

### VAT BLUE ON COTTON YARN.

An old oil barrel that has been cleaned may be used as the vat for cotton yarn. It must be 59 inches high and 39½ inches in diameter. The barrel is filled with cold water to which is added the solution of 5 lbs. 8½ ozs. sulphate of iron and 8 lbs. 13 ozs. burned lime, after which the whole is stirred. Then 4 lbs. 6½ ozs. Bengal or Java indigo are ground with water in the mill into a fine sediment, and to this aqueous mass is added the solution of 13 lbs. 3½ ozs. sulphate of iron and 8 kilog. burned lime. This is to be stirred until the liquor has assumed a yellow color, and when this is reached the mass is stirred while being poured into the vat barrel, then stirred again, and left standing. The bath has clarified and is of a nice green yellow color in about 6 hours, and may then be used at once for dyeing, entering with the well moistened yarn, and drawing about the yarn until the desired shade is obtained. Cotton yarn dye houses, which make a specialty of vat colors, generally keep on hand from 6 to 8 such vats of different ages and percentage of indigo. They are distinguished by being called weak and strong vats, light shades being dyed in weak vats, while dark shades are started in them and dyed to shade in the strong vats. The more the yarn is drawn about in a weak vat, the faster will be its color. A vat prepared according to the above recipe will dyelight blue on 220½ to 330.7 lbs. cotton. The principal requirement in vat dyeing is that the indigo is very finely ground, because it will exert its full strength only in a highly reduced state. The longer indigo is ground the more can its power of dyeing be called upon, in fact all the saving in indigo dyeing lies in the grinding of the pigment. The most highly recommended bottoms for vat blue on cotton yarn, as also the most highly praised tops, cannot replace pure vat blue. The blue tone of cotton dyed in the vat is an entirely characteristic one, and without exception has never yet been rivaled by an artificial dyestuff, although there are different dyestuffs that dye a shade similar to indigo, but without producing all the peculiarities of the latter. Nor are these dyestuffs as fast as indigo, and for this reason it will remain indispensable for dyeing certain articles.

### THE INGRAIN CARPET TRADE.

An American paper having spoken of the prospects of shipping American made Ingrain carpets to England, the *Textile Mercury* made this comment: "The Ingrain or Kidderminster carpet in this country is permanently dead. It is not likely to be revived by Americans or others. Jute Brussels and other cheap goods, such as oil cloth and the lower grades of linoleum, have killed the Ingrain trade."

Upon this a correspondent writes as follows from Philadelphia to the *Carpet and Upholstery Trade Review*:

"Word comes to us from across the water that the

Ingrain carpet industry, on account of the close competition of the lower grades of Tapestry and Brussels carpets, is almost destroyed. This may be true of the English Ingrain industry, but it will not apply on this side of the water. The fact is that, so far as American Ingrains are concerned, the demand for them was never greater than now. I am not aware to what extent Ingrain carpets in England have been improved during the past eight or ten years, but in the United States new weaves have followed each other in such rapid succession that they have brought the extra Ingrain carpets to such perfection that they do not fear the competition of low grades of Tapestries or Brussels. At one time, and perhaps now, among the English manufacturers not more than two colors could be introduced into an Ingrain carpet without producing stripes, which destroyed the wrong side of the carpet and interfered with the symmetry of the design on the right side. Now new weaves have been invented which not only permit the introduction of any number of colors without interfering with the symmetry of the designs, but also unite the two webs perfectly, so that the Ingrain is no longer a two-ply carpet, but one solid mass. These new weaves make it possible to produce perfect Brussels effects, not only in the designs, but in the shading of the colors. Now, taking all these improvements into consideration, and the fact that a first-class American Extra Ingrain will wear better than any Tapestry or Brussels carpet which can be sold low enough to compete with them in price, I do not see that there is any reason for believing that the good old Ingrain carpet is on the decline. In fact it is on the forward move, for we are not yet done with improving it. A few months ago the popular taste was much in favor of very small figures in carpets, not only for small rooms but for large also. Self color effects were much called for, and they appeared first in Body Brussels carpets. It was not long, however, before the new weaves enabled the Ingrain manufacturers to produce precisely the same effects in their goods, so that laid side by side in adjoining rooms no one but an expert could tell which was Brussels and which was Ingrain."

The strike of burlap and jute carpet weavers in Dundee, which took place in August, was ended early in September by the weavers returning to work at the former wages. It was shown them very clearly that, owing to the close competition between Dundee and Calcutta, it was impossible to advance wages, and the workers, therefore, concluded that they had better work on and wait for a peaceable change in the conditions of the business. The strikers in the Ingrain carpet trade in Philadelphia came off somewhat better. Before the end of August it became evident to the leading mill owners that looms must be started, and one after another began to compromise with the hands. They have gained this advantage that their present schedule gives them an advance of 7½ per cent. on extra supers, and the mills generally are running full time in Philadelphia, the chief centre of this trade.