

1959

## EC59-419 Fabrics for ....Quality and Beauty

Gerda Petersen

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#59-419

E.C. 59-419

*fabrics, for.....*

## QUALITY and BEAUTY

BY

GERDA PETERSEN

Extension Clothing Specialist

IS IT APPROPRIATE?

ARE THE FINISHES  
PERMANENT?

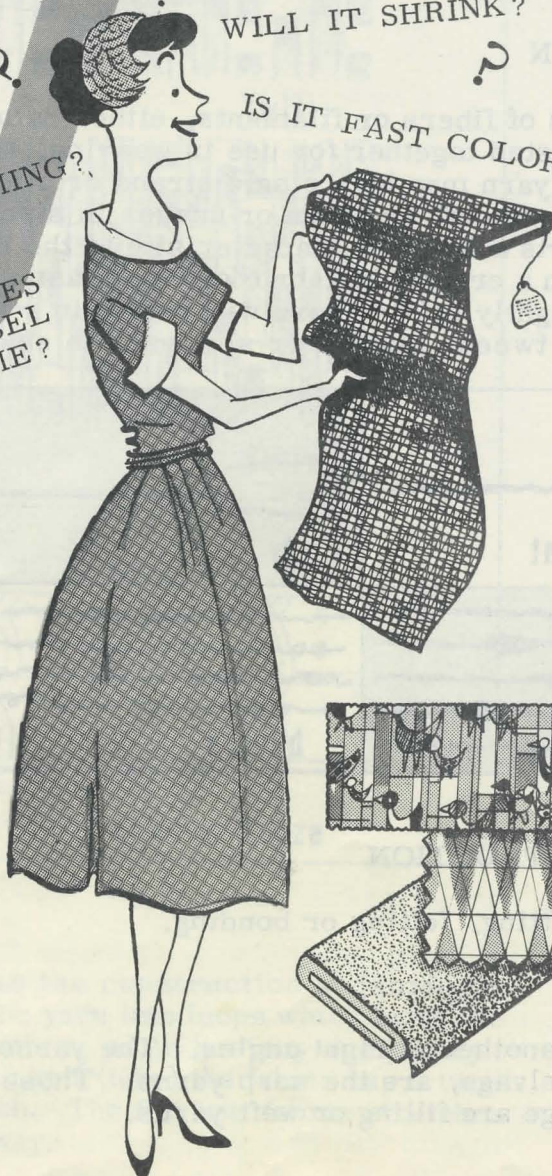
WILL IT WEAR WELL?

WILL IT SHRINK?

IS IT FAST COLOR?

IT BECOMING?

WHAT DOES  
THE LABEL  
TELL ME?



**T**he wise shopper asks herself these questions when selecting a fabric. She looks for satisfactory quality as well as attractive appearance when buying textiles.

Today's stores offer a wide variety of fabrics from which to choose.

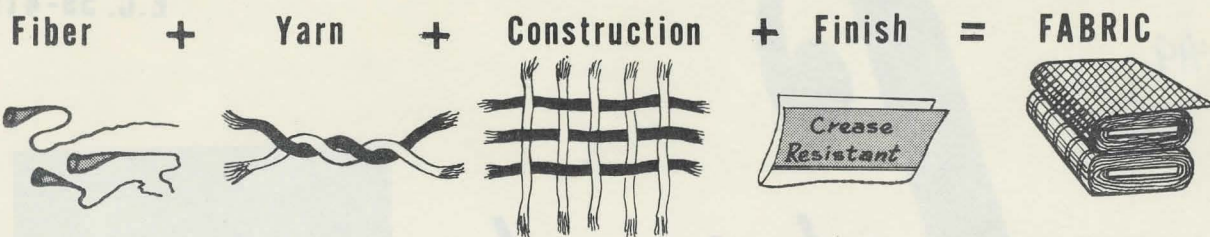
This great variety results from: the numberless ways of changing the character of fibers and yarns; the processes of constructing them into fabrics and finally from the finishing processes which different cloths undergo.

This wide selection of fabrics, although a joy to the woman who sews, brings its problems. It has become more difficult to foresee how these fabrics will respond to everyday wear and care treatment.

