

RESOURCES

# Alaska Needs Waterpower

Electricity is needed for pumps and refineries to make available the untold wealth of its mineral resources. Oil fields are north of Arctic Circle.

► WATERPOWER development is the primary need in Alaska if its abundant raw materials are to be made available for use in the continental United States, it is indicated in RECLAMATION ERA (Jan.), official publication of the U. S. Bureau of Reclamation.

Alaska has water enough and plenty of sites where hydroelectric power plants could be erected. There are 30 major potential hydroelectric power sites in south-east Alaska alone, which could have a continuous capacity of more than 300,000 kilowatts, the publication states. This is in the area of the extensive Tongass National Forest, which could supply enough pulpwood to meet a fourth of all market demands in the United States.

Alaska, famous for its fur and fish, has about 65,000 square miles of potential farm lands and another 35,000 square miles suitable for grazing stock. Its untold wealth, however, is in its mineral resources, including both metal ores and petroleum. Its supposedly great oil field is in a naval reserve north of the Arctic Circle where exploratory wells have already been drilled. Transportation of the crude obtained can be easily made by pipeline across country to southern shipping points, but electric power is needed for the pumps and refineries.

The mineral resources of Alaska, a territory one-fifth the size of the United States proper with a terrain varying from flat lowlands to rocky mountains and a climate from that of New England to the North

Pole, have as yet hardly been touched. Much gold, of course has been mined. Approximately \$900,000,000 in mineral wealth has been taken from the earth since Alaska became American property, but some 70% of this was gold and 25% copper.

Other known minerals include iron, nickel, zinc, molybdenum, bismuth, silver, tin, tungsten, lead, chromium, platinum metals, antimony and mercury. Some of these have already been mined commercially; others may never be found in sufficient quantities to warrant commercial production. Among the non-metal minerals, in addition to petroleum, are asbestos, barite, garnet, graphite and sulfur. For mechanized mining electrical energy is important, and hydroelectric development would provide the energy.

Science News Letter, February 5, 1949

CHEMISTRY

## New Materials from Gas Used in Making Bomb

► AN UNRULY gas, harnessed by scientists to help build the atomic bomb, may help form new materials ranging from lubricants to medicines.

Research on fluorides and fluorocarbons, chemical compounds containing the element fluorine, was discussed by scientists at a two-day conference at the Department of the Navy sponsored by the Office of Naval Research.

Fluorine is a gas which can cause water

to burn or cotton to explode. It was successfully controlled by scientists to produce the atomic bomb variety of uranium during the war.

Now chemists believe that fluorine compounds with unusual stability and high resistance to burning may be put to many important uses.

Future use of fluorine in dielectric materials, heat transfer media, hydraulic fluids, lubricants, plastics and possible new kinds of rubber were suggested by chemists at the conference. In addition, they said that fluorine compounds may prove useful in the manufacture of such organic chemicals as dyes, medicinals and insecticides.

The Office of Naval Research is sponsoring projects for the study of fluorine chemistry at 11 institutions, it was disclosed.

Science News Letter, February 5, 1949

Pure iron powder is to be obtained from waste carbonate slate in a new plant in Minnesota; carbonate slate is present in large quantities in the Mesabi iron range.

Brahma cattle are adaptable to the coastal region on the Gulf of Mexico because they stand heat and are resistant to ticks, flies and mosquitoes.



RESULTS OF SABOTAGE—When the eggs hatch, the ichneumon fly larvae dine greedily on the pupa's flesh. Result is one less cabbage butterfly but a small flock of ichneumon flies.

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