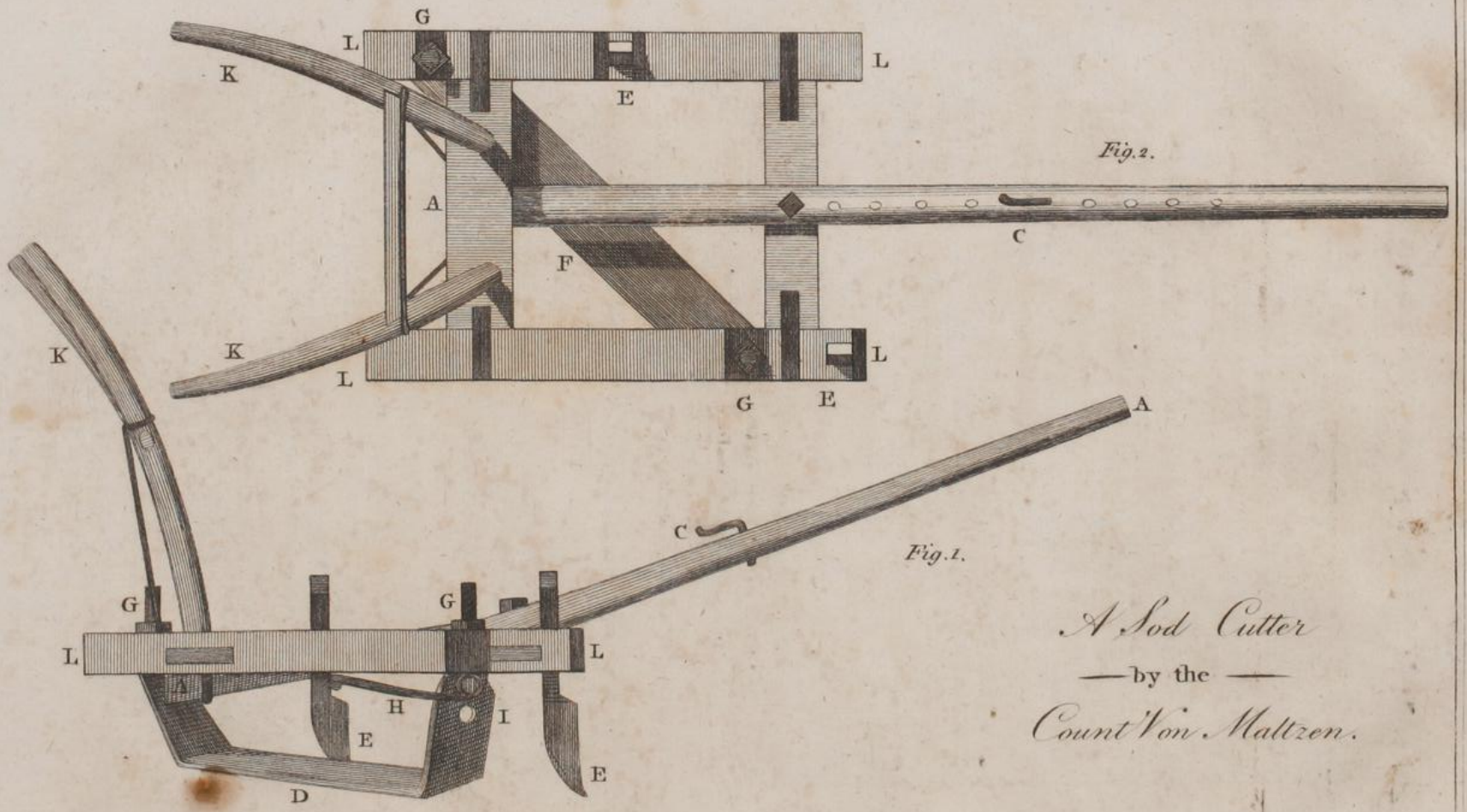

Fig. 2.

Fig. 1.

A Sod Cutter

— by the —

Count Von Maltzen.

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For the Agricultural Magazine.

DESCRIPTION OF A PLOUGH FOR CUTTING GRASS SODS, INVENTED BY COUNT VON MALTZEN.

[WITH A PLATE ANNEXED.]

THE Count Von Maltzen, of Lissa near Breslaw, has lately invented a Plough for the cutting of Grass Sods, which has been found very advantageous.

For some time he had been considering how to cut sods for his grass plats, in a cheaper mode than heretofore practised: after many trials, he found this machine to answer most efficaciously.

For the formation of this machine, the beam, or fore part of any plough will answer; therefore no particular drawing of this part is necessary, but merely that of the hinder part; and in respect to its use, it can be managed and regulated by any boy accustomed to the use of a plough.

In Fig. 1 and 2, the nine holes in the pole or beam A A, serve, in like manner as the common plough, to set the beam shorter or longer, by placing the pin C forwards or backwards, and thereby to make the iron to work deeper.

The two coulters E E, placed one on each side, in front of the cutting iron D, serve to give the side cut preparatory to the separation of the sod. The cutting iron D, may, by means of the screws G G, be raised or lowered at discretion.

In order to keep it in its proper place, the two supports at H are made, and provided for the purpose, with several holes at I, made in the cutting iron D. The two handles are shewn by K K, and the frame by L L L L: all the rest which in the frame is marked black, means that it is to be made of iron.

Some practice is required to use the plough, and in the commencement particular care should be taken that the person do not take the sods too deep, that the plough may not be hurt by their inattention.

In a short time they will be in sufficient practice, and the machine will do its work satisfactorily. In the working part

oxen are preferable to horses, as the former draw more steadily, and are not so unmanagable when the sod is on stiff ground. It must further be observed that in beginning the work a breadth of the width of the two cutters should be previously cut out; by which means the cutting iron takes the sod at a proper depth, and does the business as soon as the draught commences. It continues the work as long as the land continues level and of the length of the sod required.

This machine has further the advantage that the walks can immediately be formed where they are wanted, in fields or meadows; and in walks already finished it will be useful to pare the bottoms and sides, after which the gardener has only to rake the walks and roll them.

By trivial alterations in placing the coulters of this plough, grass sods may be expeditiously cut for the formation of banks, fortifications, huts, &c. in any form required, and it bids fair to be an implement of general and extensive use.

This machine may be advantageously employed for cutting sods, &c. on waste lands and old pastures, preparatory to burning the sods and bringing the land into culture.

ON THE BREED OF SHEEP.

To the Editor of the Agricultural Magazine.

Sir, *April 29th*, 1805.

I HAVE now to acknowledge the favour of Mr. Bartley's paper in your last magazine, and to request his attention to my last letter to you, which I hope will be published in your number for this month.