Beauty and quality in a fabric depend upon these features:

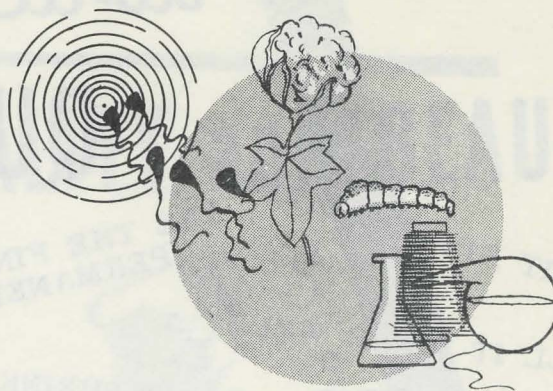
EXTENSION SERVICE  
UNIVERSITY OF NEBRASKA COLLEGE OF AGRICULTURE  
AND U. S. DEPARTMENT OF AGRICULTURE  
COOPERATING  
E. F. FROLIK, DEAN      E. W. JANIKE, DIRECTOR





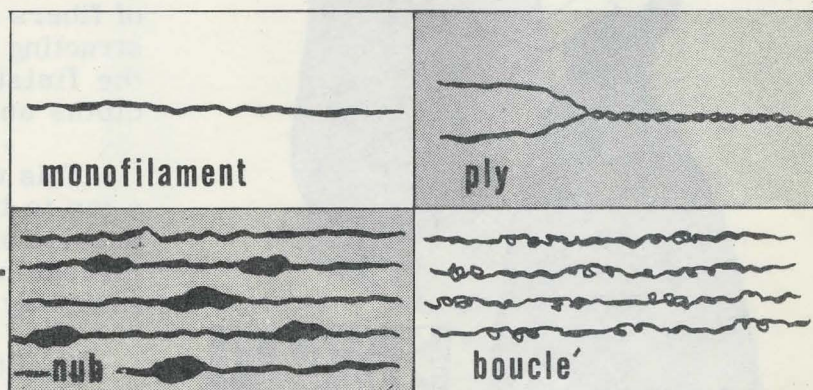
## FIBER

Raw fiber is the starting point of all fabric, whether natural or man-made. Natural fibers may come from: a plant, as cotton and linen; the cocoon of the silk worm; or animal hair. Man-made fibers are a result of research. From the chemistry tube come many forms and varieties of fibers including rayon, nylon, Dacron and many others.



## YARN

Yarn is made up of one or more strands of fibers or filaments, either natural or man-made, which have been grouped or twisted together for use in weaving, knitting or other methods of fabric construction. A yarn may be a single strand or plied (two or more strands); tightly or loosely twisted; smooth and even or uneven in size; definitely nubby; small or large. Each type imparts a different characteristic to the fabric. For example, a highly twisted yarn results in a crepe-like fabric of high elasticity and greater resistance to wrinkling. A very slightly twisted yarn will result in a smooth textured fabric. A nubby yarn is used in tweed, uneven or slub yarn in shantung.



## FABRIC CONSTRUCTION

Most fabrics are made by weaving, knitting, felting or bonding.

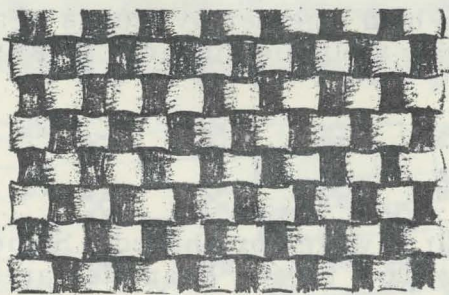
### Weaves

In weaving, one set of yarns interlaces another at right angles. The yarns which run the length of the fabric, parallel to the selvage, are the warp yarns. Those which run across the fabric, from selvage to selvage are filling or weft yarns.

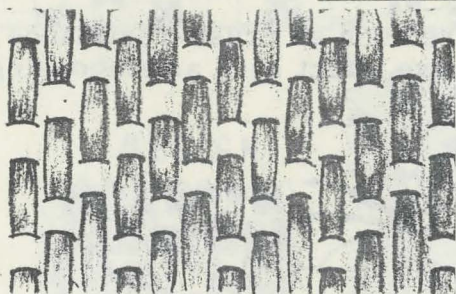


The three basic weaves are: plain, twill and satin. From these three basic weaves many variations are obtained.

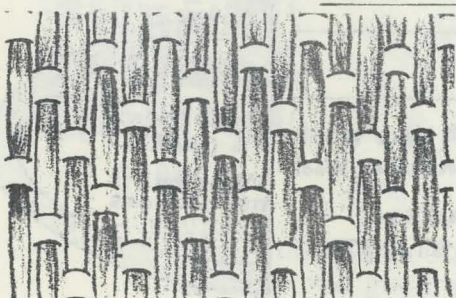
## WEAVES...



