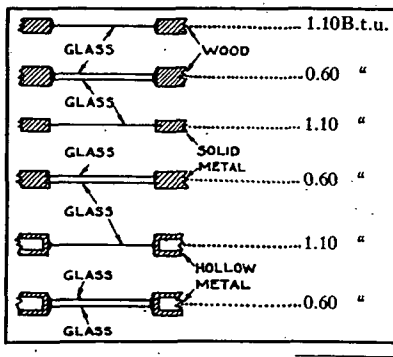
TABLE 6 (Concluded). HEAT TRANSMISSION THROUGH WINDOWS AND SKYLIGHTS



Values given in Table 6 based upon the following authorities:

Reports of the Research Laboratory of the AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS.

Bulletin No. 102, 1917, Engineering Experiment Station, University of Illinois, by A. C. Willard and L. C. Lichty.

Bulletin No. 24, 1918, Engineering Experiment Station, Pennsylvania State College, by R. B. Fehr.

Bulletin No. 30, 1920, Engineering Experiment Station, Pennsylvania State College, by Arthur J. Wood and E. F. Grundhofer.

Bulletin No. 3, 1923, Engineering Experiment Station University of Minnesota, by Frank B. Rowley.

ADDITIONAL COEFFICIENTS FROM ACTUAL TESTS

Based on inside and outside air temperatures with still air on inside and a wind velocity of approximately 15 miles per hr. on outside of walls, glass and roof.

NOTE—For a wind movement other than 15 miles per hr. the value of U must be computed by equations (7) or (8), using the proper value for K_2. See also Tables 3, 4 and 5.

TABLE 7. HEAT TRANSMISSION FOR FLOORS AND CEILINGS

SPECIAL NOTE—Values of U taken from pages 13-16 THE GUIDE 1924-25 appear in Tables 7-12 incl.

ASSUME THE GROUND TEMPERATURE TO BE 50° FAHR.	
CONSTRUCTION	B.T.U.
4" CONCRETE, GROUND	.31
4" CONCRETE, CINDER FILL, GROUND	.29
1" TILE, 4" CONCRETE, GROUND	.30
2½" BRICK, 4" CONCRETE, GROUND	.29
1½" WOOD FLOOR, WATERPROOFING, 3" CONCRETE, GROUND	.10
1½" WOOD FLOOR, 3" CONCRETE, CINDER FILL, GROUND, SLEEPERS	.07
1½" WOOD FLOOR, 5" CINDER FILL, GROUND, SLEEPERS	.11
1½" WOOD FLOOR, AIR SPACE, GROUND, SLEEPERS	.13

ASSUME TEMPERATURE OF UNHEATED AIR SPACE TO BE 35° FAHR. WITH AN OUTSIDE TEMPERATURE OF 0°.	
CONSTRUCTION	B.T.U.
Unheated Space, Joists, Lath, Plaster	.60
Floor, Joists, Lath, Plaster	.26
Floor, Joists, Metal Ceiling	.36
1" Floor, Joists	.40
Floor, Paper, Floor, Joists	.21
Floor, 4" Reinforced Concrete	.41
4" Reinforced Concrete	1.00
6" Reinforced Concrete	.86
8" Reinforced Concrete	.41
10" Reinforced Concrete	.36

TABLE 8. HEAT TRANSMISSION FOR ROOFS*

CONSTRUCTION	B.t.u. per Deg. Fahr. Difference 15 mi. per hr. wind
1" Wood, 5-Ply Paper, Tar and Gravel	0.30
1" Wood, Felt Roofing	0.36
1½" Wood, 5-Ply Paper, Tar and Gravel	0.26
2" Wood, 5-Ply Paper, Tar and Gravel	0.21
2½" Wood, 5-Ply Paper, Tar and Gravel	0.18
Tin on Wood Strips	1.60
Tin on Sheathing	0.60
Tin on Sheathing, with Paper	0.43
Shingles on Wood Strips	0.87
Shingles on Sheathing	0.43
Shingles, Paper, Sheathing, Strips	0.21
4" Hollow Tile, Paper, Tar and Gravel	0.30
6" Hollow Tile, Paper, Tar and Gravel	0.27
2" Concrete, Paper, Tar and Gravel	0.71
3" Concrete, Paper, Tar and Gravel	0.64
4" Concrete, Paper, Tar and Gravel	0.57
Flat Tile on Wood Strips	1.07
Flat Tile on Sheathing	0.64
Slate on Wood Strips	1.10
Slate on Paper and Sheathing	0.50
Corrugated Iron on Strips	1.50
Corrugated Iron, Sheathing	0.64

*Additional heat transmission constants B.t.u. per square foot per hour per degree temperature difference between inside air and outside air.

TABLE 9. HEAT TRANSMISSION FOR INTERIOR WALLS

CONSTRUCTION	B.t.u. per Deg. Fahr. Difference 15 mi. per hr. wind
Plaster, Lath, Studs, Lath and Plaster	0.34
Studs, Lath and Plaster	0.60
4" Hollow Tile, Plastered 1 Side	0.57
4" Hollow Tile, Plastered Both Sides	0.50
2" Gypsum Block, Plastered 1 Side	0.64
2" Gypsum Block, Plastered Both Sides	0.60

TABLE 10. HEAT TRANSMISSION FOR WOOD DOORS AND WOOD PARTITIONS

	B.t.u. per Deg. Fahr. Difference 15 mi. per hr. wind
¾" to 1" Thick Tongued and Grooved	= 0.65
1" " 1¼" " " " "	= 0.60
1¼" " 1½" " " " "	= 0.50
1½" " 2" " " " "	= 0.42
2" " 2½" " " " "	= 0.35
2½" " 3" " " " "	= 0.30