No. 213

Jan. 17

A Science Service Feature

? WHY THE WEATHER ?

Dr. Charles F. Brooks,
of Clark University,
tells of:

WINTER TEMPERATURE DIFFERENCES IN CITIES

Clear, cold, winter nights in the cities, especially when the ground is snow-covered, lead to local differences in temperature between points located close together, amounting often to 5 degrees Fahrenheit and sometimes even to 25 degrees. The air in contact with the snow becomes chilled to a greater degree than that above it. On slopes this colder air slides down into the lowlands and hollows. On flat areas the layer merely thickens during the night, and the intensity of cold is not so great as at the foot of a slope. Naturally second stories of houses are warmer than first stories, and loftier apartments are relatively warmer still. But what the higher parts of buildings gain in warmth on still nights they lose in windy weather, for they experience not only a slightly lower temperature but also much stronger winds.

Thus on quiet, cold nights, the thermometers at the Weather Bureau Stations of the large cities, which are of necessity located on tops of tall buildings, give higher readings than instruments at street level below, and on windy nights a lower reading. On windy nights velocities are much higher at the stations. For instance, in New York City the velocities on the tops of the down-town skyscrapers have been found to be twice as great as those in Central Park.

(TOMORROW: Clothes Dry Below Zero)

Science Service,
1115 Conn. Ave.,
Washington, D.C.