



ELECTRONIC CLOCK—The more than 170 electronic tubes in this modern clock count the 60-cycle pulsations of electric current and show the seconds, minutes and hours by lights. The seconds are ticked off on the line shown from one to 60; other lights indicate the hours and minutes. The clock has no moving parts—no motor, wheels, main spring or hands. With the clock is shown Dr. V. K. Zworykin, associate director of RCA laboratories, who with his staff developed it.

ENGINEERING

Epic of Alaska Highway

Airplane reconnaissance pioneered way and "guts and tractors" built Alcan road. Work started only year ago. Engineer regiments succeeded under hardships.

► OLD-TIMERS in Alaska and the mountain country of western Canada declared that a road couldn't be built where the Army Engineer Corps planned to put

it, but airplane reconnaissance found a way through, and "guts and tractors" built the road.

This, in a one-sentence summary, tells

the story of the building of the Alcan Highway, which was presented at greater length before a joint meeting of the American Philosophical Society and the Geographical Society of Philadelphia by Major Roswell P. Rosengren, chief of the Office of Technical Information.

The story of the road is a saga of decision, speed and determination. Only a little more than a year ago, on Feb. 2, 1942, Brig. Gen. C. L. Sturdevant of the Engineers was told that a road was to be built and instructed to bring in preliminary plans. Forty-eight hours later he submitted them. The General's Valentine from the Army High Command was a directive on Feb. 14 to proceed with the project.

The Canadian government immediately gave informal permission for survey parties to go to work in their territory, and this was made formal on Feb. 26. By March 10, American troops were arriving at the railhead at Dawson Creek, B. C., in temperatures around 40 degrees below zero Fahrenheit. Further contingents reached other construction centers during April.

The route selected was criticized by local men who thought they knew the country because a considerable part of it apparently would have to traverse a 6,000 foot plateau. Actually, the airplane parties found a route no part of which had to climb above a 4,000 foot altitude. All of it lies in timbered country.

Several Engineer regiments (one of them colored) tackled the job which looked like one to daunt Hercules. Each regiment moved up "heavy artillery" in the form of 44 big tractor-bulldozers, with scores of trucks, power shovels, piledrivers and other machinery; and of course the omnipresent, indispensable jeeps. The country fought the invaders with miles and miles of sullen muck and millions of mosquitoes. The road, as one writer put it "was built as in battle, with every hardship except bullets."

And the Corps of Engineers, U. S. Army, won their fight. The Alcan Highway is now carrying supplies to Alaska, now the northwest defense bastion of America—and presently a sally-port for irruption upon the hostile fringe of Asia.

Science News Letter, February 27, 1943

Fire-wood cured for nine to twelve months produces from 10% to 35% more heat than green wood.

The rubber-yielding *guayule* plant, discovered in Mexico in 1852, was for years considered just a poor relation of the sunflower family.

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