Remarks.—The values of E for specimens a_2, b, c and d have been calculated from the first series of readings only, and are consequently smaller than if repeated readings had been taken.

The mean direct tensile strength is 2.68 times greater than the calculated mean skin-stress of the beam and 3.7 times greater than the mean compressive strength of the timber.

Specimens e_1 and e_3 contain the heart and show the least compressive strength. The ratios of length to least transverse dimensions in the compression specimens varied from 6.47 to 9.46, and the failure in each case was due to direct crushing.

The shearing strength of the round specimens is 1.42 times greater than that of the flat specimens.

The several specimens had lost considerably in weight during the interval of their preparation from the beam and the date of test.

Tension specimen b, after the first series of readings, was entirely relieved of load and was allowed to rest for two hours.

Between the two series of readings, compression specimen f_2 remained under the load of 50,000 lbs. for sixteen hours, the final reading varying from .01117 to .01172.

AIR-DRIED SPECIMENS FROM WHITE PINE BEAM 16.

Tension Tests.					Compression Tests.					Shearing Tests.				
	Coefficients of elasticity in lbs. per sq. in.		Tensile strength in lbs. per sq. in.	Sp. wt. in lbs. per cub. ft.	Coefficients of elasticity in lbs. per sq. in.			Compressive strength in lbs. per sq. in.	Sp. wt. in lbs per cub. ft.		Shearing strength in lbs. per sq. in. of flats.	Sp. wt. in lbs. per cub. ft.		Shearing strength in lbs. per sq. in. of rounds.
Spec.	Forward.	Return.			Spec.	Forward.	Return.			Spec.			Spec.	
a	1,626,330	.....	9,777	.....	g_1	1,945,550	1,912,950	3978	.....	k_1	321.90	26.552	*a*	552.95
b	1,743,720	1,863,540	10,021	.....	g_2	1,691,000	1,690,900	2880	32.75	k_2	405.40	25.941	*c*	636.74
c	1,743,170	1,858,240	.....	.....	g_3	.....	.....	3978	31.157	l	321.35	25.952	*e*	689.113
d	1,443,900	.....	5,772	.....	h	1,455,090	1,449,670	4737	26.461	m	294.81	26.534	*g*	557.15
e	1,635,720	.....	12,108	.....	l_1	1,571,990	1,569,160	2963	28.668	n	375.56	26.807	*i*	
f	2,245,130	2,295,170	11,902	.....	l_2	1,560,010	1,535,620	3331	27.102	o	331.21	26.672		
	1,652,480	.....	10,884	.....	l_3	.....	.....	2924	34.157	p	342.80	26.584		
										q	313.82	25.929		
										r	410.45	27.461		
										s	334.68	26.540		
										t	352.98	27.513		

Remarks.—The values of E for specimens a, c, d and f have been calculated from the first series of readings only, and are consequently smaller than if repeated readings had been taken.