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NOTES ON THE CULTIVATION OF FLAX.

THE origin of a nation's wealth, and its progress through the balances of exchange, can nowhere be so fully studied and understood as in the erection and early progress of a colony. An approximation can readily be made to the value of capital and labour thrown into it at first, and the products as easily ascertained. Untilled and ungrazed land is without a value; by so much as a merchantable product is realized from it, so is its value created. When the produce ceases to pay the price of labour, the land-value returns to its original nothing, for its ability hereby, to supply food to its cultivators does not give it a value, because there is no surplus to place to its credit, the product being the price of labour not received from the land itself. It is evident from this, therefore, that there must be a careful selection of articles to be produced, before land can acquire a value. Quantity of the necessaries of life cannot produce it, unless another system is in operation which consumes these only; but is enabled to give an enhanced value, in the supply of other wants, for the labour cost of these necessaries.

In South Australia land is worth twenty shillings an acre by Act of Parliament—so is a bank-note of that value. But

IRREGULAR PAGING

when that land affords no return for the twenty shillings, and the piece of paper cannot be exchanged for that which it represents, both may as well never have existed. Here, the Colonists, remembering the difficulty of procuring supplies of provisions prior to internal cultivation, have, without sufficient forethought, betaken themselves to the production of the necessaries of life. They have found means to bring into the market supplies far beyond their own wants, and the consequence now is, that from the very abundance of their harvests their lands have for the present lost all value, because they cannot exchange the surplus over feeding themselves—the labourers—for such other articles as they require; or, in other words, a certain quantity of their wheat is worth 7s. 6d. a bushel, its legitimate price, for what is consumed by themselves, and the rest is utter loss.

Had a proportionable amount of land to the possible consumpt and sale alone been under corn in South Australia, and the surplus labour directed to other articles, both labour and land would have retained a real value. That this has not been the case, has arisen principally from ignorance of the cultivation and convertibility of many articles which are as much necessaries in the proper market as are provisions.

Among these productions, there is one which would naturally present itself to some, from being indigenous to Australia, and, therefore, capable of easy experiment, namely, Flax. In some parts of this colony it abounds, and is of various descriptions, adapting itself to different soils and situations. Acres of it might at one time have been seen growing luxuriantly; and still, where not destroyed by being pastured, it is to be frequently met with within the inhabited districts. From the regrowths observable at the same root, it appears to be either triennial or perennial; but each year reduces the production, while it increases the fineness, which, however, form a cause hereafter to be alluded to, will not

enhance the value. What cultivation may effect in retaining its quantity and value, remains to be seen.

The first sort to be mentioned is found on alluvial land where the moisture appears to remain longest; and grows sometimes in separate stems, at others in a cluster of five or six, to the height of two, three, or even four feet. It is a strong plant, and yields, from a very imperfect trial, a fair quantity of clean flax; the quality good; of a sort similar to Riga DC, or Memel 4-brand; now worth in Britain £33 to £34 per ton.

Another kind is frequently found in sandy, and sometimes poor, marshy land; growing to the height of eighteen or twenty inches. Its stem is less, but the flax from it is fine and in quality equivalent to Archangel Crown (formerly Veligoselskoy), or a sort of white Dutch, worth at present £43 to £44 per ton. This is liable, however, to a material objection, as, from its growing in tufts, it would require to be *cut* not *pulled*, which leaves a square end to the flax in spinning, which can scarcely be prevented from leaving a hair on the yarn. The same remark is applicable to all second growths. The other kinds are too insignificant to be of consequence.

For the last month or six weeks these have been in the seed pod or "bow," and a little trouble will enable any one desirous of trying the experiment to collect sufficient seed to sow a small patch. The method in use in Scotland for rearing it is nearly the following.

The land deemed most suitable, is a rich, moist, loam; and as by many it is considered a scouring crop, it is frequently sown on well-prepared new land. As the object is to get a long, clean, branchless stalk, the seed is sown pretty thick, so as to make the plant run in length, and the closeness also increases the fineness and divisibility of fibre, in which lie the value for superior purposes. Weeding is generally performed by the hand when the plant is about three

inches high ; but in this country, that may be unnecessary in some situations, as small weeds will soon be choked by the thickness and growth of the flax. It is allowed to stand until the "bow" or seed-pod begins to turn brown, and then it is pulled and put into small sheaves to dry.\* In this state it is usually housed in round huts, leaving the air a free passage through the sheaves, whilst hood sheaves are placed over to prevent the sun's rays from scorching it ; and, by extracting the oleaginous matter, injuring its flexibility. When the watery sap is gone, it is next "rippled," that is, drawn by handful, holding the root end, through an iron comb, which pulls off the bows ; these are afterwards thrashed and the seed saved. It is now again bound in sheaves, and steeped down a few inches in a pond—the extent of the water being adapted to the quantity. A fermentation here takes place. The woody part begins to decay, and an oily scum is disengaged, which must not be disturbed. After a time this scum falls from the surface, and the flax must then be taken out, otherwise the fibre will rot—a circumstance that infallibly happens to any that may be left above water. It is now spread thinly on the grass, where the woody part, by the action of the weather, is rendered separable from the flax or inner bark. A simple rubbing by the hand will show when this is perfect, but sometimes the grass may grow through it several inches before it is so. It is then bound and stacked until required to be scutched.

