pressed down by two levers with weights; it is then turned by a board behind, and comes out over the upper part of the two under rollers, receiving the pressure of the fluted parts in the five rollers, which deliver it on a board in the front indented by the action of the several rollers; it is then ready to be handed over to the scutchers in the mill to be cleaned out, that is, the shives or short wood, taken out by the action of scutching handles.

Although I admit those rollers do the work tolerably well when carefully attended, I cannot but condemn them, and all the inventions I have yet seen for that purpose, for two reasons: first, they are dangerous, and men often lose their arms, thus: the flax will sometimes go wrong in them, and men forget themselves, and in attempting to rectify the flax their hands are caught by the rollers; another reason of objection is, the flax is frequently much tossed, and delivered uneven, and this causes much waste or loss in the scutching or cleaning process, therefore I intend to recommend a machine free of all danger, that will break or indent it, in a lying position, without tossing or making it uneven, which I am prepared to prove will be a vast saving in the scutching.

Scutching.—In the mill at the scutching stalk or board it is prepared for market; and as it is very easy to convert any old corn mill into a scutch mill, I shall describe the simplicity of the machinery. The common fly-wheel used for driving stones in a corn-mill, will drive a shaft for 6 or 12 men to scutch at; on the end of this shaft a small spur-wheel is fixed, with cogs calculated to work on the face of the fly-wheel. This shaft has from 6 to 12 pair of arms driven through it from 3½ to 4 feet apart; on those arms are fixed short swords or handles of beech, one on each end; those arms, crossed in the shaft, revolve according to the power let on the water-wheel or engine, and pass round within from ¾ to 1 inch of an upright and stationary standard made of hard wood (called the scutching stalk,) over which the man or scutcher holds two-thirds of a handful of flax (called a streik,) under those swords, keeping a tight hold of the other one-third until the large portion is clean, when he turns the other end of the streik, and in a similar way feeds the swords, over the scutching stalk, until by the action of those swords the last of the wood, or stem, on which the flax grew is dusted, or driven out, leaving the fibres all together, like some hundreds of narrow ribbands. The rollers are also driven by a lying shaft, from the face of the fly-wheel. This is the whole process, as followed up in Ireland by those who are endeavouring to compete with their more experienced rivals the Belgians: formerly they all watered their flax when pulled, in order to have it early in the market, to meet the payment of their November rents; but this mode of management cannot be too strongly condemned; and as it is much against the interest of the grower, I shall point out the error: first, those persons glut the market in Oct., Nov., and Dec., and so anxious are they to have their flax early to market, that often have I had to allow my men to work day and night, as those workers are paid by weight for what they clean or scutch, there is always great loss in their being so hurried by the owners. Much of the finer fibres are cut up and lost in the stem, or wood, and the ends of the flax also much cut away. I consider the system of paying workers by weight a very bad one, as the loss, if the flax had got too much water, and turns out soft, is very great, when hurried over; this has been ascertained by weighing 1 cwt. of rough flax, and having it scutched by hand at home, and comparing it with the same weight done in the mill; there is much room for improvement in the scutching department of the business. I have also another reason for condemning the system of steeping the year it is pulled. The Belgians keep it over to the next season, and I believe the flax is the better for it; in my opinion the fibre absorbs all the oil or sap from the wood or stalk, and from its being kept over year, the wood becomes quite brittle, and it requires less time in the water to cause it to quit the fibre; therefore, I must believe that to grow and manage the flax plant to perfection, time must be looked to in every stage of the process, and as the watering or soaking should not be done till the year after growing, it is my opinion that the secret in knowing how to grow and obtain a fine fibre and an abundant crop is to be found out by proper attention to this in all the stages of the process.

Effects and Use of Flax-water.—I was often struck with astonishment after rain in the months of September and October to see the great number of large trout dead in the water course to my mill, from the effects of the water which had been let off from the several pits in the neighborhood where flax had been soaked. I am glad to find that even the water in which it is steeped can be turned to a good account. Some of the members of the Belfast Society have been trying experiments, and find that it can be returned to the land in the shape of manure. I should think bog-earth thrown into such water would be, when taken out, valuable.

Having given an outline of the plan of operation by which I and others have been successful in cultivating flax, and having watched the mode of management pursued by others in Ireland, who had year after year prime flax, I cannot imagine how men can be so prejudiced as to assert that the growing of flax is a lottery. I am aware that it is not every man who wants to do so can grow it of fine quality; he must give time to bring his ground into a proper state of cultivation. Added to this, as there are a great number of farmers uninformed of the value and variety in quality of flax, they must have Belgian teachers, or be guided by the Belgian system of management, before they can compete with our foreign neighbors: however, I do not despair of their success when knowing the result of several experiments made by gentlemen in Norfolk who have produced fibre equal to the best Belgian, and I have pleasure in informing them that I have been lately favored with letters from some of the most