A PRACTICAL TREATISE
ON
FEEDING & FATTENING PIGS;

WITH
A STATEMENT OF THE PROFITS OF KEEPING THESE ANIMALS,
COMPARED WITH THAT OF KEEPING COWS.

"ALSO A
REPORT OF SUCCESSFUL EXPERIMENTS
IN THE
CULTIVATION AND CROPPING OF TWO ACRES OF LAND.

BY
JOHN SILLETT,
AUTHOR OF 'A NEW PRACTICAL SYSTEM OF FORK AND SPADE HUSBANDRY.'

LONDON:
SIMPKIN, MARSHALL, AND CO.
IPSWICH: J. M. BURTON AND CO.
1851.
INTRODUCTION.

In consequence of a new edition of my work on 'Fork and Spade Husbandry' having appeared, with a statement of my returns and profits off my two acres of land for the year 1847, I have been solicited by several gentlemen interested in the Small Farm System, to give a further report of my progress for the year 1848. Under these circumstances I am induced to give a detailed account of some further experiments in cropping and cultivating my land, as well as in feeding and fattening pigs. Having in the year 1848 devoted my attention to the rearing and fattening pigs, with a view to ascertain whether they would answer my purpose better than cows, I have spared no pains to discover the most profitable means of managing them.

The pig (next to the cow) being the most valuable animal to the small holder and cottager, to whom this little work is addressed, and intended to benefit, I have
INTRODUCTION.

left no means untried to discover how to produce the greatest quantity of meat at the least possible cost.

As I shall not represent anything beyond my own experience, and being possessed of but an indifferent education, I trust every allowance will be made for my incompetency to the task which I have undertaken. My endeavour has been to express myself in as plain and simple a manner as I can, in order that my system may be understood; at the same time, I am fully aware that great improvements are yet to be made upon the principles of cropping and cultivating land.

Should my feeble efforts to increase the produce of the soil, induce others to follow my example, I trust my labours will not prove in vain, but produce some beneficial results.

JOHN SILLETT.

Kelsale, near Saxmundham, Suffolk,
April, 1851.
ON

FEEDING AND FATTENING PIGS:

WITH A DESCRIPTION OF

A SIMPLE STEAMING APPARATUS,

ADAPTED TO THE PURPOSE.

Having this year (1848) kept pigs instead of cows as an experiment, in order to prove which would answer my purpose best, I shall commence by describing how I cook the food for them, and the manner in which it is prepared.

I do not introduce the system of steaming as anything new; but at the same time, I believe the advantage arising from the practice is not sufficiently known or appreciated. Under these circumstances, I am induced to urge the importance of its being more generally adopted, in consequence of the great saving I find from this simple method of preparation, especially as the apparatus which I use is so simple, and the cost so trifling, that the working man may be in possession of it. Probably the reader will smile at the term apparatus, when he finds it is only an old tub I use for the purpose; and that the identical porter half-barrel, formerly used for my liquid manure, as spoken of in my work on 'Fork or Spade Husbandry,' being rather unsound, it
was no longer adapted for that use, but after being properly cleansed, answers very well, it being substantially made.

At the time I was in London, viz. on the 14th of July, 1848, giving evidence before a Committee of the House of Commons relative to my farming pursuits,* my potatoes were looking remarkably well, and promised an abundant crop; but on returning home the following day, I observed the tops began to show symptoms of decay, and finding they rapidly got worse, I was seriously alarmed about them. On examining the tubers, I found many of them began to decay, and I at once saw that if I did not contrive to convert them into food for my pigs, the greater portion of them would be entirely spoiled. Having this year grown a greater quantity than I had ever done before, and finding from the disease attacking them, I was likely to be a serious loser, I was resolved to do the best I could with them.

The old and oft repeated proverb, and one that I have found of immense value to me, that ‘necessity is the mother of invention,’ was never more strikingly exemplified than in the present instance; for probably had I not been alarmed at the loss I was likely to sustain from my potatoes being diseased, I should not have thought of contriving my steaming apparatus; indeed, I was, as it may be seen in my work on ‘Fork or Spade Husbandry,’ rather prejudiced against steaming potatoes, and that I preferred boiling to steaming, as it could be done quicker and with less trouble, as there described, by putting them into bags. This plan, on a very limited scale, as I was then practising, I still admit is best; but as I could not cook them in this way in large quantities, without a heavy expense for fuel, beside a great loss of time, I was resolved to try what could be done by steaming. I had heard and seen a great deal about steaming food for stock, but how to set up a steaming apparatus was the first consideration. Not being disposed to afford a properly constructed one, which would have been expensive

* This evidence is published in a separate form: price Threepence.
FATTENING PIGS.

for this little experiment, I was therefore determined to try what I could do with my old porter half-barrel.

A properly constructed steaming apparatus, of course, would be preferable to the one I am about to describe; but my object is to observe the strictest economy in all my pursuits in husbandry, believing it to be the basis of success to all small occupiers (the same as myself), and I deem it necessary to be as simple and explicit as possible in all the details relative to my pursuits. There are two objects to be kept in view, and on which the profit of farming, either on a large or small scale, depends; and that is, economy of expenditure and amount of produce: the first of which demands the more immediate attention, because the largest returns may be rendered profitless by an injudicious excess in the cost of obtaining them; but both should be kept in view.

