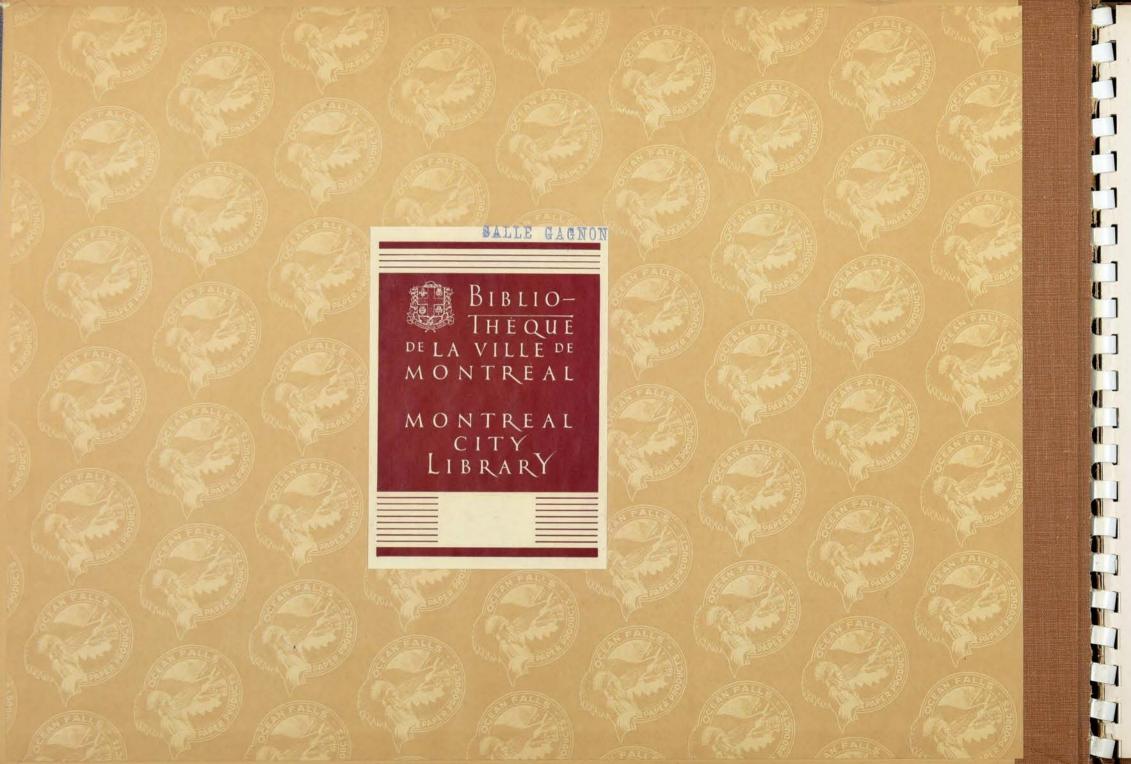


THE STORY OF PACIFIC MILLS LIMITED - VANCOUVER AND OCEAN FALLS, B.C.



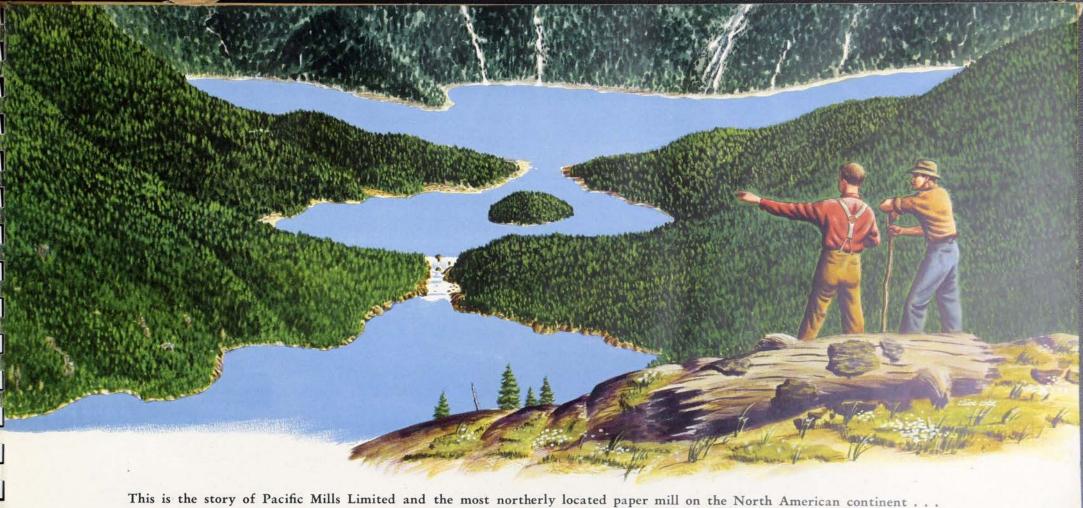


A Graphic History of

PACIFIC MILLS LIMITED

MANUFACTURERS OF PULP AND PAPER AND PAPER PRODUCTS

Mills at Ocean Falls and Vancouver, British Columbia, Canada Executive Offices: Vancouver, British Columbia, Canada



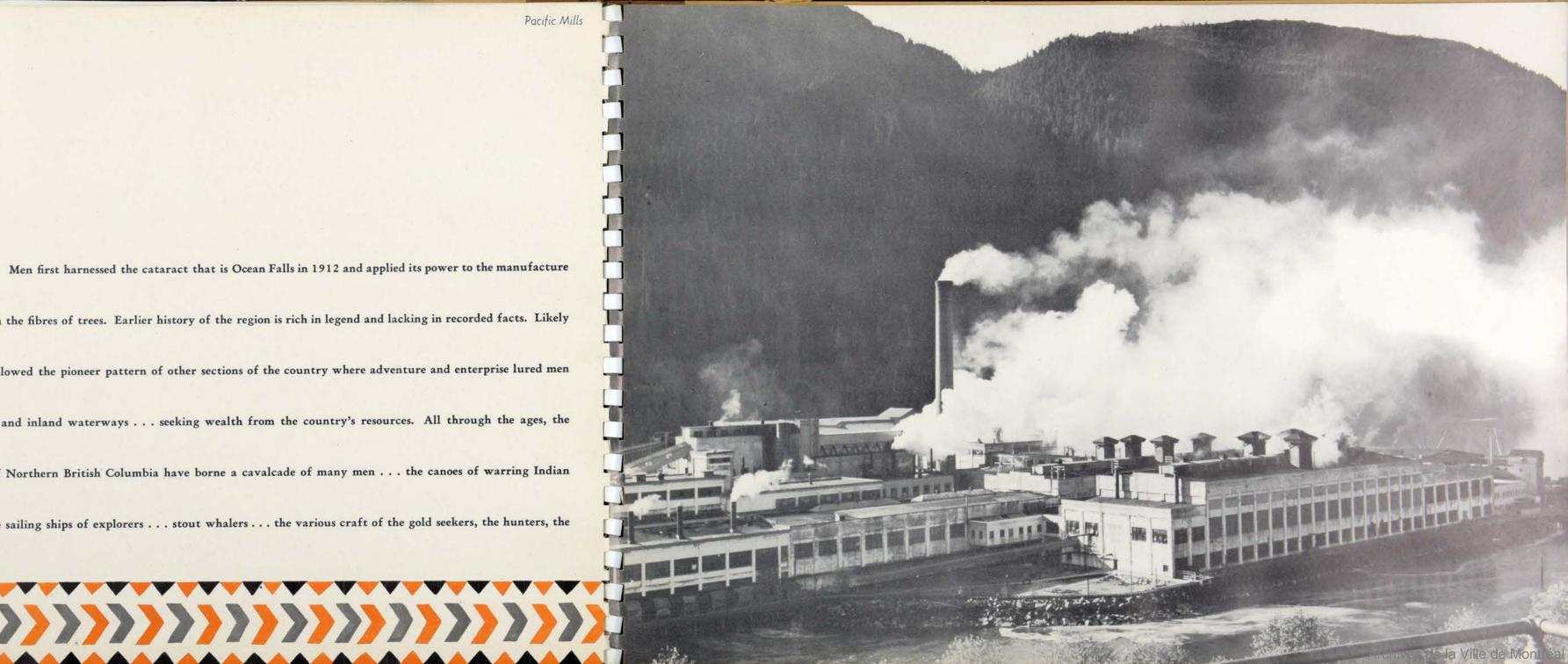
Ocean Falls . . . manufacturing one of British Columbia's leading products—pulp and paper. Its pioneer founders selected a site 27 miles above the Fifty-second Parallel in a land of trees and water. Here they set the foundation stakes for what has since become an important unit in the industrial life of Canada's Pacific Coast. The model town of Ocean Falls took its name from a cataract that plunged rain water and melting snow from encircling forests and mountain slopes into an inland reach of the Pacific . . . trees, water power and tide water, a formula for a big industry.

Ocean Falls, British Columbia Mine is a rock-strewn sward, bared to sun and snows. Amid blue-green spruce and graceful hemlock stands; Streaked with pungent alder and cottonwood groves, Faced to the west . . . a sight of seas and far-offlands.



EAGLE MONUMENT

picted above was carved out of cedar and placed on the top of a surface burial and denoted a member of the Kwakiuti Eagle Clan of Bella Bella of paper from the fibres of trees. Earlier history of the region is rich in legend and lacking in recorded facts. Likely enough, it followed the pioneer pattern of other sections of the country where adventure and enterprise lured men up the fiords and inland waterways . . . seeking wealth from the country's resources. All through the ages, the waterways of Northern British Columbia have borne a cavalcade of many men . . . the canoes of warring Indian tribes . . . the sailing ships of explorers . . . stout whalers . . . the various craft of the gold seekers, the hunters, the





DOUGLAS FIR

(Pseudotsuga taxifolia), also known as Oregon Pine and Douglas Spruce

A coniferous tree which prefers fresh, well-drained, porous, deep, loamy soils, avoiding saturated, poorly drained heavy soils. Most gigantic tree of the Pacific Coast forests, with the exception of the great Sequoias of California. Commonly grows from 150-200 feet in height with diameters from 3½ to 5 feet. Has wide range in the interior of B. C., but chiefly confined to lower part of coastal.

Very valuable for construction timbers. Also suitable for normal lumber products, finishing lumber, spars, veneer and pulp. the age of TIMBER! Today, across the vast expanse of Canada extend the lengthening roots of world trade . . . a trade born in the fur markets 275 years ago . . . a trade which today places Canada amongst the world's leading nations, despite a population of only 12,000,000 people. Armed with a charter from King Charles II of England, one, Pierre Esprit Radisson, first opened Canada's rich fur resources from Hudson's Bay south to the St. Lawrence basin—to be followed by a never-ending concourse of mariners, merchants, traders and adventuring pioneers upon whose enterprise

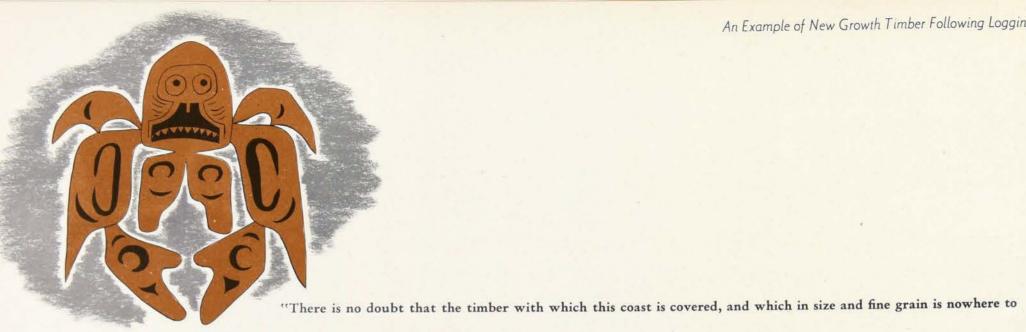




ARCHAIC THUNDERBIRD AND KILLER WHALE (Spindle Whorl)

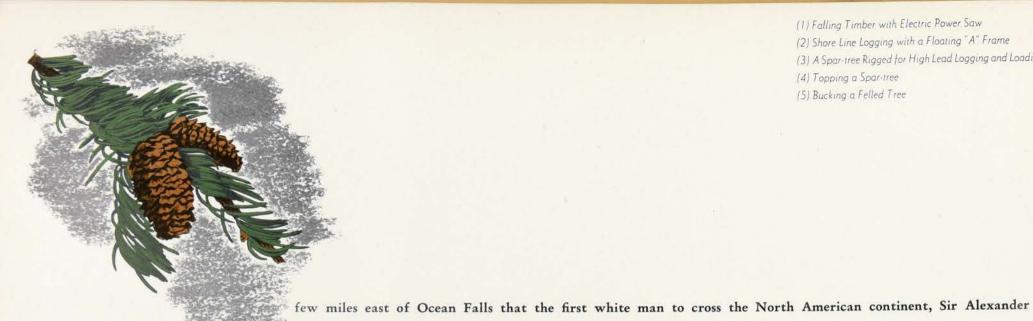
Carving of spindle whorls was peculiar to and reaches a high standard among the members of the Salish Tribe. These "Whirls" or "Whorls" were made to assist rapid manipulation of thread spun from cedar bark fibre and other substances used for weaving of blankers, ciothing or fishing nets. Atlantic Coast, was followed 120 years later by yet another of no less importance—this time in the ocean wastes of the North Pacific. A hard-drinking Russian, Aleksandr Andrevich Baranov, arrived at Three Saints' Bay, Kodiak Island, off the Alaskan Peninsula in 1790. Baranov was commissioned to secure the sea otter fur trade against encroaching British and Boston Yankee traders. The otter pelts brought high prices in the markets of Canton and Pekin. British and American trading ships were close on the heels of Baranov but not before he had a trading





be excelled, would compose a valuable addition to our trading, as this article carries a very advanced price in China and is always in demand there, especially such of it as is fit for masts and spars." As with Canada's Atlantic coast, so did its coast on the Pacific develop in trade and enterprise from the search for furs by the nations of the world. Thus, Bering, Baranov, Cook, Meares, Vancouver, Hanna, Quadra, Hecata, Perez, de Fuca and the indomitable Drake ranged the Pacific Coast of America in search of new trade wealth. It was but a





