

A SUBSTITUTE for gum arabic is prepared by taking 50 plants Irish moss and steeping in 1,200 pints of cold water until the moss has swollen. All insoluble particles are then filtered off, and the liquor is evaporated down after 6 parts of carbonate of potash have been added, until a little taken out adheres to a piece of cold glass. It is strained, and silicate of soda, sugar candy, and glycerine are added.

SOME NEW INDIGO COMPOUNDS.—When indigo is acted on with a mixture of zinc dust and acetic acid the indigo is converted into white indigo and rendered soluble, the solution being available, if necessary, for dyeing. If a mixture of zinc dust, sodium acetate, and acetic anhydride be used, a new compound is obtained, known as diacetyl indigo white—a product forming needle crystals; and if these be heated with acetic acid and a drop of nitric acid a fine red colour reaction is obtained, which, however, is but momentary, as oxidation soon occurs. As indigo white yields indigo on oxidation, so acetyl indigo white yields acetyl indigo in the form of crimson red scaly crystals. By the action of alkalis the acetyl indigo is decomposed into ordinary indigo. In strong sulphuric acid this new body dissolves with a green colour, turning blue on heating, and the ordinary indigo sulphonic acid (the indigo extract of commerce) is obtained. Acetyl indigo is at present of no technical use, but it is of scientific interest as likely to throw some light on the constitution of indigo.

MARKING-OFF IN ALIZARINE-PRINTED GOODS. This is a source of trouble to the calico printer, who very much dislikes the production of the red stains on the whites in printing alizarine colours on cloth. With a view to ascertain the cause and the conditions under which these stains are produced, M. E. Jacquet has made a number of experiments. He caused the printed goods to be sent through the steaming-box both horizontally and vertically, with the result that those sent through horizontally were more badly stained than those sent through vertically, the cause probably being that the alizarine was carried forward by the steam. Alizarine printed on oiled cloth marks off less than that printed on unoled cloth. An acid condition of the printing colour, which may be caused by the use of the sulphates of alumina or chrome, also causes much marking-off, partly because of the slow fixation of the colour as a colour lake on the fibre. On the other hand, this is necessary if a fast colour is required, the fastness being in inverse ratio to the speed of formation of the colour lake. To obtain further information a pattern was printed from a heavy blotch roller

with an alizarine red, and the printed material was then steamed in contact with (1) white cloth, (2) oiled cloth, (3) cloth mordanted with alumina, and (4) cloth oiled and mordanted with alumina. After being soaped there was no stain on the white cloth; there was a slight stain on the oiled cloth; and a very bad stain on the other cloth. A design having much white ground printed and steamed stained badly, but most on the alumina prepared cloth, from which the inference may be drawn that it is the alumina on the whites that causes the marking-off. The same colour printed by hand and roller on unprepared cloth shewed no stain on the former, but the latter was stained, the roller being sufficiently damp to give the cloth the small amount of alumina required to fix the alizarine, which sublimes more or less from the printed parts of the cloth. The stains, it should be remembered, are always on the face side of the cloth, and never on the back, which would be the case if they were caused by the steaming. The remedy is to add some citric acid to the oil used in preparing the cloth.

Letters from our Readers.

MR. BIRTWISTLE'S APPOINTMENT.

(TO THE EDITOR OF THE *The Textile Mercury*.)

SIR,—Perhaps it is hardly necessary to draw your attention to the appointment of Mr. Birtwistle as "Examiner of Particulars," ranking as a Factory Inspector under the Factory Act of 1891. Surely when the Act was passed it was never contemplated that the Government would take the position of the Trades' Unions,

and help to force the hand of the manufacturer by giving a trade-union secretary an official appointment and a handsome salary to go from mill to mill taking particulars of the goods woven. Even the operatives themselves must feel some agreeable surprise. Had such an appointment been at all necessary, it might have been made from the overflowing ranks of applicants, hundreds in number, who would not enter the service with prejudice on one side or the other, and who moreover could comply with the regulations of age, examination, etc. One feels some curiosity as to whether Mr. Birtwistle has complied with all these. Certainly he is many years above the limit of age. It is certainly a surprise to his friends, both on the side of the masters and operatives, who have always admired his thoroughly "jannock" character, to find that he has lent himself to such an arrangement.—Yours, etc.
July 2nd, 1892. TEXTILE.