In Russia, whence the principal supply is brought for the English market, the greater part of the flax is said to be scutched by hand, in a very simple manner. It is first beaten by a mallet to break and separate the wood and the bark ; then a strike or handful is taken and struck smartly with a sharp-edged stick longitudinally until the clean flax alone remains in the hand. The small branches at the top of the

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\* Where seed may not be again wished, the flax is pulled when it has attained its full growth, which gives a superior fibre. Some do not hut it previous to steeping, while others ripple before binding.

plant are knocked off at the same time, and the short and dirty fibre coming from them is sold at a low rate, under the name of "cordelia." In Scotland, however, to save the expense of labour, a mill of a simple construction, on exactly the same principle as the hand, is used; but the cordelia is useless, from its foulness.

These operations, except scutching, although, at first sight they may appear troublesome, are neither difficult nor expensive. Scutching, if done by a mill, amounts to but a trifle also, and if any quantity were raised, one mill in a convenient place would serve a whole district of growers, or it might be made an adjunct to a corn mill.

We come next to the produce itself. In Scotland, the average of clean flax is about 7 cwt. per acre; and as the best Dutch seed is almost uniformly used, its value is about 20 per cent. more than Archangel crown. The lower the quality of flax, the greater is the quantity in an increased ratio; so that from the best indigenous flax there should be about half-a-ton per acre. Now, if this were worth in Australia only £26, we might fairly calculate that the gross produce per acre would be £12; and it is to be remembered, that from the depression in trade, flax is now within a trifle of its minimum price; and in one district alone, 10,000 tons per annum could be readily taken off, still leaving room for 30,000 or more tons from Russia or elsewhere. The duty is only twenty-pence per ton.

But it is not the nature of flax alone which should occupy the attention of the farmer. Seed should be procured elsewhere, which might perhaps yield an equal quantity with a superior quality. The New Zealand flax, from its colour and clearness, would drive all others out of the market for ordinary linens, were it not that it is an entire indivisible fibre, not a bark that can be subdivided, *ad libitum*, by machinery. Hemp, too, would answer admirably in Australia, and could even be manufactured into bags at a cheaper rate than British manufactures can ship them.

It only remains to compare the results of corn and flax. By those who have tried it, it will be readily granted that it requires 15 bushels of wheat per acre, at 5s., to pay the expences of a farm, while a warrantise from year to year of 20 bushels would be gratefully received, which would leave 25s. for rent, keeping fences, and getting forward. Allow £3 15s. also, for all expenses except scutching, and for it by supposition, say £3, and £5 5s. will still be left, with increasing market price and unlimited demand. In both cases the farmer is supposed to be paid for his own labour. Or a ton of wool is worth about £90, and with interest on stock will cost £75. There being no population to consume the carcase, the increase will be of little value.

Could seed be found, and were one-fifth part of the present corn-land under flax or hemp, it would create a counter-balance in the exchange, at once equal to a year's export of wool, after seven years' progress, and at an outlay of a fiftieth of the capital. But corn-growers could, at the present moment, under a proper regulation, contribute to this highly desirable purpose, and at an advantage to themselves. Baltic Corn Brandy is shipped at 16d. to 20d. per gallon, and is much used for victualling ships. Now, reasoning by analogy, since our corn is now as cheap, and our science in the manufacture at least equal, we could also export the surplus grain in that shape; which, although a very low rate, too many of our farmers would gladly avail themselves of to meet their present necessities. Now there are a sufficient number of stills in the colony to throw off a large quantity of such spirits; and were the Distillation Act so far relaxed as to allow them to be used for export only, an immediate relief would be felt by that class which at present suffers most. Neither would this be found a merely temporary trade. It would encourage a greater cultivation, because of a more certain market—at least, an increased number of purchasers, and thus manifestly aid in furthering the prosperity of all.