My calls for assistance from some breeders of the new Leicester sheep, have been unsuccessful; and unfortunately, instead of receiving the aid I expected, I have now to combat the remarks of an additional advocate for the Merino breed. This tardinees on the part of the breeders of the new Leicester, will probably be considered by my opponents, as a proof that my cause is deemed untenable. Let them not, however, decide too hastily.

It appears to me that these breeders are perfectly satisfied that the new Leicester sheep will maintain their ground, against all opposition, by their superior merits alone; and that of course, my inferiority in point of ability, will be more than counterbalanced by the goodness of my cause. This is, doubtless, the reasoning by which they are influenced; I must, however, observe to them, that there are many instances of triumph in the defence of bad causes which have arisen entirely from the superior faculties of their advocates; that they are

greatly underrating the talents and influence of the favourers of Spanish sheep; and that some occupiers of productive lands are now in danger of being misled.

To productive lands, however, I need not at present, confine my observations; for when we couple what has been done by Lord Somerville, with the statements of Mr. Bartley in his communications, the danger will, in the minds of some men, appear *universal*. Till lately, Sir, the prudence of all sheep breeders, induced them to adapt thin stock to the various descriptions of pasture. Thus large long-woolled sheep have been preferred for improved lands; South-downs, &c. for those of inferior quality; and small short-woolled sheep of the most hardy and active kinds, for our worst, elevated, and mountainous situations. The practice of varying the breeds according to the difference of climate, and the quantity and nature of the herbage for their support, has been proved by the best of all tests, long experience; and I really imagined that no accurate and attentive farmer, who had enjoyed proper opportunities of judging, would venture to express the smallest doubt of its propriety.

But what do we now hear! what opinion is now spread, with the utmost zeal, by certain new fangled breeders? nothing less than this, that they have made a discovery somewhat similar to the philosopher's stone, or the panacea, for which the sages of former times sought in vain. They *pretend* to have discovered a breed of sheep, far more profitable than any hitherto known in this kingdom, a breed equally well adapted to the "richest or poorest pasture;" to hills or champaign grounds; to mountains or vallies; to warm, cold, dry, or humid climates; all, all difficulties and obstacles, Sir, fall to nothing before the astonishing properties of these wonderful sheep! From these statements it would appear that all the Bakewells and Culleys, all the Ellimans, and other enterprising and judicious breeders who have appeared in England within the last century, have been greatly surpassed, in the knowledge of sheep, by the poor and dispirited inhabitants of Spain, a country in which the faculties and energies of the human mind, have been for centuries, locked up by injudicious institutions and other unfavourable circumstances. After all this, what will the Merino breeders say of the freedom, the ingenuity, the discernment, the enterprize and wealth of Britons, who have long been the greatest manufacturers and consumers of animal food in the world.

Convinced as I am, Mr. Editor, that the new Leicesters are superior to any other breed hitherto tried in Britain, on productive lands, I must continue to combat the arguments in favour of other species of sheep. But as I am actuated solely

by patriotic motives, and as I have no doubt of the superiority of sheep from the Merino blood, over *some* of our native breeds, in certain situations, I must assume a new office, and become the defender of these very fine woolled sheep. At present, however, I shall merely state that the extravagant and indiscriminate praise which has been lately bestowed upon them, is not the most proper mode for establishing them in these situations; at least it appears clearly to me, that such praise so repugnant to established practice, must lead to doubts which are highly injurious to the breed. What opinions are universally entertained of a medicine which a quack doctor blazons and extols so unreasonably as to assert its efficacy in *all* disorders?

Mr. Bartley has misunderstood my observation relative to the disposition to take on fat. I did not say that the Leicester sheep would weigh six times the weight of the Anglo Merinos; but merely that the covering of that substance would be in the proportion of six to one in favour of the former sheep.

The weight of the lambs he mentions, at eight months old, (nine pound per quarter) is far below that of the new Leicester lambs when fed for the butcher, or even that of lambs from a cross between Cheviot ewes and Leicester rams, which (at that age) is often twelve to fourteen pounds per quarter.

The importance of a thick covering of fat, seems to be overlooked by the advocates for the Spanish breed. They should, however, consider the circumstances of the great body of consumers, and not merely the taste of opulent people. If they would pay proper attention to the conduct of the lower classes, they would be convinced that these people always prefer the fattest mutton even at an increase of price; because it not only affords an excellent substitute for butter (at half the price of that article), but a much greater quantity of human food, including broth, which is highly valued in poor families.

If the pitmen in the neighbourhood of Bath do not prefer the fattest mutton, their conduct differs from that of the same class in almost every other part of the kingdom. The pitmen, coal-heavers, keelmen, sailors, &c. on the Tyne and the Wear, are strong, hardy and laborious; and most of them are not only famous in the "annals of pugilism," but in the glorious deeds of the British navy. Our naval officers concur in stating that these northern heroes stand foremost in those brave and skilful exertions by which they are enabled to waft the British flag in triumph in every sea upon the face of the globe, and these brave fellows always prefer the very fat-

test Leicester mutton.* They too, frequently "moisten "their clay with liberal potions of nut-brown ale"; but it is not then that they are "in the zenith of their glory." No Sir! *their* glory is not of so fleeting a nature, it rests on their unconquerable valour, and the distinguished part they have acted in ruining the naval forces of our numerous and powerful enemies.

The "witling critic" so justly condemned by Mr. Bartley and other correspondents, did not obtrude the passage marked in *italics* in page 153 of your 68th. Number. I will allow nothing of that nature. Perhaps the Anglo Merino and other small and comparatively lean mutton, may be preferred at the tables of many genteel and opulent families; I am surprised, however, that the new Leicester mutton, which is always heavily loaded with a very thick covering of fat when the sheep are from one and a half to two years old, should have been compared with the dry and tough meat of "an "old superannuated hen." It certainly would have appeared more reasonable to have compared the mutton of the sheep, which require three to five years to lay on even a *thin* coat, with the flesh of the *old* cackler.

Before I make any observations on comparative experiments, I feel it a duty incumbent upon me to do justice to Mr. Billingsley. Some years had elapsed between reading an account of the experiment conducted by that gentleman, and the introduction of his name into my letter inserted in your 66th. Number. I remembered some objectionable parts of it, especially the age (one year and five sixths) of the sheep at the commencement of the trial; and when I wrote the above letter, I conceived that Mr. Billingsley had the sole direction. But on reading his letter to the Bath society, since I received your last Magazine I found that the owners of the sheep determined the age at which the experiment should commence.

From all I have heard of Mr. Billingsley, I am satisfied that he justly merits the high encomium bestowed upon him

* Those strong and hardy men not only prefer the very fattest mutton they can obtain, but consume vast quantities of it, as appears from the following story.

