

WOOD PULP ~ ~ DEPARTMENT

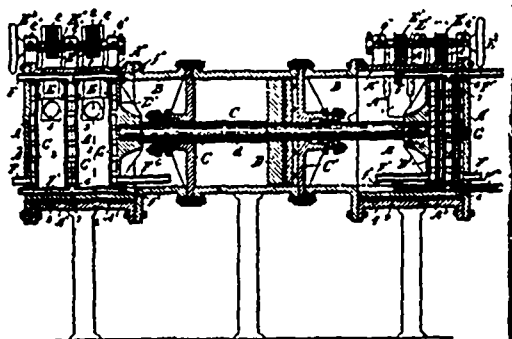
NEW WOOD PULP PRESS.

Mr. Joseph Stuart Hughes, of New Germany, Nova Scotia, has been granted a patent for a wood pulp press, as shown in the accompanying illustration. The claim is as follows:

The object of this invention is a machine having confined spaces into which the fluid pulp can be run intermittently and the water and air pressed out automatically, so as to leave a solid sheet of pulp in each space, a machine that can be handled with ease and facility and will do the work rapidly and with as little hand-labour as possible.

With this object in view the improved machine is made double-ended and double-acting, the pulp is forced under pressure, special facilities are provided for the escape of water and air, and special facilities for loosening the pressed sheets in the press after pressing prior to their removal.

The machine operates as follows: Assuming the



NEW PULP WOOD PRESS.

chamber at the left hand of figure 1 to be empty, the inner bottom A² lifted up tight, the door A¹ closed, the nozzle A³ connected to the delivery pipes of a force pump supplying the fluid pulp, the drain pipes, F, F¹, F¹¹, connected with a suction-pipe, and the valves E open, as shown, the spaces 2 are being filled with the fluid pulp under pressure. Immediately upon the entrance of the latter, and owing to the pressure on one side and the suction within the strainers on the other, water and air commence to be abstracted from it at once. When the spaces 2 are full of pulp, the valves E are closed by turning the wheel E³. Pressure is allowed to act on the averted face of the piston D, and it moves, pushing the plunger D¹ in the chamber now under consideration toward the head. The pressure thus exerted upon the pulp within the spaces 2 causes the water and air therein to pass through the strainer sheets G¹¹ and perforated plates G into the cavities of the strainer, thence through the

drain pipes F, F¹ and F¹¹, until the piston D and the plunger D¹ have gone as far as the solid pulp remaining between the strainers will allow, and thus have arrived at the end of their stroke, and all water has been abstracted from the pulp that is capable of being expelled by pressure. During the movement of the plunger, with its strainer, the central strainers, with its drainage pipes F¹¹, have slid along the chamber until the strainers, with the sheets of pulp between them, have been pushed against the head A¹ and have finally arrived in the position shown on the right hand of Figure 1. While this was taking place the chamber on the right hand gradually assumed the condition shown in the other chamber, the plunger D¹ making part of its return stroke and then engaging the lugs F¹ of the drain pipes F¹¹ and drawing them along, together with the central strainer. The door of this chamber having been closed, the valves E opened, and the spaces filled with pulp, the piston D and plunger D¹ are caused to commence the stroke toward the right, restoring the left-hand chamber again to the condition shown. In the meantime the door A¹ on the left was opened, the hinged bottom dropped, the strainers and sheets eased, and the pressed sheets removed. The same operation is then repeated. While pressing is going on in one chamber the other is opened, the hinged bottom dropped, the pressed sheets removed, closed again, the valves opened, and the chamber refilled.

THE OUIATCHOUAN PULP COMPANY.

The new pulp mill of the Ouiatchouan Pulp Company at Ouiatchouan, Lake St. John region, Quebec, was put into operation for the first time on August 17th. Upwards of three hundred persons from Quebec, Roberval, Chicoutimi and other points were present to witness the event. Mr. Etienne Paradis, of Quebec, is president of the company, and Mr. J. R. Lavery, secretary. The company is capitalized at \$150,000. The initial output will be about 50 tons of wood pulp per day, although no doubt this quantity will be increased later.

The mill, which is situated at the foot of the famous Ouiatchouan Falls, consists of one main building about 200x100 feet, and others which contain the barkers, heating apparatus, etc. Among the machines are six grinders and eight wet machines, and all are of the highest grade and the most modern type. The power is derived from a dam on the Ouiatchouan river, situated some 600 to 700 feet from the falls. From a short distance above the top of the cataract to the bottom stretches a steel flume 475 feet long and seven feet in diameter. Its weight is 200,000 lbs., or about

100 tons, and the railroad has been engaged in hauling this and other materials for the mill for about a year. From the top of this flume to the dam runs a canal, with walls five feet in thickness, its diameter being 15x15 feet and its length from 500 to 600 feet. Inside it is a pipe, fed by its water, down which the pulp wood will be carried to the mill, for the company has 150 square miles of pulp wood limits in the vicinity of Lake Bouchette and Lac des Commissaires. This supply, it is calculated, should last for 100 years.

PULP MAKING IN JAPAN.

A correspondent of the Paper Trade Journal recently visited Nagasaki and other important seaport towns of Japan, and relates his impressions of the progress made in pulp manufacture as follows:

"As is well known to the trade, the Japanese have had access to the proper wood fibres for making pulp for many years, but for lack of proper machinery have failed to accomplish very much. Recently, however, both the Chinese and the Japanese manufacturers have adopted American and other patterns of pulp making apparatus, and have accomplished considerable. In Nagasaki I found that there were several concerns representing the pulp making interests of the country. Not only are the poplar and other woods of the Empire used for this work, but there are processes of grinding cotton, linen, woolen, silk and other fibres of rags into a combination for boiling and reducing to pulp form. The logs are cut by the coolies and hauled to the mills. Spruce logs are brought in and the bark removed. I saw no effectual birking machines in use, although there were some of a home made pattern, fitted with revolving radial knives. These knives were not true or well sharpened in most cases, and the work progressed slowly and unsatisfactorily. The Japanese have ingeniously arranged stones for grinding the spruce or other woods. In some places American devices have been purchased for this work. The home made pattern is constructed on the same principle, but is smaller and less effective.

"Sulphite pulp is also manufactured. The timber is cut into suitably sized pieces, and the chips, after a careful sorting, are deposited in digesters, cylindrical in shape, and not at all like those in use in American mills.

"Then there is the cleaning operation, which is done much as in America, and by which foreign particles are removed. Chloride of lime is used in considerable quantities for bleaching. Screening is done on a cord plan. Compressed air or steam forcing devices are not used. In one place they had a sort of a spiral screw press device, and the pulp was placed beneath the platen in a cylinder, the bottom of the cylinder being fitted with perforated portions through which the pulp was forced by screwing the platen down on the mass. The water in the pulp is evaporated as a rule, although in some places the workmen squeeze the moisture out by passing the pulp through the ordinary cylinders. The pressing into sheets is effected by means of steel rollers.

A large consignment of wood pulp was recently shipped from Canada to Appleton, Wis.

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