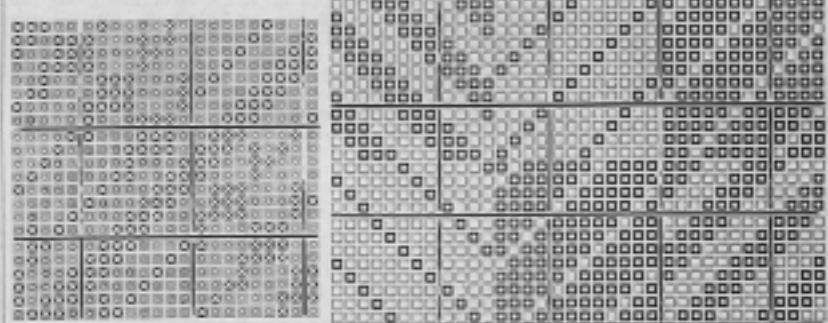
GERMAN manufacturers are complaining of the dishonesty of some firms in Holland. That country, once so sound commercially, is said now to harbour many doubtful elements, and the Fatherland is declared to be their favourite field of operations.

Designing.

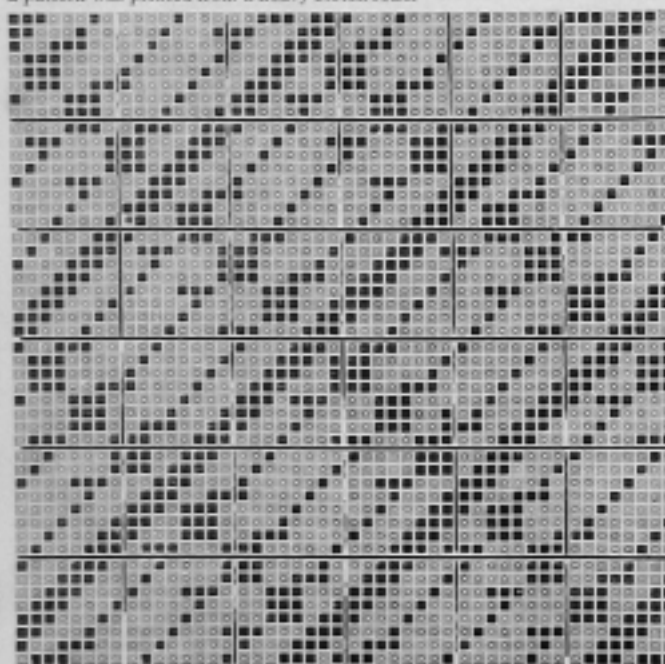
NEW DESIGNS.

FANCY COTTON GOODS.

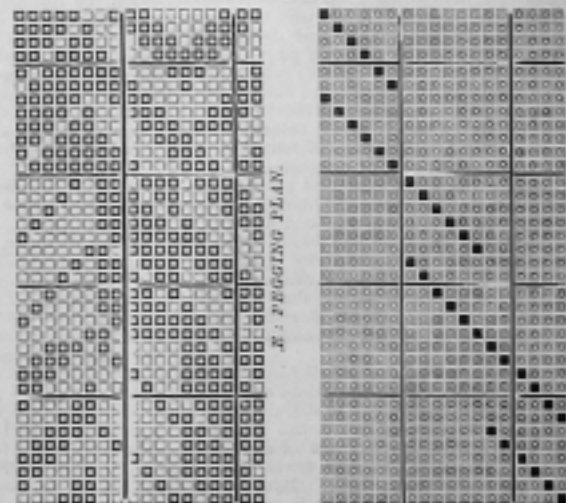
Designs D and E are given for the purpose of producing cotton snitings in solid woven colours or piece-dyed, presenting soft,



D. PEGGING PLAN.



DESIGN D.



DESIGN E.

E. DRAFT.