To equalize the exports to the required impost, is absolutely necessary in a small community; and unless the means of doing so are fostered, the balance-sheet can only in the end exhibit cyphers instead of available assets. Corn, wool, oil, wine, flax, tobacco, &c., are evidently our present and prospective exports, to pay for French brandy, Dutch gin, Cape wine, British clothing and ironmongery, India sugar and tea; and to each of these countries we should be able to return in kind, were the several methods of production placed as a hand-book before every one, and their respective advantages distinctly pointed out and unrestricted in operation.

B—L—H.

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LINES

WRITTEN ON SEEING IN A FOREIGN LAND A PICTURE OF THE HOME  
OF THE WRITER'S BOYHOOD.

To give thy picture to mine eye,  
Sweet Forge! I need no pencil's aid;  
Thou'rt blended with my memory,  
In lasting tints that ne'er can fade,  
While manhood loves to travel back  
O'er early life's unsullied track.

Long years of varied life have fled  
Since first I left my native land,  
My childhood's friends sleep with the dead—  
I wander on a foreign strand,  
And now with mingled joy and pain  
Fond memory visits thee again!

Once more the well-known brae I scale  
Where oft in youth I used to rove,  
And gaze upon the peaceful vale  
Which smiles around the home I love;  
The thin smoke rises on the breeze,  
The white cots glisten through the trees!



I feel, while mem'ry fancy free  
 Muses on each lov'd scene around,  
 Sweet Forge! thou hast nor flower nor tree  
 Shelter'd within thy hallow'd bound  
 In beauty's bloom, but seems to me  
 Like playmate of my infancy!

The silvery Esk which murm'ring glides  
 Beneath the bridge's ivied arch,  
 Reflecting in its glassy tides  
 The aged oak and towering larch,  
 Still seems—although no longer near—  
 To break in music on my ear!

Yon aged ash whose branches spread  
 A pleasing shade in summer's heat,  
 Or when the storm lower'd overhead,  
 Form'd from its rage a safe retreat—  
 Of those who sported 'neath its shade,  
 How many in the tomb are laid!

The waves dash 'neath the steep red linn  
 Crested with trees of varied green,  
 Above the well-known village inn  
 Still peeps from out its leafy screen—  
 The summer sun is shining bright,  
 Gladd'ning the landscape with his light.

The young, the lovely—where are they?  
 Beneath yon grassy mounds they lie,  
 Where, smiling in the summer ray  
 The ceaseless wave is gliding by—  
 Within the churchyard's hallow'd bound  
 No more they hear its once-lov'd sound!

Their life was like the beauteous scene  
 That smiles around their early grave,  
 All joy and sunshine—death has been  
 To them the pure and peaceful wave  
 Which bore them on its placid breast  
 To their eternity of rest!

Affection still delights to dwell  
 On each bright feature of the scene,  
 And pictures forms once lov'd so well  
 Still sporting on the daisied green;  
 Sweet Forge! thou hast nor flow'r nor tree  
 Unhallow'd by their memory!

## LECTURE ON ENGRAVING.—No. I.

DELIVERED AT THE THEATRE, BEFORE THE MECHANICS' INSTITUTE,  
ON TUESDAY, MARCH 1ST, 1843.

WHATEVER obligations the civilized world may confess to be due to the invention of Printing, the effects of which have exhibited themselves in the gigantic strides of intellect and refinement over so much of the habitable globe, we are doubtless indebted to the art of Engraving and the multiplication of its impressions on paper for extending our knowledge, our comfort, and our pleasure in an almost commensurate degree. What we have acquired through the medium of Printing, has become fixed and more clearly defined in numberless cases by its contemporary art Engraving; till the latter, independently of its own peculiar advantages, even in a commercial point of view, has long since, not only contributed an almost equal quota to the ordinary wants of literature, but has, for more than three centuries, made us familiar with the works of the immortal masters of painting in every school, by their translation with the graver on copper or steel, and has rendered accessible to numbers the purest portions of that lovely and fascinating art, which, but for engraving, would have been confined to the museums of sovereigns and the palaces of the wealthy.

In its enlarged sense, Engraving may be defined as the art of cutting on plates of metal, on blocks of wood, or any other substance, objects intended to be represented. In this respect, its antiquity far exceeds that of Printing. The use of metal plates, so engraved, was known in the earliest ages of mankind.

We learn from the 4th chapter of Genesis that Tubal Cain was a skilful artificer in brass. By brass, however, we must understand native copper; because the art of separating the metals from their ores was not at that time known. What were the uses to which the metal so worked was applied, we are not able to trace; that it was ornamental, we infer. Engraved metal plates were in use among the Jews at the period of the Exodus, as appears from that book; and the art of engraving such plates was also practised by the Egyptians, the Greeks, and the Romans.

It is not my purpose here to dilate on this particular branch. It is a subject too nearly connected with general antiquities, and would form the material for a very interesting treatise.

Engraving is divided into two great branches, viz., the