I shall now give a description of my steaming apparatus, and what it cost me, and the manner in which I use it. The boiler or copper must be iron; this cost me nine shillings, and holds about fourteen gallons; furnace bricks, fitting up, etc., eleven shillings; value of half-barrel and lid, half-a-crown; total cost, one pound two shillings and sixpence. The copper is the exact size for the tub to fit on the top; the bottom of the tub is pierced with holes, half an inch in diameter, to admit of the steam ascending (wooden bars across the bottom would do as well); this tub or half-barrel holds two bushels.

The copper should not be filled more than three-parts full of water, so that there may be room for the water to boil up. As soon as the water is in, I make the fire, and then place the tub on the top of the copper. I have ready a piece of old cloth or sacking, of sufficient length to put round the bottom of the tub, which I previously wet, and press it close round so that the steam cannot escape. The potatoes are next washed clean, ready to put into the tub; a potato washing machine would be the most complete thing to make use of, but as economy is my object, I wash them
in a tub, stirring with a stick, which answers the same purpose. As soon as the tub is fitted, I spread a piece of old sacking over the top, and put the lid on, and then lay two or three bricks or large stones on, to keep it down close, to prevent the steam escaping. The process is now complete for steaming; I keep up a good fire, and get the water to boil as quickly as possible. The steam will soon be heard to ascend the tub, and in an hour from this time the potatoes will be well cooked, provided the water is kept well boiling. As soon as they are steamed enough, I place another tub by the side of the copper, ready to receive them, and then turn the tub or steamer that contains the potatoes on one side, and shoot them into the one below; this can be done much easier than taking them out with a shovel. As soon as I have emptied the steamer or tub, I have two bushels of potatoes more ready to put in. The water in the copper being hot, the second parcel will not, of course, take so long to cook as the first. While the second quantity is steaming, I beat up in the tub those already steamed with a wooden rammer while they are hot, as they mash much better than they would do if allowed to remain till cold, and I then put them into the swill tub. In this way, I can cook eight or ten bushels in a day. To prevent loss of time, I always arrange to do this work on rainy days, when I cannot do any work on the land. Those who have a larger copper can have a larger tub to fix on the top, and can cook a larger quantity at once. I have only given a description of my own, and the way I am using it. This apparatus is equally applicable for steaming mangel-wurzel, and swede turnips, carrots, and parsnips. I have found that cabbages do better boiled than steamed, and they are best eaten by themselves, as they do not do so well mixed with the other roots. At the same time that I steam potatoes, I make a point to cook an equal quantity of mangel-wurzel, and swede turnips, and mix them up altogether in the tub.
The following are experiments that I have made, and have proved the great advantage arising from cooking food for pigs, instead of giving it uncooked. As soon as I have steamed as many potatoes, swede turnips, and mangel-wurzel as my tubs will hold, I add a portion of miller's offal or pollard, about one bushel to six of roots; and after mixing them well, I let them stand two days to ferment previous to using them. This process very much improves the food, and it will go farther than when given quite fresh. I supply the pigs with as much of this as they can eat without wasting. Great caution is necessary to be observed in not giving too much food at one time, as they are very apt to spoil it. I keep them on in this way until within three or four weeks of the time they are slaughtered. I then add one bushel of barley meal to six of roots, instead of the pollard. Bean meal will not do so well as barley meal for this purpose; it creates too much acid, and the pigs will refuse to eat it; besides, it has a tendency to scour them.

To be perfectly satisfied of the advantages arising from the above system of feeding, I fattened two pigs on raw food, consisting of potatoes, mangel-wurzel, swede turnips and cabbages, with the addition of beans morning and night. These pigs were not fit to slaughter so soon by several weeks as those fed on steamed food, although the former consumed a great deal more in proportion.

Had I not contrived to convert my potatoes into food as above described, I should have had a great many sacks entirely spoiled by remaining in the ground, instead of taking them up immediately, and using them. In order to prove the advantage of taking them up as soon as they began to decay, I allowed a few rods to remain in the ground till the winter season; the consequence was, they were nearly all of them rotten.

The following is a statement of the number of pigs that I reared and fattened, under the above system of preparing
their food and feeding them; likewise of produce sold for
the year 1848:

1847.
Dec. 27.  **First Litter of Twelve Pigs.**  £ s. d.
1848.
Mar. 5.  Sold six at ten weeks old, at 15s. each  4 10 0
The remaining six I kept and fattened;
the weight of the six amounted to
72½ stone, of 14 lbs. to the stone, at
7s. per stone  . . . . 25 7 6
June 3.  **The Second Litter of Eleven.**
Aug. 7.  Sold eight, at eight weeks old, at
12s. 6d. each  . . . . 5 0 0
The other three I kept, and fattened two
of them; the weight of the two
amounted to 25 stone, at 6s. per
stone  . . . . 7 10 0
One sold lean  . . . . 1 7 0
Fifteen bushels of early potatoes, at 4s.  3 0 0
Twenty bushels of seed potatoes, at 4s.  4 0 0
Two thousand cabbages, at ½d.  4 3 4
Various seeds, &c.  . . . . 5 12 6
Hay, 15 cwt.  . . . . 3 0 0

**Sheep.**
Three sheep bought in at £1 15s. sold
for £3 15s. (on the land about six
months)  . . . . 2 0 0

£65 10 4

Deduct corn purchased for pigs  £6 10
Deduct 12½ stone of pork for
family consumption, at 6s.  3 15 10 5 0