Many of the keelmen's wives have been long in the habit of dropping joints of mutton and quarters of lamb, from the bridge at Newcastle, into the keels as they pass up and down the river. One of the men, seeing his wife at her usual station, cried "drop, drop, d---n you drop, what are you about." The wife replied "the d---l choke thee, for that is the seventh joint this week."

How could the consumption of such districts as this be supplied with small, and scarcely half fat mutton, such as that of the merino sheep, the bone of which is nearly equal to the flesh in weight? would not constant dearth and sometimes famine, ensue from rearing those sheep?

by Mr. Bartley; and, in several respects his experiment is more judicious almost than any other I have been informed of through the medium of any agricultural publication. He weighed the sheep, and (for some time) their food, and, so far, proceeded upon a just principle. I objected to Mr. Young's experiment not only on account of the paucity of the sheep, but because he did not weigh their food. And upon the same principle I would have objected to that proposed by Mr. Bartley, had he offered to extend it sufficiently. I would have objected to the age at which he proposes its commencement; for at that age, or a few months more, the Leicester sheep, if properly supported, would be compleatly fat, and consequently would not improve in the same proportion, as the small sheep. Besides, if he and I agree relative to the conditions of a comparative experiment, one of them would probably, bind us to conduct neither in his nor my district.

That it is of very great consequence in all countries where the inhabitants consume animal food, but more especially in such countries as this, where the produce of human food is inadequate to its own consumption, to prefer the breeding of those animals which arrive soonest at maturity, is a position which will scarcely be contradicted. I shall, therefore, not encroach, at present, upon your valuable pages, by defence of it.

It appears equally clear that when animals have so nearly reached the *ne plus ultra* of improvement as well bred and properly managed Leicester sheep at from fifteen to twenty months old, it is highly injudicious to use them in a comparative experiment against sheep of other breeds which do not attain maturity till they are much older, and which at the commencement of the trial, are in little more than common store condition. Yet our great advocates for the smallest breeds, always wish to begin experiment after the sheep are once or twice shorn, in other words, when they ought to be fit for the butcher.

Six different sorts of sheep were employed in Mr. Billingsley's experiment, viz.

5 Leicester from Mr. More, of Charlcote, Warwickshire.
5 Cotswold from Mr. Pacey, of North Leach Gloucestershire. (three fourths Leicester blood)
5 South Downs from Mr. Gale, of Stert, Wilts.
5 Dorset from Mr. Hix, Castle Cary, Somersetshire.
5 Wilts from Mr. Tinker, Chittern, Wilts.
5 Mendip from Mr. Parsons, Blagdon, Somerset.

This experiment commenced when the sheep were one year

and ten months old. Nothing* is stated with respect to the condition of the five latter sorts; but Mr. Billingsley particularly notices that of the Leicesters in these words, "they were "sent in high condition, and had from their appearance been "well kept." Now, Sir, will any man of judgment, contend "that sheep in this "high condition" will make as much improvement as if they were only three or four months old, or as sheep in a comparatively lean state? I think he will not, and to be satisfied that such an opinion is just, we need only refer to the result of Mr. Billingsley's experiment. Mr. Bartley, however, it seems, is not correct in saying that the Leicesters "were *last* in the result of the trial;" for the gentlemen to whom its examination was committed, "gave the preference to the South Down, and after them to the others in the following order, viz. Glocester, Leicester, Mendip, Wilts, and Dorset."

Mr. Billingsley also says, "one of the Leicesters appeared by his coat to be unhealthy, and this was confirmed at his death by an apparent defect in his lungs; and consequently some allowance must be made for this circumstance. We were also told by the great breeders of the North, who attended at the Society's annual meeting, when they were slaughtered, that Mr. More had not done justice to his country, for that the sheep he sent were the worst of the kind they ever saw." This opinion of the Northern breeders seems to be corroborated by the name given to the sheep, by Mr. Billingsley. He does not call them the *new* Leicesters, but merely the *Leicesters*; and I wish to have it clearly undertood that I have not contended for the *old*, but *the new and most highly improved Leicesters*, in my various letters to you.

In this experiment, which commenced in January 1792, none of the food consumed by the sheep, was weighed, except that from the 3rd till the 10th of April; from the 24th to the 27th of June; and from the 1st to the 8th of December; and the sums paid by each sort of sheep, for forty-eight weeks are mentioned without any calculation on the quantities of food consumed. Now, Sir, your readers will recollect that I have uniformly maintained the superiority of the new Leicesters, because they convert a given quantity of food into the most money in a given space of time; and I am sure they will agree with me that those sheep that convert their food into the most money within a year and a half, or two years, are the most beneficial both to the farmer and the public at

* The Wiltshire, indeed, are represented as "a tall, bony, thin carcased sheep, fit to walk two or three miles to a fold, and to be kept till three "or four years old." "They ate ravenously, increased greatly in size and "weight, but did not fatten."

large. But without proper calculations as to the quantity of food consumed, as well as the mutton and wool produced, how can we determine the most profitable?

Besides, the food weighed by Mr. Billingsly was hay, cabbages, and green vetches. Why was it not the common food of sheep—turnips and grass?

The five Leicester sheep weighed, on the 3d January, 1792, 664 pounds. They consumed between the 3rd and 10th of April following, only

29 lbs. of cabbages, and
91 lbs of hay.

At the same periods, the weights and consumption of the other sorts were as under:

	weight.	food consumed.
Five Cotswold	697½ lbs	29 lbs. of cabbages. 120 lbs. of hay.
Four South Downs (one having died)	397 lbs	29 lbs. of cabbages. 70 lbs. of hay.
Five Wilts	559½ lbs	29 lbs. of cabbages. 125 lbs. of hay.
Five Dorset	646 lbs	29 lbs. of cabbages. 123 lbs. of hay.
Five Mendip	406½ lbs	29 lbs. of cabbages. 87½ lbs. of hay.

Here we find that the Leicesters consumed *much* less food in proportion to their weight than any of the other sorts; and I must particularly request the attention of your readers, and more especially the favourers of small sheep, to the Mendips; which weighed considerably less than two thirds of the weight of the Leicesters, and yet consumed *very nearly*‡ as much food within seven days.

