

paste leaving the dish without being sticky. The paste is then allowed to stand for about twenty minutes. The dough is then transferred to the centre of a six-inch square piece of cotton. Bring the corners together and tie them up about half-inch above the dough, and wash out the starch in a stream of cold running water, using gentle pressure by the fingers, with constant rotation, when the starch is entirely removed—which is ascertained by the washing water remaining clear. Transfer the gluten to a tared watch glass, and dry it at 100° C. until a constant weight is obtained. The boiling test is carried out by taking 1 ounce of the flour and making into a smooth cream with one gill of water in an enamelled pan. This is then brought to the boil over a ring burner with constant stirring during about ten minutes, and then boiling one minute. The paste is then poured into a beaker or other suitable vessel and allowed to stand all night. Next morning the paste should be transferred to a porcelain slab and compared with a standard flour, prepared in exactly the same way as the sample, noting the stiffest paste, and also the resistance to pressure. This may be done by means of weights, but after a little practice it will be found that the finger and sense of touch are as good a judge as any. The boiling test by itself does not always, by any means, give a result which is borne out in practice, but it enables one to throw out at once many flours that are entirely unsuited for the class of work for which they are required. A good guide in judging a flour for finishing purposes is the appearance of the gluten before drying. The gluten should be of a good color and be adhesive and in one mass, and not all over the cloth in patches. If these trials are satisfactory, a bulk trial should be carried out whenever possible in the ordinary way.

WHAT CELLULOID IS.

Celluloid is a substance consisting chiefly of a dried solution of gun cotton (pyroxylin). A variety of it can be made with pyroxylin and camphor. The pyroxylin is prepared by treating cellulose from such substances as cotton, rags, paper maker's half stuff, or paper itself with a mixture of one part of strong nitric acid and four parts of strong sulphuric acid. The distillate obtained by distilling wood naphtha with chloride of lime is used as a solvent for the pyroxylin. When the excess of solvent is removed from the pyroxylin, it is mixed with a considerable quantity of castor oil or cotton seed oil and made into a paste between heated rollers. For a hard compound the quantity of oil should be less than the pyroxylin. In a plastic condition celluloid can be spread on textile fabrics, or may be made as hard as ivory, for which it is largely used as a substitute. Billiard balls, piano keys and combs are made of it. It can be colored to represent amber, tortoise shell or malachite. It is also used in jewelry.

PAPER-COVERED PULLEYS.

A recent patent describes a method for enabling paper or cardboard to be used for covering driving pulleys or drums, such covering being especially suitable for textile machinery. The drum or pulley is coated with a special cement, as is also one side of the strips of paper, using any ordinary brush for performing these operations. The strips are then laid or rolled upon the drum one after another, a layer of cement interposing between every two layers of paper. The strips are then smoothed tight with a smoothing iron or scraper, the whole of the work being done by hand. The cement is made somewhat as follows: About 8 litres of water

being heated lukewarm, 500 grms. of wheaten starch are added and mixed in; 15 grms. of powdered alum, 20 grms. of sal-ammoniac, 15 grms. of borax, and 40 grms. of carbonate of soda are then mixed together and added to the fluid. Lastly, 100 grms. of gelatine are added, and the cement is then ready to be smeared on the paper for use. By this method the paper is said to be so firmly secured to the drum as to adhere to it as if it were a part of the drum itself; paper is more economical than leather, lasts longer, and by giving a better grip to the driving band or belt enables it to be left slacker than has hitherto been practicable.

Stanley Mills & Co.'s new departmental store in Hamilton was opened on August 13th. It has two acres of floor space.

The Atwood flax mill will not run this year. Mr. Forrest has not succeeded in selling last year's dressed flax and consequently no seed was distributed to the farmers this spring.

The Shareholder commenting on the failure of the Thorpe, Maddock Co., Toronto, and the Imperial Cloak Co., Montreal characterises them as among the most disgraceful that have ever taken place in Canada. The lists of creditors in both cases are long, showing conclusively how absolutely cheap credit is. It suggests a Merchants' Protective Association.

Langdon Wilks, of Galt, sold sixty thoroughbred Shropshire sheep by auction recently. The sale attracted a good deal of attention. Prominent sheep breeders from all over Western Ontario were present. The sheep were all registered animals and were with two exceptions bred directly from imported stock and in excellent condition. The bidding, despite the high quality of the animals offered, was not spirited, and only medium prices were realized. The ewes sold averaged about \$16 per pair; the ram lambs went as high as \$20, and the ewe lambs while reaching \$16 a pair, went as low as \$12, \$13 and \$14.

DECEIT, HURT, AND SCANDAL IN THE "DYING" TRADE.

Exactly one hundred and seventy-six years ago, says the Textile Mercury, that is to say, on June 24th, 1727, there came into operation a curious Act of Parliament intitled (as the lawyers say), "An Act for Preventing Frauds and Abuses in the Dying [sic] Trade." The recital of the wrongs it was intended to remedy—deceit and hurt of His Majesty's subjects at home, discredit and slander of the woolen manufacturers, dyers, and merchants of this realm, in foreign parts—throws some light upon the customs of the industry half a dozen generations ago, which is sufficient excuse, if any be needed, for reprinting the enactment. We omit the concluding sections, which relate merely to the procedure under the Act:

Whereas divers persons within this realm, using the mystery or craft of dyers, have of late used and exercised false and deceitful ways in dyeing bays and other woolen goods, black, without using woad, indigo, or mather, and for passing off such goods as true mathered blacks (though falsely dyed as aforesaid), the corner only thereof hath been dyed red, and a red rose, or other mark, for a true dyed mather black, tied up at such corner, when the rest of the said bays, and woolen goods, or great part thereof, are falsely dyed without woad, indigo, or mather, as aforesaid, and such, or the like deceitful practices, have been and are used in dyeing of black cloths, bays, and other woolen goods, to imitate and resemble true woaded blacks, without using any woad or indigo in the dyeing thereof, and a blue