£55 5 4

The above account of produce is exclusive of my wheat
crop and vegetables for family consumption. The quantity
of wheat I had was fourteen bushels off a quarter of an
acre, which was grown as described in the chapter on
Wheat. All the other produce was consumed by my live
stock.
A comparison of the above statement, with that given of
the 'sold produce of 1847' in my last pamphlet, will show
the advantage of keeping pigs instead of cows. It is proper
to take into consideration the time and attention required
for cows more than pigs, particularly in small occupations,
where there is not the convenience of dairying, or not a
sale for the milk. It will be seen by the statement, that
although the profit is less than my account for 1847, yet if
the loss that I sustained by my potato and cabbage crops in
1848 are taken into consideration, it will show that my pigs
paid me better in proportion than my cows, and I had the
extra value of their manure. I have given full particulars
as to how I reared and fed pigs on raw roots and beans,
previous to fattening them.*

I shall now proceed to give an account of several new
experiments that I have made in cropping, and cultivating
my land.

NEW METHOD OF PRODUCING THREE CROPS OFF THE SAME
PIECE OF GROUND WITHIN THE YEAR; CONSISTING OF
DRUM HEAD CATTLE CABBAGES, BEANS, AND POTATOES.

In the first place, instead of my sowing the drum-head
cattle cabbage seed at the usual time—the beginning of
March—I sowed it in the second week in September; by
adopting this plan, I get fine strong plants fit to set out the
beginning of the following May. The ground that I intend
for these crops I put on a liberal quantity of manure in the

* To those who desire to know their origin and varieties, treatment
under disease, directions relative to the curing and preserving their flesh,
feeding, &c. I would recommend them to purchase a little work, entitled,
'Pigs: Their Origin, Varieties, &c.' By H. D. Richardson. Price One

The author of the 'Cottage Farmer's Assistant' says:—'The silly custom
of throwing down raw potatoes, carrots, parsnips, and cabbage-leaves to the
pigs, is great waste, half their nutritious qualities being thereby lost.'
(Page 58.)
winter season, and dig it in a good depth with my three-pronged fork. In February, as soon as the weather permits, I dibble in the beans in double rows, six inches apart, leaving a space of four feet between each double row. I prefer the early long pod to the common bean, as they are more productive, and will ripen sooner; and another advantage attending them is, that where there is a sale for them, they can be gathered green. In March, as soon as the beans appear above the ground, I plant the early shaw potato (whole) between each double row of beans of the largest size that I can get, at three feet apart, dibbled in with a large potato dibble; and in May, as soon as the drum-head cabbage plants are fit, I transplant one between every potato, so that each plant stands three feet apart in the row, and four feet from row to row.

This experiment has answered beyond my most sanguine expectations; the cabbages are now, at the time I am writing (the latter end of August 1849), very fine, and in their full growth, some of them weighing as much as thirty-five pounds.* The beans are likewise a very fine crop, and the potatoes are abundant. The beans are now ripe and fit to take up; so are the potatoes. The cabbages will now have all the ground to themselves, and will be as heavy a crop as they would have been, had not the beans or potatoes been planted between them. The great advantage I have found in this experiment of sowing the cabbage seed in the autumn, instead of the spring is, that I got the cabbages a much greater weight than I should by sowing the seed in the spring, as they have the advantage of the whole summer to come to perfection.

* One of these cabbages was weighed in the presence of several respectable persons living in Kelsale, who will attest the correctness of this statement. (See Engravings, page 16.)
ANOTHER NEW METHOD OF PRODUCING THREE CROPS OFF THE SAME PIECE OF GROUND WITHIN THE YEAR, CONSISTING OF EARLY SPRING CABBAGES, BEANS, AND SWEDE TURNSIPS.

In the first week in October I transplant the early Battersea cabbage plants, in rows two feet apart, and fifteen inches apart in the rows. In February I dibble in a double row of the early long pod beans between every row of cabbage. The cabbages are fit to cut by the latter end of April or the beginning of May. I have them all cleared off by the middle of June. After I have taken the cabbages off, I dig the rows where they stood, and then transplant swede turnips on the same ground. This process completes the three crops.

By adopting this plan, I have got a finer crop of cabbages between the beans than I have in my system between the wheat, in consequence of the beans not being liable to be beaten down by the rain and wind, which, the wheat is very apt to be in stormy weather; and another advantage is, that the beans do not require to be planted till early in the spring, which gives the cabbages the benefit of coming on earlier, and growing to a larger size. By practising this system, I have this year (1849) got an abundant crop of beans, quite equal, and I believe more than I should have had if the ground had been planted in the ordinary way, as the space between the rows admit of the air, and as a consequence, enables them to bear more plentifully than they would by standing in the usual way.

The beans I am now taking up in August, and the swede turnips will hereafter have all the ground to themselves to come to perfection. If savoy cabbages would be preferred to swede turnips, they can be transplanted on the same ground, instead of the turnips. I have this year (1849) tried this plan on a small scale, and the plants are looking well, and promise to be fine cabbages. The time for sowing the
savoy cabbage seed is in the beginning of April. If early potatoes be desired to grow with the above to make four crops, the beans must be planted between every third row of cabbages, instead of every row; and the cabbages must be eighteen inches apart in the row, instead of fifteen. The potatoes should be planted whole, and as early in February as the weather will permit; one dibbled in between every cabbage. If they are of an early sort, they will be fit to take up in June.

