

with sulphuric acid from 3° to 4° B., while dyed wool, excepting that dyed with indigo, is carbonized best with chloride of aluminium. It is well known that acids injuriously attack dyed wool, and for this reason it is advisable not to perform the carbonizing with mineral acids. Besides this, acid spots are very easily caused in dyed wool, but all trouble of this kind is prevented by using chloride of aluminium.

The wool to be carbonized is entered in a chloride of aluminium bath from 6° to 7° B., and carefully handled, and the carbonizing fluid is permitted to operate for a few hours. The wool is then taken out, whizzed, dried upon hurdles at medium temperature, and entered into the carbonizing chamber, which is heated to 194° F., and in which it is left for one hour. After removing the remains of the vegetable fibres, etc., in a suitable manner, either by brushing or beating, the wool is washed. When using the chloride of aluminium process, no deacidulation takes place as is required when treating with sulphuric acid. A simple washing in soft water with Fuller's earth expels the easily soluble chloride of aluminium.

Undyed wool is often carbonized in the yolk, which acts as a protector. This kind of wool, after it is freed from the adhering dirt by steeping in water, is saturated in a sulphuric acid bath from 3° to 4° B. The wool is then taken out, whizzed, and dried at a moderate temperature upon hurdles, and afterward carbonized in the oven at a temperature of 158° to 167° F. If this process is conducted carefully, such a wool will retain its natural softness and suppleness. The wool is deacidulated after carbonizing by handling it for some time in a 5° B. soda solution, after which it is taken out and washed in clear water.

The remark already made about the inactivity of the chloride of aluminium bath, although the hydrometer may register the proper degree, also applies to the deacidulation bath, which, in like manner, may not act, although the hydrometer registers 5° B. Operators forget that the acid material is entered into the alkaline solution, resulting in a combination of sulphuric acid and carbonate of soda. This fluid—sulphate of soda—will no longer serve for carbonizing purposes, and it must be replaced by a fresh bath. A simple way to ascertain whether the deacidulating liquor is still useful or not is to dip a strip of blue litmus paper into the fluid. The liquor is still good if the blue color is not altered.

We gave an account of the artificial silk invented by Comte Chardonnet. This silk was made from wood pulp, specially treated, and large works were built to manufacture the goods. Some remarkable specimens of silk made by this process were shown, but it was found that the fabric so manufactured could not be woven successfully in large pieces, and that it was of so highly inflammable a nature as to be a source of great danger. The experiments were then dropped, but we now learn from the English papers that a company has been organized at St. Etienne to develop Comte Chardonnet's process and make it a thoroughly practical one. The company is quietly at work now, and is making a large number of experiments. Their success is doubtful.

Notwithstanding the cry of hard times in England, many of the drapery (dry goods) firms report a good year. The dry goods and outfitting house of Charles Baker & Co., Ltd.,

London, well-known to many of our Canadian readers, made a profit of £26,405, out of which they have declared a dividend of eight per cent. This company propose to make more additions to their branches in Holborn and Ludgate Hill.

The greening or lightening of logwood-black on wool, which takes place to a greater or less extent during the milling and finishing operations, has been attributed to the omission of tartar from the mordanting bath, and to insufficient oxidation of the logwood. But it cannot be due to either of these circumstances, says a writer in the *Textile Mercury*, for logwood-blacks of satisfactory fastness are obtained without the use of tartar, and it is well known that a good black cannot be obtained with logwood which has been injuriously or insufficiently oxidized, so that the defect in shade exists, in the latter case, prior to milling. The cause has been traced to difference in dyeing characters of the various kinds of wool, to imperfect removal of the wool-yolk in scouring, and to prolonged milling necessitated by the deterioration of the felting property of the wool by the chromic acid mordanting bath, such prolonged exposure of the color-lake to a heated alkaline solution being a chief factor in its destruction, which is aided by the friction of the rollers or other apparatus employed. The effect of the first of these causes is seen on mordanting and dyeing together a number of samples of wool of various kinds, the blacks produced being of various shades, and exhibiting a slight difference in their ability to withstand milling. The effect of the presence of grease in the wool is to prevent the color-lake depositing in an intimate form in or upon the fibre. To show this, and also the injury to the felting property accruing from the employment of chromic acid in mordanting, samples of imperfectly-cleaned and of well-cleaned wool were severally mordanted with iron and chrome, dyed with logwood and milled. The samples dyed iron-logwood were sufficiently milled in 6 hours; those dyed chrome-logwood black required 16 hours. The latter were found to have lost more color than the former, and imperfectly scoured samples much more than the others. The difference in the two lots of wool dyed iron-logwood black was less apparent. This injurious action of chromic acid on wool has induced many dyers to replace it in part by copper sulphate, or to employ a smaller proportion than usual, and to supersaturate the mordanted material with coloring matter to obtain the desired intensity of shade, or to sadden with ferrous sulphate the material thus supersaturated. The last method yields a color lake, which is to a great extent superficially deposited on the fibre, and hence is readily detached on milling. The excess of coloring matter absorbed, according to the second method, is also readily removed; the first method alone gives a satisfactory result. Thus an excellent black of a superior degree of fastness to both milling and light is obtained by mordanting with 2 per cent. of potassium bi-chromate and 2 to 2½ per cent. of copper sulphate, of which one-third can be advantageously applied after dyeing.

Jas. McComb's glove factory, Peterboro, was nearly destroyed by fire the other day. He had also a considerable amount of men's furnishing goods damaged or destroyed. The cause of the fire is unknown. The loss, about \$3,000, is covered by insurance.

Local capitalists are putting money into the Slingsby blanket mill at Brantford with a view of greatly enlarging the capacity. Messrs. Slingsby will, of course, continue the management of the mill, which they have so successfully run for many years. The company is to be called the Slingsby Manfg. Co. and will have a capital of \$175,000. They will take over the mill property at Holmedale owned by Chas. & Frank Cockshutt.