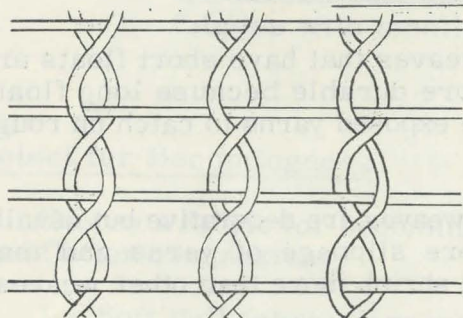
Plain



Twill



Satin



Leno or Gauze

Filling threads pass over one warp thread and under the next.

Variations are rib and basket weaves.

Filling threads are interlaced with warp in such a way as to form diagonal ridges or ribs.

A variation is herringbone twill.

More warp than filling yarns are exposed to the surface in long floats, giving a lengthwise sheen. If more filling than warp threads are exposed to the surface in long floats it is called a sateen weave and produces a crosswise sheen.

Other weaves are:

1. Jacquard - usually a combination of two or more basic weaves and results in an intricate design such as damask.

2. Pile - an extra set of yarns is used with a basic weave to make soft looped yarns (pile) on one or both surfaces of the material. An example is terry cloth. Velvet is an example of cup pile.

3. Dobby - an attachment is used with a basic weave to produce small designs as huck-a-back.

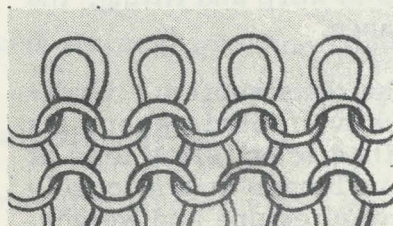
4. Leno or gauze - adjacent warp yarns are twisted around each other, usually in pairs as in marquisette or mosquito netting.

5. Double cloth - made from two sets of warp and two sets of filling yarns with an extra set of either warp or filling yarn that binds the two together, as fabrics used for some coats and blankets.

6. Some decorative surface weaves are spot and dot; swivel; lappet.

## Knitting

Knitting is the construction of fabric by forming the yarn into loops which hang one upon the other, as in hosiery and jersey. In circular knit (tube) the fabric has a two-way stretch. The flat knit fabric stretches only one way.



CIRCULAR  
KNIT



## Felting & Bonding

Felting is a process using heat, pressure and moisture on wool which causes the fibers to adhere to each other.

Bonding is a process by which a web of short fibers are held together by means of a plastic binder. Two layers of cloth may be held together by a plastic binder. This is called laminating.

## FINISHES

Finishes contribute special features to the cloth after it is woven or knitted. Some finishes are basic and fabric would not be suitable to sell without them. Examples are: pressing, calendering, napping, brushing.

Some functional finishes contribute a special feature such as crush-resistance, water repellency. Finishes may also produce a decorative effect such as embossing and printing.

## FABRIC SELECTION

### Select for Wear & Care Satisfaction

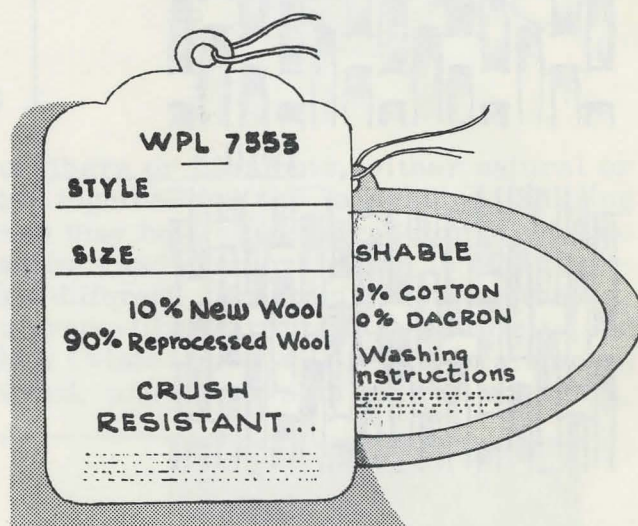
1. Read the labels. A good label should tell you these things:

- a. fiber content
- b. finishes used, as crush resistance, water repellency, etc.
- c. whether the fabric has been pre-shrunk
- d. whether it is color fast to light, to crocking, to laundry, etc. (vat dye usually results in fast colors)

2. Consider the up-keep. Will it need to be pressed frequently? Will it soil easily? Will it need to be dry cleaned or can it be laundered? (It is important to follow instructions that are given on the label in regard to the care of the fabric.)