The time of sowing the swede turnip seed, and the method I pursue in transplanting, preparing the ground, I have fully described in my new edition on 'Fork or Spade Husbandry.'

NEW EXPERIMENT OF GROWING CARROTS, SWEDE TURNIPS, MANGLE-WURZEL, AND BEANS.

I have never till this year (1849) grown any carrots; and being very doubtful whether I should succeed in getting a crop, I was resolved not to run the hazard of sowing them alone, being doubtful as to a crop. I therefore sowed some mangle-wurzel with them, on half the number of beds that I had laid out, and swede turnips with them on the others. The following is the method I adopted: In the winter I dug the land a good depth with my fork, and then let it lay in rough state, to get the advantage of the frosts, which very much improved it, but I used no manure. In February I laid the ground out in beds, eight feet wide, by drawing lines eight feet apart; on these lines, I dibbled in a double row of early long pod beans, six inches apart, each way. In the first week in April I sowed the carrot seed on half the number of beds, with mangle-wurzel, and on the others I sowed swede turnip seed, with the carrots.

The following is the plan I pursued:

By the first of April the beans were up on the rows,
so that I could see nicely to sow the seed on the beds between them. Previous to my sowing, I first raked the ground fine and even. I then sowed the carrot seed broad cast very regularly on the beds, and close to the rows of beans, and then the mangle-wurzel. I pursued the same plan in sowing the swede turnip seed with the carrots, and afterwards raked them well in. My reason for sowing broad cast is, because it would be too tedious to sow the carrots in drills, unless I had a proper hand drill for the purpose; but from observations that I have made, I am inclined to think that broad cast sowing is the best for carrots, as they do not require to stand at so great a distance as the mangle-wurzel or swede turnip; and I believe in this way they produce a larger crop. The carrot seed being very difficult to sow, I mix a small portion of dry sand with it, and rub it well with the seed to prevent it sticking together. After I have separated the seed in this way, I can sow it very regular. Perhaps it will be said this system of sowing two sorts of seed on the same ground, at the same time, is too extravagant to adopt on a large scale, but it must be borne in mind that the extra cost of seed is but trifling, in comparison to the advantage of ensuring a full crop.

As soon as the plants appeared, I was very particular to keep them clear of weeds, and where the carrots failed, I allowed the mangle-wurzel plants to remain. By adopting this plan, I have ensured abundant crops, which are at the time I am writing (August) looking remarkably well. Some of the mangle-wurzel measure from twenty to twenty-seven inches in circumference, and the swede turnips are equally fine; the carrots promise to be a good crop. This plan has been much approved of by those who have seen it. The crop of beans that are standing between the above are very abundant, and are at this time (August) fit to take up.

The white Belgian carrots are the sort that I have grown,
which produce a great deal more weight on the same quantity of ground than the common red carrot.

HOW TO GROW A FULL CROP OF BEANS, AND DRAW A PART OF THEM TO FEED PIGS WITH; AND TRANSPLANT A CROP OF DRUM-HEAD CABBAGES, SWEDE TURNIP, OR MANGEL-WURZEL, ON THE GROUND WHERE THE BEANS CAME OFF.

I have tried this experiment, and have found it to answer exceedingly well. The following is the method I adopt: In February, as soon as the land is in a fit state, and the weather permits, I draw lines across the ground (which I had previously well manured and dug) with my driller ten inches apart; on these lines I dibble holes six inches apart, and then drop in early long-pod beans; by adopting this plan, the ground is planted for a full crop of beans to stand in the ordinary way. In June, as soon as the beans begin to form young pods, I commence to pull them to feed my pigs with. Where I intend to transplant mangel-wurzel, or swede turnips, I pull two rows and leave two standing; as soon as I have cleared the rows, I dig them with my fork, and then transplant swede turnips, or mangel-wurzel, twelve inches apart on the rows or spaces where the beans came off; in this way the turnips or mangel-wurzel will stand thirty inches apart from row to row, and two rows of beans between every row of turnips.

For a crop of drum-head cabbages I pull two rows of beans, and leave three rows standing, and dig the space as above, and then transplant the cabbages at three feet apart in the rows; in this way, the cabbages will stand forty inches from row to row. The beans being of the early long-pod, are fit to take up in the month of August. The ground is then left occupied only by the turnips or cabbages to come to perfection.
If the ground be in good heart, and the season favourable, an excellent crop of turnips or cabbages can be produced in this way; besides, the beans that are drawn while green, will furnish an abundance of good food for the pigs, which they are very fond of, and will thrive well on them, and when in this young and tender state, they will consume every part of them.

EXPERIMENT OF DIBBLING OF WHEAT, OF THIN SOWING, AND PREPARING THE GROUND.

