TABLE 20—RECOMMENDED OUTLET VELOCITIES

APPLICATION	TERMINAL VELOCITY (FPM)
Broadcast studios	300-500
Residences	500-750
Apartments	500-750
Churches	500-750
Hotel bedrooms	500-750
Legitimate theaters	500-750
Private offices, acoustically treated	500-750
Private offices, not treated	500-800
Motion picture theaters	1000
General offices	1000-1250
Dept. stores, upper floors	1500
Dept. stores, main floor	2000

OUTLET LOCATIONS

Interior architecture, building construction and dirt streaking possibilities necessarily influence the layout and location of the outlet. However desirable it may be to locate an outlet in a given spot, these items may prevent such location.

After all the foregoing limitations have been successfully dealt with, the air distribution principles which relate to flow, drop, capacity and room air circulation create further limitations in designing an acceptable air distribution system. These are tabulated in the rating tables at the end of the chapter.

Local loads due to people concentration, equipment heat, outside walls and window locations frequently modify the choice of outlet location. The downdraft from a cold wall or a glass window *(Fig. 72)* can reach velocities of over 200 fpm, causing discomfort to occupants. Unless this downdraft is overcome, complaints of cold feet result. In northern climates this is accomplished by supplementary radiation, or by an outlet located under a window as illustrated in *Fig. 73.*

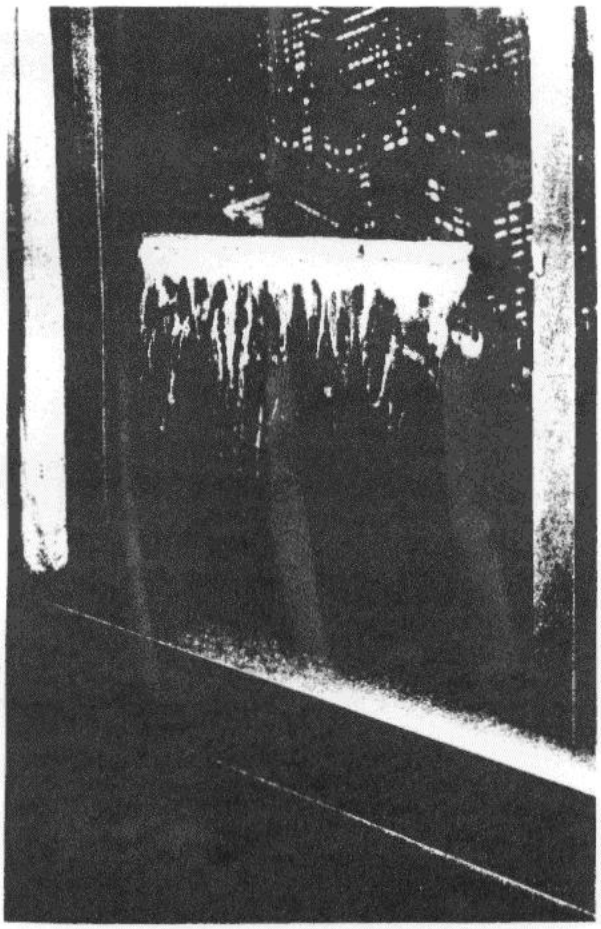

FIG. 72 — DOWNDRAFT FROM COLD WINDOW

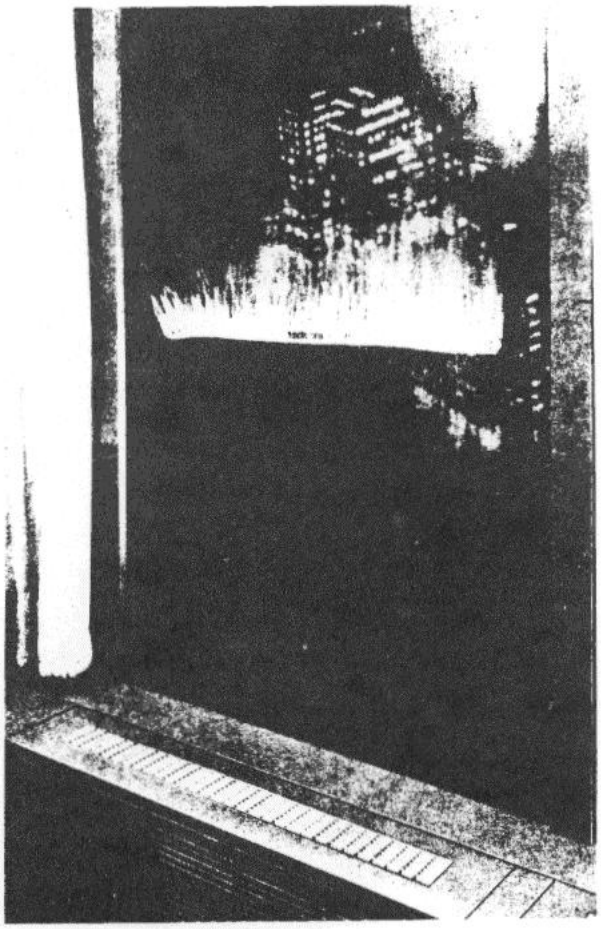

FIG. 73 — DISCHARGE AIR OFFSETTING WINDOW DOWNDRAFT