- (1) Falling Timber with Electric Power Saw
- (2) Shore Line Logging with a Floating "A" Frame
- (3) A Spar-tree Rigged for High Lead Logging and Loading
- (4) Topping a Spar-tree
- (5) Bucking a Felled Tree

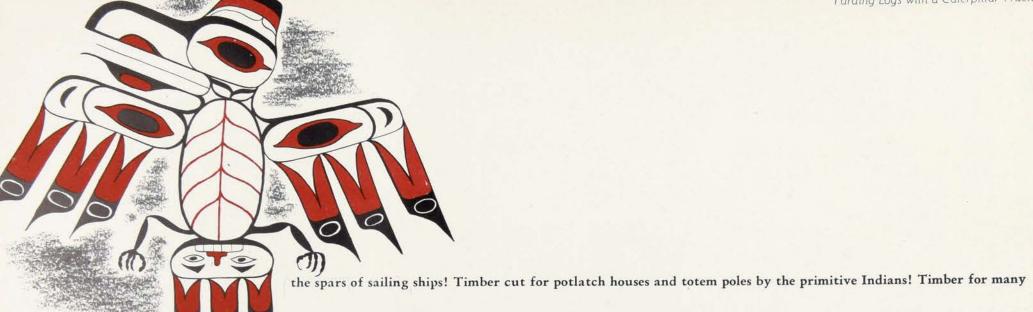
ENGELMANN SPRUCE (Picea Engelmanni)

A coniferous tree occurring in the interior of the province, preferring land moist from springs, seepage or overflow. Of merchantable size stunted or depressed at timber-line. Occupies plateau sites in proaching valley floor as you progress north. In dense stands, feet and a diameter of from 18 to 36 inches. At high altitudes it is often not more than 2 or 4 feet high.

Similar to White Spruce—the two may be cut together without distinguishing them. Suitable for pulp wood, cooperage, sounding boards in pianos, violins and normal lum-ber products.

MacKenzie, first sighted the Pacific Ocean. To Juan Perez of Spain goes the distinction of being the first explorer to skirt, in 1774, the coasts of Vancouver Island and the Queen Charlotte Islands. Thus, the struggle for supremacy in the North Pacific fur trade gave birth to British Columbia's vast timber industry and the consequent development of the country's spectacular wealth of natural resources. The Queen Charlotte Islands, Vancouver Island and the coast of the British Columbia mainland have special significance in this volume. Timber cut down by sailors for





RAVEN (Haida)

Distinctive features of Haida Artare shown above. Note conventional representation of the joints, wings and talons, as well as the symmetry, balance and vitality of the whole design.

needs across the oceans! Timber for log-cabin shelters of the pioneers! Timber for the ties of Canada's first railroads and timber for the homes of her first citizens! An Empire of timber, with no one then dreaming that from it, man would one day fashion one of his most versatile products—paper! TIMBER! The climatic conditions of areas on both sides of the Fifty-second Parallel contribute in lavish measure to the quality and growth of tall spruce and hemlock in large stands. The islands and the mainland of the region are swept by a branch of the warm Japanese





Current which influences the local climate. As the warm current strikes the colder air and water from the north,

an excessive humidity is developed, resulting in rain and fog in summer and sleet and snow in winter.

WESTERN HEMLOCK (Tsuga heterophylla)

A coniferous tree which occurs in the wet belt region of the interior, but has a wide range on the coast. Prefers lower slopes, flats and stream bottoms. Best growth in deep, porous, moist soils. Grows from 125 to 160 feet high and from 2 to 5 feet in diameter.

from 2 to 5 feet in diameter.

Of primary importance for pulp, lumber and plywood. Valuable for tannin from bark.

Summer temperatures never exceed 90 degrees. The annual rainfall may measure anywhere from 80 to 180 inches, varying radically according to local topography. Winter temperatures average about 33 degrees Fahrenheit and rarely touch zero. Thus Nature produced prime conditions in this belt for sustained forest growth.

TIMBER! Mile after mile of Timber! Water! Water everywhere! Water in abundance to turn the wheels of





CARVED SLATE BOX (Haida) State carving is believed to be a relatively recent origin, the state being black argillate found only. Skidegate, Queen Charlotte Island State boxes were skilfully carve and beautifully polished. Mos familiar form of state carvings at representations of myths on minutive policy.

of impurities and mineral content due to its short traverse from the hills and across forest floors to the sea...

ideal for paper making. The industrial founders of the community of Ocean Falls stepped ashore in 1910 and began
the job of harnessing the waterfall. There, they built a dam, a sawmill and a small groundwood mill, and commenced
construction of the town in which its workers were to live. This was a brave effort for it was a far country, reached
only from the sea. In 1915, when Pacific Mills was incorporated, having taken over the original Ocean Falls



A Logging Railroad Scene



SITKA SPRUCE

A coniferous tree occurring on the coast of British Columbia, particularly on the Queen Charlotte Islands. Found mainly at low elevations, generally in moist, coast alluvial and sandy bottoms, along streams, and especially on moist slopes facing sea. Best growth in constantly moist, deep, rich soils and in humid atmosphere. A large and massive tree when fully grown, often attaining a height of 160 to 200 feet and a diameter of 8 to

An excellent pulp species. Suitable for high-grade finishing lumber, veneer, cabinet construction sounding boards, boats and oars. Particularly valuable for airplane con-

Company, plans were made to expand on the development and manufacture of newsprint. When the first roll of newsprint rolled from the paper machine in 1917, there were but a few employees in the paper mill, as compared with the present vast organization, and those who did not reside in bachelor dwellings brought their families to begin a new life in the community's original fifteen homes. On that foundation, Ocean Falls and Pacific Mills Limited began to build. How well the founders and those who succeeded them have built and expanded may be seen from its record of progress. Today, Ocean Falls is a community of 2500 people living in nearly 500 modern homes, apartments and





The Lightning Snake (Nootka) The "Haietlik" or Lightning snake was a mythical creature constantly associated with the Thunderbird, satisfy his hunger. He is sup-posed either to have tied it round his waist or carried it under his wings, from whence he launched it as a harpoon to kill his chosen

a hotel. The annual production of the paper mill now includes 75,000 tons of newsprint, 46,000 tons of miscellaneous papers and 14,000 tons of Machine Dried pulp-a total of 135,000 tons per annum. And there have been further expansions in works and the numbers of workers far into the woods and at Vancouver, B.C., where the headquarters of Pacific Mills and its modern converting plants now operate. This present day production is great when compared with the original plans for a mill having a daily production of some 175 tons or 52,500 tons per year. TIMBER! Timber transformed into paper! Only a few logs coming at first—and from areas in close proximity to the mill.





GRAND FIR (Abies grandis), also known as Lowland Fir, White Fir, Balsam

A coniferous tree of most situations, at its best in coast region on stream bottoms at low levels, preferring moist, well-drained soils. Usually found with Douglas Fir, Sitka Spruce, Western Red Cedar or Western Hemlock. Commonly grows to height of from 150 to 200 feet, with a diameter of from 3 to 4 feet.

Wood used for boxes, crafes, lumber and pulp. Then the demand for paper grew and the loggers travelled ever further afield until it became necessary to lash the logs they had felled into Davis rafts for sea-going voyages as far as 200 miles to the mill. TIMBER! The need for it grew apace. Viewing the future, the company continued to acquire it until today, the Ocean Falls mill is served from vast areas of company owned or government leased timber, containing several billion feet. It is estimated this is sufficient mature timber to supply the Plant for from thirty to forty years and, in addition, there is the enhancement of supply of new growth. There is also available by purchase on the open market, a substantial quantity of





TATTOO MARK

The Beaver figures prominently among the Crests of the Eagle. Phratry of the Tsimsyans, as well as among those of the Haida A kindly creature, he was credited with bringing warmth to the shivering mortals along the Fraser River. In order to accomplish this, he stole fire from a far-away, selfish people, with the help of the Eagle. The first house in the world was built by the Father- of all the Beavers.

Paul E. Cooper

Pacific Mills Limited

pulp logs. The present annual average consumption at Ocean Falls is approximately one hundred million feet. A staff of forest engineers is busy organizing these areas for management on a sustained yield basis. This modern control embraces all phases of forest management including silviculture, protection from fire and disease and the orderly harvesting of the forest crop. Most of these forest tracts contain much fully matured timber, a large proportion of the trees being several hundred years old. Efficiently managed forests of older countries do not have to meet this condition. Nevertheless, this problem has to be dealt with in the present crop rotation period. Forests

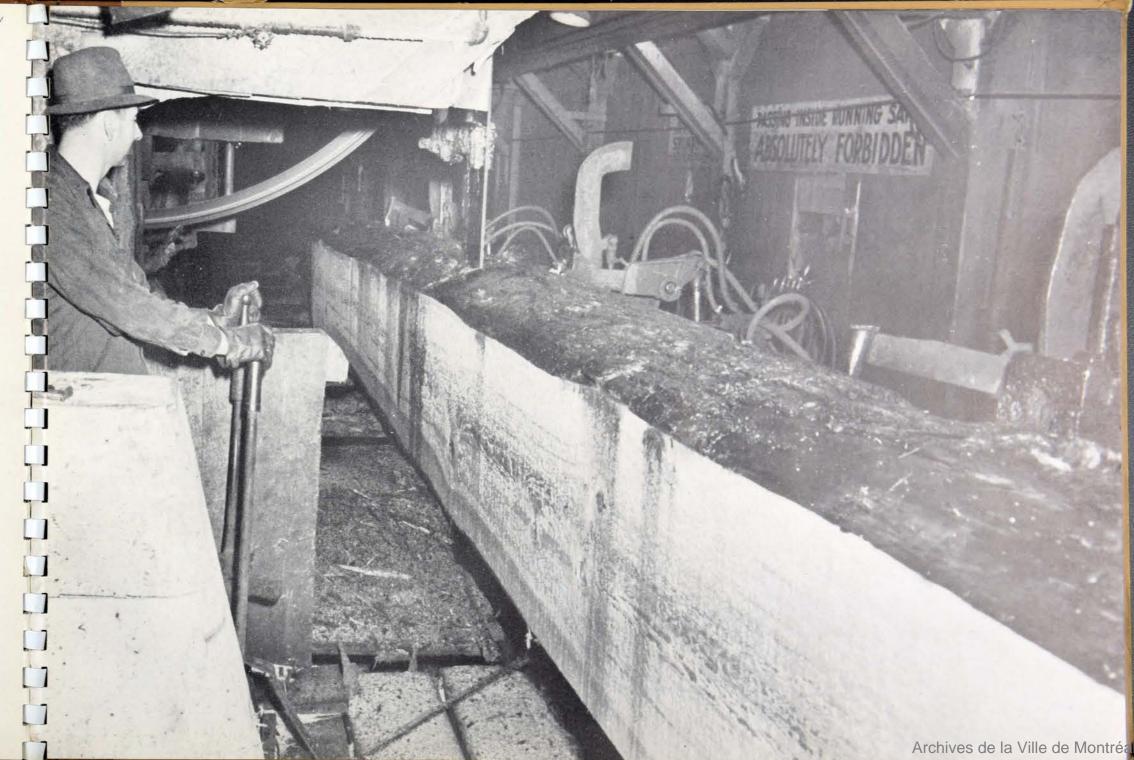


AMABILIS FIR (Abies amabilis), also known as Lovely Fir,

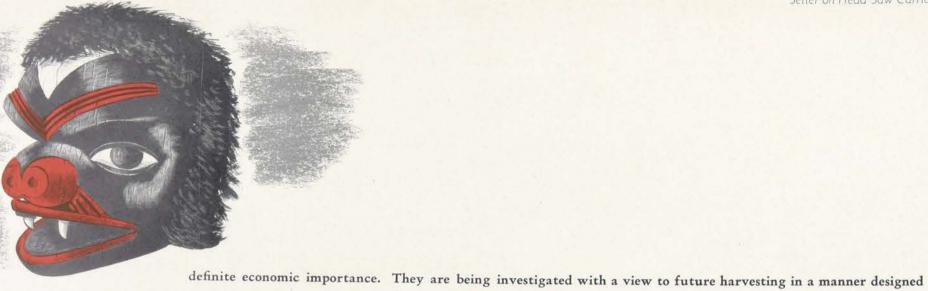
Found on well-drained, lower slopes of canyons, benches and flats, preferring northern exposures and well-drained, shallow, gravelly sand A coastal species A straight tree, clear of branches for from 50 to 100 feet in close, dense stands Grows to height of from 150 to 180 feet (sometimes 200), with diameter of from 3 to 5 feet. A coniferous

Amabilis Fir is similar to Grand Fir Both are cut by loggers who do not distinguish between them and both are sold on the market as "White other causes. Depletion is being correlated with supply and demand in order to assure a continuous supply of logs for manufacture into paper pulp and lumber. In due course, these areas will be converted into controlled producing forests on an organized sustained yield basis—all of which is a giant forward step when it is remembered that fifty years ago, logging on the Pacific Coast was a matter of immediate profit and the logs were hauled from the forest by yoked oxen called "bull teams." Today, in contrast, the science of forestry also considers immature forests of

with old growth areas are being studied and organized for scientific cutting to reduce losses from decay, insects and



Setter on Head Saw Carriage



FAR MASK (Haida)

This mask is associated with one of the principal Secret Society Dances among the Halda, Kwakiutl and Nootka tribes. The latter claimed that both the Bear and Wolf Dances had been instituted among them by the animals themselves. During their celebrations they wore the skins of the actual animals.

to obtain the greatest economic return within the limitations of a sustained yield control. In forest stands where cutting is in progress, the logging methods employed are those considered to be best from the standpoint of sound silviculture and successful regeneration. The practice is to clear cut patches and care is taken to ascertain that seed sources are not too far removed from the clear cut areas. Thus, natural regeneration is assured. Although these forests are located in excessively humid regions with consequent minimum of menace from forest fires, every adequate measure





VECTERNI LADOH

(Larix occidentalis), also known as Tamarack

A deciduous conifer found on mountain slopes (preferring north and west exposures), stream bottoms, valleys and flats; best in deep, fresh porous soils. Occurs in the southern interior of B. C. The largest and most massive of North American larches, growing normally to a height of from 100 to 125 feet (sometimes over 200), and to a diameter of from 2 to 3 feet (sometimes 8 feet).

