

Textiles.

TEXTILES IN GERMANY.

Of the two following paragraphs, the former is from *Kuhlow's German Trade Review*, Berlin, Nov. 17th; and the latter from the same journal, Nov. 24th. The italics are our own: we direct attention to the importance of American purchases of German goods:

THE CHEMNITZ WOVEN GOODS TRADE.

The hosiery business is brisker owing to the arrival of many buyers, *especially from the United States*, who have given considerable commissions. Prices are as a consequence very firm. The qualities made of simple yarns are largely bought because of their cheapness, while a good deal is sold in medium fine 2-fold 30 goods.—Commissions come to hand here and there in gloves, but this branch is not so busy as the above. A general improvement cannot be reported. Only a few manufactories are fully employed. More life has been infused in the petinet goods branch, manufacturers having enough to do and having no need to work to stock any longer. For the German and French trade there is plenty doing in pure silk goods, but the work is not easy, requiring great skill and accuracy. The inquiry for the very expensive goods is limited.—There is quietness in the tricot stuff branch, and the competition of Berlin is very perceptible. It is to the disadvantage of the Chemnitz trade that less wages are paid in Berlin; nevertheless Chemnitz manufacturers are not disposed to make any reduction in the present rates, which are not by any means excessive.

THE SAXON TEXTILE INDUSTRIES.

These industries have on the whole been very satisfactorily circumstanced during the last few weeks. *A considerable increase has taken place in the exports to the United States* and prices have also experienced an improvement. Spinning, weaving, dyeing, wool-printing, and finishing works have all had good employment, while the Apolda knitting industry has been very busy. Greiz and Gera combed wool weaving works have been compelled to give part of their commissions to surrounding places, so great has been their extent. The Vogtland embroidery and hand weaving industries also report satisfactory employment. The hosiery trade has kept very brisk of late owing in part to the presence of foreign buyers. The exports to North America have especially been large. The glove trade can scarcely report better circumstances, the sale being slack and prices very low. The machine embroidery trade is looking up, Plauen embroiderers being kept particularly busy by American commissions. Complaints of low prices are, however, universal. It is predicted by those who profess to understand the ins and outs of fashion that laces will, with beads, play an important role next summer as trimming for ladies' dress. It is to be hoped that the prophecy will prove correct. The furniture stuff, curtain, and carpet industries of the Chemnitz district have revived somewhat. *Formerly the fine jute yarn used was obtained from England, but a manufactory of fine yarns has been established at Brandenburg, and thus some orders which used to go to England remain at home.* The Zwickau sailcloth manufactory is unable to report good sales, as the shipping trade is very depressed so far as sailing vessels are concerned.

FAST TURKEY RED UPON COTTON.

(Wool and Textile Fabrics.)

We to-day present to the reader a simple process of dyeing a fast Turkey red upon cotton yarn. We emphasize the word simple, because this process, while giving fast colors (that is which fully resist both the action of soap and of chlorine

water) of a remarkable brilliancy, works far more rapidly than those ordinarily employed at present. The pigment employed is artificial alizarine. The artificial alizarine of commerce is a yellowish liquid, of 20 per cent. concentration. This liquid when left to stand for a few hours separates into two parts; in colorless fluid and in an opaque powder of a dirty yellow color, which precipitates. It is essential, therefore, before using this pigment, to mix it well together by shaking the bottles in which it is inclosed. Alizarine is soluble in hot water, and, in common with madder, it contains three different coloring principles:—1. Pure alizarine, which, in dyeing gives a violet or bluish red. 2. Anthrapurpurine, which imparts the blood red. 3. Flavopurpurine, which produces the yellowish reds. The different commercial brands are based upon the greater or smaller percentage of any one of these three principles.

Turkey red dyeing comprises different operations, such as boiling off, oiling, steaming, aluming, dyeing proper, and brightening. The object of boiling off is to scour the cotton of fatty matter and any impurities it may contain. It is permitted to boil for three or four hours, under a pressure of two atmospheres, in specially adapted boilers with soda lye of 2° B. When the yarn has been boiled well it is withdrawn from the boiler, drained, and cooled, after which it is carefully washed in running water. It is then dried, either in open air or in hot chambers. The oiling is then proceeded with.

The Oiling.—This is the most important operation in Turkey red dyeing, because it imparts the fastness and the brilliancy of the color. Thanks to a special preparation of oils of the Badische Anilin und Soda Fabrik, this is very simple. The bath is composed of one part Turkey red oil and fifteen parts water. The mixture, which must be cold, is well stirred, after which the yarn is entered and handled for one-quarter hour. It is then wrung, and dried for about twelve hours in a drying chamber, the temperature of which is maintained at 70° C. (158° Fahrenheit.) One single passage in this oil bath is not sufficient, and the operation is repeated from two to seven times, according to the shade of red desired. The oftener the yarn is submitted to this operation, the greater is the beauty and fastness of the color. It is indispensable to dry the cotton after every passage. The oil baths must be preserved, as they can always be used for future operations.

The Steaming.—The object of this operation is for the purpose of scouring the cotton, that is, of withdrawing the portion of oil which has not become fixed upon the fibre. The operation is performed in boilers similar to those employed for boiling off. They are filled with a proper amount of water, the yarn is then entered, left to boil under the pressure of one and one-half or two atmospheres, for one-half hour. It is withdrawn, drained, and cooled, after which it is washed in running water. It is now ready to be alumed.

For ordinary red, it is not necessary to steam after the first oil bath; the yarn may be passed in the alum bath immediately after drying. This alum bath is prepared by dissolving in 100 litres (105.7 quarts) of hot water, 5 kilograms (11 lb.) of very pure alum. When dissolved 1 kilogram, 800 grams (4 lbs.) of crystal soda are added. The yarn is entered and left in this for from 6 to 12 hours, after which it is withdrawn and wrung. It is then passed for 10 to 15 minutes in a bath containing 9 to 13 lbs. of chalk for each 100 litres water, and heated to 50° C. (122° Fahrenheit). The yarn, after having been washed in running water, is now ready for the process of dyeing.

The alum bath can be replaced by an acetate of alumina bath of from 6° to 8° B., and is composed of equal parts of alum and acetate of lead. The yarn is then wrung, dried in a drying chamber of 60° C. (140° Fahrenheit), and the subsequent treatment is as above specified. We next come to the actual Turkey red dyeing.

For 100 kilograms (220½ lbs.) yarn, prepare a dye bath, in the necessary quantity of water of 10 kilograms (22 lbs.) of 20 per cent. alizarine; 6 kilograms (13 lbs. 3½ ozs.) Turkey red