3. Examine the yarn. The quality of the fiber, the way it is spun, the ply of the yarn and the twist have a great deal to do with the wearing quality. Warp yarns should be stronger and usually more tightly twisted. A good balance of yarns is also desirable. If there is not more than a difference of ten yarns in warp and filling, the fabric has good balance.

4. Consider the construction. Ordinarily, a closely woven fabric keeps its shape better, shrinks less, slips less at the seams and wears longer than a loosely woven cloth of similar texture and weight.



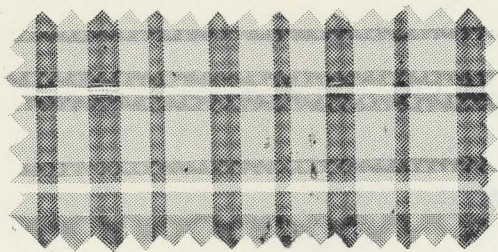
Satin weaves that have short floats are usually more durable because long floats leave more exposed yarns to catch on rough objects.

Basket weaves are decorative but usually permit more slippage of yarns and may stretch and shrink more than other weaves.

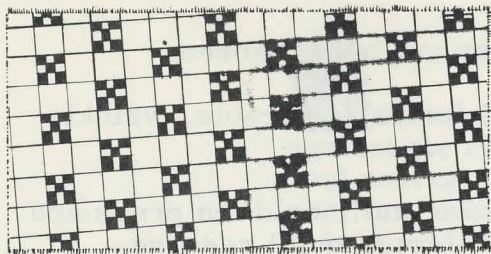
Twill weaves are usually more durable and make fabrics closer in texture, heavier and stronger than a plain weave.

Knitted garments will cling to the body, yet give as the body moves. They are comfortable and don't wrinkle easily. Fabrics that are firmly and evenly knitted hold their shape. If the knit loops are round and relaxed rather than long and stretched the garment will shrink less when laundered.

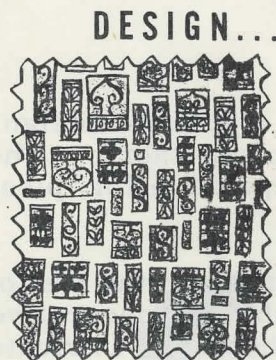




**WOVEN PLAID....**



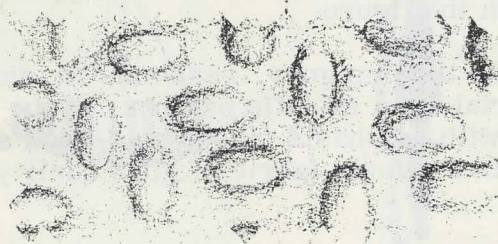
**PRINTED (crooked)**



**GOOD**



**POOR**



5. Consider the decorative pattern in fabrics. These patterns may be produced by weaving, printing, embossing or embroidering.

a. Woven patterns are permanent. Since they are yarn or stock-dyed they are likely to have better color fastness than printed designs.

b. Most printed patterns are produced by roller printing. These designs should be printed straight on the grain of the fabric. The designs motifs should have artistic qualities. That is, the motifs should be well proportioned and be harmonious in idea, shape and color. Spotty effects or motifs that closely resemble real objects are not good design.

c. Embossed patterns may or may not be permanent. Check labels for any information on their care. Some home bleaches may yellow white embossed fabrics. Pressing with moist heat may remove the pattern in the less permanent embossed fabrics.

d. Embroidered designs are added to the woven cloth by means of a special machine. In good qualities the background material is made of fine yarns, firmly woven, the stitches are short and fine, resembling handwork; and the thread ends on the wrong side are trimmed off. Eyelet embroidered fabrics with small open areas wear better and are easier to iron.

### Select for Becomingness

Choose a fabric for becomingness; that is, to create illusions, express personality and flatter complexions.