Cood wood for posts, greenhouse stock, water tanks and silos, garden frames, etc., where the wood is in contact with moist soil and air. Valuable for lumber and railway tries protective measures. About fifty per cent of Pacific Mills Limited log supply is taken from the Queen Charlotte Islands.

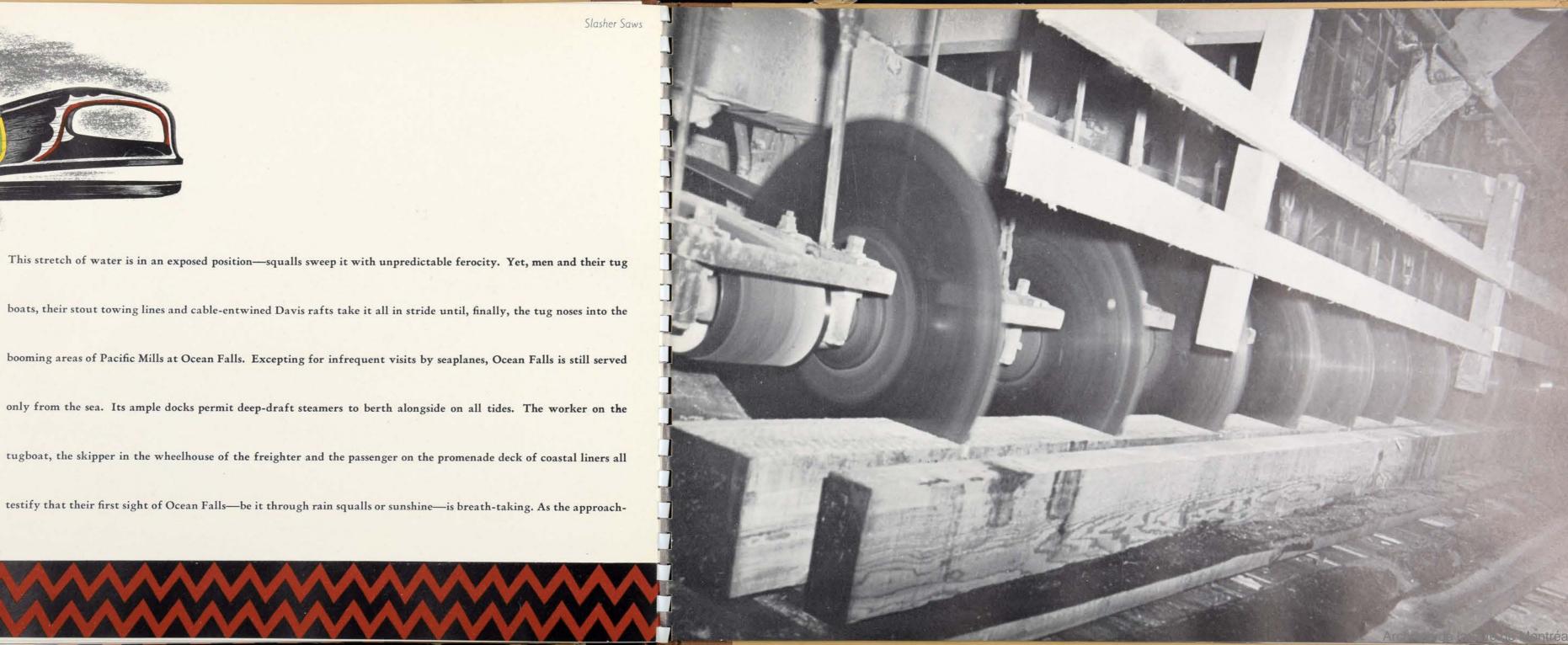
When it is considered that this area is upwards of 200 miles by water from the Ocean Falls plant, a towing problem immediately presents itself. The felled trees must be cut to length, yarded or assembled by specially designed tractors and machine-powered cables and thereafter, hauled to tidewater or booming ground by railroad or motor truck.

Thence to Ocean Falls by sea. The tow across Hecate Strait to the mainland is not without adventure and hazard.





boats, their stout towing lines and cable-entwined Davis rafts take it all in stride until, finally, the tug noses into the booming areas of Pacific Mills at Ocean Falls. Excepting for infrequent visits by seaplanes, Ocean Falls is still served only from the sea. Its ample docks permit deep-draft steamers to berth alongside on all tides. The worker on the tugboat, the skipper in the wheelhouse of the freighter and the passenger on the promenade deck of coastal liners all testify that their first sight of Ocean Falls-be it through rain squalls or sunshine-is breath-taking. As the approach-



YELLOW CEDAR

(Chamaecyparis nootkatensis), also known as Alaska Cedar and Yellow Consess

Common at higher elevations on the lower coast of British Columbia and at sea level farther north Usually in sub-marginal and scrub forests. A coniferous tree. Grows to height of 75 to 80 feet (sometimes 90 or 100 feet), and diameter of from 2 to 5 feet.

Well known for cabinet lining, trunks, spring-boards, battery separators, boats, furniture and interior finishing. of lonely fiords and the tall ramparts of the rugged coast to the south and north. Suddenly, the eyes come to rest on gleaming white houses nestling in terraced orderliness around a giant bowl at the channel's end. Ocean Falls has a pleasing appearance—a well-groomed look. Its smartly painted homes and apartment buildings, with roofs of green and red, appear to be climbing the sharply-rising hillsides as though to gain a better view of the sea. Ocean Falls differs entirely from the serried and sullen monotony of old-type industrial

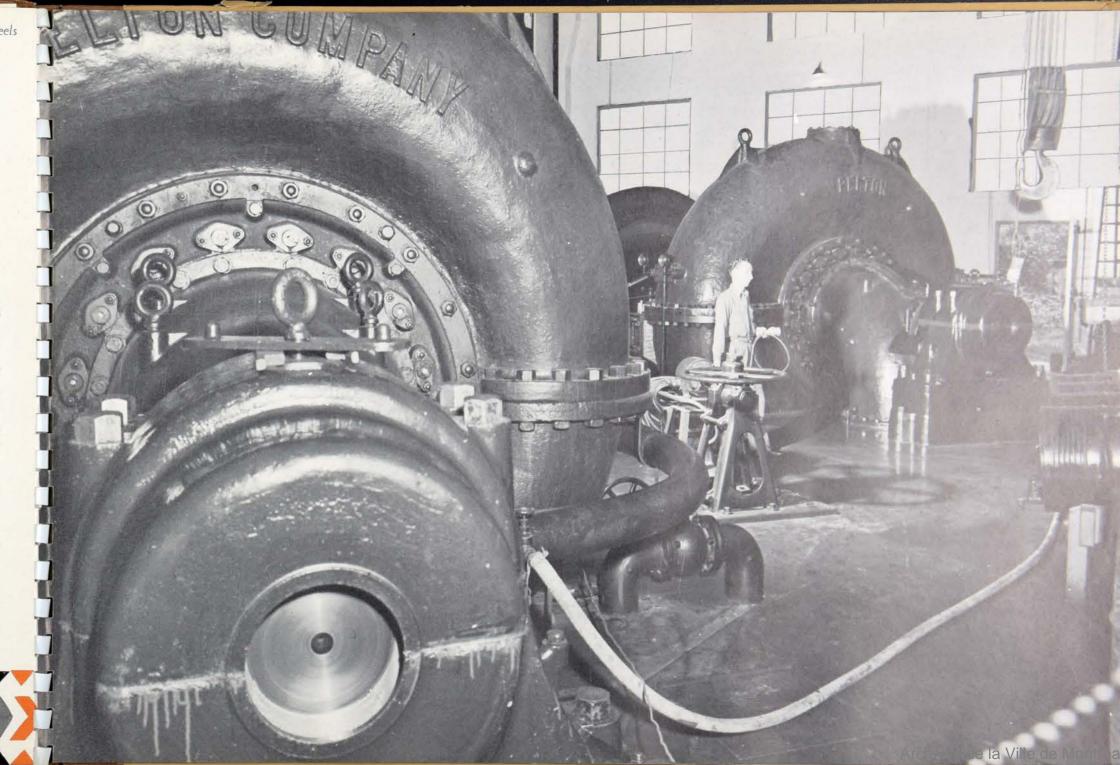


MOSQUITO (Haida)

Origin of the mosquito is traced by the Haida to an adventure of a mythical tribal ancestor called upon to destroy a giant spider, a mortal enemy to mankind. This man killed the spider, threw the body into a large fire, but, instead of being burned, the monster merely shrivelled up and escaped in the form of a tiny mosquito carrying a small coal of fire in his proboscis. Since then, instead of killing men, the former giant spider now only sucks a little blood, leaving a particle of fiery ash in every bite.

were alert in recognizing that the calibre and quality of its paper mill workers depend in large part on the security and contentment of the families. In addition to providing work at the paper mill, they recognized that it was necessary to develop a healthy community atmosphere firmly embedded in the homes, the schools and the places of worship.

In 1943, the company completed new housing facilities at a total cost of about one million dollars. Today, the apartments and duplex homes are fitted with practically all available electrical advantages—and are heated by steam.



Revolving Drum Barker



WESTERN YELLOW PINE (Pinus ponderosa), also known as Bull Pine or Ponderosa Pine

A coniferous tree occurring throughout the dry belt of the interior of B. C. Crows on all soils from glacial drift and volcanic ash to deep, loose sands and stiff clays; dry, well-drained, sandy or gravelly soils most characteristic. Normal height ranges from 90 to 140 feet, with diameters of 3 to 4 feet being common.

Suitable for cabinets, cupboards, pattern-making, toys, crates and boxes and general construction

Yet, with all this, plans are now being prepared for the building of a larger, more modern, fireproof hotel with public restaurants. The visitor receives a succession of impressions of Ocean Falls, from the immensity of its pulp and paper industry to the neatly-housed community with its store . . . hotel . . . bank . . . fire house . . . churches . . . schools and hospital. Canadian governmental authority is also represented by a customs officer, a postmaster and the British Columbia Provincial Police. The most frequently visited building in all the town is the general store. Here, all

rent of the homes are neat with board walks which blend with the lush lawns and gay flower gardens.



RED WINGED FLICKER

According to one version of the myth recording the origin of the Haida use of this bird as a crest, an old woman strikes a piece of wood with her "Wonderful" stick, changing it into copper. This is hammered into a bow which the old woman gives to her grandson, who thereupon kills many flickers, the feathers of which he insists that his grandmother make into a ceremonial cloak for him. This beautiful representation of the bird was painted in crayons by Chief Edensaw of Masset).

Ocean Falls comes to buy its fuel, hardware, jewelry, meat, groceries and clothing. Here, the children come to get their shoes half-soled, and mother selects the new chesterfield. Father brings his watch for repairs... the bride selects her first set of dishes... fishermen and hunters outfit for the season... steamer passengers cluster about the three floors of counters commenting on the variety of merchandise and its price parity with larger Canadian city stores.

