

# WOOD PULP ~ ~ DEPARTMENT

## SODA AND SULPHITE PULP.

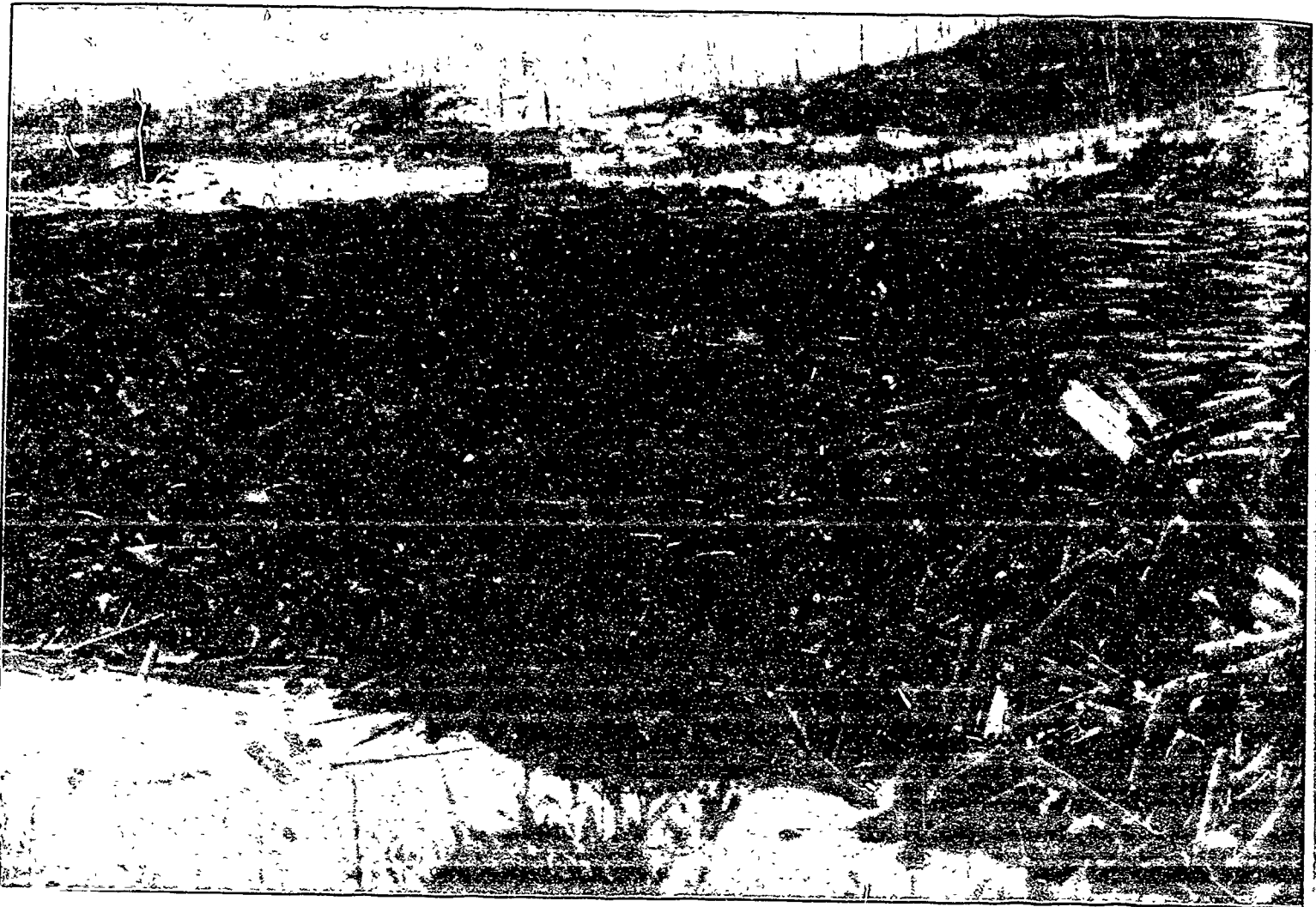
Dr. Max Muller, who has had a long experience in the manufacture of sulphite and soda wood pulp, states that 108.4 parts of sulphite pulp are obtained by the sulphite process from the same quantity of wood which yields 100 parts of soda pulp by the use of pure caustic soda. As this figure was obtained from many years'

the fluid at a high temperature is caused to impinge against any cast-iron part.

But perhaps the most serious objection to the sulphite wood pulp process is the foul odor escaping from the digester when the pressure is blown down after the digesting operation has been completed. This smell is so penetrating and offensive as almost to preclude the possibility

the sulpho-compounds becomes itself tainted, its disposal is quite as serious and a matter as the vapor itself. The best way of getting rid of the vapor is to first cool it, then all steam associated with it, and then pass it through incandescent fuel in the ordinary place of the recovery furnace. The sulphite compounds are then decomposed and the steam is destroyed.

Notwithstanding this serious objection to the sulphite process is the more frequently chosen, due to the fact that it yields a larger quantity of pulp from unit weight (or volume) of wood, that the fibre is stronger, has better bulking properties, and bleaches quite as well as soda pulp, and that the cost for alkali in



SPRUCE PULP WOOD PILED ON THE ICE.—THESSALON RIVER, ONT.

(From the Ontario Forestry Report)

manufacturing practice it is particularly interesting, and indicates clearly the advantages to be gained by pursuing the sulphite process.

The cost for alkali in the process is less than that in the caustic soda method. Salt cake is cheap and is easily decomposed into sulphides, but there is no doubt a larger proportion of alkaline salts to be dealt with in the sulphite process, which has a tendency to increase the labor account. Besides the presence of sulphide of sodium in the lyes, as well as the formation of this body in the furnace itself, gives rise to inordinate wear and tear. Lyes containing sodium sulphide act more severely upon cast or wrought iron than those containing pure caustic soda, so that the plates of the digester and tubes of the evaporator, if a multiple evaporator is used for soda recovery, are more or less acted upon and suffer injury in course of time. This is particularly the case in evaporators in which

of the manufacture being carried on in populous districts. In countries such as Norway and Sweden, where pulp works are, as a rule, far removed from centres of civilization, the manufacture can be carried on with impunity, but in England it would be practically impossible to do so, unless some special means were adopted to absorb or otherwise render harmless the vapors given off. The odor doubtless arises from the formation inside the digester at high temperatures of sulpho-compounds of the turpentine, and other closely allied bodies which exist in the wood, and which being of a highly volatile nature, pass away with the steam as the pressure is blown down.

Several schemes have been devised with a view to minimize the evil, such, for example, as passing the vapor through a scrubbing tower through which there flows a plentiful supply of water, but obviously the water which absorbs

aration is reduced to a minimum.—James H. Ridge, in The Paper Trade Review.

## THE FIRE AT GRANDE MERE

ON May 6th fire broke out in the mills of the Laurentide Pulp Company at Grande Mere. The first report of the fire was that the buildings of the company had been destroyed. This proved to be incorrect. The loss was confined to the pulp mill, chipper mill and saw house. Fortunately the magnificent paper mill and the saw mill of the company were saved by the shifting of the wind. An estimate of the loss places it at \$80,000.

The fire was caused by a heated shaft rope pulley leading to the pulp mill. Six days after the fire rebuilding operations were commenced.

The pulp mill contained a fine set of machinery made by the New England Machinery Co. of Sandy Hill, N.Y., with 300,000 gallons per hour capacity.