

been analyzed by Professor Way, who reports generally, that it is superior, in feeding value for cattle, to wheat straw, although perhaps inferior to good barley straw. The chaff from steeped flax is entirely deprived of this important property.

In speaking of the waste of seed, the Marquis of Downshire stated to the Royal Belfast Flax Society, that on passing for miles through the country they were rolling the flax in the roads, in order that the seeds might be beaten out by horses or cart wheels; and it was quite in vain to draw their attention to the value of the seed or the loss they sustained by so wasting it.

These respective manufactures do not of course come within the dominion of the agriculturists; but not so the raw material from which they are procured. To prove the merits of the fabrics manufactured under my superintendence, from unsteeped flax, I beg to subjoin the following Report, made upon a sail composed of alternate cloths of unsteeped flax and those made from the Phormium Tenax, or New Zealand Flax:—

“SIR,—In answer to your letter I beg to state that the foresail made from your preserved cloth has now nearly completed a service of five years, and has during the whole of that period, been in constant use in every variety of weather; and although this sail has received the roughest possible treatment the crew could give it, and has been put by repeatedly in a wet state, with a view to excite mildew, still we possess no power to excite the slightest symptoms of premature decay in your cloth. (I have often been asked its price per yard.)

“I cannot help saying that I am greatly surprised at the extraordinary durability of this sail, and that during the whole period I have been in his Majesty's service (now about twenty-eight years) I have never met with sail cloth capable of bearing the same tests, or that has been the subject of so much curiosity and inquiry.

“M. J. J. DONLAN, Esq.”

(Signed) “WILLIAM ATKINSON, Master,

This new and important fibrous substance is applicable to all the uses to which Riga, Petersburg, Italian, Hungarian, and all other hemp and flax are now applied. The cultivation of this important produce (from which Great Britain and Ireland are now nearly shut out) will open a new article of trade and commerce throughout the United Kingdom; but should the growers meddle with, or torture the flax straw, by any common-place Machinery, they will render it quite unfit for the service of manufactures. Upon this first process depends the value of the fibre, and if any false step be taken in it, the injury to the farmers will be incalculable, as the material so treated would be rendered unfit for manufacturing into the strong and important articles required for the general service of the country. I am warranted in stating that any offer made by persons ignorant of the treatment of

unsteeped flax straw to supply farmers with cheap machines for the purpose of reducing the bulk of the material, with a view to find sale for the fibre so produced, would be nothing less than a trap or snare, and pregnant with fraud and deception.

The following Report by the Hon R. H. Clive, M. P., Member of the Royal Agricultural Society of England, and published in the Mark Lane Express, dated the 19th day of May, 1852, will be read with interest by the Landowners, Agriculturists, and Farmers.

FARMER'S FLAX MILL.—The Hon. R. H. Clive, M. P., informed the Council that he had paid a visit by invitation to the works of Mr. Donlan, in the Warwick Road, Kensington, where he had inspected the construction and operation of the Farmer's Flax Machines invented by that gentleman. Having taken with him a sheaf of his own flax straw, from which the seed had been removed, this straw was divided into four equal portions; and three of these being subjected to the action of Mr. Donlan's machines, the result was then submitted by Mr. Clive to the Council. The first portion was the original straw, on which no operation had been performed; the second was the next portion, which had gone through the first, or *beating* process; the third portion had gone through the beating process, and had also been passed through the double roller press and undergone the *rolling* process; the fourth portion had been subjected to all the three processes,—namely, those of beating, rolling, and *scraping*, and gave the final results of about twenty-five per cent, of marketable farmers' flax, and about 12½ per cent of tow. The whole of these machines were constructed in the simplest manner, but with the most exact adaptation of mechanical means for effecting the separation of the woody matter contained in the flax stalk from the fibre required by the manufacturer; all the weak, imperfect fibres being retained, and only the strong and perfect ones being allowed to pass through. They were not of an expensive character; and could be worked either by men, women, or children, and by one person singly, or by several at the same time; horse, water, or steam-power might also be used, according to circumstances. The whole of the results then submitted to the Council had been attained by one man in the course of twenty minutes. The farmer's flax, produced under favorable conditions of the straw, was valued at £32 per ton, and the tow at £12 per ton; and for the marketable article thus obtained, the farmer, who under present circumstances could only dispose of this flax-straw at about £2 or £3 per ton or not at all, would find in this country and on the continent a ready sale, the ton of straw, by this mechanical operation, yielding farmers' flax of commerce and tow which together might be estimated at nearly £10; a sum from which would have to be deducted only the very small proportional part of the cost, rent, wear and tear of the machines employed, and the labour required to