

Granite-Weaves.

Under this system of weaves we classify small broken-up effects, which are derived from the foundation weaves in various ways.

Amongst the effects most frequently used we find those that are derived from the satin-weaves.

Weaves Fig. 1, 2 and 3, derived from 8-leaf satin, shown by . (dot) in the lower left hand square in each weave.

The adding spots, in order to produce "Granite effect" in the fabric, are in each of the 3 weaves shown by x type.

In weave Fig. 1 three of these x type-effects are added to each satin spot;

- One on top of each satin spot.
- One on the side of each satin spot.
- One in an oblique direction to each spot.

The other 3 repeats shown in full black give full data as to effect produced by this weave. This effect "squares—i. e. dots" distributed over the surface of the fabric, will show a neat broken-up effect—more so if this class of weaves are used with worsted yarn. Repeat of weave 8×8 .

These granite effects are also used in ladies' costume cloth, although, their use refers more to men's wear.

In weave Fig. 2, three of these spots are placed

- One on top of each satin spot.
- One on the right hand side of each satin spot.
- One on the left side of each satin spot.

The 3 repeats filled in full black clearly show the effect produced in the fabric they are used for. Repeat of weave 8×8 .

In weave Fig. 3, four of these spots are added to each satin spot.

- One on the top of each satin spot.
- One on the bottom of each satin spot.
- One on the right hand side of each satin spot.
- One on the left hand side of each satin spot.

The 3 repeats of the weave, shown in full black type, show clearly the effect these systems of weaves produce upon the face of the fabric they are used. Repeat of weave 8×8 .

Weaves Fig. 4, 5 and 6 have for their foundation the 9-leaf satin shown by . (dot) type in the lower left hand square in each weave.

In weave Fig. 4, three spots are added as shown by x type. The effect produced in the fabric will readily be seen from the 3 repeats shown by black squares. Repeat of weave 9×9 .

In weave Fig. 5, four spots are added as shown by x type. The effect produced in the fabric will be readily seen from the 3 repeats, shown by the black squares. Repeat of weave 9×9 .

In weave Fig. 6, four spots are added, as shown by x type. The pronounced twill effect produced will be readily seen in the three filled-up repeats. Repeat of weave 9×9 .

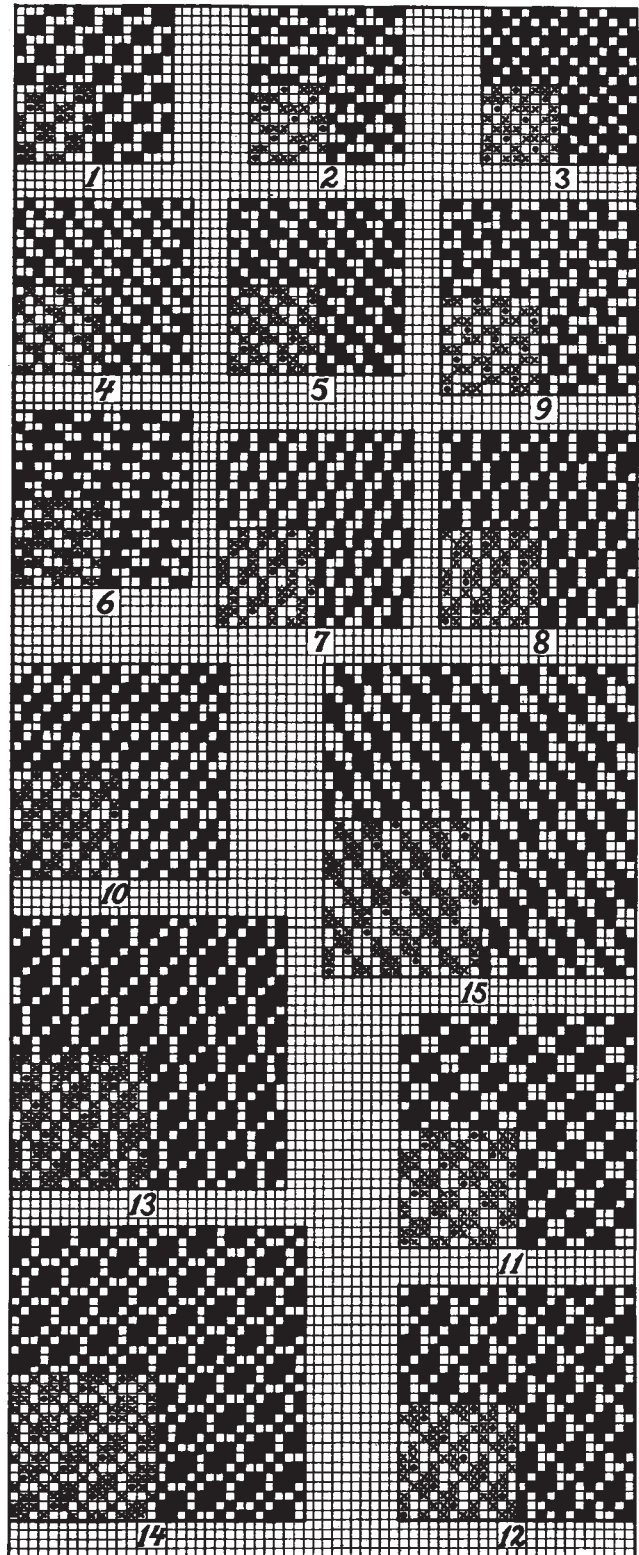
In weave Fig. 7, four spots are added, as shown by x type used. The pronounced broken-up effect will be readily seen in the three filled-up repeats. Repeat of weave 9×9 .

