

ENGINEERING

Piped Hot Water Melts Snow, Ice from Roads

➤ WINTER'S coming, and at least one roadway is ready to face the snow and ice that block or slow traffic. A 600-foot-long road has hot-water pipes embedded in the concrete to keep it clear.

The two-lane roadway between the plant of the American Cyanamid Co. and a main thoroughfare has a constant upgrade from the plant. Snow and ice can make this virtually impassable, so the hot-water melting system has been installed in preparation for winter.

Eight black wrought-iron pipes have been embedded in the road's eight-inch concrete, providing two pipes 18 inches apart beneath each wheel track. Through these 600-foot pipes will run approximately 50 gallons of water per minute at an average temperature of 165 degrees Fahrenheit when snow or ice threaten to form on the road.

This system can remove one inch of snow or one-tenth of an inch of ice in an hour under maximum operating conditions. A greater snowfall than one inch in an hour is considered unusual, and a system designed for greater melting power is believed impractical.

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INVENTION

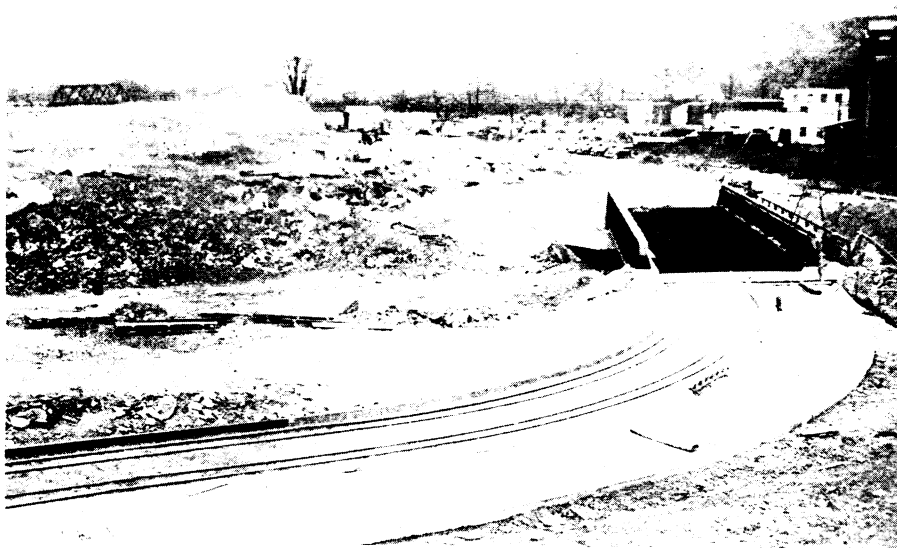
Household Ice Cubes Made Commercially

➤ ICE CUBES, household size, can be made commercially in quantities by a machine recently patented. It is relatively simple, inexpensive and durable, and the cubes when frozen slide out automatically.

A rotating drum, within which the refrigerants are placed, has a considerable number of separated ice cube molds projecting inward. In rotating they pass through outside water for freezing and pick up a little water in each revolution. Within the drum is a chamber holding freon, and between this chamber and the drum brine is placed. The freon cools the brine and the brine freezes the water. The cubes in the molds are built up as the drum revolves. Adding a little warm brine loosens the cubes, and they drop out of a special chute.

The inventor, who received patent 2,403,406 on this machine, is Arthur D. Smith, Canton, Ohio. It is assigned to Barium Steel Corporation of Canton.

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ROAD HEATER—Hot water flowing through pipes buried in the concrete will keep this driveway of the American Cyanamid Co. free from ice and snow.

MEDICINE

Preventing Heart Trouble

➤ HOPE THAT doctors may be able to forestall attacks of acute coronary thrombosis, a form of heart trouble, by continuous use of the drug, dicumarol, appears in a report by Drs. E. Sterling Nichol and David W. Fassett of Miami at the meeting of the Southern Medical Association.

One man who had three heart attacks within 13 months has been free of them and active in his business for the past 32 months during which he has been getting doses of dicumarol. Another patient who had three attacks within 17 months was free of further attacks for 21 months. Then he had a fourth and fatal attack. A blood test just before he died indicated he probably had grown careless about taking the medicine. Three other patients who had had multiple attacks of coronary thrombosis have been getting dicumarol for six months and have been free of attacks during this time.

The small number of patients and the fact that some persons with coronary thrombosis may go a number of years without attacks make it impossible to draw conclusions about the value of this prophylactic use of dicumarol, the Miami doctors point out. They believe the results justify further trial.

Coronary thrombosis is a condition in which a clot forms in a branch of the coronary artery supplying blood to the

heart. Depending on the size, number and location of such clots, the heart may be deprived of blood and oxygen to such an extent that it cannot go on pumping blood through the body.

Dicumarol, first discovered in spoiled sweet clover which sickened cattle, is an anti-clotting agent. It is safe to use if careful tests are made frequently to be sure the blood has not lost too much clotting ability. Otherwise there might be danger of fatal hemorrhage. It has been used for several years to treat patients with coronary thrombosis, but its continuous use to prevent them is new. Autopsy studies of the patient who died revealed no ill effect from long continued use of dicumarol.

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