After this I hope I shall not be told that sheep eat in proportion to their weight. Mr. Bartley, however, certainly maintained that opinion when he penned his letter in your last magazine, and asserted that Merino sheep would produce as much mutton as the new Leicesters "on equal quantities of pasture or other food." But before I proceed to a more particular consideration of that ingenious and polite letter, I must remark that the gentlemen who attended the slaughtering of the sheep, in the experiment, certainly did not proceed on fair grounds when they estimated the value of the mutton; for they valued that of the Leicesters, which they acknowledge was very good meat, at no more than that of the other sheep, which they own was but indifferent. The Leicester which was the best) was valued at 5d. per lb.; the indifferent at the same

‡ Within two pounds and a half.

price; and the worst, (the Wilts) which was "not half fat," at 4d. per lb. Now if I had attended the meeting, I would have contended that the latter should have been valued at only 3d.; the indifferent at 4d.; the Gloucester at 4½d.; and the Leicester at 5d. per lb.; and at the same time I would have offered to prove, by actual experiment, that the quantity of human food, from a pound of each kind, was correspondent to this gradation of price. I would have separated the bone of two or three carcases from the flesh, and, (if the Leicesters had been of the best kind) would have had no doubt of shewing that their bone, in a carcase of 100 lbs. was not heavier than that substance in a carcase of the small mutton of only 60 lbs. or rather that the two or three breeds yield bone in proportion.

It is also worthy of remark that the entrails of

The five Leicesters weighed.....50½ lbs.
Those of the five Cotswolds.....70½ lbs.
Those of the four South Downs.....42¼ lbs.
Those of the five Wilts.....85¾ lbs.
Those of the five Dorset.....70½ lbs.
And those of the five Mendips.....53 lbs.

This has a tendency to prove what is stated by your correspondent, Agricola Northumbriensis, in his letter on cattle, in your 67th number, namely, that animals of equal outward fat and dimensions, vary greatly in the weights of the carcases; and that the difference of weight arises from what he has supposed relative to the different spaces occupied by the intestines.* Indeed that gentleman's arguments on cattle will equally apply to sheep; and as he lives in an enlightened district, where the new Leicesters are universally preferred, on improved lands, I am surprized he has kept so much aloof in the controversy between Mr. Bartley and myself. I do not wish to press him *too much*, though I should certainly be very glad of his assistance; I cannot, however, avoid observing, that from the goodness of my cause, as well as his regard to consistency, he must take my side, if he offers his sentiments to your readers. I consider his letters on cattle much in favour of my arguments, and beg leave to recommend them to the attention of my adversaries.

If I should ever have the satisfaction of conducting an experiment with Mr. Bartly, it will be on neutral ground; and I am inclined to think that a few hundred pounds would be usefully expended in such an undertaking. I would sacrifice the time with much greater reluctance than the money, for it

* At the commencement of the experiment, Mr. Billingsley weighed all the sheep after twelve hours confinement without food; and I presume they would be as long without food before they were slaughtered.

would not be the work of a year. A partial experiment, or a single one, would not meet my approbation. I would not only include wool and carcase, but previously settle the manner of proceeding, with a view of ascertaining the value of each. I would separate the flesh from the bones, and accurately weigh both; and for the reason already given, I would not agree to value the fleeces by the present prices.

I have repeatedly contended that if we had a sufficient number of Anglo-Merino sheep to supply our fine cloth manufactures, the prices of the finest wool would be greatly reduced, and that those of the coarser sorts would rise. For the truth of this, I appeal to the best writers on political economy, and to every experienced merchant. Nay, Sir, I may appeal to the statement of Mr. Bartley himself, at page 151 of your last number. He there says, "but *a common farmer* may have common sense to perceive at a glance, that it would be most preposterous policy, with infinite risk, to procure a foreign article at the cost of six or seven shillings, which he himself could easily produce on his own *homestead* at one shilling, or eight-pence, including rent, expence, and profit—and yet this might be done with full crossed Merino sheep, i. e. in the fourth generation descending from fine woolled British ewes, or in the fifth and sixth, from coarse woolled sheep." This seems tantamount to an acknowledgment, that by breeding a great number of Anglo-Merinos, the finest wool would fall from six or seven shillings, to less than one shilling per lb. But though the policy of raising articles at home, at a cheap rate, which are imported from foreign countries at much expence, is, to a great degree, unquestionable, it is not universally the best; indeed there are several exceptions—I shall mention one or two.

Vast quantities of foreign flax and hemp are consumed in Britain. It has been confidently asserted that we might raise enough in this country for our own consumption.—Whether we can, or not, is not the subject of discussion between Mr. Bartley and Pastorius; but if we could, I contend that it would be very injudicious husbandry, because these articles would require land which would produce great quantities of corn, an article of infinitely greater importance, and one of which we cannot raise supplies for our necessary consumption.—Upon the same principle I have contended against the breeding of Anglo-Merino sheep in situations which are favourable to the new Leicesters; and I would likewise oppose Mr. Bartley's plan of supporting our flocks "by substituting potatoes for turnips," which I hesitate not to pronounce one of the most injudicious schemes ever proposed in the agriculture of this country. But, Sir, the dispute respecting sheep, is enough for me, and I now mention the new system he would introduce, mere-

ly that it may not escape the attention of other correspondents, especially those in Northumberland and Norfolk, who have written so much upon, and who so thoroughly understand the great advantages of cultivating turnips.

When we fully consider that the prices of articles of trade are formed between the supply and demand, it is evident that the price of the finest wool would decline in proportion to the increase of Anglo-Merino sheep in this country; and that if we possessed the number mentioned by Mr. Bartley, it would, to a certainty, sink to a very low price. Now when we combine this with what he has stated relative to our own "homesteads," viz. that instead of six or seven shillings, it would be less than one shilling, it is incontrovertible that the concluding part of his letter is erroneous with respect to the data on which we should reason and calculate in determining the comparative merits of the new Leicester and Merino sheep.

The *great* value of the wool having been the main, indeed almost the only, support of Mr. Bartley's argument in favour of Spanish sheep, I think our controversy should end here, and that the superiority of the new Leicesters should be *universally* admitted; for he has, by sweeping away about $\frac{5}{6}$ of the present prices of fine wool *with his own pen*, virtually acknowledged the justness of the principle I have advanced, with regard to the prices of all articles of commerce. Yours, &c.

PASTORIUS.

P.S. On looking into the 7th vol. of the Bath Papers, for an account of Mr. Billingsley's sheep experiment, I observed, at page 275, et seq. some useful letters on the smut in wheat; and as that baneful disease has lately occupied the attention of several of your correspondents, I should be glad if you would publish them in your Magazine.

ON PRESERVING TURNIPS FROM THE FROST, &c. &c.

To the Editor of the Agricultural Magazine.

SIR,

IN your 67th number, Agricola Northumbriensis expressed a wish to know on what kinds of soil, and to what extent, the method of preserving Turnips from the frost, recommended by the Rev. Mr. Munnings, was practised, the expence of preserving them, &c.

