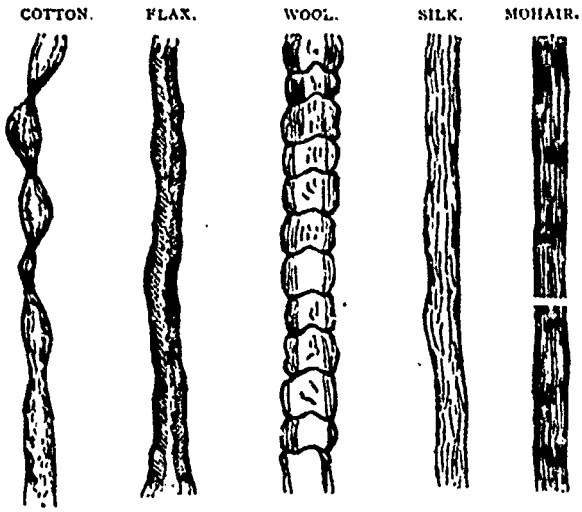
perfect. The plates are made hollow, and the heating wire is wound within them in the shape of a spiral, imbedded in sufficient resistance to produe the necessary heating effect. A flexible cable passes from each plate to a switchboard, where electrical connection is made. As the current is turned on in any of the cables, the plate to which it is attached is raised to the required heat, which is maintained evenly until the process of finishing is completed. The invention is a radical improvement on old methods; it may be applied largely by manufacturers of woven fabrics and paper in this country.

FIBRES UNDER THE MICROSCOPE.



KINGSTON COTTON MILL WRECKED BY A TERRIFIC STORM.

The terrible storm which passed over Kingston, Ont., on September 11, was the most disastrous that ever visited the city. Scores of buildings were partially or wholly wrecked by the hurricane, and the Kingston cotton mill, owned by the Dominion Cotton Mill Co., Ltd., of Montreal, was almost completely wrecked, the amount of the damage being estimated at about $70,000.

The wind struck the building full at the side, and one-third of the upper story wall of the main building was blown in and the *debris* thrown over the valuable machinery, crushing it to fragments. The wind then rushing into the cavity thus made, forced up a great part of the roof, and then threw it, with its lower side upwards, on the remaining portion. The combined weight resulted in both portions falling in on the machinery, which was completely ruined The force sufficient to accomplish this must have been terrific, as the roof is constructed of heavy plank upon still heavier timber, and of itself is an enormous weight. Each of the big beams upon which the planks are laid measures about ten inches wide by fifteen inches deep and about twenty feet in length, and was imbedded firmly at its outer end in the wall. The wall is about one foot in thickness and at least two feet of brickwork lay on the top of each beam. Then to the outside of the roof were attached the heavy shafting, the steam piping and sprinkler pipes, all of which made up a tremendous weight. Besides this, there were exerting a strong downward force six "mules," each of which was connected by a strong 3½-inch belt, to a heavy pulley fastened to the roof, and in addition there were about twenty belts averaging about 3½ inches in width connecting pulleys fixed to the roof, with the machinery firmly fastened to the floor. Notwithstanding this great weight, eight of the beams were torn out of their bedding, while the wall was blown from the ends of eight others, and the steam pipes, sprinklers and heavy shafting were bent and twisted as though they were made of fine wire, and the belts were snapped like thread. The machinery on the upper flat was almost completely destroyed, and two-thirds of the length of the roof on the eastern side of the main building will have to be built anew. The tower, which is considerably higher than the other buildings, was also much damaged, the roof being torn off and thrown a distance of 200 feet. The sprinkler pipes burst in several places and the water did considerable damage The work of repairing the mill was begun several days ago, and the mill will be in running order in a very short time The part containing the spinning mules damaged will, however, not be ready for over a month. The accident wrecked 3,600 spindles and six "mules," and 200 employés were temporarily thrown out of work.

CLOTH FOR A ROAD FOUNDATION.

At Martha's Vineyard, a town in Massachusetts, the Massachusetts highway authorities found, in building macadamised roads, that upon loose, sandy soil, much stone is wasted by being driven into the sand In such cases gravel when accessible has been placed upon the sand to a depth of 3 or 4 in., and the stone laid on this. By so doing the cost is greatly reduced There being no gravel at Martha's Vineyard, cheap cotton cloth has recently been spread upon the sand and over that the stone. It has been found that the sand does not then work up through the stone, and much less stone is required. Layers of tarred paper were tried, but without success, as the stone pressed through them. This is probably the first road foundation ever made with cloth. The following materials have in various places been used as road material, namely, cork, compressed hay, marble, pins, india-rubber, oyster and other shells, lead, iron and steel.

SPECKING AND BRUSHING WOOLEN GOODS.

After shearing comes specking. The goods should be drawn over the specking table and all specks, burrs, etc., removed Ink is sometimes used for coloring the white or light specks When this can be judiciously done, it is much more quickly accomplished than by picking them out with the irons. With ordinary black ink there is danger of spotting the goods unless they be very dark. A good ink can be made by using common printer's ink, reducing it to a liquid by adding spirits of turpentine. If the goods be light, the ink may be reduced to correspond. It should be applied with a pointed stick After specking, the goods should be drawn over the perch and thoroughly inspected, and if any threads are wanting they may be sewed in by a careful, fine drawer. This, however, is not approved of, believing it to be far better to rectify such imperfections before the goods are fulled, which is the only way to have the goods absolutely perfect. The piece should also be examined to find if there are any holes, and to mend such as can be mended, and make allowances for such imperfections as cannot be rectified

When this is done, the goods may be brushed preparatory to pressing. If the pressing is done in press-papers they should be as evenly and closely papered as possible, and after remaining in the press several hours they should be taken out and repapered so that the parts of the cloth which were folded be brought into the middle of the papers, when they should receive a second pressing The time for them to remain in the press should be governed by the weight of the goods, and determined by the judgment of the finisher.

W. Thomas, J Beiser, I. Davis, A. Sasseville, and E Richardson, all furriers, and L. M. Dagenais, A. Payeur, and L Lowenthal, tailors, of Montreal, were charged with arson on September 9th. These men are all alleged to have set fire to their business places, and have most of them secured more or less insurance money. The insurance companies had been for sometime suspicious of a number of fires that took place in business houses without clear cause, and therefore set men to make secret enquiries with the present result. Crown Prosecutor Quinn has stated that he has quite enough evidence to indict the prisoners and that the charges embrace a very large territory Mr. Quinn has just returned from New York, where he has been looking up the records of Beiser and others of the accused. Some of the prisoners are said to have been concerned in the incendiarism in tenement houses in New York two years ago. Mr. Quinn estimates the total amount of insurance paid out in the fires at over a million dollars.