

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 particular notice to the machines in question; at the same time, as the Council could not collectively deviate from their usual course, by giving an 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 pauling cloth in the evening of the same day. This operation was performed at the Rugely Factory in Staffordshire, in the presence of sixty individuals.

INSTRUCTIONS FOR WORKING THE FLAX MACHINE IMPORTED BY THE CANADA COMPANY.

The machine is intended to break and scutch flax straw, which has not been soaked or steeped—after the seed has been thrashed out and the straw perfectly dry, it may be put under the operation of the machine, and the flax produced, if equal to the sample now exhibited with the machine, could be sold in London, a month ago, at £30 to £32 10s. st'g. per ton.

A boy of 10 or 12 years of age may feed the rollers, and one a little more advanced in age attend to the scutching, which can be readily performed by holding firmly in the hand the broken straw at the end, and passing it between the scutching wheel, and the serrated surface of the board B., and passing in the same manner that part held in the hand. When this is done, you have merchantable flax, fit for home use or for exportation.

The scutching wheel A must be keyed on the spindle A, allowing about one-sixteenth of an inch clearance between the scutching blades H and the serrated surface of the board B. The driving pulleys, C, move in the direction of the arrow and are driven by a leather strap at about 65 revolutions per minute. The weights D D are suspended from the levers D D—when worked by hand, the loose pulley must be removed, and the handle F fixed to the shaft E by means of the set crew. The flax to be broken is laid

open in the feed box F and passed between the rollers in the direction of the arrow accompanying F and delivered in the box C ready for scutching.

In working the machine the following rules should be observed:—

1st.—The straw should be as dry and ripe as possible.

2nd.—The roots should be laid towards the rollers—the flax straw kept as even as possible and spread out thinly in the feed-box F.

3rd.—The flax straw when broken by the rollers should be spread over the scutching board B in the shape of a fan, and held firmly by the person scutching, in order to avoid unnecessary waste.

Both ends of the flax to be scutched.

The machine should be screwed down firmly to the floor.

The quantity of clean Flax produced by this Machine in any given time varies according to the nature and quality of the straw, and we should say from past trials, the harder, coarser, and riper the straw is, the better the machine performs its work, because if the straw is pulled green, as is sometimes the case, it is difficult to separate it from the fibre in scutching, at the same time there is more difficulty in the rollers performing their work.

In giving a statement of the quantity of flax produced, it is, of course, presumed that the straw is free from weeds and to this we would call your attention, we have known a bundle of flax straw to be so foul, that one-third has been actual waste, and it must be remembered that weeds are not only worthless in themselves, but they impede the process, and if passed through the rollers, cling firmly to the fibre, and when subjected to the action of the scutches cause unnecessary waste.

It may perhaps be an improvement, should the flax straw be coarse, to attach more blades (H) to the wheel (A). This can be done by a common carpenter, and also to put a greater weight on the lever, D. The blades should be made of hard wood, and planed to a sharp edge.

The speed at which the machine should be driven is marked on the plan, namely, 65 to 70 revolutions per minute. We cannot point out any particular part of the machine more liable to get out of order than another.

One horse would drive four machines.

One man to scutch and one to feed, would produce as follows:—

28 lbs. straw passed through the machine in 30 minutes.

Flax, as per sample.....	11 lbs.
Clean Tow.....	7
Straw and rough Tow.....	6
Roots and Refuse.....	4

28 lbs.

CANADA COMPANY'S OFFICE,
Toronto, 22nd September, 1852. }