

principle of *simple* action to this agricultural machinery, so as to enable the farming labourers to perform the operation with ease, thereby giving the balance of power and division of labour to Great Britain and her Colonies over all the Foreign Nations from whom we now receive supplies of fibrous substances.

M. J. J. DONLAN.

4, St. Peter's Square, Hammersmith.

P. S. To prove the insufficiency of large portions of the Foreign hemp and flax imported into Great Britain for the use of the Royal Navy, we have only to refer to the sales of what are called old-stores, effected throughout her Majesty's principal Dock yards, when we shall find that hundreds of tons of weak hems, sail cloths, &c. &c., are annually sold as unfit for naval purposes. It must be admitted that calico has, in many instances, displaced fine linens, and that the linen trade has been for some time past suffering severely in consequence. If Foreign powers are now allowed to purchase my discoveries, they will not only still maintain their present monopoly and prevent our becoming a self-supplying nation, but will deprive our growers of those advantages arising from a large export of fibrous substances which I feel confident my inventions will place in their power.—M. J. J. D.

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 10th of May, 1852, will be read with interest by the Landowners, Agriculturists, and Farmers.

FARMERS' 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 Farmers' 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 25 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. This farmers' flax, produced under favorable conditions of the straw, was valued at £32 per ton, and the tow at about £12 per ton; and for the marketable article thus obtained, the farmer, who under present circumstances

could only dispose of his 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, and wear and tear of the machines employed, and the labour required to work them. The flax, when dry, might be taken at once from the field without stacking, and, after the removal of the seed, was ready, without any other preparation, for this mechanical process, which was alike available to the smallest cottager or the largest occupier, and adapted either for manual labour or the application of machinery worked by any motive-power. He could not but regard this subject as one of great importance to the English farmer; and, as it had often engaged the attention of the Council, whose members had long considered such mechanical aid as this now referred to as a great desideratum, he felt that he was only discharging his duty as one of their body in calling their particular notice to the machines in question; at the same time, as the Council could not collectively deviate from their usual course, by giving any opinion themselves on an invention like the present, he would request a few of the members in their private capacity to accompany him to Mr. Donlan's works at an early convenient day, in order that they might inspect his operations more accurately in detail, and inform themselves of the full bearings of the question in a practical point of view.

N. B. To show the power I maintain over flax stalks, I have taken green flax straw from off the field in the morning, and had it converted into a strong paulling cloth in the evening of the same day. This operation was performed at the Rugely Factory in Staffordshire, in the presence of sixty individuals.

(EXTRACT OF LETTER ADDRESSED TO MR. WIDDER)

Dated LONDON, 15th June, 1852.

"I send enclosed a prospectus, relating to the Flax machine of Donlan's invention, on the subject of which I have written you before. Mr. Clive's opinion at the foot of it, is the interesting part. We are trying to get into personal communication with Mr. Clive and the Royal Agricultural Society, with a view of getting this machine completed, and if possible of getting the machine itself, or a model of it, to send out to you.—Our inquiries lead us to think the machine could be very cheaply constructed, and might be worked by any kind of power, or by hand, without difficulty. I conclude your object is to bring this subject forward at the Provincial Exhibition in September, and, if possible, we will enable you. Mr. Perry went one day to the place where the machine may be seen at work, and was satisfied by what he saw, that the machinery is simple and effectual, and the flax comes out cleaned perfectly of the straw. He saw it when worked by hand. I enclose also a bit of the flax he saw cleaned.\*

\* This specimen we have in our possession; the preparatory process seems very complete, and the strength of the fibre quite unimpaired.—[EDITOR.]

ECONOMY OF FARM-POWER.—B. P. Johnson, in his letters from England, in speaking of the skillful farm arrangements of J. J. Mechi, the celebrated English agriculturist, says that by means of an high-pressure engine of six-horse power, he drives a pair of mill stones for grinding feed, threshes and dresses grain, pumps water, cuts chaff, turns the grind-stone, raises the sacks of grain, and the waste steam cooks the food for cattle and swine—the work being all performed in a first rate manner.