NEW DESIGNS.

NEW DESIGN FOR FORKED SHARTINGS.

We introduce to the manufacturers of shirts a new and extremely useful method of pegging plan. It may be made either as an Oxford or Harvard, in browns, darks, greens, and darks, with a green ground; a new colour or shade called dark (rather redder than the outside covering of the Harvard; might be used for the pegging plan that there are 21 shafts, 32 to the round; 80 ends to the inch of 21 twill, for warp, 28 ends of 16's (both twisted cop well to the inch). Pattern of warp and draft: 22 ends of dark blue or dark brown, on the shafts marked 1, 2, 3, on the pegging plan, 4, double bamboo or 8 of red, in a head, on 5, 6, 7, 8 shafts, 2 of white on 3 and shafts, 5 of dark sky, two in a head, on 3, 4, 5, 6, 7, 8 shafts; 10 of fawn 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 shafts; 72 fawn on 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182. The greatest care would be required in drawing in this draft, as the slightest mistake would alter the general effect of the design. The colourings given may be altered at will, as they are not like the laws of the Medusa's head. The design will please everyone, but, nevertheless, it will be found a good all-round pattern, and will not look out of place in any material or style.

THE FINISHING OF WOOLENS.

(Continued from page 8.)

After due consideration, and the selection of the most suitable condition of twining and twining to effect the desired result in the finishing process, attention must now be directed to the actual weaving operation. Now since the treatment of these preliminary operations will be rather long our readers may begin to ask whether I really claim attention to the work of the above-named subjects.

Joseph Nassim.
February 10, 1861.

QUERIES.

Has a jacquard on a Schofield and Kirk's reverse woolen loom been worked with bags and pega?

- H. E. (Racine, Wis.)

H. P. (Rochelle)—The jacquard, or more correctly the dobby, of Schofield and Kirk's old woolen loom was never worked with bags and pega. For their Crompton loom, a patent has been taken out by Mr. James Wibb, St. John's Road, Huddersfield to effect this.

February 10, 1861.
But let us assure them that the full and efficient consideration of all preliminary processes lies at the root of the matter, for a good and suitable fabric cannot be put on a piece not prepared to receive it.

In the operation of weaving, a cloth receives a considerable certain share of its final characteristics. For example, the number of threads and picks per inch are practically decided, though a slight alteration in this respect cannot be produced by milling up in length or width. The difficulty is often experienced in the full number of picks, then, to ensure some attention. This, of course, is limited by the size of the yarn and the warp, respectively, but notwithstanding these limitations, much may be done—to steam or soften the yarn, rendering it more compressible, to smooth the shed before the reed touches the cloth; and to raise the backrest, thereby throwing the top half of the shed slack, renders weaving more easy, and thus produces a stronger, firmer cloth, as required.

In the case of weave applied with the sole idea of producing a cloth to take a specific finish very great care is necessary, since the designer has not only to calculate on the silking of the wool, but also on the contraction owing to the make, which as previously shown, has a very decided influence.

The cloth leaving the loom is "perched" or looked over and through to note imperfections, etc.; mending follows, and then securing, this last being the only one that requires our attention. Owing to the quality of oil, etc., often not of the best, put into yarn, a good clean scour is very necessary. The wool fibres into a condition favourable to milling, for if all the oil, etc., be not extracted it is easy to see that the scales of the wool fibre being clogged up are to a certain extent antagonistic to interlocking; but this is a hardly less desirable condition than that which results from the use, or rather abuse, of certain strong scouring agents—soda ash, for example—which tend to rid the wool fibre of the scales and consequently of their characteristic properties which prove so effective in the following processes.

At this stage it is well to classify the cloths, so that having a definite idea of what it is necessary to obtain, the why and the where of the same will be better understood. The first class of finish coming under notice is the Melton and the closely knitted corded goods, the treatment of these goods treated as follows:—Meltons and the numerous classes of tweeds which incline towards the worsted fabrics, this class comprises all these goods to which a greater or less amount of permanent lustre is imparted, as doeskins, etc.

Now, on coming to the "milling" operation, a breed of goods is fitted for a certain degree of treatment even when dealing with cloths coming within the first class. For example, a breed of good quality must receive a very different treatment to a typical Melton. In the first named cloths it is sometimes desirable to impart a woolly background—this is to say, to mill only to such an extent that a firm, good-handling cloth is obtained, retaining intact each individual thread; while in the case of a Melton milling is undertaken with the idea of breaking up the warp and weft, eliminating all traces of any thread-like structure. Again, it is often desirable to produce a sort of nap or fibrous surface on some classes of goods, and of course these require a definite specific treatment, which we will now proceed to demonstrate.

To "mull" or compress cloths, two machines are in use, one the "milling machine" and the other the "stocks." These latter are probably the oldest form of machine, since their action resembles the trampling of feet, which was the primitive method of effecting the desired result.

The effect on cloth subjected to treatment by these machines varies considerably. The machine seems to act more by continued compression, producing an effect somewhat akin to that of cold and wetting over the cloth under treatment, thus tending to hurt the thread and produce a fluffy surface, which is very desirable in certain groups of goods, but not in all. According to the demands desired, then, is the method of milling selected. Regardless of the heat, etc., developed in the machine, we do not propose to write, since it is more the structural effect that we wish to demonstrate.

**NOVELTIES IN DOUBLE CLOTHS.**

It is now some time since we called attention to a type of dress fabric, which was very effective and particularly simple, consisting, in fact, simply of two plain cloths woven together and changing places for the figure, as shown in the design. Now it appears to us that some exceedingly effective novelties could be produced in coatings or trousers by using, in the place of cotton and mohair for the thin and thick cloths respectively, worsted and woolen yarns, thus producing a wooly stripe or check on a bare worsted ground. It is not an uncommon occurrence to find threads of various thickness in cloths, and if in addition to this threads can be used which take a different finish seems as though a very novel kind of pattern would result. Design 11 gives a two-and-a-half, two and a half, and a half, which is the worsted and plain for the woolen stripe, the latter coming to the surface in the same type. Design 12 is a checked design of the same type.