

No. 34. Small hank ; length 6 feet ; colour white, with red stains ; bright but harsh and stiff ; breaks short.

No. 35. Half-hank ; unscutched ; length 5 feet ; colour reddish ; harsh, breaks short.

Microscopic—Fibres adherent in granular bundles, which break short across.

No. 36. Half-hank ; length 6 feet ; colour reddish yellow ; bright but harsh ; breaks short.

Microscopic—Fibres adherent in bundles, which snap across ; much adherent tissue.

No. 37. Small sample ; short lengths ; colour greenish yellow ; soft but coarse, and unequal in the length.

No. 38. Fifty pounds weight ; length 5 feet ; colour reddish yellow ; bright and equal, but great difference between the fibre of tips and butts ; breaks short in slender fibres, but no down.

Microscopic—Fibres adherent in small granular bundles, but snap across.

No. 39. Small hank ; length 6 feet ; colour reddish yellow ; bright, harsh, breaks short without down.

Microscopic—Fibres adherent in small bundles, which are coated with granular tissue.

No. 40. One hank ; length 6 feet ; colour reddish yellow at butt ; greenish yellow at tips ; very bright and soft ; breaks short.

Microscopic—Fibres adherent ; breaks into short lengths, with bands of connective tissue.

No. 41. Unscutched—One hank ; length 6 feet ; colour red ; very harsh, brittle, but strong on a straight pull.

No. 42. One hank ; length 4 feet ; colour pale yellow ; bright and soft ; divides freely in breaking.

Microscopic—Fibres free, but breaks into short lengths. (Young flax steeped?)

No. 43. Small sample.—Unscutched ; length 5 feet ; colour reddish ; moderately harsh, but has been rubbed ; divides freely but breaks short.

18th July, 1870.

JAMES HECTOR.

TABULAR STATEMENT of the Results of Experiments to determine the relative Strength—Quantity operated on being 40 grains of each fibre, in 2-foot lengths.

I.							Max.	Min.	Average.	
No.	Samples.									
1.	Russian hemp	...	...	...	...	...	254	160	207
2.	Manilla	...	...	...	...	...	265	144	215
II.										
3.	Maori-dressed	...	...	...	...	...	235	200	217
4	Ditto,	not tested.								
to										
11.										
III.— <i>Chemical.</i>										
12.	Steaming	...	...	...	...	...	140	134	137
13.	Steaming and fermenting	...	...	...	...	...	120	106	111
14.	Soft scraping and washing	...	...	...	...	...	160	152	156
15.	Machine-dressed and chemical	...	...	...	...	...	...	...	102
16.	Machine and steeping	...	...	...	...	...	221	162	191
17.	Chemical	...	...	...	...	...	...	...	171
IV.— <i>Machine-dressed.</i>										
21.	Scutched (Northern District)	...	...	...	...	...	160	150	155
22.	Ditto ditto	...	...	...	...	...	160	141	151
23.	Ditto ditto	...	...	...	...	...	187	118	148
24.	Unscutched ditto	...	...	...	...	...	164	125	145
25.	Scutched ditto	...	...	...	...	...	140	133	136
26.	Unscutched ditto	...	...	...	...	...	139	110	125
27.	Scutched ditto	...	...	...	...	...	139	104	117
28.	Ditto ditto	...	...	...	...	...	125	110	117
29.	Unscutched ditto	...	...	...	...	...	114	105	109
31.	Scutched (Central District)	...	...	...	...	...	200	174	191
32.	Ditto ditto	...	...	...	...	...	184	150	167
33.	Ditto ditto	...	...	...	...	...	181	155	167
34.	Ditto ditto	...	...	...	...	...	188	148	165
35.	Unscutched ditto	...	...	...	...	...	172	160	165
36.	Ditto ditto	...	...	...	...	...	175	155	162
37.	Scutched ditto	...	...	...	...	...	185	130	157
38.	Ditto ditto	...	...	...	...	...	176	138	154
39.	Ditto ditto	...	...	...	...	...	153	123	138
40.	Ditto ditto	...	...	...	...	...	152	120	136
41.	Unscutched (Southern District)	...	...	...	...	...	185	172	178
42.	Scutched ditto	...	...	...	...	...	182	126	154
43.	Ditto ditto	...	...	...	...	...	174	128	151