Our farmers will be able to judge what the rate of wages is likely to be in those districts of Ireland where the flax plant of Europe is profitably grown, by the amount of labour which the above statement shows was performed for the money.

Mr. Charley describes several other processes as having been of late years adopted, by which the troublesome retting or fermenting may be avoided. The chief of them are briefly as follows :—

Chevalier Claussen's patented plan is to steep and boil the fibre in certain chemical liquids, which give it "a peculiarly bright and cottony appearance."

Mr. Schencks' is to hasten the fermentation by substituting warm water for cold (thus avoiding the unpleasant odour), the entire process only occupying from sixty to seventy hours; but Mr. Charley remarks on this process, that he "thinks it did not pay well, and has nearly been given up."

Mr. Watts' patent is for a newer system—boiling and crushing the flax between rollers are substituted for fermentation, the stalks being taken from the rollers to a drying-room heated by steam, and, when dry, scutched. Regarding this, Mr. Charley says "he much fears the result was not remunerative," and his remarks on the several systems are as follows :—He says "The watering process, troublesome as it undoubtedly is, will extract less of the oily and toughening matter of the fibre, called 'nature' by the spinners, than such a series of boiling and chemical operations as I have just described. The spinners are thoroughly practical men, and they all, I believe, still prefer the old watering process to any yet discovered; not from prejudice or partiality, but from the acknowledged superiority of flax prepared in this way to any other in the *spinning quality* so much esteemed.

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The chemical composition of the *Phormium tenax* is proved by analysis to be the same as that of the flax plant of Europe, the only difference being that the proportion of constituents differs in each.

The following is Professor Hodges' analysis :—

Laboratory, Chemico-Agricultural Society,
Belfast, 24th November, 1853.

An Analysis of New Zealand Flax and Irish Flax Straw. One hundred parts of each contain respectively—

	New Zealand Flax.	Irish Flax.
Water	60·39	56·64
Organic matters	37·88	41·97
Ash	1·73	1·39
	100·00	100·00
Ash per cent. in plants dried at 212° Fahrenheit	4·36	3·20

One hundred parts of the dried leaves of New Zealand flax gave 1·64 parts of nitrogen, while 100 parts of Irish flax straw gave 0·53 of nitrogen. The ash of New Zealand flax and of Irish flax respectively contain—

	New Zealand Plant.	Irish Plant.
Potash	14·93	20·32
Soda	5·38	2·07
Chloride of Sodium	8·75	9·27
Lime	28·52	19·88
Magnesia	1·41	4·05
Oxide of Iron	1·21	2·83
Sulphuric Acid	4·64	7·13
Phosphoric Acid	18·96	10·24
Carbonic Acid	13·12	10·72
Silica	3·86	12·80
	100·78	99·31

John F. Hodges, M.D.,
Chemist to the Society.

Regarding this analysis, which is given in his work on Flax before alluded to, Mr. Charley remarks :—

"The excess of silica spoken of as the cause of brittleness, does not appear in the analysis, but I think the non-fibrous portion of the *Phormium tenax* is more incorporated with the fibre than in the *Linum usitatissimum*, and this combination may partly account for the brittle nature hitherto generally attributed to the fibre. If the silica exists in combination with the alkalies, potash and soda, which I presume may be the case, I do not see any reason why such silicate should not be soluble in hot water."

The microscope will convince you that the close connection between the parenchyma and fibre, as suggested above, does really exist, and I do not believe that any merely mechanical process will ever effectually separate them.

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The home prices of the several fibrous substances I have alluded to are as follows :—

	£	s.	d.		£	s.	d.	
1. Russian flax	44	0	0	to	75	0	0	℔ ton.
2. Manilla hemp	51	10	0	„	52	10	0	„
3. Russian hemp	39	0	0	„	45	0	0	„
4. Coir yarn	23	0	0	„	45	0	0	„
5. Phormium tenax	20	0	0	„	38	10	0	„
6. Jute	12	10	0	„	24	10	0	„
7. Cotton	0	0	10½	„	0	2	7	℔ lb.

By the above, we see that the quoted price for coir is for *yarn* or the spun fibre, and that New Zealand flax, *unspun*, comes next in price; we further see that costly cotton is calculated by the pound; and in connection with this fibre I may remark, that very serious difficulty is apprehended at