FABRIC ANALYSIS.

Richly Illustrated.

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The analysis of textile fabrics forms an interesting and at the same time most important subject for the designer, superintendent, manufacturer, the sales agent, as well as others connected with the textile industry.

The object aimed at is to ascertain by experience, tests and calculations, full details as to the construction and characteristics of a fabric, cost of its production, etc., items which, if carefully solved, mean success.

A complete fabric analysis comprises not only the picking out of the arrangement of interlacing warp and filling (the weave) but also ascertaining the nature of the materials the latter are composed of, their texture, quality, counts and twist of yarn used, weight of fabric per yard and amount for each different kind of yarn used in the construction of the fabric; also the various processes commonly designated as dyeing and finishing the fabric has to be subjected to, to bring it into saleable condition for the market.

This complete analysis referred to may not always be necessary, in fact the experienced designer, in his line of goods, may rely very frequently on his experience only—having made similar fabrics before—and in most instances can tell at a glance the construction and average cost of fabric. Such men, however, are few, and again even such men will come in contact with fabrics not as well acquainted with; the mill may change on a different class of goods, again a designer may change his connection to a mill making a different class of goods he has been accustomed to, features which may compel him to make at least a part if not the complete analysis.

A thorough knowledge of weave-formation and fabric-structure will greatly simplify the work of the analyst. Not only will he become convinced that his pick-out is correct, but for instance, the harder a weave takes-up the filling, *i. e.*, the closer the interlacing, the stronger the warp-yarn must be, both as to quality of stock as well as twist.

We will now in turn take up the various divisions of a complete analysis, with rules and practical examples.