Weaves Figs. 8 and 9 have for their foundation, the 10×10 satin weave.

In weave Fig. 8, five spots have been added as shown by x type used. The resultant weave shows what we may call a balanced i. e. well broken up

effect, the twill effect in the weave running in both directions. Repeat of weave 10×10 .

In weave Fig. 9, four spots have been added as shown by x type used. Repeat of weave 10×10 .



Weave Fig. 10 is based upon the 11×11 satin weave, adding 5 spots—see x type—to each spot (see . type in weave), found in the original satin weave. The effect produced shows a well broken up twill effect. Repeat of weave 11×11 .

Weave Fig. 11 is based upon the 12×12 satin weave, adding 6 spots — see x type, to each spot (see . type in weave) found in the original satin weave. The weave shows a well broken up granite effect. Repeat of weave 12×12 .

Weave Fig. 12 is also based upon the 12×12 satin weave, adding 6 spots — see x type, to each spot (see . type in weave) found in the original satin weave. The new weave running its filling effect in one — its warp effect in the other, thus resulting in well balanced effect in the construction of a new fabric where it may be used with advantage.

Weave Fig. 13 is based upon the 14×14 satin weave, adding 8 spots — see x type, to each spot (see . type in weave) found in the original satin weave.

Weave Fig. 14 is based upon the 15×15 satin weave, adding 8 spots — see x, to each spot (see . type in weave) found in the original satin weave.

Weave Fig. 15 is based upon the 16×16 satin weave, adding 7 spots — see x, to each spot (see . type in weave) found in the original satin weave.

Loading and Filling in Silk Fabrics.

The practice of adding to the weight of silk goods in the dyeing and finishing operations has become so common, that it is necessary, in silk cloth analysis, to ascertain the amount of fibre present and the amount and character of the loading material.

DETERMINATION OF ADULTERATION AND FILLING.

PHYSICAL EXAMINATION.

Whether a fabric loaded or filled on one side or impregnated will be detectable at once. — Goods containing such loading agents as starch will be recognized, as such fabrics, if rubbed between the fingers, will lose their stiffness. By the aid of a magnifying glass it can be ascertained whether the covering of filling is merely superficial or penetrates the cloth.

DETERMINATION OF MOISTURE.