The lands on which it has answered best, are the gravelly or sandy soils, where the leaves of the turnips are observed to fall early in the autumn, an infallible symptom that the nutritive quality of the root is declining. On such soils they will be preserved in a much more nutritious state when buried in the earth, than when left where they were grown, and it has

been found advantageous on the above soils to preserve in this manner a fifth part of the crop on farms of considerable extent. From my own experience I would not advise the practice on strong, adhesive soils; for by being so long buried in a wet soil, they contract a musty flavour very unpalatable to cattle, and which, even washing will not deprive them of; and on these soils where the turnip-leaves preserve their verdure until Christmas, it very seldom happens that those sown late are injured by the frost.

The expence, if preserved on the land where they are grown, will be from three shillings and sixpence to five shillings per acre; if carted to an adjoining field, double that sum(exclusive of horses' labour). There is no fear of the depth of the furrows necessary to contain the turnips, leaving the land in an uneven state; as the earth which was ploughed from the furrow lying immediately on its edges, a single bout of the plough will return it to its former place. I am equally sensible as A. N. can possibly be, of the benefit of feeding them on the land with sheep, but they can just as well be fed on the field where they are carted to, as on that where grown; and I have frequently seen, where there has been dry weather, at the time of sowing barley on land where the turnips are fed, (even with sheep) the latter part of April, that the crop has been materially injured, being much worse than where they were drawn from the land, in the beginning of winter, thus occasioning a total loss of the benefit of folding; but if they are carted to a field intended to be sown with turnips, the advantage of the sheep's dung will be seen in that crop, and likewise in the crop of barley which succeeds it.

There is one part of A. N.'s letter which I confess surprizes me. He says that I agree with him that commercial yields a greater profit than agricultural capital. The only passage he can allude to is the following: "If it be as A. N. asserts that commercial capital yields a profit so far superior to that employed in agriculture, there must be some cause for it," and I mentioned the independance of the former as one of the probable causes. But surely no one could infer from this, that I allowed that commercial did yield a greater profit than agricultural capital. I am conscious of my inability to decide the question, but from what information I can gain, the returns are as nearly alike as possible. At least I think I may safely venture to assert, that there is not a difference of one half, as stated by A. N.

What A. N. has advanced respecting the dependance of the farmer on the merchant a little before rent-day, amounts merely to this; that if a person undertakes any concern without an adequate capital, he must borrow money somewhere, and in

that case, there is no greater necessity for the farmer to be dependant on the merchant, than the merchant on the corn-factor; the retail on the wholesale dealer, or the latter on the manufacturers:—I thank God we have very few instances in this county of persons holding their farms at the will of their landlord. But I must confess, that granting leases for only seven years, is becoming the favourite practice of some of our landholders, a practice so detrimental to the interests of both parties, that I think it will not continue long.

A. N. appears mortified at my saying, that few, if they had seen his letters on the present subject, would deny that the expences of farming, had kept pace with the price of corn. This most certainly was not saying, that they had not increased in a greater proportion. I acknowledge that many of them have. I acknowledge this to have been the case with the price of labour, all parochial charges, and rent: but this may possibly happen, and yet the profits of farming all the time may have been increasing in a still greater proportion. The question is, whether the expences of a farm are greater in proportion to the value of its whole produce; and if the latter has not increased, of what value are all our boasted improvements in agriculture? our drills, our cultivators, the Northumberland method of sowing turnips, all our improved breeds of cattle? I say, Sir, if all these improvements have not enabled us, either to increase our produce, or diminish the quantity of labour necessary on our farms, we should have been just as well employed in pursuing the beaten tract of our grandfathers.

In respect of labour, A. N. has in your 68th number, advanced what appears to me a most singular opinion, (viz.) that the expences of living have no effect on the price of labour. May I be permitted to ask him one plain question? If in travelling he had visited two countries, in each of which there was exactly the same demand for labour; but in one of which the expences of living were exactly double those of the other: I ask A. N. whether he would not have been very much surprized, to have found the price of a day's work exactly the same in each? We may carry it farther, and suppose that in one country, a shilling, nay even a farthing, would purchase as much of necessaries of life, as a Guinea would in the other: still, according to the theory of A. N. the price of labour would be exactly the same. Perhaps, A. N. may say that I am carrying it too far, and that with so great a disproportion, there would be some difference! But unless he can tell me what increase there may be in the price of provisions, before it has any effect on the price of labour, I shall still retain my former opinion; that with an equal demand, the labourer must receive an equal quantity, of the necessaries of life for his day's work. With us, an increase of the price of wheat alone causes an

immediate increase of the price of labour; or (what amounts to the same thing,) the labourer receives some parochial assistance, enabling him with his earnings, to purchase seven pounds of wheat bread, for himself, his wife, and each of his children, exclusive of sixpence each for additional necessaries. As I presume this is not practised in the north, it may be necessary to elucidate my statement, by the following example. The average earnings of the labourers amount to about thirteen shillings per week; if he has five children we suppose at the present price of bread (viz) four shillings per stone (of fourteen pounds,) it will cost him fourteen shillings a week for that article, and three shillings and sixpence for additional necessaries; and as his earnings do not exceed thirteen shillings he receives from the parish, a weekly sum of four and sixpence.

It may next be proper to enquire the cause of an increased demand for labour. In my opinion it is, that either the farmer or manufacturer, finding a greater demand for his produce, or manufactures, and consequently a greater profit, wishes to increase his stock as much as possible, but this is not to be done without an additional quantity of labourers, and as the most efficacious method of procuring them, he offers a little higher wages than is generally given; by which means, he gets some of his neighbour's labourers; but they feeling the same inclination to increase their number, offer still higher wages, and the competition goes on, till the labourer receives an advance, equal to the increased profits of the farmer or manufacturer. And as the improvements for the division of labour have in manufactures, so much exceeded what could possibly take place in agriculture; I think it only fair to conclude, the greater profits of the farmer have at least had an equal effect with those of the manufacturer, in increasing the demand for labour. Any person who read A. N's. letters would suppose that I wish for regulations, that would depress agriculture; far from it. All I say is, that if a man has a sum of money, which he wishes to employ in trade or agriculture; leave him to himself, and he will most probably employ it in the manner he thinks will return him the greatest profit, and that this method of employing it, would be the most advantageous to the community. A. N. argues the injustice of a free trade being allowed at this time, from many having long leases of farms at an advanced rent. Foreign wheat, was allowed by the act which preceded the last, to be imported when our own sold at fifty-three shillings and four pence per quarter. And I think if a free trade were allowed, it would not be imported at a less price; for if foreign corn could generally have been imported at a lower price, it could never for any length of time, have been higher; and yet during the ten years

which preceded the last corn act, it was frequently ten shillings, and twenty shillings per quarter above that price. The effects of the late corn act cannot have begun to operate yet; and any farmer complaining to parliament that he is unable from the increase of rent and other expences, to sell his corn at the price he formerly did, would stand in much the same situation, as a merchant who had agreed with a West India planter, for a certain number of hogsheads of sugar, to be delivered annually at a fixed price, which was too high to enable him to re-sell them with a profit; and who applies to parliament for relief. Would he not be asked, why he gave so high a price: He might answer, that he thought sugar would have been dearer, but most probably he would be told, that parliament did not think itself bound to make good every unfortunate speculation.

