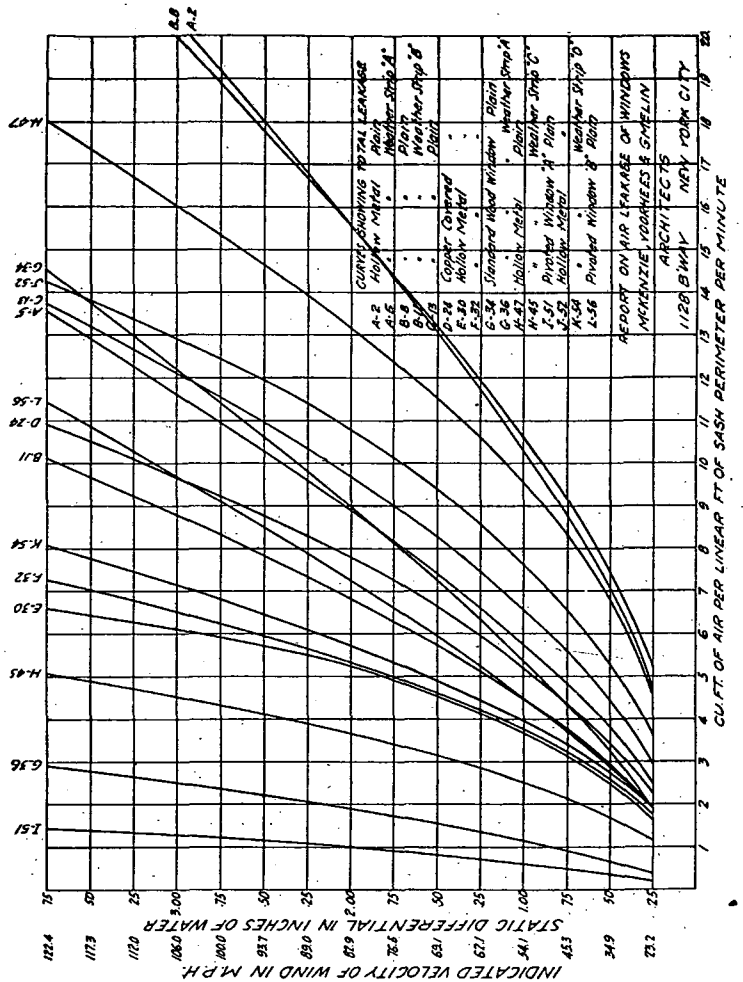

FIG. 2

TRANSMISSION CONSTANTS FOR BUILDING MATERIALS

Buffalo Forge Co. *Fan Engineering*

BRICK WALLS

Thickness Inches	Plain	Plastered One Side	Air Space and Plastered	Furred and Plastered
4	0.52	0.50		0.28
8½	0.37	0.36	0.25	0.23
13	0.29	0.28	0.21	0.20
17½	0.25	0.24	0.19	0.18
22	0.22	0.21	0.16	0.16
26½	0.19	0.18	0.14	

FOR CONCRETE WALLS ADD 20 PER CENT. TO ABOVE VALUES

OUTSIDE WALLS OF FRAME BUILDING-LATH AND PLASTER INSIDE.

Outside Construction		Inside Ordinary Stud Partition	
Clapboards 7/16" thick	0.44	Lath and plaster, one side	0.60
Same with paper lining	0.31	Lath and plaster, both sides	0.34
Same with ¾" sheathing	0.28	Sheet Iron siding	1.20
Same with paper and ¾" sheathing	0.23	Corrugated Iron siding	1.50

FOR VARIOUS WALL CONSTRUCTIONS

Thickness of Board Inches	Pine Board	Double Board Paper Between	Board and Corrugated Iron	Board and Sheet-Iron
½	0.77	0.32	0.45	0.50
1	0.51	0.24	0.36	0.40
1½	0.43	0.19	0.30	0.33
2	0.35	0.16	0.26	0.28
2½	0.30	0.14	0.23	0.25

DOUBLE 1" BOARDS WITH SAWDUST BETWEEN

Sawdust Inches	B. t. u.
2	0.127
4	0.083
6	0.062
8	0.049

FOR FLOOR SURFACES

Single wooden floor, no plaster beneath joists	0.45
Same, lath and plaster beneath joists	0.26
Double wooden floor, no plaster beneath joists	0.31
Same, lath and plaster beneath joists	0.18
Concrete—see concrete walls	

Assume temperature of unheated floor space beneath the floor at one-half the difference in temperature between indoors and outdoors.

FLOORS LAID ON THE GROUND

Cement or tile, no wood above	0.31
Cement or tile, wood floors above	0.10
Dirt, no floor whatever	0.20
Wood, single, laid near ground	0.10

Assume temperature of earth as plus 30° to 50° F.

FOR GLASS SURFACE AND DOORS

Single windows	1.09
Double windows	0.46
Single skylight	1.16
Double skylight	0.48
Pine Doors, 1"	0.41
" " 1½"	0.32
" " 2"	0.27