

composed of about 100 curls, consisting of white pine shavings artistically grouped. The paracel is of Chinese pattern, covered with var-colored veneers and similarly lined. The effort has been made before to make a dress of wood, but without success. This attempt is thoroughly successful, the effect of the different kinds and colors of wood in the combination being very striking and artistic. The veneers are so thin that the costume is not very heavy, and so flexible that it is not liable to injury.

POSSIBILITIES OF PAPER.

An exchange says:—The daily papers notice, occasionally, some newly discovered use for paper, paper taking the place of wood in cabinet work, in joiner work, superseding iron in some instances, used for building material to withstand the action of the elements, and even for railway sleepers. Some of its recent applications are of importance enough to be recorded, but in many instances paper receives credit that should be shared by other materials. Paper, itself, is simply a vegetable pulp, made coherent in sheets, or "boards," by the aid of glue, sizing, or similar material, and compression under rolls. It is subject to the action of moisture, and is more or less combustible. Evidently, to resist the elements and heat, it must be subjected to changes from its original character. These changes are induced by a mixture of other materials, to such a large proportion in some instances that the paper pulp is only the matrix, or gauge, holding the other substances in connection and form. Plaster of Paris, whiting, ground asbestos, and even clay, are among the materials that may be incorporated with paper pulp to change its nature, and fit it for peculiar and unusual service. Paper is waterproof by saturation in tar, and thus resists, for a time, the pelting of storms. Some descriptions of wall-paper hanging are surfaced with clay, that not only gives a glossy finish, but also makes the paper partially resistant to the action of flame. It is possible, undoubtedly, to so charge paper pulp with an incombustible material as to allow it to be used as a chimney flue. Even without the addition of foreign material, the paper pulp is formed, by immense pressure, into barrels for merchandise, the body of car wheels, and other articles requiring great stiffness combined with lightness. Paper mache, a union of paper pulp and glue, and subjected to pressure, may be made almost indestructible when the surface is defended from outward attack by a proper enamel. The possibilities of paper pulp treated for particular uses is suggested by occasional additions to its employment seen in the markets. No two uses could be more directly opposed than vessels for holding water and articles for resisting fire; yet paper pails, wash-basins and other similar utensils are common, and excellent tobacco pipe bowls are made of paper. In the first instance, the material is defended by a water-proof paint or varnish, and in the other the pulp is mixed with ground asbestos to resist the heat of the lighted tobacco. These possibilities may be greatly extended, a paper pulp charged with other materials yields steadily to pressure in moulds, as well as to formation in sheets between rolls. There would appear to be no obstacle to its extended employment in interior house finishing as doors, door-frames, moldings, etc., and the framing for furniture.

AN INNOVATION IN PULP MAKING.

A new machine for preparing wood fibre for pulp, invented by a Gardiner, Me., man, is described as follows:—The purpose of the machine is to shave the wood off so finely that it is ready to go into the paper engines. It takes a piece of log 12 inches in length, which is revolved at a speed of 1,000 revolutions to the minute. A sharp cutter shaves the log, taking off a shaving so thin that it would take 750 of them to make an inch. As it takes about 200 sheets of ordinary paper to make an inch, one can judge somewhat of the thickness of the fibre made by this machine. The knife has a sliding motion, and gradually moves forward as the block decreases in diameter. In the first machine made, the principal trouble was found in keeping the knife sharp. As the knife became dull the fibre turned off became of uneven thickness; but this has been remedied by an ingenious arrange-

ment of whetstones that keep constantly at work on the knife while the machine is at work. The pulp the machine makes has not been tried upon the better class of paper, but it will work on the coarser grades, and the inventor is confident it will also be practicable on better grades. If it proves so, it will result in a great change in the manufacture of pulp. It makes it much faster, besides saving labor, and the saving in cost of transportation, the pulp being dry and therefore with no water to pay freight on, will be a good profit.—*Northwestern Lumberman.*

Mahogany Spurs.

A noticeable peculiarity of the mahogany tree, of which very few have knowledge, is seen in the numerous spurs, which are thrown out from the body of the tree, at regular intervals from the ground up the tree to the height of 12 feet or more, all of which grow downward like roots and finally enter the earth and become real roots. These spurs, often from 12 to 16 inches in diameter, are incomparatively superior to any part of the trunk for beauty of texture and color. These spurs are rarely cut by the loggers, on account of the great labor necessary, to avoid which the axemen build a hasty scaffolding of sufficient height, to enable them to cut off the tree above the spurs. So highly are these secondary roots valued for their beauty of grain and color, that of late years dealers are having them cut for the market, as an extraordinary prize. Some of these mahogany spurs have been sold for \$250 per 1,000 feet, board measure, while the body of the tree brought but \$40, at the port of exportation.

A Full-Fledged Saw Mill.

It is an interesting sight to witness a large full-fledged saw mill in working order. Logs come in at one end and go out of the other sawed into lumber, lath, pickets and shingles, while the refuse not worth sawing goes by means of elevators into the huge burner, where it is consumed. The slabs suitable for wood are hauled away and piled. Thus this process goes on day after day, until the close of the season, when a fresh campaign is inaugurated and crews go into the woods and chop down the monarchs of the forests, preparatory for another season's sawing. How long will this business last? Many years yet, but the day will come when 400,000,000 feet of lumber will cease to be sawed on the Menominee in a single season. Other industries ought to be started up and the resources of the upper wilds be fully utilized.—*Menominee Herald.*

A Boom Promised.

The *Buffalo Lumber World* says:—It is predicted that there is soon to be a boom in the timber lands of the Canadian Northwest. The *Lumber World* some months ago mentioned the probability that American capitalists would invest largely in Canadian timber lands, and it is now reported that American buyers are actually selecting the best and most accessible tracts of timber land in Manitoba. A thorough exploration of the section about upper Lake Winnipeg is to be made, and if its results are satisfactory, heavy purchases will probably be made. It is claimed that the finest spruce limits in the Northwest are to be found about upper Lake Winnipeg, a section where forests have yet been scarcely touched.

Then and Now.

The *Orillia Packet* says that Mr. John Knight, Manager of the Medonte Lumber Company, and Mr. Haddon, of Fox Mead, took a saw mill from Hamilton to Fort Garry, some twelve years ago. Then they would not take the whole country as a gift, because there was no means of ingress or egress. Now the immigrant may travel from Liverpool to Winnipeg in twenty days.

WE have received an admirable little work "The Woods and Timbers of North Carolina," by P. M. Hale, published by him at Raleigh, and by E. J. Hale & Son at New York. It contains a mine of valuable information and is another proof of the growing interest in such subjects. An excellent review of the whole adds to the value of the work. Such descriptions of the forest wealth of the various districts of



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AN Ottawa despatch of July 9th says:—The lumbering business is progressing well this season. Owing to the water being so high, there was no trouble this season in drawing the timber into the main stream. The cut of square timber last winter was a very large one, and numbers of rafters are now on their way to Quebec. They will reach that market earlier this year than formerly. The demand for square timber is quiet as yet, but the market, it is expected, will revive in the fall. It is thought that not so much square timber will be cut in the limits during the next season as in the past winter.