If it be allowed that a free trade would not reduce the price of corn lower than it was under the regulations preceding the last, we may fairly conclude, that it would not diminish the agricultural capital of the kingdom. A. N. says that, "even if it were admitted that under the present regulations, the agricultural capital of this country, will not increase, still their inutility would not be apparent from R. W's arguments; for he has allowed they are advantageous to the landlord; and has not entered upon their probable effects, in the improvement of wastes, &c." I ask A. N. how, without increasing the agricultural capital, he could invent a method of improving wastes? A. N. then asks, why I contend against a measure that is so likely to ameliorate the state of the country. My answer to that question is, because I think it is not likely to ameliorate the state of the country. When I said, "even allowing that a bounty on exportation, would increase the revenue of the Landlord," it was not that I really thought it would have that effect; but that, as the petition to parliament, was principally from the farmers, I wished to convince them particularly, that they had mistaken their real interests; for it is still my opinion, that whatever increase of rent the Landlord might receive, would be fully counterbalanced by the increase in the expences of living.

Perhaps we are rather exceeding the limits of your publication, in disputing whether commerce increases or diminishes the power of a state. Therefore I shall say very little on that subject. There may, possibly, be some exceptions to my assertion, that the most commercial nations have always been the most powerful; but I think, according to the modern system of politics at least, that the most commercial nations have generally been the most powerful, in proportion to their territories; as a confirmation of which I could not

only mention Great Britain, but Venice, Holland, and many others. What has been advanced by A. N. on the partial pressure of the income tax on the farmer, I am convinced is perfectly just; and I think we have an equal right to complain of the taxes on cart horses and malt. The latter particularly, by holding out an almost irresistible temptation to use some chemical substitute, and consequently diminishing the demand for barley, must be very severely felt; and if instead of petitioning parliament for a bounty on exportation, we had petitioned for a more equal taxation, in my opinion, we had pursued a method much more beneficial to ourselves and the community.

I will thank A. N. to inform me whether in stating the property of a farmer on a farm of 400l. a year he means only the stock, the implements, &c. or the capital it requires to get through the first; if the latter there must be a most astonishing difference in that respect between Northumberland and Norfolk, as here it requires on a farm of that size a capital of from 300l. to 400l.

I am, Sir,
Your obedient Servant,
R. W.

Norfolk,
16*th May*, 1805.

ON THE SPANISH CROSS AND FINE WOOL IMPROVEMENT, IN REPLY TO PASTORIUS.

To the Editor of the Agricultural Magazine.

Sir,

THE last letter of Pastorius gives me a still stronger conviction, that from having an experimental knowledge of one side of the question only, which he comes forward to discuss, he still labours under a very considerable and disadvantageous degree of prejudice! Be it my present business *farther* to prove this:—

In the first place, the effects of crossing the South-Downs with Merino tups, have repeatedly come under my observation: with new Leicesters, I will acknowledge the plan is yet novel. It is however in the course of experiment, with various breeders in England besides myself. Lord Sackville, in Northamptonshire, and a gentleman in Suffolk, I believe, first gave the example. What liberty is that which I seem disposed to withhold from others?

As to the judgment of Pastorius, himself has given us the right to dispute it, when he takes upon him to controvert facts, and to attribute to others, opinions and designs which they have never professed to entertain, far less to promulgate. That the present high prices of fine wool would greatly decline, were the proposed improvement by the

Spanish cross to take place, to any great extent in this country, surely nobody will be at the pains to controvert. But under the scarcity and dearness of any article of necessity, are we not to attempt its increase in the market, least we reduce the price; a necessary, and, to the country at large, most desirable consequence. And with respect to the probable enhancement of price in long wools, that, as a fair and legitimate result, carries nothing in it either objectionable or to be lamented, admitting of a similar remedy with the exorbitant price of the fine. Such a result would have the effect so pleasing to Pastorius, of keeping fine woolled sheep from trespassing upon the proper domains of his favourites. No rivalry need be apprehended from the Spanish, or any foreign fine woolled market, should the price of our native fine wools suffer such a declension as Pastorius supposes. The analogy of growing sugar in Berwickshire, will not run on all fours, indeed there is no similitude or analogy between the cases. Nobody ever thought of growing sugar in Sweden; but Merino wool and large Merino mutton has grown there successfully for more than forty years, and in all probability, they will both grow in Berwickshire with equal success within the period of as many months. The principle of the French œconomists, as laid down by Adam Smith and Lord Lauderdale, is precisely that on which the important fact is grounded, that two and two make four; and equally true it is, that it behoves us to increase by all legitimate means the quantity of that of which we stand in need, without embarrassing our attempts with useless and unimportant speculations; precisely so are we acting in respect to obtaining a needful supply of fine wool, and of ridding ourselves of a new precarious foreign dependance.

The comparison between Anglo-Spanish sheep, and new Leicesters, is totally out of place, and can subserve no other end than to confuse the question, and keep truth out of sight. No fine wool improver pretends to interfere with the growth of long wool, a commodity equally necessary with the fine. The comparison at present, is only between our old and newly improved short wools, and on that head, let price and quantity of produce speak. In the mean time, Pastorius should not forget that the superiority of even the new Leicesters over the Anglo-Spanish, in point of *quantity of mutton and wool per acre*, has never yet been established by experiment, and many impartial people are strongly inclined to suspect the opinion of Pastorius in the case. Past all doubt, the improvers desire to extend the Spanish cross throughout our whole fine woolled flocks; but at any rate, are they not to

state facts, however extraordinary they may appear, because they chance to run counter to the prejudices of Pastorius.

As to the writings of Mr. Lawrence, if I entertain any objection to them, it is to an apparent tincture of prejudice in them, favourable to large sized stock. His proposed experiment would, I think, be attended with a degree of exactness, sufficient to convince all *practical* men, and it is highly probably he was fearful of proposing a greater degree of minuteness, from the known aversion of people in general to plans attended with so much trouble, instances of which he has given: in fact, I think he has proposed the experiment of a practical man, judiciously, and purposely divested of useless *minutiæ*. He may have given an advantage to the Leicesters, for aught I know, but it is to be considered, that over fatness is not the object, but mutton sufficiently ripe for use; the Anglo-Spaniards will become such at two years old. I am also *astonished* that Pastorius should make the trifling objection of the weight of the stone not being specified, because Mr. Lawrence has so particularly adverted to that point in various parts of his book, and because in this case no practical man could possibly mistake. It is moreover, I think, unreasonable to desire of that author, a repetition of opinions and experiments, which he has already so amply detailed.

