

DIVISION OF PULP AND PAPER

The major investigations carried out by this division during the year were as follows:

Sulphite Pulp from Jack Pine. Object: To develop a process of sulphite cooking which will yield a pulp of high quality free from resin.

Jack pine does not yield readily to the ordinary sulphite cooking process and endeavours to secure a satisfactory product by this process have as yet given far from satisfactory results, largely on account of the high resin content of the wood. In view of the large quantities of jack pine available the solution of the problem would be a valuable contribution to the pulp and paper industry.

The attempt was first made to eliminate resin by the use of cymene as an extracting medium. The results were unsatisfactory and the problem was next approached by careful manipulation of the cooking conditions. A material improvement was effected in the quality of the pulp. Further laboratory work, however, remains to be done.

Freeness as a Control Test in Groundwood Production. Object:

To determine the feasibility of applying the freeness test as a control in groundwood production.

The adaptability of this test to control work was investigated very thoroughly with promising results. The temperature of grinding was isolated as probably the most important factor in the