The last autumn (1848) I sowed my wheat on the ground where my crop of potatoes, beans, and swede turnips were grown. After I had taken off the turnips I did not dig the ground; I only hoed and cleared it free from weeds, and then laid it down as solid as I could get it, excepting a strip of about ten rods, on which I put on a liberal quantity of manure, and dug it in a good depth. After I had prepared the ground in this way, I put in the wheat the last week in October. I shall now describe how I proceeded to put it in. My land not laying in breadths, (called in Suffolk 'stetches,') I had no guide to dibble in the wheat in straight lines, I therefore use my driller to draw the lines with. Having fixed the teeth in the driller at eight inches apart, I fix a line, the length of the land to be sown, to begin with, and then I draw the driller by the side of the line, having the first tooth close to the line. I next draw the driller across the land, and when I have reached the end, I turn about and place the farthest tooth of the driller on the last line drawn, and continue in this manner until I have drawn lines all over the piece. By pursuing this plan, I have my lines all drawn exactly eight inches apart, and, in consequence, have the rows of wheat an equal distance from each other. I then proceed to dibble the holes at six inches apart on the lines, and have a boy to drop the wheat as I dibble the holes; I am very particular not to have more
EXPERIMENTS.

than two kernels dropped into one hole. By adopting this plan, I have had an abundant crop of wheat. I have stated that I manured and dug a small portion of this ground that my wheat crop was grown upon; this I did as an experiment, to prove which plan would answer the best. The result was, that the land which I put the wheat on without manuring or digging, produced the best crop. The wheat on that strip of land which I took extra pains with was very indifferent, and what is termed root fallen, in consequence of the land laying too loose for the roots to get a firm hold. This convinced me of the importance of growing wheat on land that is firm, provided it be in good heart, in preference to that which lay in a very loose state. I should also state that the land my wheat was grown upon was well manured for the previous crops.

It may perhaps be said, that the above plan of drawing lines must be a very tedious one, and occupy a deal of extra time. But the advantage of getting the wheat to stand in rows, as above described, will more than repay for the extra trouble taken, besides the great saving of seed in not having the rows closer. I can draw lines in this way with great exactness over a quarter of an acre in an hour.

AN EASY METHOD OF BREAKING UP PASTURE LAND; AND THE ADVANTAGE OF GROWING BEANS FOR THE FIRST CROP.

In the winter of 1848 I dug up another portion of my pasture land. The method I pursued was, first to make out a space by drawing my line across the ground a rod wide; I then opened a trench by digging a spade deep; as soon as I had opened the trench a sufficient width to begin with, I proceeded to dig the pasture only a spade deep, being careful to turn the turf downwards, and at the same time breaking
EXPERIMENTS.

the top of the flag as I proceeded, and afterward removed the loose earth out of the trench on to the surface. I found that I could in this way dig the pasture up almost as quickly as I could dig the ground in the ordinary way. After I had dug it up I let it lay till February: as soon as the weather permitted in February, I prepared the ground for putting in the beans; I fixed my line as I have described for my wheat crop, and drew lines across the ground with my driller, at ten inches apart, and then dibbled the holes on the lines at six inches apart, and dropped in the beans.

In consequence of the potato disease prevailing so generally, I did not venture on a potato crop, and therefore resolved to have a crop of beans, as described above. The result has been that I have standing (on this newly broken up piece of pasture) this season (1849) as fine a crop of beans as ever was seen. The beans that I planted on this land, were the common horse bean.

I have frequently been told by different people, that beans would not do well on newly broken-up land, and if I planted them I should not get a crop; they would turn what they termed rose-headed, meaning that they would form a sort of head at the top of the stem like a rose, and bear no fruit. I do not say that beans as a first crop would do well on any land newly broken-up; I only venture to assert what I have experienced with my own, and had I now several acres of such land in pasture to break up, I certainly would plant beans for a first crop in preference to anything else, being convinced, from the trial I have made, that they would answer better than any other crop.

Probably the manner in which pasture land is broken up, may have something to do with the success of a bean crop. The system of paring and burning the flag, I believe is the plan mostly practised, and then the land afterwards ploughed up in the ordinary way. As paring and burning must be done in the summer months, the land necessarily has to lay unoccupied till the spring following; that is, if intended for
a crop of beans. Therefore, when done in this way, the first crop is usually turnips or mangle wurzel. I have seen good crops produced in this way, and then followed by a crop of wheat.
APPENDICES.

Since the publication of my work on 'Spade Husbandry,' I have made several improvements in the implements that I am using, which I have found of great advantage to me; and in order to convey a clear idea of the form in which they are made, I have added a wood-cut of each implement at the head of each chapter in this work. In reference to which, will be found a detailed account of the manner in which I use them, and the advantages attending them.

I.

IMPLEMENTS.

SILLETT'S NEW DIGGING FORK.

The following is a copy of the prize obtained at the Royal Agricultural Society's Grand Meeting at Norwich, July, 1849.

Silver Medal: Messrs. Ransomes & May's Prize Digging Fork, invented by J. Sillett, of Kelale, and manufactured by the Exhibitors. Price 6s. 6d.

The wood-cut here exhibited is a correct representation of this Fork. In my work on 'Fork or Spade Husbandry,' I have given an account of the Fork introduced by Doctor Yellow-by; the one that I have invented is on quite a different principle, both as regards the form and weight of it; the great advantage arising from using this Fork in preference to the spade, can only be satisfactorily proved by making a trial of it. Although the first cost is more than that of the spade, in the end there is much saving. The best proof that I can give of this is from the trial that I have made of my own. I have had it in constant wear for these last four years for
digging all my land, taking up potatoes, using it for manure, and every purpose, and it has not up to the present time cost me one farthing for repairs.

