

TABLE 15. LEAKAGE FOR DOUBLE HUNG UNLOCKED WINDOWS C. F. H. PER FOOT OF CRACK PER MILE WIND VELOCITY AND B.T.U. PER HOUR PER FOOT OF CRACK PER MILE WIND VELOCITY PER 70 DEGREES TEMPERATURE DIFFERENCE

VALUES ACTUALLY DETERMINED BY TEST	Crack Clearance	PLAIN WINDOW		WEATHER-STRIPPED WINDOW							
		$\frac{1}{8}" - \frac{1}{4}"$		$\frac{1}{4}"$		$\frac{1}{4}"$		$\frac{1}{4}"$		$\frac{1}{4}"$	
		Leakage	B.t.u.	Leakage	B.t.u.	Leakage	B.t.u.	Leakage	B.t.u.	Leakage	B.t.u.
PART I Best Results	$\frac{1}{32}$	...	...	1.32	1.67	1.48	1.87	1.63	2.07	1.79	2.27
	$\frac{1}{16}$	...	...	1.56	1.98	1.72	2.18	1.88	2.39	2.05	2.59
	$\frac{1}{8}$	...	...	1.67	2.11	1.83	2.32	2.00	2.54	2.17	2.75
	$\frac{3}{16}$	...	...	1.71	2.17	1.89	2.39	2.06	2.62	2.24	2.84
	$\frac{1}{4}$	...	...	1.74	2.20	1.94	2.45	2.13	2.70	2.33	2.95
PART II Average Results	$\frac{1}{32}$	...	...	1.75	2.22	1.96	2.48	2.17	2.75	2.38	3.02
	$\frac{1}{16}$	4.3	5.45	1.85	2.30	1.99	2.42	2.21	2.81	2.56	3.25
	$\frac{1}{8}$	6.6	8.36	2.04	2.58	2.21	2.70	2.46	3.12	2.80	3.55
	$\frac{3}{16}$	8.9	11.9	2.15	2.72	2.33	2.84	2.58	3.28	2.94	3.72
	$\frac{1}{4}$	11.2	14.2	2.19	2.78	2.39	2.91	2.66	3.37	3.04	3.84
PART III Values for practical use; Average test values reduced by 20 per cent to allow for building up of pressure in room, etc.	$\frac{1}{32}$	15.7	19.9	2.23	2.82	2.44	2.97	2.74	3.47	3.15	3.99
	$\frac{1}{16}$	20.2	25.6	2.24	2.84	2.47	3.00	2.79	3.53	3.24	4.10
	$\frac{1}{8}$	3.4	4.36	1.48	1.84	1.60	1.93	1.76	2.24	2.04	2.60
	$\frac{3}{16}$	5.2	6.68	1.63	2.06	1.76	2.16	1.96	2.49	2.24	2.84
	$\frac{1}{4}$	7.1	9.5	1.72	2.17	1.86	2.27	2.06	2.62	2.35	2.97
	$\frac{3}{8}$	8.9	11.3	1.75	2.22	1.91	2.32	2.12	2.69	2.43	3.07
	$\frac{1}{2}$	12.5	15.9	1.78	2.25	1.95	2.37	2.19	2.77	2.52	3.19
	$\frac{3}{4}$	16.1	20.4	1.79	2.27	1.97	2.40	2.23	2.82	2.59	3.28

around the sash perimeter and also for various clearances (Fig. 5) between the sash and the stop and parting bead.

Tables 14 and 15 are both divided into two parts, the first part containing values based upon the original Research Laboratory test data, and the second part containing the same values reduced by 20 per cent in accordance with the suggestion from the authors. In these tables both the best laboratory results and the average of all laboratory results on weather-stripped windows are given.

Table 15 gives the leakage per mile wind velocity. This is based on the assumption that the leakage is proportional to the wind velocity, while this is practically true for a non weather-stripped window it is not so accurate for a weather-stripped window as indicated by the value for

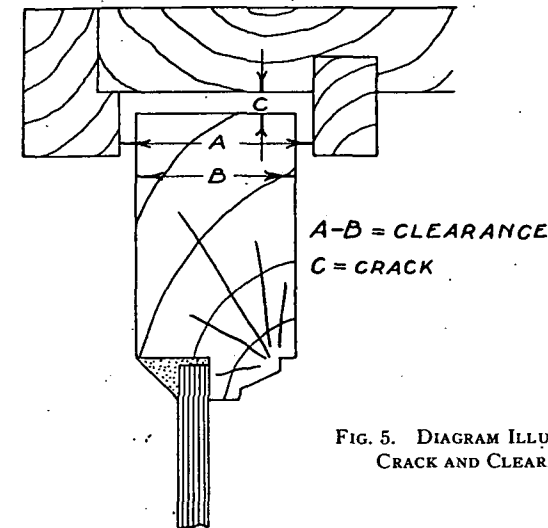


FIG. 5. DIAGRAM ILLUSTRATING CRACK AND CLEARANCE

different velocities in Table 14. This accounts for the discrepancies in certain parts of the two tables. The two tables are, however, practically in agreement for a thirty mile wind velocity.

According to the authors of the paper: "The values given in the table are from the tests as made and are probably somewhat higher than those actually found in practice. They represent the leakage when the pressure drop through the window is a certain value which represents a definite wind velocity at right angles to the window. If the wind strikes the window at an oblique angle the component of the velocity at right angles to the window must be considered. Pressure difference between the outside and the inside surfaces of the window for an actual wind will be slightly less for a given velocity because of a building up of pressure within the room before the air leaks out the opposite side of the building. Attention is called to the fact that air leaks in on the windward side of the building and out on the leeward side and, since wind will blow from various directions at different times, heating for any room having only