The general store is a busy place always. The clean, smart appearance of Ocean Falls is reflected in the rosy cheeks of its many healthy children. As elsewhere in British Columbia, by arrangement between the School Board and the

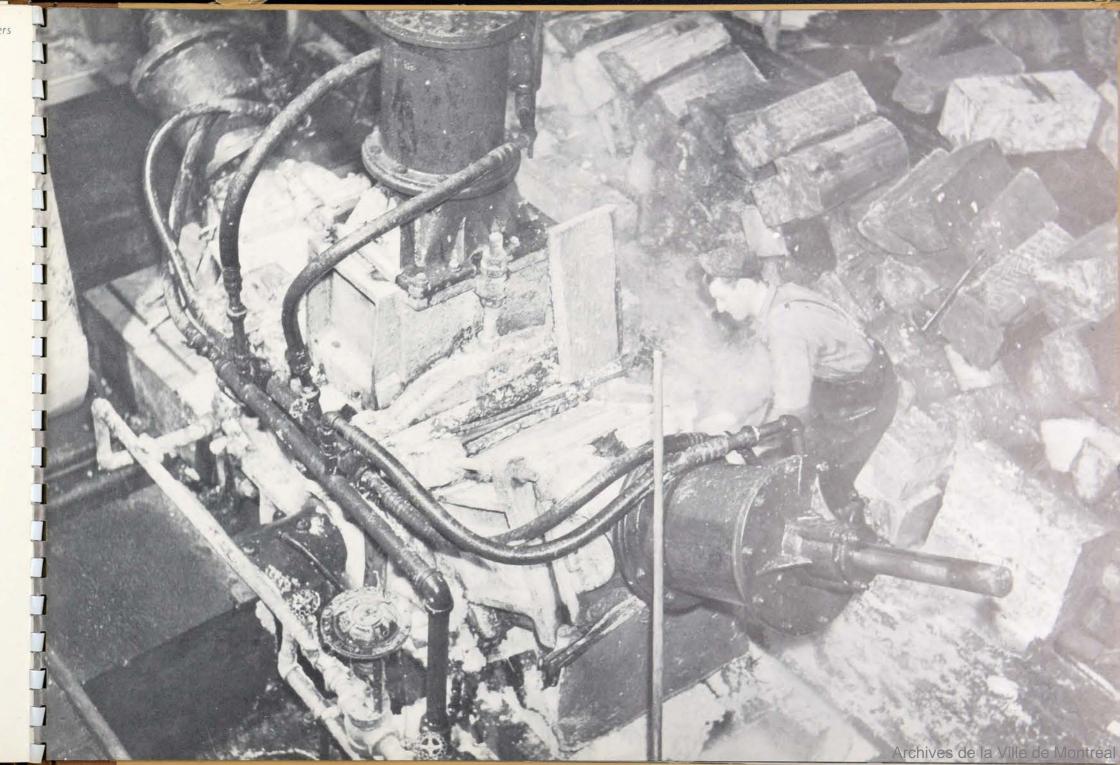


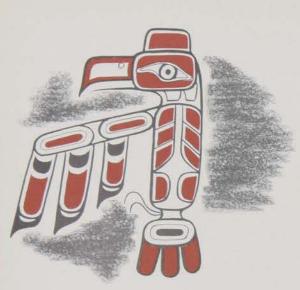


Found in cool, moist and, in part, subalpine situations, commonly on slopes at timberline. Best growth on fairly deep, loose, moist soil. One of the smallest of Pacific Balsams, growing to a height of from 60 to 90 feet, with diameter from 14 to 24 inches. In exposed situations it may be under 3 or 4 feet in height. A coniferous tree. Suitable for box lumber and pulp.

reveal the highest health averages are enjoyed by those who have lived longest in the community. Here, again, planning for health as well as for industry has a great deal to do with health conditions which are uniformly good. In a compact community such as Ocean Falls, a doctor is rarely more than several blocks away. The hospital is completely equipped and staffed with two doctors, 12 nurses and other assistants. It has a modern operating room, X-ray and Diathermy machines and twenty-eight hospital beds, as well as eight bassinettes to care for the new-

Provincial Health authorities, the children receive regular and systematic medical and dental examinations. Records





EAGLE CREST House Front Painting

The Eagle, prominent as one of the two great phratnes of the Haida, is familiar in the decorative artistic output of the Northwest Coast Tribes. He is distinguished by the downward curve of his beak. Shukum, the Sun, apparently assumed the form of "Skamswn", the Eagle, in some Haida myths, and also plays a part in legends of the Interior as well as in those of the Coast.

requirements. British Columbia is proud of her school system. It is therefore to be expected that education at Ocean

Falls would be strongly emphasized. Well-staffed grade and high schools have accommodation for 350 students. They

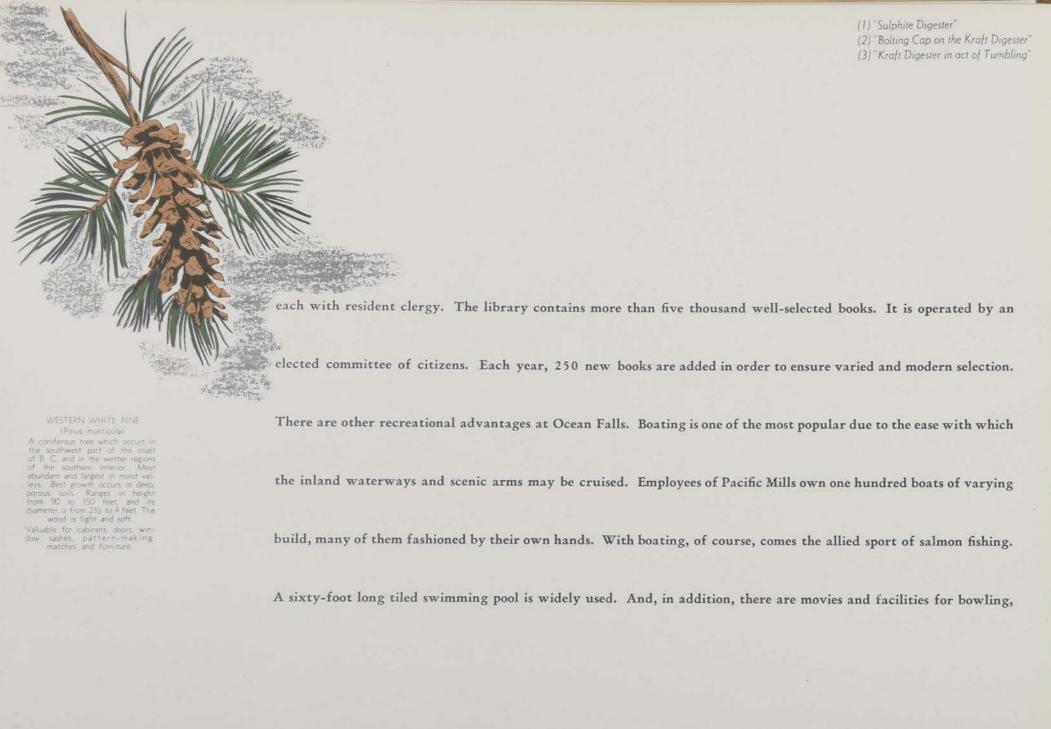
receive expert instruction to a point where they may enter the higher institutions of learning elsewhere in the

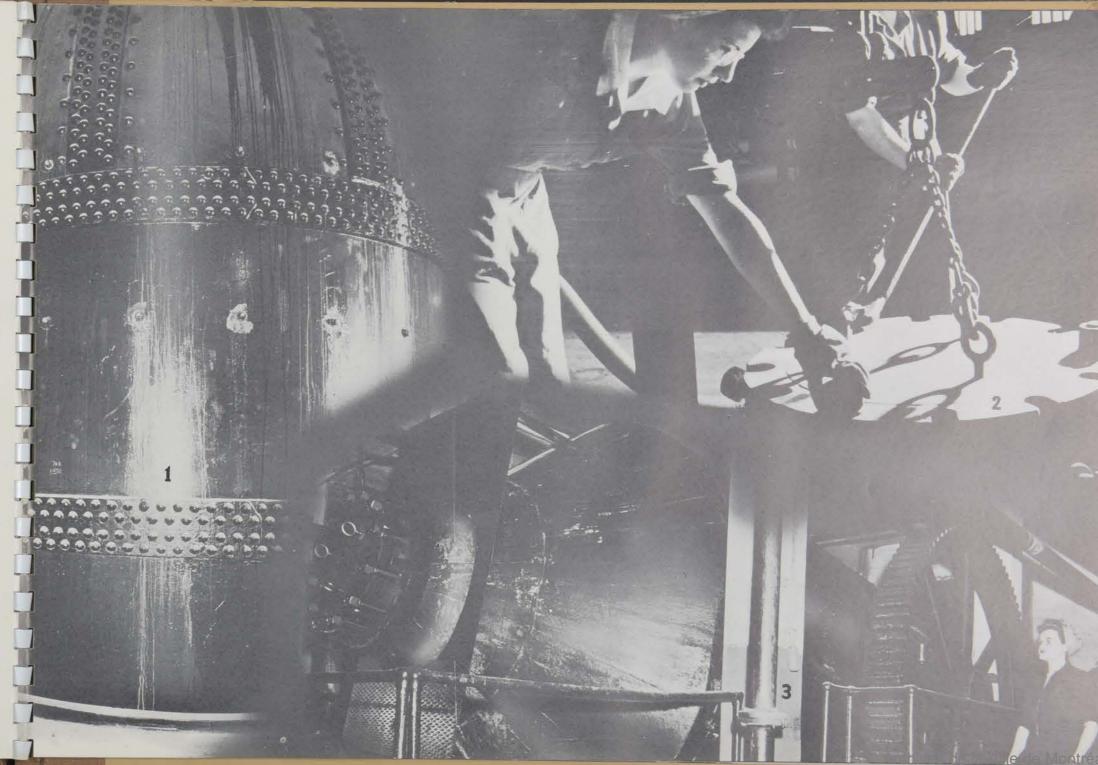
province. The number of graduates who have continued their studies in colleges or universities presents a proud

record. The spiritual life of the community is attended to by the Anglican, Roman Catholic and United Churches,





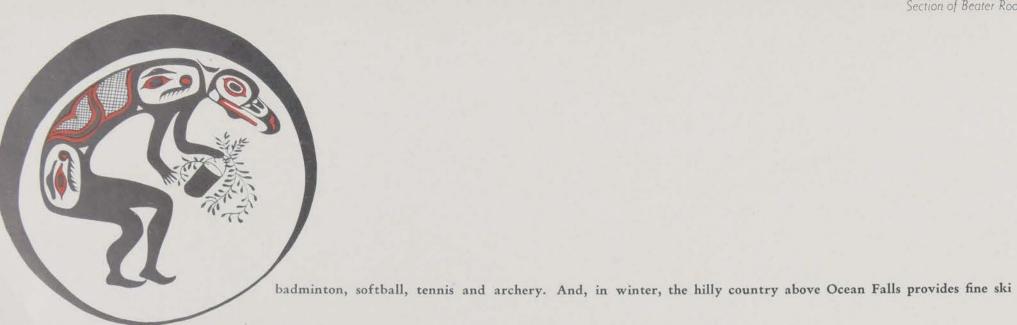




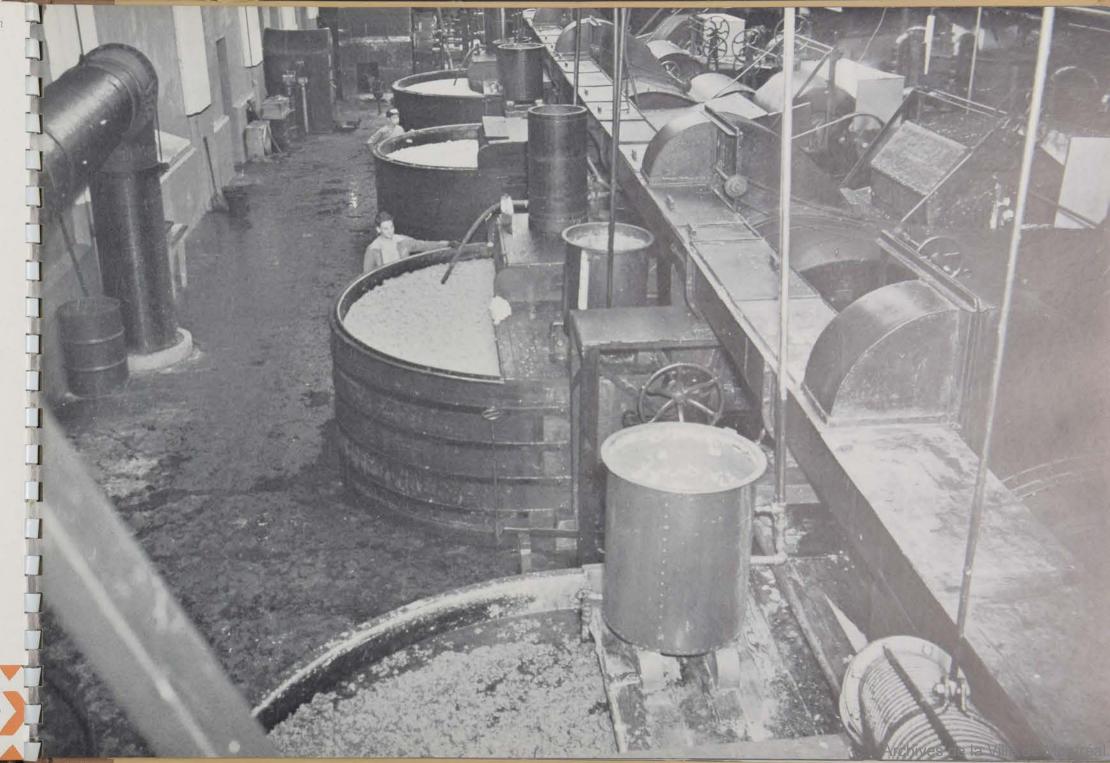








terrain. Enjoying such an ample community life, its people are naturally industrious. There are few idle hands. The paper mill is an around-the-clock activity. From the time the logs are hauled up the sawmill slip until they emerge as paper, there is continuous action within the many housed areas of the plant. The mill is equipped with six paper machines. Two produce newsprint at speeds up to 1200 feet per minute and manufacture a total of about 250 tons in twenty-four hours. This quantity is equal to a sheet of paper 538 miles long and 198 inches wide.

