

Warp yarns for drills must be round, of good color, and oozy enough to give a good warp face to the cloth. The size used should give a silky appearance to the face, and the yarns should be spun from cottons of a cohesive staple. The proportion of warp to filling is about two to one.

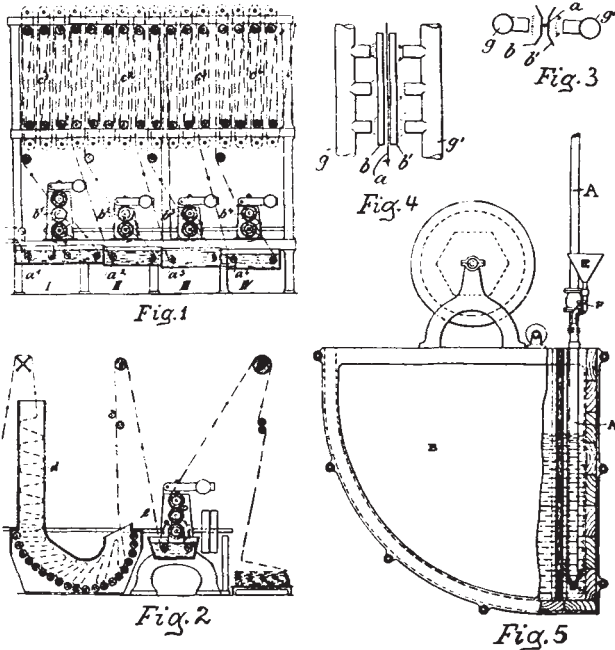
In conjunction with an even filling it is essential to have an even shedding to co-operate with, also an even taking-up motion, indeed, too much attention cannot be paid to the shedding, picking, and beating-up of the filling, to secure a perfect working of the loom when dealing with sateens.

IMPROVEMENTS IN DYEING AND FINISHING MACHINERY ABROAD.

Continuous Chroming in Dyeing Aniline Black.

By J. P. Bemberg.

Fig. 1 shows the chroming troughs and air passages, and Fig. 2 the apparatus for piling and finally washing. The cloth in the raw state passes into the chroming trough a^1 and, after being squeezed by the rollers b^1 , is given an air passage over the rollers c^1 . It is then passed through the remaining chroming troughs a^2, a^3, a^4 , receiving a squeeze by rollers b^2, b^3, b^4 and an air passage over rollers c^2, c^3, c^4 be-



tween each. After this the cloth is piled down in the container d and finally washed off through the pad e .

Singeing Yarn and Fabrics.

By B. Szilard.

Figs. 3 and 4 are given to illustrate the new device. Fig. 3 is a section and Fig. 4 a top view of the same. Examining our illustrations we find a screen of quartz interposed between the flame and the yarn of fabric. The thread a passes between the quartz screens b, b^1 , which are heated by a series of burners on the gas pipes g, g^1 .

Supplying and Mixing Dye Compounds in Dye Vats.

By T. Southwell.

The arrangement is shown in Fig. 5. The dye is placed in the funnel E , which is provided with a filtering medium, and by means of the cock F is admitted gradually to the steam pipe A from where it passes through the perforations into the liquor in the vat B .

HISTORY OF DYEING.

(Continued from April Issue.)

In 1610 we find reference to "bombazine cotton," which, however, most likely consisted of worsted and silk, in the following statement, "for reformation of frauds daily committed in the manufacture of bombazine cotton and in the dyeing of silk."

That the privileges granted to the Merchant Adventurers evidently interfered with the weaving and dyeing trades is borne out by a statement found under March 29th, 1610, as follows:—"The Merchant Adventurers will either pay £50,000 to the King, or perform the contract treated with Lord Fenton, but this has dangerous exceptions. The clothworkers and dyers threaten to cut the throats of the old Company, especially of Sir Lionel Cranfield. The Lords are negotiating with the old Company to set them to work," and further a "Petition of the handicraft cloth-workers and dyers in or about London to the King, that he would direct the Merchant Adventurers to employ them, for relief of their great distress."

That the use of Logwood was still considered dangerous in 1615 is shown in "Grant to Rich. Giles of London, of the office of seizing and burning all logwood and deceitful dyeing woods brought into the port of London."

In May, 1619, an act was passed for the reformation of dyeing, because "there are a number of black dyers, and there being some abuse in dyeing. An agreement was made between the four silkmen and the four dyers that all silk of that nature should be dyed in their four houses and the rest of the dyers come to work with them." This resulted, however, in dishonest dealings and was, therefore, broken off.

James I., on June 26th, 1619, gave a license to Sir Thos. Coventry to confer with silkmen and silk dyers for reformation of abuses in dyeing their silks. In the same year, on July 12th, a patent was granted (for 21 years) to George Wood for printing.

James I. (February 29th, 1620) also issued a "Proclamation prohibiting the general import of Logwood, but permitting Sir Thos. Crompton to import 50 tons yearly to be used in dyeing mean commodities only . . . all the logwood imported to be seized, half of it burned and the other half delivered by the informer for £6 per ton to Sir Thos."

The dyers seem, however, to have taken but little notice of this prohibition, because in 1622 (February 20th) "the Wardens and Assistants of the Dyers' Company of London searching for goods deceitfully dyed found in the house of Daniel Tilbergen and Peter Cozie, both aliens, the false and deceivable dye called logwood and cloth dyed therewith. They tried to seize it, but were forcibly prevented by the wife and servants of the parties."

The prohibition of the use of Logwood and the fact that large quantities of goods were still sent to foreign dyers, resulted in great distress among dyers in this country, and in 1622 they petitioned "against foreign dyers not to buy cloth from them."

Madder was probably not cultivated in England before 1624, because we find that on January 22nd a patent was granted to William Shipman to raise it.

In Anderson we find it stated that "Painted Calicoes are first mentioned as imported by the East India Company in 1631.