

TABLE 23.—STRENGTH-DEVELOPMENT STUDIES WITH TAWA SULPHITE: LABORATORY RUNS.

Run No.	Equipment.	Pulp used.	Beating-time.	Bursting Factor (on Oven-dry Hand-sheets).	Freeness.
		Cook No.	Minutes.	Pts./lb./rm.	c.c.
1	Marx-beater ..	2	20	0.16	385
			40	0.21	332
			60	0.33	295
			80	0.35	253
			100	0.37	217
			120	0.40	168
			140	0.46	104
			160	0.54	56
2	Rod mill ..	2	20	0.24	258
			40	0.32	235
			60	0.30	168
			80	0.37	124
			100	0.46	84
3	Marx-beater ..	2	40	0.17	323
			70	0.22	292
			100	0.32	157
			130	0.41	107

TABLE 24.—STRENGTH-DEVELOPMENT STUDIES WITH TAWA SULPHITE: COMMERCIAL BEATER RUNS
—CONSOLIDATED WATER-POWER AND PAPER CO.

Beater-run No.	Date.	Beating-time.	Roll-setting.	Bursting Factor (on Oven-dry Hand-sheets).	Freeness.
		Minutes.		Pts./lb./rm.	c.c.
1	March 13, 1928 ..	Unbeaten stock	..	0.08	498
		50	Light brush ..	0.12	430
		90	" ..	0.15	..
		180	Medium brush ..	0.16	340
		240	" ..	0.16	330
		300	Hard brush ..	0.16	340
		360	" ..	0.15	340
		60	Medium brush ..	0.13	440
2	March 13, 1928 ..	120	" ..	0.13	360
		180	Hard brush ..	0.14	315
		240	" ..	0.20	320
		300	" ..	0.16	320
3	March 14, 1928 ..	60	Light brush ..	0.17	375
		120	Medium brush ..	0.17	315
		240	Very hard brush ..	0.18	320
		375	" ..	0.24	265
		525	" ..	0.26	220
		Total furnish*	..	0.22	175
4	March 14, 1928 ..	60	Light brush ..	0.16	380
		195	Medium brush ..	0.18	320
		330	Hard brush ..	0.19	270
		420	Very hard brush ..	0.25	270
		480	" ..	0.24	250
5	March 14, 1928 ..	60	Hard brush ..	0.16	370
		120	" ..	0.21	380
		210	" ..	0.19	400
		Total furnish*	..	0.24	160
6	March 14, 1928 ..	60	Hard brush ..	0.15	390
		120	" ..	0.17	360
		210	" ..	0.22	390
		Total furnish*	..	0.24	175
7	March 15, 1928 ..	0	Hard brush ..	0.11	400
		60	" ..	0.11	440
		Total furnish*	..	0.19	225
8	March 15, 1928 ..	90	Hard brush ..	0.17	350
		Total furnish*	..	0.21	230

* This sample comprised the total beater furnish of insignis-pine sulphite, tawa sulphite, and tawa groundwood, just prior to emptying the beater. All other tests are upon tawa sulphite only.