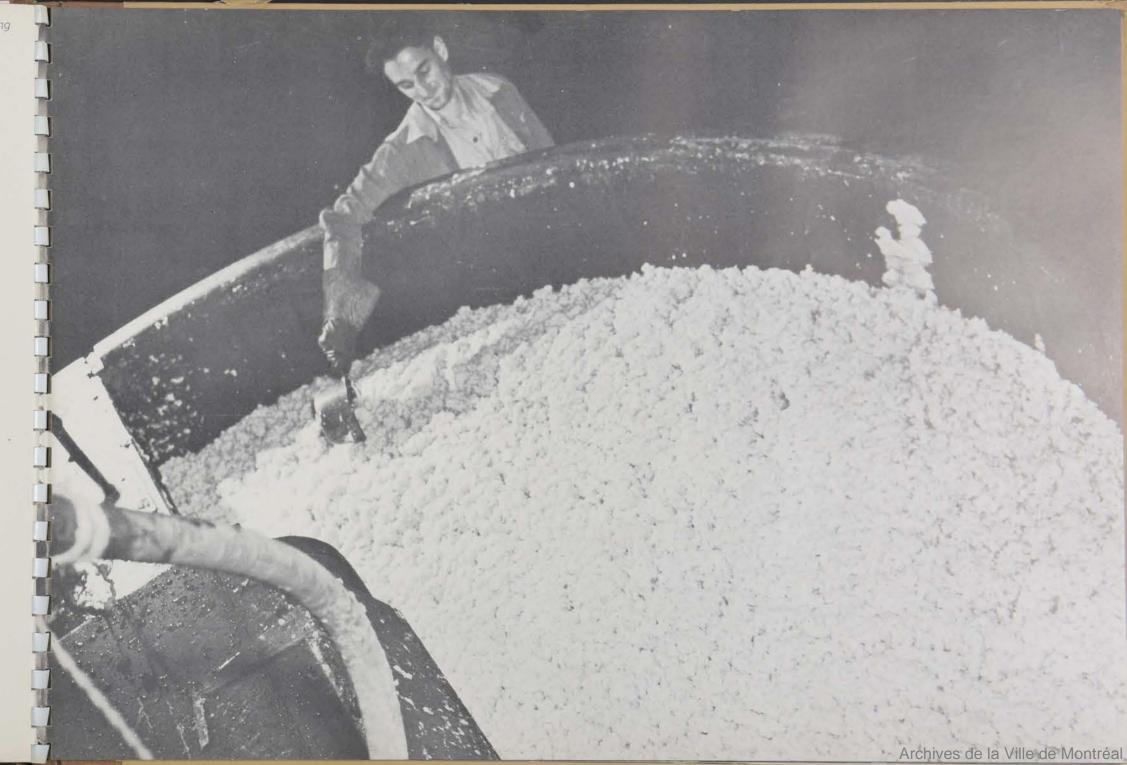




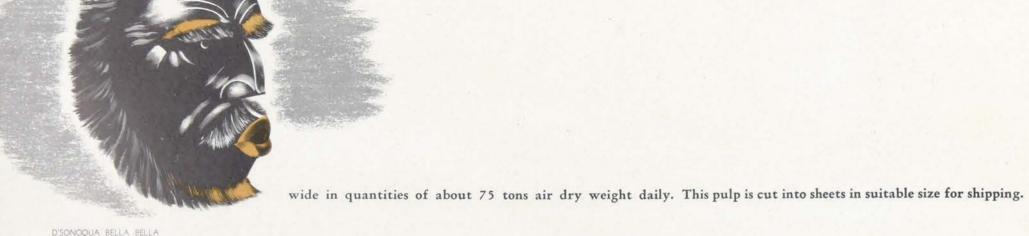


A conferous tree occurring in the interior of B. C. Habital similar to Engelmann Sprace, and is often mossible to distinguish from the latter. Artains height of from 8 to 135 feet and a diameter of

Suitable for lumber, pulpwood cooperage, sounding boards in planes and violins Whilst the newsprint machines produce one product for one purpose, three other machines make grades of paper with a wide range of usefulness. Many of these are paper specialties which are not ready for marketing until they are further processed in the Pacific Mills Converting Plant at Vancouver, B.C. These include kraft wrappings, chipboard, liner, corrugating board, sulphite wrappings, creped specialties, butcher papers, bathroom tissues, waxing papers, laminating paper, fruitwrap, manila, envelope stock, towelling, and other grades. The production of these grades averages about 150 tons daily. The sixth machine makes a sheet of pulp 118 inches





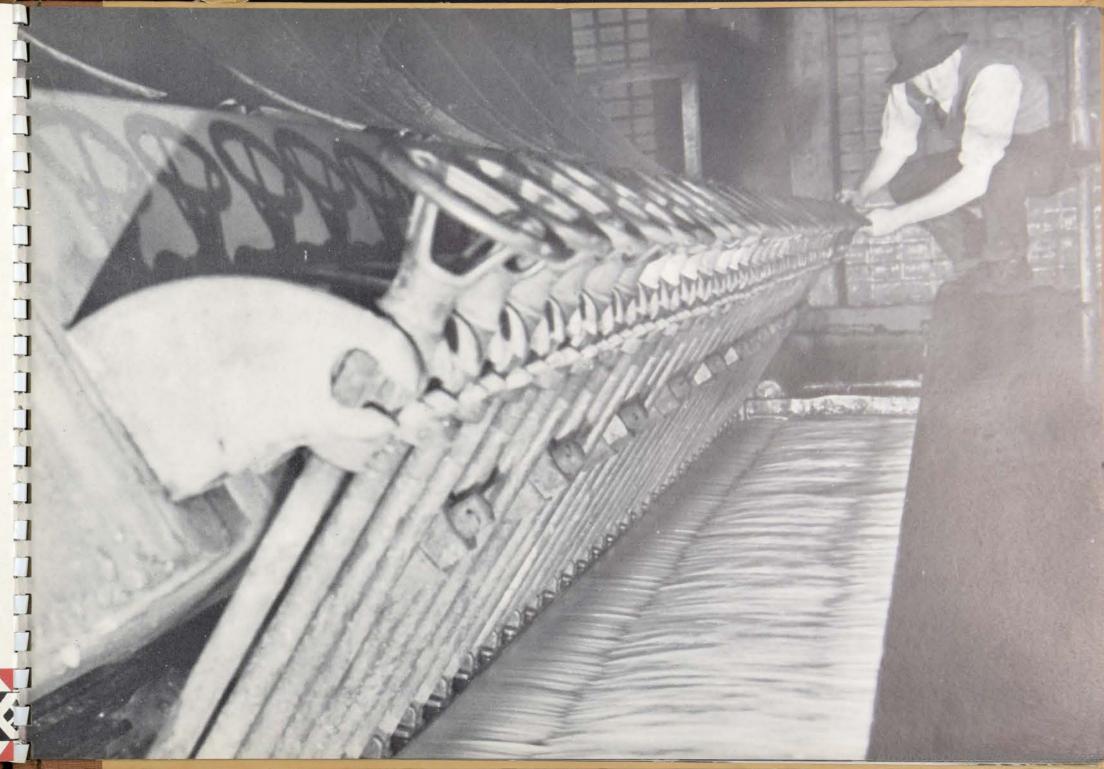


D'SONOQUA BELLA BELLA Mask (Kwakiuti)

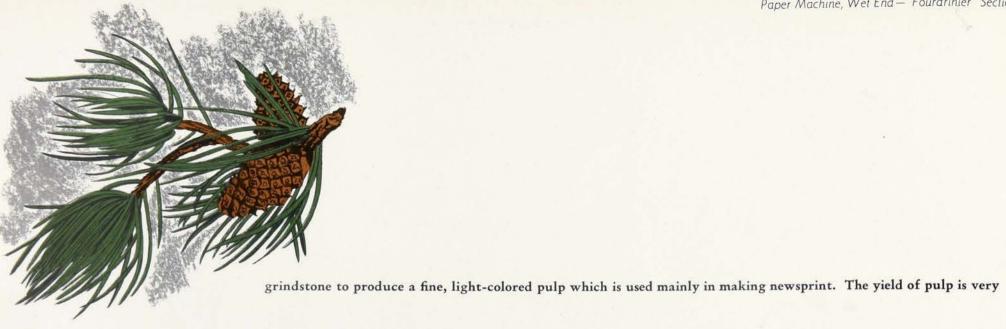
This particular mask, a specimen of one to which the Tsimsyan assigned special names, was always painted black and depicts Disonoqua, the Wild Woman of the Woods.

To produce paper, three grades of pulp are manufactured. These are known as groundwood, or mechanical pulp, sulphite and kraft pulp. Groundwood is so named because the process primarily consists of grinding up wood by mechanical means. Sulphite and kraft pulp are produced by chemical processes. The groundwood mill consists of 21 three-pocket grinders. These are driven by six waterwheels which exert about 12,000 horsepower and one

direct-connected 2500 horsepower motor. In this operation, the pulpwood is pressed against a specially-dressed



Paper Machine, Wet End—"Fourdrinier" Section

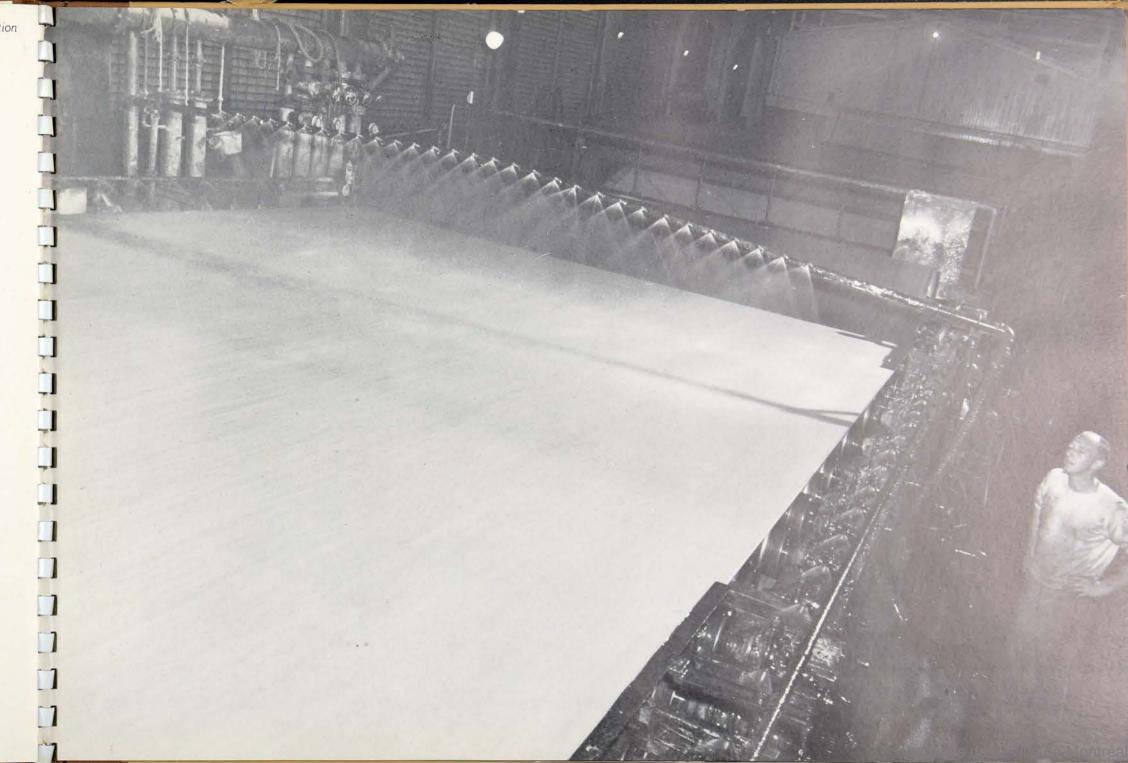


LODGEPOLE PINE (Pinus contorta),

also known as Jack Pine
A coniferous tree covering a wide
range throughout the interior of
B. C. Found on high plateaus and
benches in vicinity of streams,
mountain meadows, where it commonly occurs following forest fires.
Of little or no importance on the
coast. A small tree, usually 6-16
inches in diameter, 50-100 feet in

Most valuable for hewn ties, mining timbers and box lumber. Suitable for pulp.

high in the groundwood process. There is little or no loss of wood substance. Sulphite pulp is produced in three digesters, each of 12 tons capacity. Graded chips cut from wood blocks are charged into each digester with acid liquor and cooked under high pressure and temperature for about eight hours. The pulp is washed free of the spent acid and then graded over screens which reject the large fibres. For the finest grade of sulphite papers, the pulp is bleached to a high white color by the use of chlorine. A modern plant was recently completed for this