Pastorius says, "what has induced Mr. Lawrence, who is often so well informed, to state that the small mutton would sell at 4*d*. per stone, (a halfpenny per lb.) more than the large?"—In answer, I should suppose, because he sees it bought and sold so; as it is, and ever has been in London, and all parts of South Britain, within my remembrance, which extends to a considerable number of years. As to our old forest mutton, I know no reason why it should not equal the new and improved, in point of flavour; but in my opinion, *real* South-down is, in that respect, superior to all. All allow the superior tendency to make fat, in the new Leicesters; but all are not agreed on the utility of such a qualification.—Many are bold enough to be of opinion, that 20lb. of *fat and lean* are full as valuable as 20lb. of *fat alone*; and that there are sheep which will render full as much per acre of the former, as the new Leicester will of the latter, of course that they must be full as valuable. The old story of the preference given by coal-heavers, &c. to fat mutton, has been so fully examined, and I think invalidated by the author above cited, that there seems nothing to be said, except that we are not all coal heavers. I refer Pastorius to Mr. Lawrence's book, which he does not seem to have consulted.

It matters little, in what district these sheep-reformers may be situated; but much whether or not they state facts. What

do they state?—At what do they aim?—Why they state that a Merino tup put to English short woolled sheep, has increased both quantity and quality of the wool, and very frequently the size of the carcase produced; and if not the latter, has always produced as much or more mutton per acre, than could be allowed from the old breed. Their aim, then, is to extend these benefits as much as possible; but more particularly among our small inferior heath breeds, which have hitherto, in many places, scarcely paid their keep. And this has to encounter the objections and opposition of Pastorius!—who yet, more candidly then prudently, acknowledges himself without the smallest practical experience on the subject.

The anecdote of the English farmer reads very prettily, and, with some semblance of truth, has very little profundity. I am well aware of the merits of the Northern and Scotish husbandry, and entertain a very high opinion of the intellectual abilities of their farmers; but I am convinced, because I can easily establish it by the proof of facts, that there is a decided superiority in the essential branches of agriculture to be found in South Britain. The most finished Berwickshire or Northumbrian farmer might find much instruction in the Southern counties of Essex, Suffolk, Kent, Hants, and Devon, although it must be allowed, that a great part of those famous districts is farmed in the most execrable and unprofitable way.

JAMES BRIGHTLEY.

ON SPRING WHEAT, &c. IN ANSWER TO AGRICOLA NORTHUMBRIENSIS.

To the Editor of the Agricultural Magazine.

SIR,

SIBERIAN, or, as it was formerly called by Ray, *Thracian* wheat, is no doubt flinty, but will, perhaps, grow with more certainty, produce more corn, and also more straw per acre, than any other species of spring wheat; it should be sown in March, and frequently a bushel will drill an acre, on account of the number of grains when perfectly dry, but five or six pecks is a more usual quantity. There is also a very large plump, full bodied wheat, in use of late for spring sowing; of its success I have not heard. Rath-ripe, or red-strawed wheat, has been sown in the south-west of England, in the spring, time out of mind: it has a small thin-skinned berry, and produces a slender crop of straw. All rath-ripe, or early corn, I believe, is supposed to produce the least bulk of straw; but it is somewhat extraordinary, that I have this spring, two crops

of wheat, the one of the common red laminas, and the other Siberian; the latter of which is more than double the bulk in the grass, although they were both drilled in the same day (March 24) five pecks to an acre, the Siberian rather too rank and thick upon the ground; the soil a strong, damp, clayey loam, manured with red sand three years since. At the same time, in compliance with the recommendation of Sir Joseph Banks, I sowed a land with tail, or refuse wheat, the plants from which are superlatively miserable.

In the dispute between my friend, Mr. Brightley of Heddon Place, and your correspondent Agricola Northumbriensis; I cannot help thinking that Mr. B. has strongly the advantage. Where practice is successful, we are the less solicitous about causes, as in the case of manuring, most unfortunately adduced by your generally judicious correspondent: but who ever produced any satisfactory proofs of success in the prevention of smut in wheat, after annual trials, continued through the course of more than an hundred years? Mr. Lawrence's arguments, particularly in his last edition of the New Farmer's Calendar, have had great weight, still the prejudice respecting smut and its cause, seems unaccountable. The year before the last, I sold a parishioner of mine a lot of curious seed-wheat, part of which he dressed, most curiously, to prevent the smut. He had not dressed it all, and a quantity was deficient to sow a three acre piece, sheltered by a wood. My friend was gone to Newmarket, to the October meeting, and in his absence his bailiff, not to lose time, sowed this small piece with wheat perfectly dry and untouched, the consequence was—this last suffered neither blight, smut, nor mildew, whilst the first sown had not a peck free from smut.

CLERICUS ET COLONUS.

ON THE MEAGRIMS IN SHEEP.

To the Editor of the Agricultural Magazine.

Sir,

FULLY aware of the utility of agricultural communication, and consequently a subscriber to your useful magazine, as affording an excellent medium for all its purposes; may I beg the favour of you to admit the following appeal to your readers, than whom I have not any other resource for advice.

I purchased a lot of Norfolk shearling ewes, for stock, last August, which were very high-bred and handsome; they did extremely well till Christmas; about which time I observed one had rubbed the wool off her back, and that she continued to rub, scratch, and even bite herself, till she wasted entirely away, and died in the following March. Three others did exactly

the same; and I have now four more beginning to rub and pull the wool from off their backs. I applied to the person who sold me the ewes, and enquired if he had any such appearance among his own flocks; upon which I found that he had, and that he had tried every outward application, a principal chemist could devise, without any good effect. Having since made many enquiries in different parts of Norfolk among the Breeders, I have found the complaint to be spreading extensively, and that it is called the *Meagrims;* but the only remedy every where prescribed to me was to "cut their throats!"

Such, Sir, is the case, and the only result of my enquiries; and the alternative not suiting my breeding flock, I determined to request you to admit the circumstances into your next Agricultural Magazine,—trusting that some one of your readers will, if he should know a cure for this complaint, step forward (though it should, as is plainly the case with myself, be the first time of his doing so) and furnish me, through your magazine, with the recipe. I have no doubt that it will be of considerable utility to your readers in this and and other quarters, and it will much oblige Your Friend,

May, 17, 1805, and Constant Reader,

Norfolk, near Norwich. JOHN ——.

P. S. It may not be amiss to oserve that this is a complaint perfectly distinct from that of the *Scab* (which I can cure); and to repeat, that it appears first, by the sheep rubbing their backs violently; from which part it spreads all over them, even to their feet, but without any visible appearance in the skin, till they get very bad; there then, appears sometimes, little hard scabs, very dry, but in some of them nothing can be observed. Some few appear to lose for a time, their whole strength, and you may turn them about as you please, but these last seldom rub much or lose their coats.