The only difference between it now is, that it is about two inches shorter than when I first had it, the steel being nearly worn off the ends of the prongs; which for the cost of 9d. or a 1s., I can get fresh tipped with steel, and it will then be equal to a new one. If I had used a spade instead of a fork to dig my land with, I should certainly have worn at least one up every year, and calculating the cost of a digging spade to be 3s. 6d., it would, for the four years, have cost me for spades 14s. Now the cost of my fork is only 6s. 6d., so it will be seen by this statement, that besides all the advantages arising from using this fork in stirring the soil, there is a saving of about 7s. 6d., in the four years, between that and the spade. But this saving of the expense between the two implements is but a minor consideration, when compared with the superior manner in which the fork works the soil, both in depth and in pulverising it.

It will be seen, as above stated, that this Fork is manufactured by Messrs. RANSOMES & MAY, Ipswich, and sold by them and their agents in all parts of the kingdom. Price 6s. 6d. I was induced to apply to these makers from knowing the soundness of their general work; and I have done the same in regard to my other implements hereafter described.

NEW HAND DRILLER, WITH ROLLER ATTACHED.

In my previous work I have given a wood-cut of the Driller, that I contrived for drawing lines to sow and plant by; the one here described is entirely on a new principle, and made of iron instead of wood, with a Roller attached to the top of it, so that it will answer for two purposes; this Driller is so constructed, that the teeth can be set from each other at any distance required, and, in consequence, with a sufficient number of teeth attached to it, will serve for different purposes. It may be used as a drag-rake, and likewise as a harrow to draw the earth over various seeds when sown, such as wheat, &c.,
which will perform the work much quicker than raking the ground over with a rake in the ordinary way. The roller which is attached to it, is made to take off, when not required to be used, and is fixed on the top of the driller, so that it is turned with the teeth upwards, when used as a roller; in this way the same frame answers both purposes. I find this implement to be of great service to me, as it can be used for so many purposes, and the cost very trifling in comparison to the value of it. Its length is five feet six inches. Head, formed of two iron plates, about two inches wide, and teeth about seven inches long, and half-inch diameter, made to screw on the top, so that they can be removed. Handles about four feet long.

Roller to be fixed on the top of driller, to be made of iron, and of sufficient weight.

This implement is also manufactured by Messrs. Ransomes and May, and finished in a superior manner. The price is £4 4s. 0d. It may be made up cheaper by any country hand; but I have found by experience, the cheap cost is not always, nor often, the best economy.

**LIQUID MANURE BARROW.**

This is for distributing Liquid Manure regularly, and is a very useful Machine.

**THE DERBYSHIRE HOE, OR CULTIVATOR.**

I must beg to make a few observations upon the great advantages I have derived from using this hoe, or what I shall here term a 'cultivator'; its excellencies as a hoe are described in my work on 'Fork and Spade Husbandry,' where a woodcut is given of the form of it. What I intend to say of it here is, as a Cultivator. I find this an invaluable tool for cultivating between growing crops of potatoes, mangle-wurzel, turnips, cabbages, etc. I can with the greatest ease turn the soil with this tool from six to
seven inches, which will serve almost equal to a digging, and can be done with a fourth of the labour that is required for digging, besides getting over the ground much quicker. For cleaning the land it is far superior to the common flat hoe; as it takes up all the weeds by the roots, instead of merely cutting them off. I find this hoe to be very valuable in cleaning the ground of a wheat stubble. The following is the plan I pursue. I first cut the haulm, or stubble, as close as I can with a scythe, and then rake it off. I afterwards grub up all the stubble and weeds by their roots, collect them into heaps, and burn them; in this way I get the land perfectly clean. After I have burned all the heaps, I spread the ashes over the land, which serve as a good dressing of manure. In this way I get my land perfectly clean, more so than in any other way, besides cultivating it a good depth, almost equal to a digging.

The price of this, made by RANSOMES & MAY, is 3s. 0d.

SILLETT'S IMPROVED LONG HANDED DIGGING FORK.

_A Preventive to the back-ache in digging._

Since the preceding pages were sent to the press, I have been making some further experiments with my digging fork; and I am induced to add the result, which I do with the more pleasure, as the cost of trying it is but that of a new handle to the tool, and, therefore, within the reach of any labouring man.

I need not explain to those that are accustomed to digging, the great pain experienced by the use of the common short handed tools, the length being only from twenty-four to twenty-seven inches. Those that are not accustomed to digging, and have any doubt as to the pain felt by the constant position of being almost nose and knees together, from the handle of a spade or fork being so short, need only one hour's trial with a tool of the above description, to convince them of the truth of my assertion. I have frequently heard people complain of the great labour and pain they have felt in digging; and from the experience that I have had in the operation, I am not at all surprised at it. Indeed, there are very few labouring people who have plots of ground from half an acre to an acre, that will engage with the task of digging, if they can by any means get their land ploughed.

A short time since, a friend of mine informed me that he was conversing with a labouring man respecting my digging fork; this man has recently had half an acre of ground granted him by his landlord—a gentleman favourable to spade culture—on the condition of his digging it, instead of having it ploughed. A few days after I saw this man, and had some conversation with him respecting his piece of
land; he told me it was a heavy soil, and that the labour of digging was very great; indeed so much so, that he thought it a hard case that his landlord did not allow him to have it ploughed.