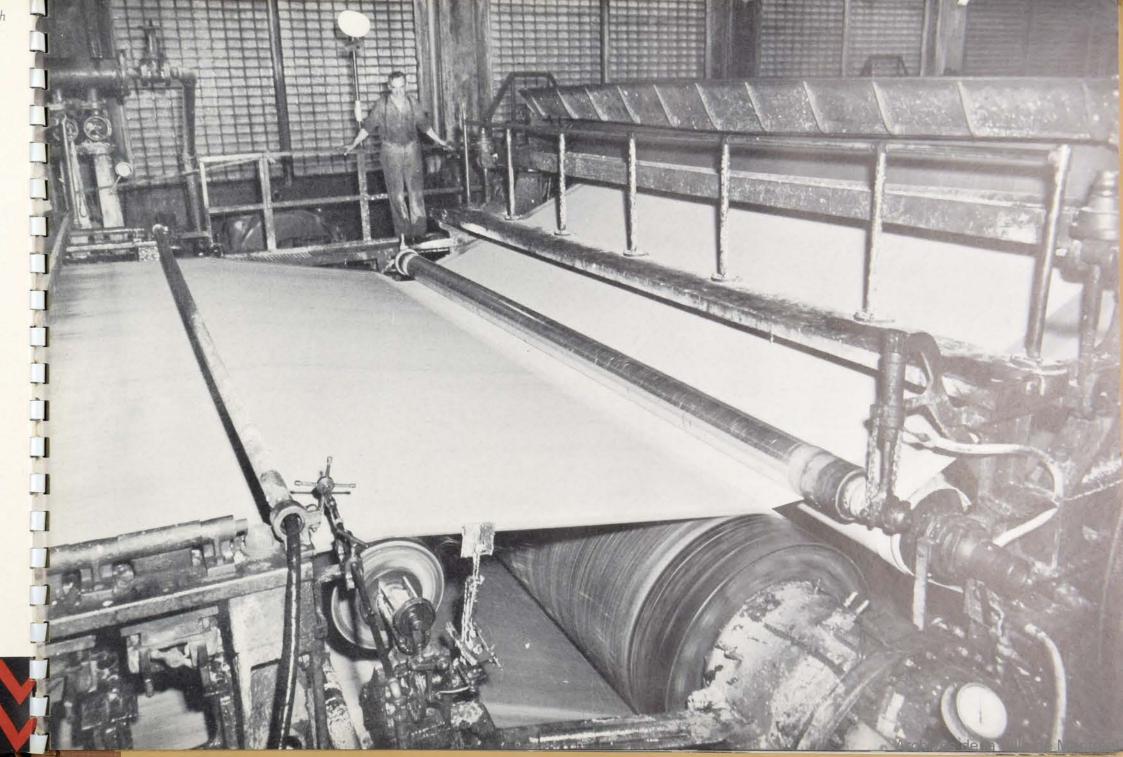
THE RAVEN CREST

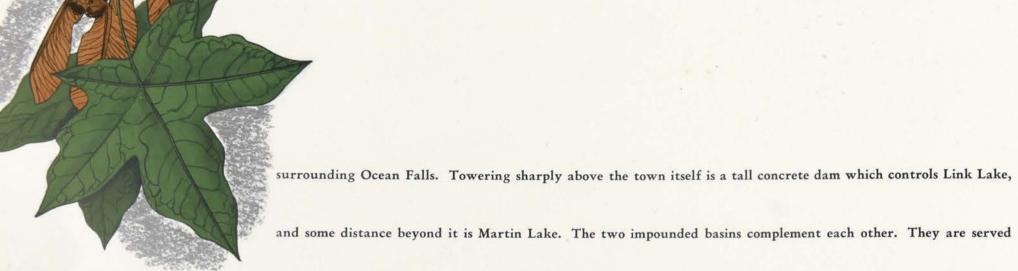
Raven on Totem Pole (Kwakiuti)
The Raven, probably most prominent figure in heraldry, folklore
and decorative art of the Haida
and Tsimsyan Tribes, could change
at will from bird (or other form)
to human being, thus facilitating
his misdemeamours and earning for
him the name of "Trickster". He
is, however, credited with bringing
gifts of daylight and fire, water
and foods.

purpose. Kraft pulp is made from graded wood chips, which are charged together with alkaline liquor into four rotating digesters each of 2½ tons capacity. Cooking takes place under high temperature for about two hours.

Similar to the sulphite process, the spent cooking liquor is removed and the pulp proceeds through a fine screening system. In this process, however, the chemicals in the spent liquor are put through a highly developed recovery plant.

The spent chemicals are thus recovered and used again in the cooking process. All this industrial, commercial and community activity requires tremendous quantities of electric power. Power-laden rain is plentiful in the areas

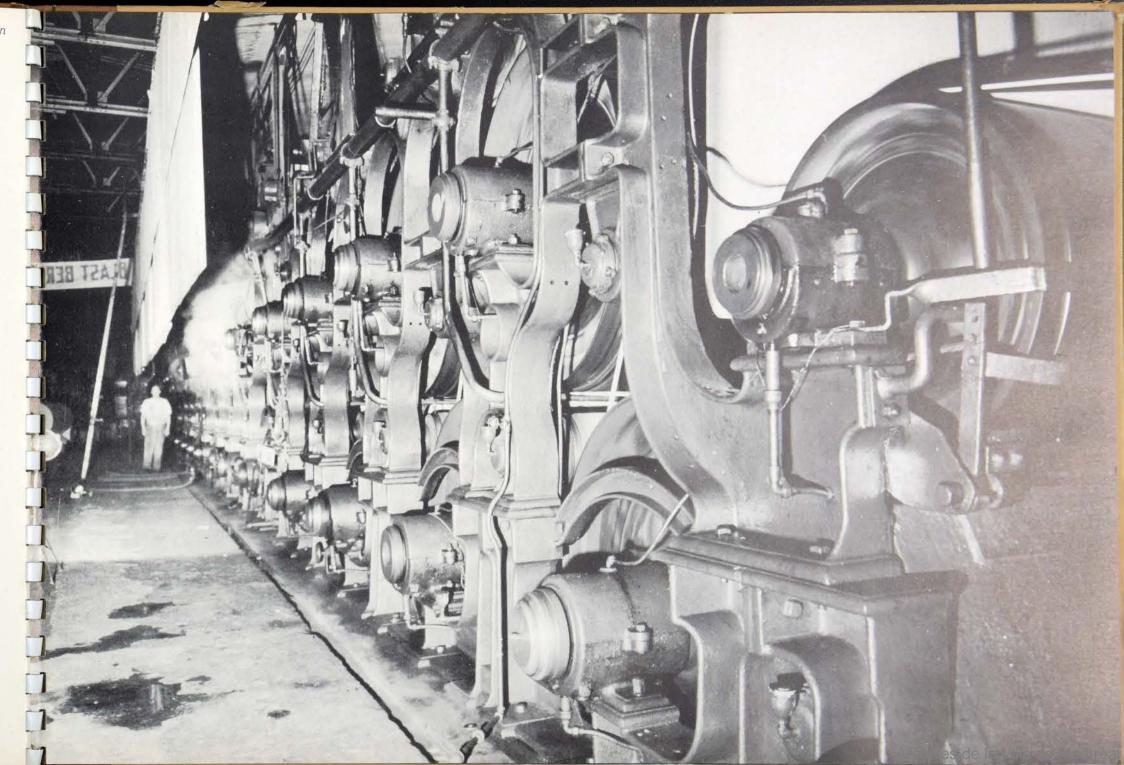




BROAD-LEAVED MAPLE

A deciduous tree found on borders of foothil and low mountain streams, and in alluvial river bottoms in moist, gravelly and rich humus soils on the coast of B. C. Varies in form and height from a short-stemmed, crooked tree 24 to 30 feet high and under I foot in diameter to a straight, long-trunked tree 60 to 80 feet high, with a diameter 14 to 30

Cood hardwood, Maple burls for bird's-eye Maple, flooring and furniture and some distance beyond it is Martin Lake. The two impounded basins complement each other. They are served by more than 100 square miles of watershed. Link Lake is 14 miles long and averages three-quarters of a mile in width. Martin Lake, 620 feet higher, covers an area of 162 acres. Waters from Martin Lake course through a 5 x 6 foot tunnel for a distance of 548 feet in order to reach Link Lake. The 677 foot concrete gravity dam, 75 feet high at centre, provides an average operating head of 145 feet. Water reaches the power house and grinder





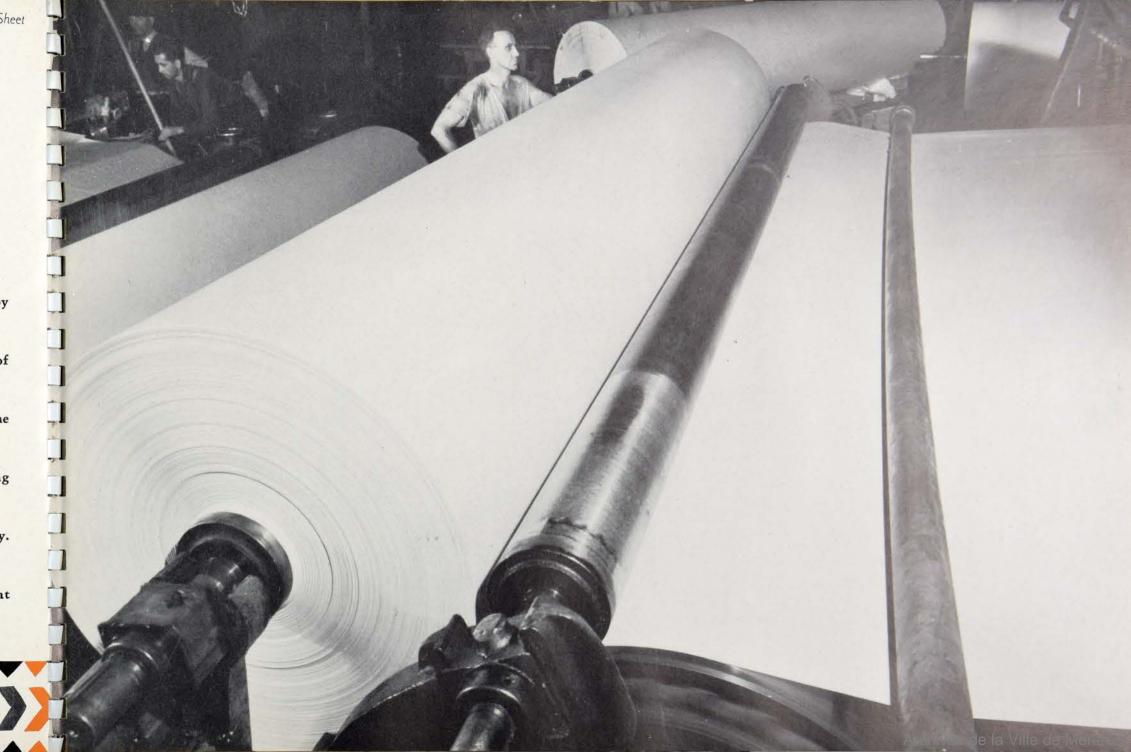
HANGERANIA

The Fisherman (Haida)

Hooyah, the Raven, had discarded his feathered dress and was walking through a forest in the guise of a weary old man. Coming suddenly to the end of the trees, he saw a large fown with a crowd out in front fishing. Being hungry, Hooyah dived into the sea and proceeded to ear all the bait. His law, however, became caught on Houskana's hook, and was finally broken off. All the fishermen were frightened when they saw a man's jaw with a great beard caught on the hook. Hooyah successfully regained his jaw and the fishermen then realized that the Raven had taken their bait.

nine units, seven of which are driven by water wheels and two by steam turbines. The total generating capacity of these units is 30,000 horsepower. Steam needed in the mill for power generation, pulping wood, paper machine driers and heating for both industrial and domestic purposes, is generated in eleven boilers at pressures ranging up to 600 pounds per square inch. About two and one-half million pounds of steam are produced every day.

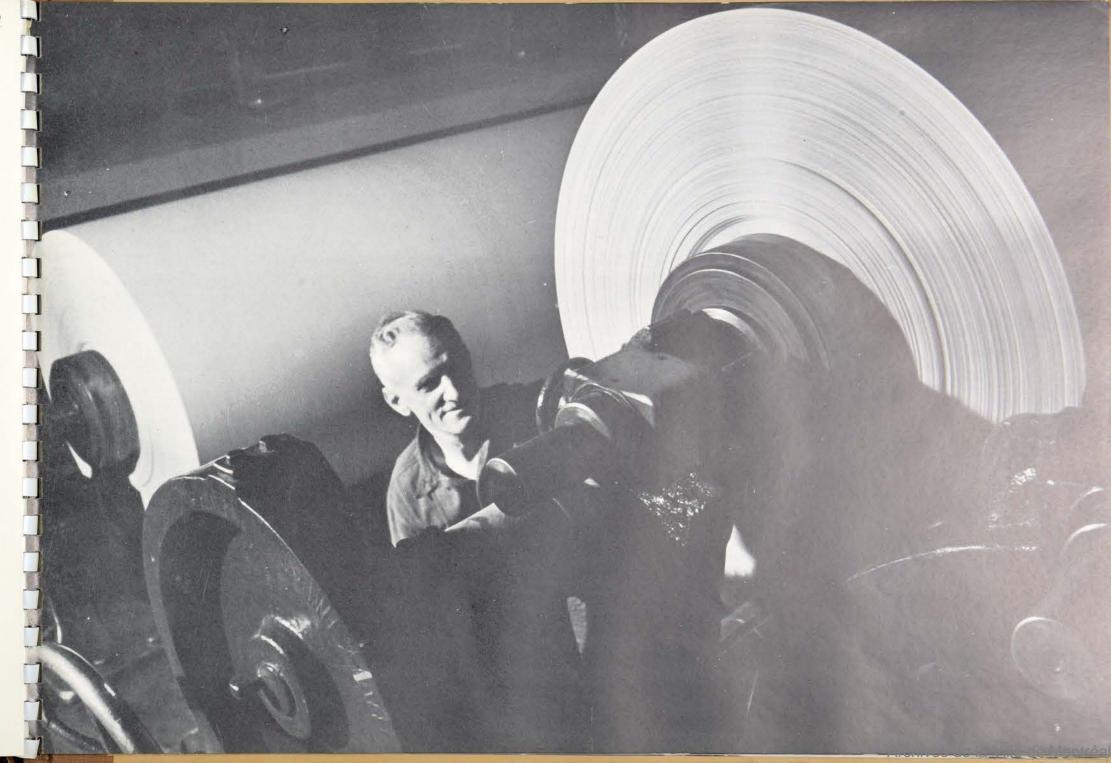
More than power, wood, water, chemicals and steam are required to produce consistent grades of paper. So that



RED ALDER (Alnus rubra)
A deciduous tree found on borders of streams, adjacent moist bottoms, beniches and gentle slopes, in fairly well-drained, rich, humus or gravelly soils west of the coast mountains in B C. One of the two largest Pacific alders, it reaches a height of from 10 to 90 feet and a diameter of from 18 to 30 inches. Usually 35 or 40 feet high, with diameter from 10 to 15 inches.

