

some very wide discrepancies, which could only be accounted for by the supposition that the temperature of the tube, and that indicated by the thermometer, were different, owing, perhaps, to currents of air. The second method tried gave more satisfactory results. A five gallon wide-mouthed jar was filled with a mixture of alcohol of 65 overproof, and snow—the quantity of the latter being slightly over that which the spirit would dissolve. This gave a temperature of 20 degrees below zero F. The tube and thermometer were immersed in the mixture, and the volume of the alcohol noted at the increase of every five degrees, until the temperature of the apartment in which the experiments were made, was reached. (60° F). The result is given in tabular form. As no allowance was made for the expansion of the glass tube, the figures given will therefore only represent the *apparent* expansion of the liquid; in order to ascertain its *absolute* expansion, a correction must be made. This will not be necessary for ordinary purposes :—

TABLE EXHIBITING THE VOLUME WHICH 100 GALLONS OF ALCOHOL, 65 OVER-PROOF, AT 60° F., WILL HAVE WHEN MEASURED AT DIFFERENT TEMPERATURES.

TEMPERATURE.		Volume of Spirit.
Centigrade.	Fahrenneit.	
15°55'	60°	100°0
12°77'	55	99°7
10°00	50	99°4
7°22	45	99°2
4°44	40	98°8
1°66	35	98°6
— 1°11	30	98°3
— 3°88	25	98°0
— 6°66	20	97°6
— 9°44	15	97°3
—12°22	10	97°0
—15°00	5	96°6
—17°77	0	96°3
—20°55	— 5	95°0
—23°33	—10	95°7
—26°11	—15	95°4
—28°88	—20	95°2