

In 1891, 24 mills were in operation with a capital investment of \$2,900,907, employing 1,025 persons, and with an output valued at \$1,057,10.

1901 and To-day.

In 1901 there were 25 mills with a capital investment of \$11,558,560, employing 3,301 people and with an output valued at \$4,246,781.

The most recent census, covering the year 1918, a complete digest of which follows, reports the existence of 37 pulp mills, 31 paper mills and 26 combined pulp and paper mills, a total of 94 mills, in operation. The total capital invested in the industry is given as \$241,344,704, of which \$12,520,765 is invested in paper mills exclusively. \$71,708,223 in pulp mills and \$157,115,716 in pulp and paper mills combined. By provinces Quebec leads in the amount of capital invested, with \$101,456,296; Ontario, \$88,576,807; British Columbia, \$42,705,988; New Brunswick, \$7,852,225; Nova Scotia, \$753,388.

The prairie provinces, Manitoba, Saskatchewan and Alberta, and the Province of Prince Edward Island are not represented in the industry. Tentative proposals have been made from time to time for the erection of one or more pulp and paper mills in Manitoba. An official statement furnished from that province for the purpose of this review says, "There are considerable tracts of pulpwood in different parts of the province, notably in certain sections of northern Manitoba not remote from the new Hudson Bay Railway. Projects for the erection of pulp mills or paper mills have been discussed at one time and another, and it seems more than likely that these will take some definite form in the near future, but as yet they have not been gone so far as the incorporation of any company for this specific purpose."

From the foregoing, it will be seen that Canada is to-day one of the greatest paper-producing countries in the world. It is probably destined in time to be the greatest. Canada's supremacy in this field rests upon the possession of extensive forest resources and adequate and abundant water-powers. The importance of the latter element may be

gauged from the fact that it takes practically 100 h.p. to make a ton of paper and that Canada's water-power development is probably the most economic in the world.

The great development of the industry, which has been a matter of comparatively few years, may be traced to several circumstances, not the least important being enactments by the Governments of the several provinces requiring pulp wood cut from Crown lands to be manufactured within the province; the growth in population and the spread of education which have increased the per capita consumption of paper in every civilized country; the great increase in the number of newspapers and periodicals, particularly on the North American Continent; the proximity of the United States with its rapidly growing population, its gradually diminishing supply of paper-making materials and its consequent increasing reliance upon other countries for its paper supplies, and lastly the improvement in paper-making processes, of which Canadian paper manufacturers have been among the first to take full advantage.

Spruce the Ideal Wood.

Rags were formerly chiefly used for the manufacture of paper, followed by straw, esparto grass, cotton waste and other substances. The Chinese, who are credited with originating the art of paper-making centuries ago, used both vegetable fibre and rags. They also used mulberry and other woods successfully in the production of pulp. Wood pulp is said to have been first used by the papermakers of Europe and America about the year 1860, but it was not until several years later that its use had become commercially successful. Out of the necessity of the time came the development of the chemical processes by which a good and cheap paper was evolved, but in the early attempts it was difficult to find the proper wood. Pine and poplar were tried, but without great success. The world was ransacked for wood better adapted for the purpose. Finally the chemist discovered that spruce and balsam were most suitable for the production of the ideal cheap paper and the difficulty was solved.