

DISCOVERY AND RISE OF "KHAKE."

Some Account of the Color and the Fabric.

THE story of khaki is one of the industrial romances of the century. It is worthy to rank with that of the Jacquard loom, the mercerising of cotton, or the invention of bleaching powder. The following brief account will serve to show that, as in other discoveries of far-reaching importance, energy and patience and skilled knowledge were brought into play before success was at length attained.

The use of an olive dye in connection with the clothing of the British troops in India dates back for many years. The tint was devised, in the first instance, by native dyers, who used for the purpose pigments which they were unable to fix, and also unable to prepare, in a uniform state. A traveler for a Manchester firm was one day taking a railway journey in Northern India, and found himself in the company of an Anglo-Indian military officer. The conversation drifted to cotton drill, and the regimental officer made the remark that the first Manchester man who succeeded in producing an absolutely fast khaki dye would make his fortune.

The remark made a deep impression on the traveler, who, upon returning home, set to work to study the reason why the olive and brown dyes hitherto used always washed out after a few applications of soda. He put himself into communication with a skillful dyer, and the two experts set themselves the task of discovering a method of fixing these dyes upon cotton yarns or fabrics. Many experiments were made, and at length an effective dye was obtained, but, unhappily, it yielded at once to the soap and soda test.

Instead of giving up in despair, the two inventors pursued their researches, and one day the dyer produced a piece of fabric which, upon being tested, was found to retain its color even under the severe application of a caustic alkali. He was requested to try again, and again he failed. Then the two colleagues put their heads together, and went over the conditions again very carefully, and they at length observed that, whether accidentally or not, the cloth in which the dye was fast had been dipped in a dish made of a certain metal, whereas all the unsuccessful experiments had been made with a dish of another metal. The invention was assured from that day, and fortune was the result.

The first deliveries of fast khaki were produced by means of mixtures of oxide of chromium and oxide of iron, which were carried into effect by mixing a solution of chrome alum and sulphate of iron, and, after being dipped into this, the cloth was passed through an alkaline solution, such as carbonate of ammonia or potash. Darker shades were obtained by redipping, and the darkest shades of all by drying the fabrics before passing them through the alkali. This process is now open to any dyer to employ, but improvements in it are the subject of a patent which is still in existence, and within the last 18 months a rival genius has patented an altogether different process, which is being used in the manufacture of goods already supplied to various Governments.

The so-called Government shade is that which has been adopted by the War Office, and it is now in general use at the seat of war in South Africa, while, last month, it was adopted by the New Zealand Government as well. The shade used in certain branches of the Indian army and other Asiatic States

is somewhat darker, and a ruddy tint which differs from both of them, is supplied for use in Egypt. There are many difficulties in the production of a uniform tint, as firms who have gone into the trade without previous experience are learning to their cost. During the present pressure, the Government factory in England has had to deal with deliveries in which the shade of khaki varied from light to dark in one and the same piece of cloth.

When khaki cotton is said to be fast dyed, the meaning is that no amount of washing, either in laundries at home, or by native dhobies upon the banks of running streams in India, will affect the color. The rapid test for arriving at this result consists in boiling the fabric for a prolonged period in a solution of caustic soda or a similar alkaline reagent. By means of peroxide of hydrogen it is also determined whether the color is fugitive under the prolonged action of sunshine and air. It is never pretended that the color is impervious to the attacks of acid, and, indeed, the now fashionable material is being introduced for ladies' dresses at home, in a form in which striped and spotted designs are produced upon the cloth in a printing machine by the action of an acid, which turns the parts affected to a whitish hue. It is for this reason that when khaki uniforms are worn for a length of time the wristbands and collars show lines of white, where the dye has been driven out by the contact of the acid perspiration from the skin. There is another fortune awaiting the inventor who produces a dye which is fast, not only to alkali, but also to acid.

Up to the present, less success has attended the attempt to impart a khaki shade to woollens. Not only is the dye less permanent, but the peculiarities of the woollen fibre make it difficult to produce any uniformity of tint. Half-a-dozen pieces of serge, dipped in the same vat, will give almost as many variations of color. For this reason troops, when clothed in serge, as the men now under arms in South Africa will presently be, as the southern Winter comes on, cannot present the smart appearance of a regiment wearing cotton drill.

THE NEW "VICTOR" GARMENTS.

The Victor Manufacturing Co. is a new concern being formed in the city of Quebec to make ladies' cloaks, suits and skirts. The company is composed of two young business men of the ancient capital who have the best connections in the trade, and who start under excellent auspices. These gentlemen are Messrs. S. Richard and L. A. Moisan, and they have secured the best possible designer who has had a long New York experience. Ample capital has been provided to carry on the business in a successful way, and, as great progress has been made in men's ready-made garments in Canada, the new concern justly think that there is a good field for well-made garments for ladies. With this object they intend to seek trade in the whole Dominion and have secured experienced and successful travelers who have been well known to the trade for years. It is the intention of the company to put their registered trade mark of "Victor" on every garment as a proof of finish and excellence in every respect. Although The Victor Manufacturing Co. are a little late in putting their samples on the market this Spring, they will offer as compensation for this the fact that their designer has seen samples of the New York manufacturers (which are not shown, as the trade know, until June), and the very latest ideas in ladies' garments will be incorporated into the new line. A request is made that the trade will withhold orders so that they may have an opportunity of seeing the "Victor" garments.