The textile mercury.

January 14, 1891.

Three heavy failures in the silk trade are reported. Messrs. Mayeord, E. Frantu, Alessandro Bili, and Giudolino Possenti, with capital of 1,500,000 lire, (L22,000), further failures are feared.

In conclusion, the following telegraph from the Daily Chronicle:—Messrs. Ashworth Brothers, of Manchester, have secured a tract of land from the Globe Van Line at the Globe Van Line, upon which they will erect large machine shops for the manufacture of carding and general machinery.

As a typical case of industrial efficiency, he has made arrangements to meet special and urgent cases, which will enable him to make a suit of clothes in 210 minutes. This system of dress manufacture may continue to do so if no opposition trade offers to do the same in 120 minutes. But then the men would be a very safe "record," as races are reckoned.

Some eighty years ago a Newfangled manufacturer won a wager of 1,000 guineas by producing at a quarter past six in the evening a complete damask-coloured coat, of which the wool had been on the back of two sheep at five o'clock the same morning. We have seen several copies of a print representing a commemorative festival held at a village at West End, North Rocks, about the close of the last century, to celebrate the coming of age of one of the Throgmorton family, in which are shown the shearing of the sheep, casting and spinning the wool, the weaving of the cloth, the tailor at work, and the fitting on of the finished garment—all done between the three and a half hours, but still no time would have to be lost in either case.

The Stone House.—An instrument for detecting flaws in metal castings and forgings, which is called the scisphone, has been invented by Captain de Place, of Paris. The apparatus consists of a small pneumatic tapper worked by the hand, and with which the piece of steel or iron to be examined is tapped all over.

Connected with the tapper is a telephone with a microphone, and interposed in the circuit. Two operators are required, one to apply the tapper to the object to be examined, and the other to listen to the telephone to the sounds produced. These operators are in separate apartments, so that the direct sound of the tap never reaches the listener, whose province is it to detect flaws. The two, however, are in electrical communication, so that the instant the listener hears a false sound he can signal to his colleague to mark the metal at the point of the last tap. In practice the listener has to take his telephone to his ear, and so loses the taps, for the signals for the spot are marked. By this means he is able not only to detect a flaw, but to localise it. Under the auspices of the South-East Board, a demonstration of the scisphone was given last week, by Captains de Place, at the Charing-cross Hotel, London, in the presence of the Ordnance Committee and other Government officials. Mr. Stirling, the company's representative, had prepared a number of small samples of steel, wrought iron, and cast iron prepared with hidden flaws known only to himself. The first sample tested by Captain de Place was pronounced to be bad metal throughout, which Mr. Stirling admitted was the case, and the second sample was suspect, and the flaws localised by means of the apparatus. On testing the last two samples of wrought iron and cast iron, the internal flaws—the localities of which were known to Mr. Stirling by his private mark—were found to have been correctly localised by Captain de Place. On the other hand, it has to be stated that some bars were broken at points which the apparatus indicated a flaw, but for the metal proved sound. Making every allowance for the experiment being conducted with occasional interruptions for repairs, it shows, he said, that however ingenious the invention, it cannot yet be called a practical success. Having, however, accomplished so much in so short a time, it may be supposed Captain de Place will succeed in rendering the apparatus perfectly reliable.

Designing.

NEW DESIGNS.

INDIAN DHOOTI.

This design is a silk bordered dhoty, made in Loodianah. It is 3 yards, 22 inches; weight, 1 yard, 9 inches; width, 10 inches. The band & all the blank spaces a plain ground of dark green, the dark type or stars white; the design in circles a dark yellow, almost approaching orange; the band is a counter of the same width, the whole of the border is silk, the ground and centre of the dhothy bleached cotton; the west all bleached cotton. Many varieties of the Dhoothee, and other makes of Hindoo cloths will be found in the pages of this Journal since March of last year, forming a very interesting study for the makers of this class of fabrics in Lancashire and elsewhere. The patterns and type of colouring, which is fully described, are the most popular throughout the Indian Empire, and meet a ready sale in all bazaars.

GAUZE OR LENO FABRICS.

Though considerable time has elapsed since we last gave our readers examples of this type of work, we trust that interest in this subject has by no means diminished, and that the three examples the construction of which we propose to demonstrate in this issue will prove of sufficient interest to warrant their thorough study and comprehension.

Sketch A shows the useful combination of gauze and plain, in appearance varying in some degree from the general run of such combination, owing to the reasons which we fully described in our last answer. Here, viz., the number of picks in each crossing of the dobby thread. It is well to note in the first place that the gauze effect consists of a thick thread crossing four thin threads; then attention should be directed to the matter mentioned above, viz., that the thick thread is only up for one pick on one side of the four stationary
threads, but for three picks on the opposite side, these conditions necessitating the production of a very light wefted pattern, which varies considerably in appearance from patterns of a heavier construction, which favour the production of a more perfect plain cloth.

Design 8 is the full point-paper plan for this pattern, which those to whom this subject is rather novel should first completely master, comparing minutely with Sketch A.

The draft and pegging plan considered together will be found to give Design 8 as here developed. Note should be made of the fact that marks here indicate warp up, and also that the arrows indicate the way in which the pegging plan acts on the healds.

Of course, stripes of any width, either in gauze or plain, may be combined as required, but in order to ensure a straight, firm, plain edge the two outside threads should work gauze as here indicated.

Sketch B is a slightly different type of make; thick threads in this case being introduced in the plain portion as indicated at A (Design 9). Another innovation, it will be observed, is that the gauze threads do not work gauze throughout, but that after crossing the stationary threads for a certain number of picks they form plain cloth in conjunction with the stationary threads, thus giving a check appearance.

The design in this case also should be compared with the sketch, and the draft and pegging plan with the design, when little difficulty should be experienced in realizing the construction.

Sketch C is again of a different type, and in some respects is a more intricate example, but careful analysis will disclose simplicity throughout. The gauze effect, it should be observed, consists of stationary and crossing threads, the latter changing position every five picks. To fully comprehend this pattern, the extra weft, which is the difficulty, should be completely ignored, the gauze and plain only being taken into account; then between every two picks space should be left for two more, which are to produce the spot on the plain ground; now mark up everything but those threads which are to be down for the spot; this means mark up all, stationary thread and plain thread not forming the figure. The shaft working in connection with the doup must be down if the doup is up.

If these conditions be put down on point paper as indicated, an effect similar to Design 9 will be produced, the pegging plan and draft for which is also given.2

Respecting the application of these three patterns we need say little. For cotton goods they are very useful and effective, being produced with comparatively little trouble; for silk they would also prove very effective or for silk and worsted in union; also for cotton and mohair; in these latter cases there is in our opinion ample room for the production of some novel and striking effects on the principles here laid down.

*Our remarks respecting the position of the doup shaft and the method in vogue of weaving these cloths wrong way up should be called to mind when studying the effects.