1. Soft dull fabrics appear to reduce size while stiff lustrous fabrics appear to increase size.
2. Heavy, bulky fabrics add the appearance of weight to a figure.
3. Vertical stripes (except widely spaced stripes) give the illusion of height and slenderness.
4. Plaids are best for the average or tall slender person.
5. Small prints add variety to a wardrobe and have no effect on size. They produce a quiet effect.



6. Large bold prints are for the tall slender person with a dramatic personality.
7. Shiny fabrics emphasize lines and flaws in the skin, while dull textures temper lines in the face.
8. Delicate fabrics are worn best with fine textured skin.

### Select for Appropriateness

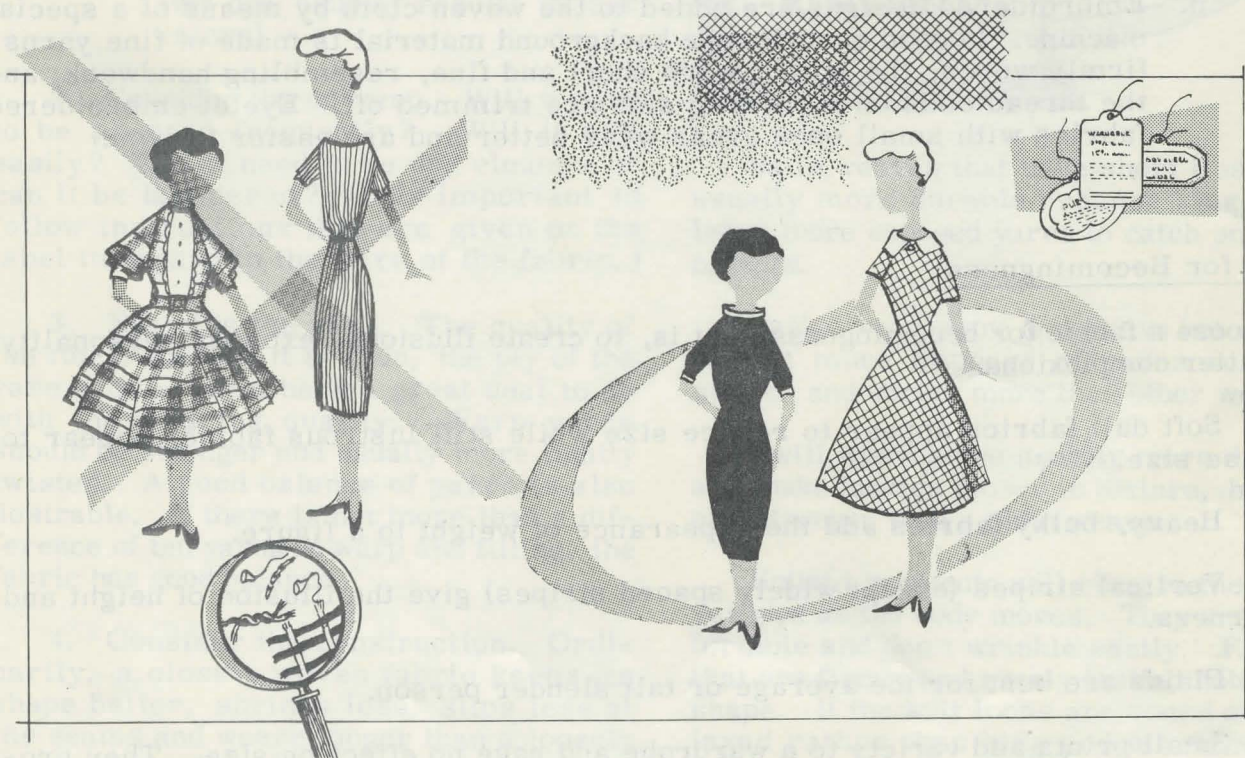
Fabrics should be suited to the occasion for which they are being chosen.

1. Sports-wear suggests materials that will be comfortable, durable, wrinkle-resistant, and easily cared for.
2. Business or street wear requires fabrics that tailor well, hold the press and resist wrinkling. Any fabric decoration should give an effect of quiet reserve.
3. Dressy occasions are expressed by fabrics that are lustrous, sheer, crisp, elegant, dramatic. They may have elaborate surface decoration.

