

at Skagway and Dyea. The newcomers fought their way over the Chilkoot and White Pass Trails to Lake Bennett, where they built boats for the rush down the chain of waterways leading to Dawson City. Hundreds died along the way.

By the spring of 1898, thousands more thronged over the newly-opened Brackett Route. On May 28, when the ice broke on Lake Bennett, more than 7,000 small craft cast off for Dawson.

To cross the rugged coastal mountains and tap the riches of the north country, construction of the White Pass and Yukon Railroad was begun at Skagway in May 1898. By July of 1899, the track was opened to Lake Bennett — but a year later the rush to the Klondike began to subside as gold strikes at Nome and Lake Atlin diverted attention to those districts.

ANTHROPOLOGIST HONORED

Dr. Camen Roy, chief of the Folklore Division of the National Museum of Man, National Museums of Canada, since 1957, has been designated a fellow of the American Anthropological Association, which includes in its membership some of the world's outstanding anthropologists.

A graduate of the Sorbonne, Paris, in 1953, Dr. Roy has become known as a leading international authority of Canadian folklore. She has published a number of articles and important works, including *Contes populaires gaspésiens*, *Littérature orale en Gaspésie* and *Saint-Pierre et Miquelon: une mission folklorique aux Iles*.

NRC DESIGN TO REDUCE JET NOISE

A new idea for the reduction of "compressor-whine", which involves the production of destructive interference between sound sources, has been developed by National Research Council of Canada scientists. Dr. Tony Embleton, working in collaboration with Dr. George Thiessen of the Acoustics Section of NRC's Division of Physics, has developed a new design for stator blades in turbomachinery. Patents have been applied for by Canadian Patents and Development Ltd., a subsidiary of NRC. It holds great promise for noise relief in airport areas.

The principal use at present of axial-flow compressors is in the aircraft turbine engine. Most compressors are multi-stage units containing alternate rings of rotor and stator blades. The outflow from the stator goes to the next rotor and the process is repeated. Pressure increases progressively through anywhere from six to 15 such stages before the air flow enters the combustion chamber.

Conventional axial compressors have rotor and stator blades whose leading and trailing edges are essentially straight and lie along essentially radial lines. Thus the trailing edge of any rotor blade

passes the leading edge of any blade in the following stator at the same instant along the entire length. Because there is a high speed air-flow coming off the rotor blade, there is a turbulent wake produced. This sweeps over the stator blade. When this moving air flow hits the stationary stator blade sound is produced. If the whole edge of the blade emits sound at the same instant, it radiates to a maximum degree. The NRC invention is a stator blade with a stepped profile along its leading edge. It provides that the sound source will not radiate all along the blade with the same phase, but parts will radiate exactly out of phase with other parts, producing destructive interference.

REDUCTION ESTIMATE

Dr. Embleton estimates that a listener on the ground hearing a plane come in for a landing using the modified stator blading would notice about a 30 percent reduction of loudness.

In the past, the aircraft industry has been reluctant to adopt certain noise-control devices because these usually have been of the "something added" type and represented an economic penalty in the form of reduced payload or reduced mechanical efficiency.

"While we were making our acoustical measurements we came across an unexpected bonus," Dr. Embleton says. "We found in some cases that the staggered stator blades made the engine perform a shade more efficiently."

Dr. Embleton believes that the time is ripe for development of the invention, which, he admits, has a long way to go before it can come to the aid of airport area residents. "What we have done at this point is invented an idea," he says. "We have not built an engine with real blades and made it fly an aircraft. The idea now has to be sold to aerodynamicists. We expect they may be able to add a fraction more to compression efficiency by redesigning blade slopes, an area we did not touch."

WORLD'S LARGEST TOMAHAWK

The community of Cut Knife, Saskatchewan, 30 miles west of North Battleford, and three neighboring Indian reserves plan to build the largest tomahawk in the world in the hope of promoting tourist trade to the site of the Battle of Cut Knife Hill.

An organization composed of both Indians and white people, which was formed to raise funds for the project, has had much success to date. The tomahawk will be 50 to 60 feet high and will cost between \$12,000 and \$20,000.

Dr. Mary McEwan, psychiatrist, has been installed as president of Toronto's Academy of Medicine. She is the first woman to hold this position at the Academy.