shows that a fabric using spun silk in both warp and filling is 'excellent' as to shrinkage in both directions. The report states the shrinkage of this

material was 1.1 per cent along the warp and 0.5 per cent gain along the filling, which we graded as excellent in both cases.”

The next article will deal with the usual American versions of Toiles de Soie—silk

broadcloth, sports crepe, spun silk warp Shantungs—and subsequent installments will mention constructions of Toiles made from spun silk in combination with cotton, wool, rayon and Celanese.