### Select for a Specific Design

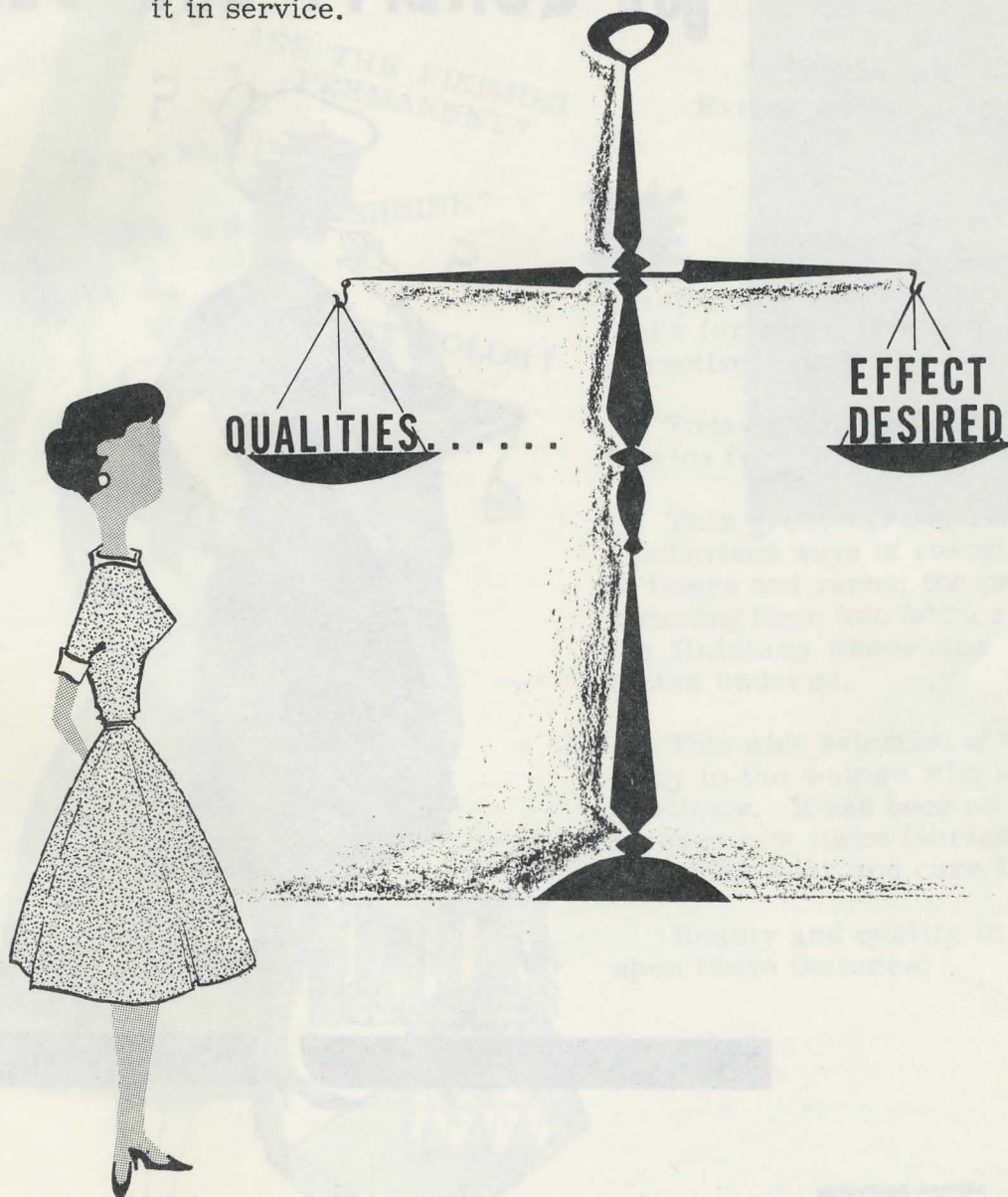
The hand of the fabric is important when selecting a fabric for a specific design. The term, hand, is used to cover the feel, body, weight, and fall of the fabric. The trained eye of a designer is responsive to textures or stuffs that drape or tailor; pleat or ruffle; cling or stand away from the figure.

The homemaker who sews, like the designer, responds to textures and the feel of new fabrics when she selects material for a specific pattern. If the fabric is decorative a simple design should be chosen with emphasis placed on a good silhouette. Intricate design details are more effective in a simple fabric of good quality.





**A**s you choose your fabric, weigh all the qualities of the fabric against the effect you want to achieve in your finished garment. The real cost of a fabric should be figured in terms of how well it looks in use, how soon it must be replaced and the cost of cleaning or keeping it in service.





**Fabrics**

**for QUALITY and BEAUTY**