Of all the difficulties attending the labour upon land, the operation of digging is the most formidable to contend with. I received a letter from a gentleman at Liverpool a short time since, who expressed himself much interested in my system of Spade Husbandry; and stated that he had occupied a small piece of land, on which he had tried various experiments, but the painful operation of digging was more than he could endure. He appeared to be a person of an ingenious turn, and wrote me a long letter respecting an implement he had invented as a substitute for the spade, whereby a person could turn over a much larger space of ground, with less labour, in a day than he could with a spade. This was the very thing I wanted to know. I accordingly wrote to this gentleman, begging the favour of him to send me a drawing of this implement, with a description how to use it: he very kindly did so, and from what I could make of it, it was to operate as a sort of cultivator, similar to Biddell's Scarifier; but how this was to be worked by hand I could not understand. From the description given of it, I was satisfied it would not answer as a substitute for digging. I can well enter into the feelings of this gentleman as to the difficulties and labour of digging, and like him, I have often puzzled my brains to contrive something that would answer the purpose with less labour. To effectually turn the soil over without labour, is a thing impossible; but I have spared no pains to make that operation as easy to myself as I can.

The following is a description of the improvement I have made in my Digging Fork. Probably this invention will be looked upon by many as a simple and perhaps a foolish contrivance; and that there can be no saving of labour attending the using it. Respecting this matter I leave every one to enjoy their opinion—the only favour I have to ask is, to be allowed to relate my own experience. I have before stated, that the continual position of stooping, when digging with a short handled tool, being very painful, I was resolved to try if I could not accomplish the work in a more erect position, and with less labour. Having previously been impressed with an idea that a long handled tool was an advantage, I contrived, for an experiment, to splice an old spade handle to the handle of my Digging Fork, which made it three feet ten inches long;* and although this plan

* Probably this length of handle as described above may appear startling; but to a person of my height, which is near six feet, I find it is not too long. I am inclined to think the length best adapted for general use would be three feet six inches.
made the fork very clumsy to handle, I was delighted to find how much easier and quicker I could dig in this way than with the short handle. After two days' trial with my old spade handle, I was so perfectly convinced of the advantage of a long handle; and finding it a complete cure for the hack-ache, I at once went to the smith's, and had the short handle taken out of my fork, and one of three feet ten inches long fixed in its place. The first day I used this fork, after having the long handle properly put in, I was surprised to find with what ease and despatch I could use it; I got over the ground so quick with it, that after five hours' spell at digging, I had the curiosity to measure how much I had dug, and, to my surprise, it was nine rods or perches. I have no occasion now to lose time in standing to ease my back.

It may he supposed in using the long handle fork for digging, that the labour in lifting and turning over the soil would be more than in using the short handles; but I find it has quite the contrary effect. From the extra length of handle, a greater power of leverage is obtained; so much so, that the earth can be raised up, and turned over, with considerable less labour, than would be required to he used with the short handles. I believe the simplest and truest illustration I can give of the advantage of using long handles for digging is, by comparing them to a long hand spike and a short one; the advantage of which is too well known to the most illiterate person, to need any description as to the power the long spike gives in lifting a great weight compared to a short one.

A gentleman, a friend of mine, who takes great interest in my pursuits, came to me the other day to see me dig with my improved long handle fork; he was much amused with the appearance of it. He said joosely, 'Lazy folks were always contriving something to get off hard work.' I told him I did not mind what he called me, so long as I found I could dig my land with half the labour that I could with a short handle tool, besides being free from the back ache. He afterwards said that he noticed, as soon as he came in sight of me, with what apparent ease I seemed to dig to what I formerly did with my short handle fork. I, at the same time, asked him to make trial of it; he did so, and was much pleased, and convinced of the advantage of using it.

Another gentleman made trial of the long handle fork, and kindly sent me the following note:—

To John Sillett,

On receiving thy description of the long handle fork, I called together three labouring men in the employ of our Firm,* and we went on

* Ransomes' and May.
HEDGES.

It has been suggested to me to give some account of hedges and ditches; but not being taught the art of hedging and ditching when behind the counter, I can only give an account how I have managed my own. When I began to cultivate my two acres, my hedges were in a very rough, high, and irregular form, with several old useless trees standing in them; likewise the banks were large, and occupied a deal of ground. I first cut all the old trees down, and then the fences within two feet of the ground, and likewise cleared all the old banks away, which was excellent mould to mix with the manure heap. I have ever since kept my hedges regularly clipped, which gives a neat appearance to my land.

NOTE TO STATEMENT OF PRODUCE ON PAGE 6.

It has been suggested to me by several correspondents, to give some account of my returns under the "glorious" (as some term it) system of free trade.

I can only say in reply, that I find, from the extreme low price of pork (which is little more than half the price it was in 1847-8), and agricultural produce in general, that my returns are not so much by one-third as they were previous to free trade coming into operation. Yet, under those trying circumstances, I am not discouraged, but feel it as a stimulus to use extra exertions.
FROM the many suggestions of my friends, and the great inconvenience I have felt for the want of a dwelling-house upon my land, I have this year (1850) erected myself a cottage to reside in, in order that I may be enabled to carry out my system of cottage farming more completely.