Wood useful for furniture and minor products. Stains and polishes to imitate valuable woods.

paper products would continuously meet customer requirements, Pacific Mills long ago established a technical control department. Trained personnel are placed at all key points of manufacture—from log selection in the booms to final inspection of the finished product. This control applies with equal emphasis to the converting plant in Vancouver, B.C. These are not ordinary men who take up a position just to watch the wheels go round. They are all trained to make observations and to employ all known methods for testing the wood, the pulp and the finished sheet of paper. To implement this exacting discipline of manufacture and control, Pacific Mills has staffed a depart-





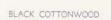
RATTLE (Tsimsyan)

Rattles, an important part of a Shaman's equipment, were made from blocks of wood split open after rough shaping into flat ovals and hollowed out to paper thinness. After the designs had been carved (some times the outlines being colored black or dull red) the two halves were united almost invisibly, pebbles being enclosed to form the rattle.

ment with thirty men. A number of them are graduate chemists and engineers who have blended their education with the practical experience of papermakers. The tests measure a number of characteristics, many of which are not detected by normal human senses. As many as ten tests may be taking place at the one time. These tests are made for weight, thickness, color and brightness, opacity, printability, strength, water proofness, absorbency to oil, wax, asphalt, etc., blood resistance, density, ash content, acidity, softness, gloss and smoothness. Application of these tests results in a faithful product on which the customer may depend. Technicians and engineers with research facilities



"Technical Control"



(Populus trichocarpa)

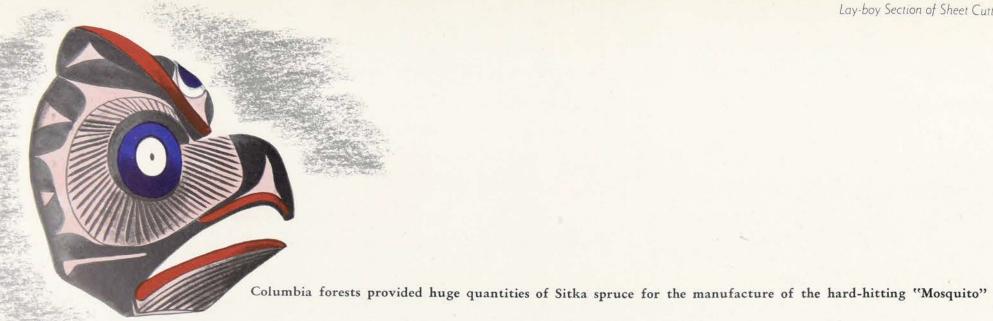
A deciduous tree found at lower levels or river bottoms, sand bars and banks, in sandy, humus, rich soils; at higher elevations, in canyon bottoms and gulches, in moist sandy or gravelly soils. Largest of our poplars, attaining height of from 50 to 125 feet and 1 to 4 feet in diameter.

Good for pulp, plywood, matches, excelsior and furniture.

of paper. All this close attention to manufacturing detail has brought business to Pacific Mills, growth to Ocean Falls, and additional payroll to the Province. From the original construction crew, the normal operating payroll at Ocean Falls had grown to 1200 by the year 1939. When the call to arms was sounded throughout the Commonwealth and the Empire, not only pulp and paper but men and timber of Pacific Mills crossed the Atlantic together. Planes were sorely needed . . . thousands of planes . . . needed as speedily as human ingenuity and hands could produce them. British

are working consistently to level off operating problems, improve the product and develop new and still better grades





Haida Raven Phratry, and also of the Tsimsyan Bear Clan. As the Screech Owl was kindly, his cries were given special heed. He was regarded with reverence by many. as some believed the spirits of all Shamans passed at death to the Owl Spirit

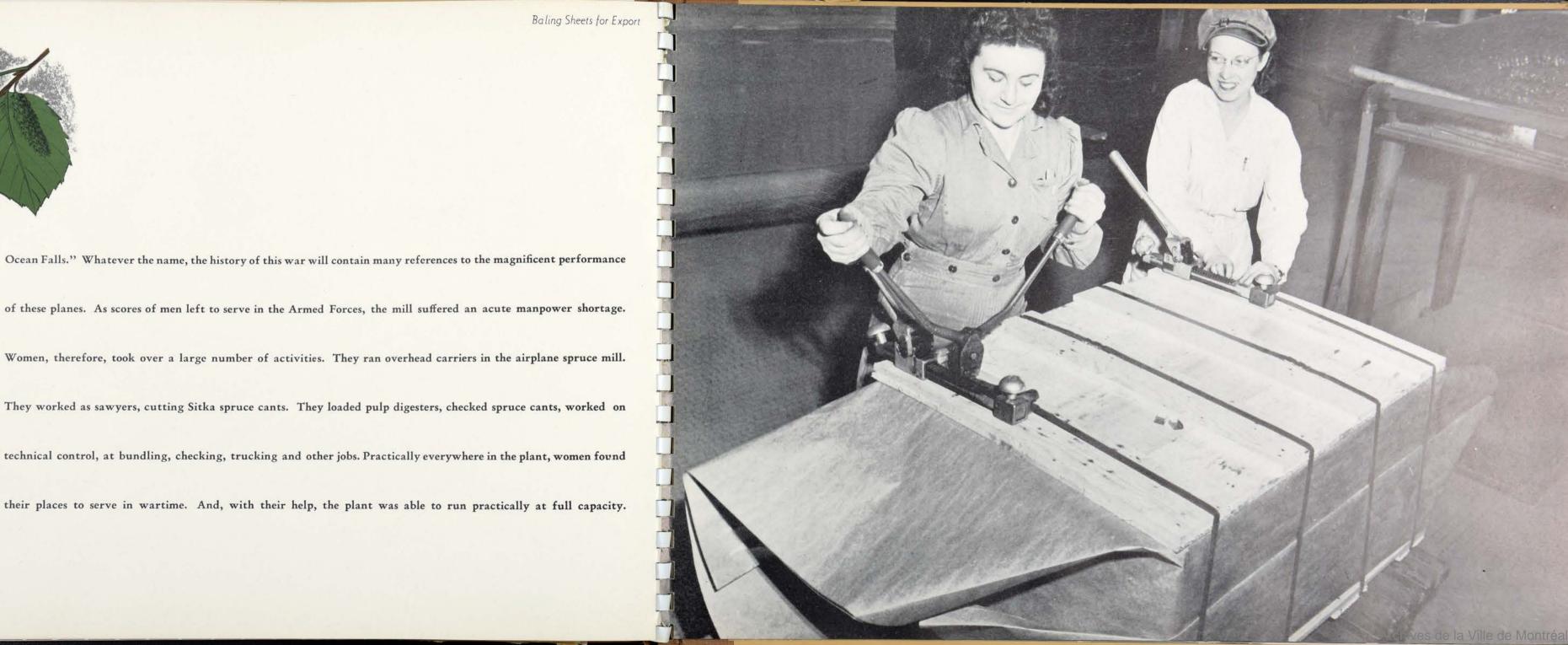
bomber. TIMBER! Into the forests of the Queen Charlotte Islands went experienced supervisors and the crews of Pacific Mills to select the tallest and straightest of the Sitka spruces. From early 1940 through April, 1945, in excess of 22,000,000 feet of high-grade spruce cants, sawn to exacting specifications, were shipped overseas from the sawmill at Ocean Falls. This was thirty per cent of all the airplane spruce shipped from British Columbia. It is said that one of the pilots whose home is on the northern British Columbia coast styled the "Mosquito" as "the flying planks from



A deciduous tree found on borders of streams, margins of meadows and lakes, in rich, soft, humus, sandy and rocky soils. Largest of any known species of birch, at-taining a height of from 80 to 90 feet, with diameter of from 2 to 3 feet—occasionally larger.

Cood for bobbins, spools, tooth-picks, dowels, turnery, stair hand-rails, furniture and veneer

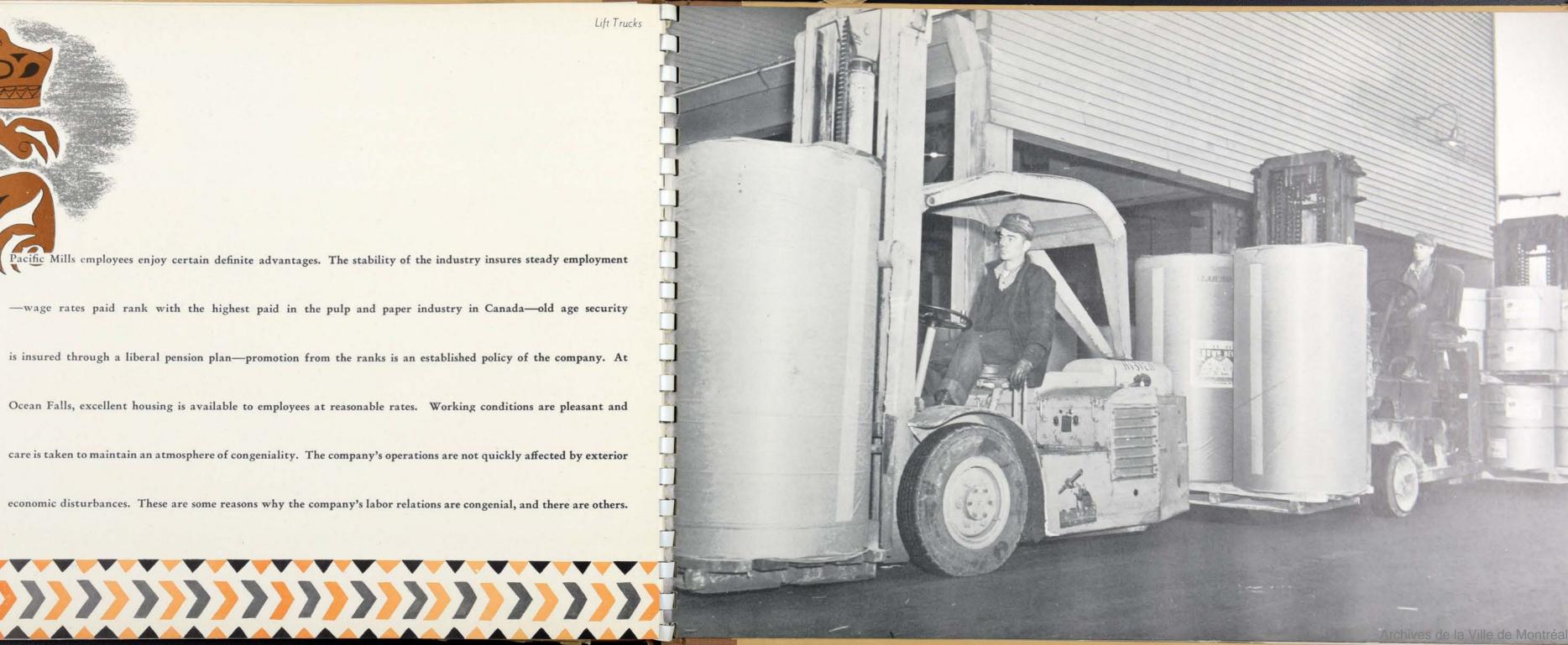
of these planes. As scores of men left to serve in the Armed Forces, the mill suffered an acute manpower shortage. Women, therefore, took over a large number of activities. They ran overhead carriers in the airplane spruce mill. They worked as sawyers, cutting Sitka spruce cants. They loaded pulp digesters, checked spruce cants, worked on technical control, at bundling, checking, trucking and other jobs. Practically everywhere in the plant, women found their places to serve in wartime. And, with their help, the plant was able to run practically at full capacity.





tered, but carried their crest with

-wage rates paid rank with the highest paid in the pulp and paper industry in Canada-old age security is insured through a liberal pension plan-promotion from the ranks is an established policy of the company. At Ocean Falls, excellent housing is available to employees at reasonable rates. Working conditions are pleasant and care is taken to maintain an atmosphere of congeniality. The company's operations are not quickly affected by exterior economic disturbances. These are some reasons why the company's labor relations are congenial, and there are others.

