

### HEMOLIN.

The dyestuff known as Hemolin has now been on the market long enough to show its value and to allow the promise of its still greater success. It consists of a dry powder, easily soluble in cold water and very easily soluble in hot, without appreciable residue. This property classes it, so far as convenience in use is concerned, among the anilin colors. It contains the coloring matter of the logwood in a purer and more concentrated form than logwood extracts.

The ordinary liquid extract of logwood is, as every dyer knows, an essentially "nasty" article. It is thick, viscous and sticky, not easy to weigh out accurately, loss usually occurring during the operation. The barrels cannot be entirely emptied with ease. Extremes of heat and cold affect it injuriously, and, on slight provocation, it passes into fermentation. It is often adulterated to the last degree of endurance. The barrels are liable to leak. The extracts rarely dissolve clear in cold water, and the hot solutions in cooling often deposit a large amount of "muck." They are of very variable composition, some containing a good deal of tannin matter, some highly oxidized, some giving pure shades, while others give dull tones. Hence it is hard to say how an extract will work until considerable experimenting has been done.

The so-called solid extracts are really like thick pitch. They are slow to dissolve in hot water and are practically insoluble in cold water. The adulteration of the so-called solid logwood extract seems to be carried still further than in the case of the extract, for adulterations are less easily noticed in a solid than in a liquid extract. The use of chip, or cured logwood, has so greatly diminished of late years, that the industry may be considered as waning. The great bulk of the chip wood is against the use of it, as is also its extremely variable tinctorial power. The extraction of the chips by the dyer is tedious and wasteful.

The appearance of a dyestuff which contains the coloring matter of logwood, in the form of a dry powder, which is not affected by heat, cold or moisture, and which can be accurately weighed out, marks a decided advance in the technology of logwood. Hemolin is quite free from resinous matter, does not ferment and presents no opportunity for loss in shipping and handling. Its great strength is shown by the fact that 200 or 300 pounds Hemolin will do more and better work than a ton of cured or chip logwood.

The stability of Hemolin towards light has been put to severe test. The results show better than logwood extract dyeings; dyeings with chip wood are about equal to it.

The process of dyeing Hemolin is much simpler and less tedious than with the extracts and chips.

In ordinary black dyeing on wool, the wool is mordanted as usual with chrome, chrome and tartar, etc., and dyed in a bath of 8 per cent. If a jet black is desired, small amounts of red and yellow coloring matters are added. To get the fullest bloom in dyeing Hemolin on wool, a small amount of acetic acid should be added to the dye bath. To get a jet black without the trouble of mixing, Hemolin X X may be used. For lighter blues, Hemolin X S in smaller percentages gives better results than logwood extract. Many excellent shades and tones of color can be obtained with mixtures of Hemolin and anilins.

When it is desired to get a full black on unmordanted wool, Hemolin 4,300 is the best grade. To dye wool black with this, it is not necessary to mordant it. The color is dissolved in water, and the unmordanted wool, or woollen goods, are boiled in the solution. The black develops rapidly. It has a fine and full body, and its production is quick and economical.

In dyeing with bluestone, soda ash running kettle, Hemolin gives excellent results, and a decided saving of time is reported by dyers in serving the kettle, owing to the greater ease and quickness of handling the powdered Hemolin over the sticky extract. The kettle is prepared with Hemolin X O, bluestone and soda ash, and served with these substances as required.

To produce a cheap iron black on cotton the goods are mordanted in acetate of iron, fixed with lime water, washed and dyed with Hemolin X S. Only 5 per cent. of the dye is required to

develop a black. The addition of a little Morin Yellow gives a jet black.

Excellent slates are dyed on cotton by padding the goods in a weak solution of Hemolin X S, and then passing through a solution of copperas.

To speck-dye mixed goods of cotton and wool, they are mordanted with chrome and tartar, and dyed with Hemolin X S. This dyes the wool. To dye the cotton, the goods are next dyed with Hemolin X O, using bluestone and soda ash as mordants. In this way a handsome and fast cotton black is obtained.

Cotton piece goods are dyed black with Hemolin X S by padding in a weak alkaline solution of bluestone, then chromed, after which it is dried on the hot cans, sized and finished in the usual way. Or they may be padded in an acetic acid solution of Hemolin, dried, chromed and finished.

On silk a fine black is produced by padding with nitrate of iron, washing and soaping, dyeing blue with yellow prussiate and muriatic acid, mordanting again with nitrate of iron, and then, after washing, working in a bath of cutch and dyeing in a bath of Hemolin X S and soap, after which the goods are revived.

Tanned leather develops a fine black with Hemolin X S. The solution of the dye is applied with a brush. The color is struck with copperas, and the leather oiled and finished in the usual way. Chrome tannage is soaked in a weak solution of Hemolin. The color is developed by oiling, after which the goods are finished as usual.

### NEW DYESTUFFS.

#### BENZO CHROME BLACK N. (PATENTED.)

This new Cotton Black differs from the older colors of its class, such as Direct Blue Black B, etc., as with an after treatment with bichromate of potash and sulphate of copper, it gives results exceedingly fast to washing and acid. When dyed boiling on cotton direct, with an addition of soda, Benzo-Chrome Black N gives a beautiful Indigo Blue, pretty fast to washing and alkali, and very fast to acid and light. Possessing these qualities, this dyestuff is recommended for the production of indigo and navy blue shades which can be discharged with tin and zinc.

If cotton dyed as above and well rinsed, is put into a fresh boiling bath and treated with four per cent. bichromate of potash, and three per cent. sulphate of copper for half an hour, a black is produced which is exceedingly fast to washing and acid. This black is also very fast to light, air, rubbing, ironing and perspiration, and is only very slightly affected by alkalis. The *Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld*, are the inventors and only manufacturers. *Dominion Dyewood and Chemical Co., Toronto*, sole agents for Canada.

#### DIRECT DEEP BLACK G.

This new color (which is a self color, not a mixture) has same properties as the well known Direct Deep Black T, and Direct Blue-Black B; but is cheaper in price and gives a coal black shade at one dip. It is very fast to acid, alkali, perspiration, and faster to light than logwood. For further particulars, address the *Dominion Dyewood and Chemical Co., Toronto*, sole agents for Canada.

#### ALIZARINE-YELLOW 3 G (POWDER),

which surpasses the older products of this series by its intense greenish shade, as well as by its great clearness and purity.

1. *Dyeing*.—Alizarine-Yellow 3 G is dyed on wool with the ordinary chrome mordant (bichromate of potash and tartar, or bichromate of potash and oxalic acid, or fluoride of chrome), but the well-known one-bath method may also be applied. For the latter purpose the wool is dyed in a bath to which acetic acid has been added, and after same has been exhausted the wool is chromed with fluoride of chrome or bichromate of potash. With bichromate of potash similar shades are obtained to those produced by mordanting the wool first, while, by treating it afterwards with fluoride of chrome, the shade is far greener and clearer. The clearest shades are produced when mordanted first with fluoride of chrome. The color is easily soluble, dyes even without any difficulty, and is of equal value for dyeing pieces of yarn or loose wool. Shades