

No. 241

A Science Service Feature

Feb. 19.

? WHY THE WEATHER ?

Dr. Charles F. Brooks,
of Clark University

Discusses

WINDOW FROST

Window frost forms when a window pane is cold enough to chill indoor air below its dewpoint, when that in turn is below the freezing point. Low temperatures and high winds outside will be most favorable for maintaining a cold pane. A storm sash, on the other hand, will protect the window and reduce the amount of frost decoration inside. The more moist the indoor air and the higher its dewpoint, the more readily will frost form. If a room is very warm, the air is likely to be too dry and the window pane not cool enough for a frost display. Jack Frost, then, like other fairies, finds night the most suitable time for his work; then outdoor temperatures are lowest, there is no sunlight to melt the tracery, and the rooms are coolest. The frostwork will generally occur first on the lower part of a sash and on the edges. Air coming in contact with the top of the pane cools and settles, becoming successively cooler as it slides down the pane, until finally it is cold enough for condensation to take place. The cold air also collects around the margins of the pane where the frame prevents free circulation.

(Tomorrow: Forms of Frost Crystals)

All rights reserved by Science Service

SCIENCE SERVICE,
1115 Conn. Ave.,
Washington, D.C.