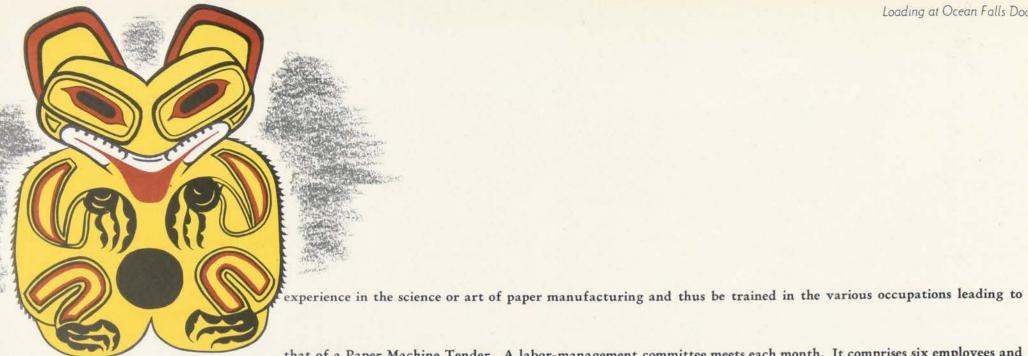




(Cornus Nutallii)
A deciduous tree found on low bottoms, lower gentle mountain slopes, valleys, coves, ravines, borders and well-drained bottoms of mountain streams in rich, fresh, loamy, gravelly soils; largest in fresh porous soils. Confined to Vancouver Island and lower coast in British Columbia. Ordinarily grows from 20 to 30 feet high and from 6 to 8 inches through; sometimes from 30 to 50 feet high, with a diameter of from 10 to 20 inches

Of no great commercial value Emblem of British Columbia of British Columbia. This good performance is due to the fact that the company stresses the importance of safety and employs the services of a full-time Safety Inspector. An apprenticeship plan for boys of eighteen permits them to qualify for training in several trades—Electrical, Machine Shop Practice, Welding, Sheet Metal Work, Pipe Fitting and the Foundry Skills. The company also gives the younger employees ample opportunity to learn the art of paper making and young men are encouraged to take jobs in the Paper Mill where they can obtain practical





There are many legends dealing with the Black Bear, who is usually shown as a kindly, merry creature. The above housefront painting shows the Black Bear as if his back were cut open, giving a double profile representation. The Tsimsyans call this design. "Bears Meeting"

that of a Paper Machine Tender. A labor-management committee meets each month. It comprises six employees and six management appointees. This group has made progress on many matters of mutual interest. A group insurance plan provides all employees with sickness and accident insurance as well as life protection. There is a positive camaraderie among the men of Ocean Falls. It grows with the passing years. Those whose experience has been enlisted for the Vancouver plant and elsewhere are always enthusiastic concerning their remembrances of Ocean





Wood and bark both contain valuable medicine. Wood furnishes one of the best charcoals, especially for gunpowder. Falls and her people. This spirit is made manifest in the handsome service pins which many of the men of Pacific Mills wear in their coat lapels. These service pins are awarded annually for the first five continuous years of service, and additional pins for each successive five years service thereafter. As this brochure goes to press, there are those whose pins indicate a continuous service of 30 years and more. There are a number of father-and-son service pin combinations at Ocean Falls. Men, material, machines and markets and, of these four essentials to production, it is markets that make an industry. During the first phase of Pacific Mills operation, its major production was newsprint.





GROWING NOSE MASK

(Kwakiuti)

This mask represents the Spirit which used to live near the Carryon of the Nasa River. He is credited with developing this nasal extension to stop a destructive flow of lava. Story is probably based upon a severe eruption of lava on the Upper Nasa River many years ago, which forced the people to flee to the hills.

Three machines were running full time on this production. Kraft wrapping and butcher papers not previously manufactured in British Columbia were produced on the fourth machine. These latter products were made to meet a growing demand in the markets of Western Canada at that time. In these grades, there was a substantial surplus available for sale in numerous export markets such as Australia, New Zealand, the Orient and, later, in South Africa and South America. The policy of Pacific Mills Limited has always been to lead in any change in processes that results in improved quality and production. Strenuous years of war, as in other periods in the world's history, have proved





A deciduous tree found on streams, low-lying land, and also on moderately high situations... sometimes characteristic of dry, grassy hillsides (somewhat stunted); on all slopes, preferring southern exposures. General range throughout the interior of B. C. but occasionally on the coast. Grows to height of from 60 to 80 feet and 14 to 20 inches in diameter, more commonly from 30 to 40 feet high and from 8 to 12 inches in

Good for pulp, plywood, matches, excelsior and cheap furniture.

stoppage of the shipment of these commodities from Europe and Scandinavian Countries to all Allied and Neutral Nations, thrust a tremendous burden upon the Canadian Pulp and Paper Industry. The total capacity of the Canadian Paper Mills was inadequate to meet the Wartime demand. Government wisely found it necessary to set up agencies in Canada and in most Allied Nations to control production and the rationing of supplies.

The production of some grades was severely curtailed and others discontinued. The production of still other





FEAST DISH (Kwakiutl)

the motif for the decoration this huge feast dish is the crest, the origin of which counted for many myths. A w spread Northwest Coast myth lates that the Wolf Spirit appeared to man, revealing details of the Whale Cult.

all this by governmental agency direction. In these varying and sometimes complicated plans, Pacific Mills contributed to the utmost of its capacity. Under such conditions, however, it was inevitable that curtailment of supplies, and, in some cases, total discontinuance of sales to many pre-war customers would result. There is a brighter side. At war's end, the Company will have no major re-tooling or repair problems. Return to the pre-war trading basis will be immediate—just as soon as present wartime controls are relinquished. The first major step to be taken in





GARRY OAK

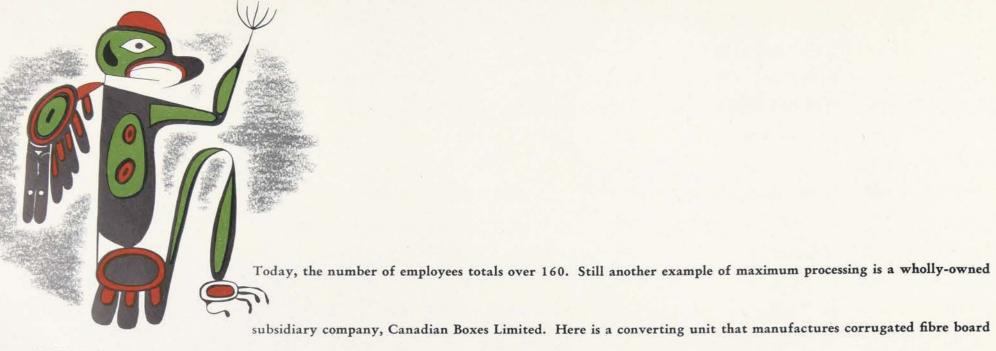
(Quercus Garryana)

A deciduous tree chiefly confined to the southern part of Vancouver Island in deep, fresh, humus soils and dry, gravelly or rocky soils. One of the largest oaks in the Pacific coast region. Attains height of from 50 to 60 feet (occasionally 75 to 90 feet), and is from 18 to 36 inches in diameter.

Due to limited occurrence, practically of no value in B C. Suitable for cabinets, furniture, panelling, flooring, shipbuilding, cooperage and agricultural implements.

Falls plant. The initial number of employees of this unit was twenty-five. The plant produced bathroom tissues, flat napkins, wax bread wrapper, fruit wrapper, crepe box liner, wax lunch rolls, waxed sulphite and kraft sheets and rolls, folded towels, and solid fibre shipping cases. The sales of these products expanded rapidly necessitating increased facilities and additional equipment. Therefore, in 1930, the converting plant was moved to Vancouver. Each year, additional equipment was installed to meet a steadily increasing demand for its growing list of paper products.



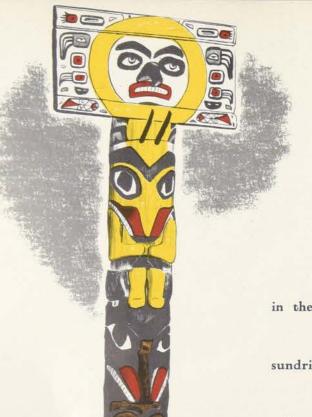


SKOOKUM (Haida)

This figure depicts an evil spirit, half man and half bird, who was said to live in high mountains among the mists and clouds where they carried whales upon which they lived. It was whispered that the Skookum, destructive to man and beast, sometimes are infant children. The word is still heard among white loggers and fishermen in connection with anything strong and despense.

subsidiary company, Canadian Boxes Limited. Here is a converting unit that manufactures corrugated fibre board shipping containers. It commenced operations in Vancouver during the same year as the Ocean Falls converting plant—1926. Its initial payroll totalled 15 employees. Today, it exceeds 125 men and women. It is significant that Pacific Mills Limited total investment exceeds \$18,000.00 per employee, exclusive of its subsidiary company, Canadian Boxes Limited. The payroll for the fiscal year ending April 30th, 1945, amounted to \$3,500,000.00. Expenditures





MORTUARY POLE (Grizzly Bear Crest)

The Mortuary Pole depicted above is of Chief Ske-dans, Skidegate

Vancouver Converting Plant (1) Printing Bread Wraps

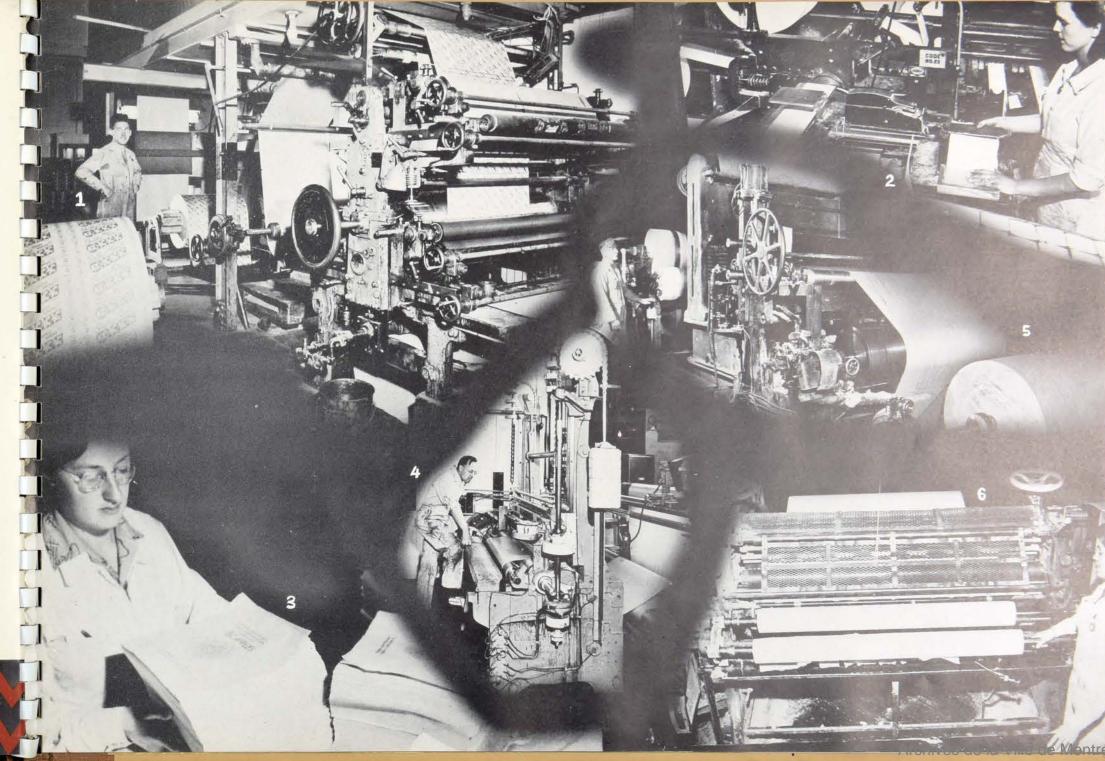
(2) Napkin Folder

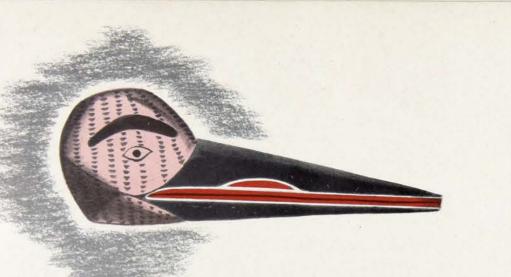
(3) Assembling Fruit Wraps (4) Re-winder

(5) Waxer

(6) Bathroom Tissue Winder

in the same year for raw materials, supplies and equipment totalled \$3,000,000.00. General merchandise and sundries purchased for the general store at Ocean Falls amounted to \$850,000.00, during the same year. The total value of the sale of Pacific Mills Limited products for the 1945 fiscal year was \$11,000,000.00. Back of these operations is a total capital investment of \$30,000,000.00. Twenty-eight years ago, Pacific Mills Limited shipped its first roll of newsprint. Since that day, a town has grown beside a big industry and a payroll supporting thousands of people-an industry which reaches into Nature's treasure trove of trees. It selects some, nurtures others, and





This Potlach Mask, used by certain clans of the Raven Phratry in their ceremonial feasts, measures two feet in length, and was suspended in the air during these celebrations. Canadian Boxes Limited

- (1) Corrugator
 - orrugator
- (2) Jumbo Roll Storage
- (3) Dryer
- (4) Automatic Stitcher

organizes forests for perpetuity—an industry that crops a tree scientifically and converts it, step by step, to twice

satisfy the wants of man-a thousand ways for his comfort and the economy of his well-being-but, best of all, his

just due-for the fruits of his labor-his daily bread.