1. Weigh a suitable size of cloth in grains.
2. (a) Place the sample for about half an hour in drying oven.
- (b) Place the sample in a desiccator to cool down.
- (c) Weigh the sample in grains.

The difference between the first and final weighings indicates the amount of moisture. When the difference is more than the standard regain of moisture, a degree of loading may be suspected, since loading agents possess great hygroscopic properties.

DETERMINATION OF EXTRANEOUS SUBSTANCES.

Test 1. 1 and 2 as in determination for moisture. 3. Expel the extraneous substances and ascertain the absolute dry weight of the pattern by:—

- (a) Treating the sample at boiling heat with malt extract.
- (b) Rinse thoroughly in several changes of water.
- (c) Dry in oven and cool in desiccator.
- (d) Weigh in grains.

The difference between the weights of 2 and 3 indicates the amount of extraneous matter. As a few insolubles may remain, the sample is boiled for a short time in dilute acid and re-weighed after drying.

Test 2. As in Test 1 employing a 5 per cent solution of ammonia in place of malt extract and boiling for half an hour.

Dyeing of Feathers.

The garment dyer has a very wide choice of colors to select from for the feather trade. As a general rule, his work is limited to the dyeing of worn white feathers, or the re-dyeing of feathers a color other than that originally applied upon them. For new feathers, or feathers not previously dyed, excellent results are obtained by dyeing the well-washed feathers with an addition of from two to five per cent sulphuric acid in the dye-bath, and work at the boil with an addition of the following dyestuffs:

- Acid Yellow A T
- Acid Green Extra Concentrated
- Acid Magenta

For a very deep reddish brown, a mixture of: Rocceline, Azo Wool Violet 7 R and Cyanole Extra.

For Brown: Wool Brown 1963 J

For Medium Blue: Alizarine Cyanole E F

For Full Navy Blue: Azo Fast Blue B, Patented

For Cardinal: Azo Rubine A

For Orange: Orange Extra

For Clear Light Blue: Cyanole F F

For Pink: Rhodamine B

For Deep Bluish Pink, a mixture of: Rhodamine B and Acid Magenta

For a Bright Yellowish Green, a mixture of: Acid Green Extra Concentrated and China Yellow B

Blacks are best obtained with either Naphthylamine Black 6 B or 4 B, and Feather Black G S. A good, very rich black is obtained by using eight per cent of either of the above blacks, calculated on the weight of the feathers. Garment dyers, as a general rule, do not weigh the feathers they dye, but this is a mistake. If feathers are first weighed and the quantities of dyestuff carefully calculated and weighed constantly, uniform results are always to be expected.

For very light shades, or tints, ostrich feathers are conveniently dyed by adding the dyestuff to a thin starch solution, using either oxalic acid or acetic acid as an assistant.

Fancy tip feathers, or feathers dyed two or more colors, are done either by dipping, wrapping the portion of the feather not to be colored so as to protect it from the dye-bath and splashing, or by brushing or sponging the dye solution on the flues. By using a conical steamer, double-covered with duck or other cotton fabric, and spreading the wetted flues carefully over it, and applying the dye solution first weak and afterwards stronger, beautiful effects are to be obtained. This method of coloring the flues of ostrich feathers requires considerable care and patience, time more than anything else being the important factor.

To Ascertain Weighting Materials Used.

The estimation of the mineral matter is of especial importance in the examination of such fabrics as:

WATERPROOF RAINCLOTHS (aluminium, magnesium and metallic oxides).

WINDOW SHADE CLOTHS (Hollands) (prussian blue, ultramarine, ochre and other pigments).

BOOKBINDERS' CLOTHS (gypsum and dye-lakes).

FIREPROOF CLOTHS (sodium-biborate, -silicate, -tungstate; phosphates).

HEAVY WEIGHTED SILKS (tin, iron, etc.).

SIGN CLOTHS (calcium acetate, alum, water glass, lead, etc.).

FABRICS USED FOR FLOUR AND SALT BAGS (kaolin, talc, gypsum, etc.).