The most important consideration with me was, how to erect a neat and comfortable little cottage at the least possible cost; and in order to accomplish my purpose, I studied economy in the undertaking. To be distinctly understood, I shall be as explicit as possible in detailing all particulars relating to the manner in which I proceeded with the building of this cottage; thinking it may be of some service to those similarly situated as myself. In the first place, I made a model in pasteboard, and a drawing likewise upon a proper scale of dimensions to work upon. I have been informed by parties well acquainted with building, that it is a good plan to first construct a model of the exact form, and on a scale of proper dimensions that a house is to be built, for if there be any defect in the design, it can at once be discovered, and probably will save a deal of trouble in pulling down and altering buildings when once began; I therefore resolved to pursue this plan.

As the site and situation of a house being the first important matter, I shall here give an extract from the author of 'Cottage Buildings.'

'In the erection of a cottage, a chief subject of consideration should be, the choice of a situation, as respects its capability for efficient drainage, dryness, and general healthiness.

'Where possible, the cottage should stand by the side of a public road, as well for the sake of the cheerfulness of the inmates, as for the beauty and life it imparts to the road itself, and the consequent pleasure it affords to the passers-by.

'The cottage should be so placed, that the sun may shine on the most frequently inhabited sides of it throughout the year. It should therefore in this country, face in the direction of north-east, south-west, north-west or south-east. The front of it can therefore, only in
APPENDICES.

25

certain situations, be parallel to the public road; but the preference should be given to the south-east, when practicable; the diagonal line through the main building being a north and south line.'

Being much pleased with the description given in the above extract of a proper situation for a house to be built, I resolved to act upon the principles there recommended, as near as the situation of my land would permit. The front of my house stands to the south-east. The spot that I have selected is considered by most people of taste to be very pleasant, as it commands a beautiful view of the surrounding neighbourhood. It is a very elevated spot, and only one field from the high road from London to Yarmouth, and one mile from the market town of Saxmundham.

Probably there are many of my readers who may think this house a very odd designed one, and find a deal of fault with it; and perhaps will say, as many of my neighbours said at the time I was building it, 'Why not have chambers to it?—and 'Why not have it this, and why not that plan?' Indeed, I had so many plans suggested to me, that it was quite amusing; the most satisfactory reply that I could give to them was, that I had resolved on my plan before I bad begun. But the principal object of my adopting this plan was for convenience and to lessen the cost, and at the same time, to have a dwelling with some little character for neatness and appearance; provided I could have it at the same cost that cottages are, in the ordinary way, built for working people. Another great saving is, where there are no chambers, four-and-a-half-inch work is sufficient, provided the walls are well painted on the outside, to prevent the wet from penetrating. I must not forget to mention here that besides the four rooms, washhouse, pantry, coal and wood house that this cottage contains, that the roofs of the two gable ends are sufficiently high to admit of two excellent store rooms, which could, if required, be adapted to sleep in; but I find them of great value for general purposes. This cottage is so constructed, that, with a trifling alteration in the plan, it would contain sufficient room for a double dwelling.

Having given a description how I proceeded with making the model, drawing, plan, etc., of my house, I shall now give a statement of the materials I used, and the total cost of the building. In the first place, I bought all my materials; and to lessen the cost as much as possible, I gave all the assistance I was capable of towards erecting it. In fact, I was filling several honourable offices at the same time; namely, architect, bricklayer's slab, frequently assisting the carpenter, and laying bricks when I had leisure to do so, besides being general inspector of the works. All this I did, in addition to attending to my crops on the land, besides attending to my live stock; and this I
managed to do early of a morning, and was ready to wait upon the bricklayer at six o'clock, which was the time he came to work. I was always at my post and never left him one hour from the time the building was commenced till it was finished. In addition to all this, I wheeled all the sand with a wheelbarrow required for the building, from one end of the field to the other, which I had to throw out of a pit from ten to twelve feet deep, that I had previously dug for the occasion. In addition to all this, I found in having the sand on my premises, I must not forget to mention another great saving from a material that I obtained from the same pit, and that is loam. When I began to dig my pit for sand, after digging about three feet of soil, I came to a bed of fine loam of excellent quality; this I found very valuable, as I used it instead of lime for all the inside work of the building, such as the partition walls, chimneys, fireplaces, oven, copper, sink, etc., with the addition of one shovel of lime to six of loam.

The following is a statement of the quantity and cost of materials and labour of the building of my house:

<table>
<thead>
<tr>
<th>Description</th>
<th>£</th>
<th>s</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Thousand red bricks (delivered at 25s.)</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12 Hundred glazed tiles, at 9s.</td>
<td>5</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>3 Chaldrons of lime</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bricks for floors, etc.; hair for mortar and</td>
<td>3</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>sundries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timber for roofing, floors, doors, lath for tiles, plastering, etc., including the cutting it fit for use</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Making and glazing windows</td>
<td>3</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Cost of labour, ironmongery, including stoves, oven, copper, fixtures, etc.</td>
<td>20</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>£65</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

As the cost of materials for building vary so greatly in different localities, of course those would be used which are the cheapest and easiest to be obtained.

A model of this cottage will be exhibited at the Great Exhibition of 1851, in London.

**In consequence of having received so many letters, I beg to state I must decline answering all that have not a stamped envelope enclosed for a reply.**

**THE END.**
IPSWICH:
PRINTED BY J. M. BURTON AND CO.