ON IMPROVING WORN OUT SOILS OF THE SECOND QUALITY.

To the Editor of the Agricultural Magazine.

Sir,

HAVING last month given you a sketch of the methods I have used in the improvements of worn out, light soils, of the *first quality;* I now proceed to make a few more remarks, on the same subject, of lands of the same description, of *the second quality*; and intend for next month writing to you again on what I have experienced, to answer the end, on these soils of the third or inferior quality.

In the course of long practice, I have likewise occupied several

farms of the second quality consisting of light exhausted soils, much inclined to gravel; but pretty fair in depth and rather a cool sandy bottom, which is of some advantage, in not being so liable to be injured by the heat in a dry season.

When manure is wanted for immediate use, you must be contented with the sorts you can most conveniently procure, muck and lime are the only sorts to be had in these parts, so as to furnish a sufficient quantity for a considerable tract of land.

In fields that I found most impoverished, I laid on a proper quantity ofboth muck and lime.

In other fields that were in a little better condition muck alone, and in others lime alone.

The crops of turnips proved very good where the muck and lime were both used; nearly as good manured with muck alone; and the turnips from lime alone, indifferent; the turnips being eaten off with sheep on the land they grew upon, the ensuing crop of barley proved very good where muck and lime were both used, nearly as good as with muck alone.

And the barley from lime alone, about two thirds of a crop composed with other two, but what shews the great advantage of lime, the clove and rye grass, succeeding the barley better than either, though all of them a good crop, and after three years pasturings with sheep and a few young cattle, I could not perceive any inequality in a succession of cultivation this plainly shews the value of lime in producing superior seeds, supporting a greater number of sheep, and consequentcausing an increase of fertility.

Though much has been written, and various opinions held respecting the use of lime, for my own part I am well convinced from repeated experiments of its excellent qualities for any sort of land that is sound, and where the land is springy, it should be drained for any purpose whatever as well as for the reception of lime. Other particulars respecting the advantages the soil receives from lime, I intend to insert when I treat on manures.

In other parts of this foul exhausted land, I pared and burned what I could not make ready for turnips in the above common method, and the turnips fully answered the experiment, owing to the fertilizing quality of the ashes. This mode of husbandry is often found fault with, though I am convinced with little reason, for I have many times observed its good effects in other countries, and was likewise reminded of its utility by the Rev. Mr. Comber, Mr. Young, Mr. Marshall, &c. of the present day; and by Virgil, in ages past, whose opinion is conveyed to posterity in the following emphatical lines—

"Long practice has a sure improvement found.
"With kindled fires to burn the barren ground."

That there are different sentiments entertained respecting

paring and burning is well known, some highly extolling the method, and others as severely condemning the practice: upon an impartial examination, it must be confessed that paring and burning of land indiscriminately is wrong, *but it is surely of the greatest consequence as the first operation on all waste lands*, on barren and worn out soils, the greatest service to *boggy and peat lands*, and I have tried its good effects on *rough old pasture*, by burning two fields of the latter, and spreading the ashes on the surface, in a quick live state, the herbage appeared afterwards of a very different and much superior quality.

One more experiment I made on these exhausted lands, was to make a clean fallow without any manure, and this answered extremely well, by sowing the same with clover and rye-grass the first or second week in August, and there is in this method more time to clear such land, on account of the turnip-seed time being nearly ended, indeed, with a few exceptions, entirely finished.

The fields cultivated in this manner produced an excellent crop of seeds for either cattle or sheep by the middle of October, and this land grazed extremely well chiefly with sheep for three successive years;—*the above is most certainly an excellent method, particularly when there is more upon hand than you can manure for turnips*, besides there is but little expence attending it in comparison with different culture, there being no crop to injure the soil, or any obstruction of weeds to prevent the luxuriancy of the seeds; and I *earnestly recommend this way of cultivation to every one that takes to a large tract of worn out, or wants a speedy pasture*; for by making a clean fallow you procure plenty of seed; sheep will manure the land, the profit attending the flock is of no small consideration, besides leaving the land in the space of two or three years in a fine state of culture.

All exhausted light soils require rest and pasturing with sheep. By adopting the above means, I brought the whole of these poor farms into a good state of cultivation the first year, which if this had not been done, there must have been a considerable part left until the following season, which would in the mean time have produced nothing of any consequence. I am,

Chadwick-Manor, Worcestershire, Sir, Your obedient servant,
May 11th, 1805. J. CARPENTER

ON THE DRILL AND BROAD-CAST HUSBANDRY.

To the Editor of the Agricultural Magazine.

SIR, *May* 11, 1805.

THE comparative statement between the drill and broad-cast culture of corn, at page 258, No. 69, is upon too

contracted a scale for my comprehension. I have read it over and over again, because I think farmers should pay the utmost attention to comparative experiments, and am but little wiser than when I began. I must therefore request farther information, and I have no doubt but the author is well able to give it; he seems, however, to have too high an opinion of the quickness of apprehension of the cultivators of the soil.

The statement seems to include different modes of drilling, viz.—two rows in three feet, and equi-distant narrow rows—as well as the broad-cast method. But I cannot understand either the modes, or produce, nor, in some cases, the expence.—What do farmers of the present day, who in general read but little, except the bible, sometimes the news-papers, and often your Magazine, know about Tull's method? To have been intelligible, your correspondent *Amicus*, should have fully stated the breadth of the intervals, the number of furrows, (ploughings) the quantity of seed, the whole expence and produce of the different methods of drilling; and also the number of ploughings, the quantity of seeds, the whole expence (particularized); and the produce in the broad-cast way. There is also something stated about having wheat every year upon the same land, which I don't understand.—Does *Amicus* mean to recommend drilling and sowing wheat every year upon the same ground? If that is Tull's system I think it is a bad one. Wheat is s scourging crop, and to have it for many years, in succession, would render the land almost useless for some years. It would also exclude the benefit of a change of kinds, and of resting with clover and rye grass, which we justly consider as a great improvement in husbandry. In short, unless the capacities of my brother farmers are far indeed, beyond mine, such papers as that I have noticed, will be of little use; though when properly explained and exhibited in a clear account, nothing so readily attracts the attention of a practical man, as comparative experiments; and I dare say your correspondent is fully able to make himself understood, even by farmers, if he will take a little more trouble.

What does Mr. Carpenter mean by rendering *exhausted* land productive by cleaning, and sowing turnips, *without manure?* Surely there is some mistake in that letter.—He cannot for a moment, believe that practical farmers will concur in the opinion that such land can be converted and properly improved without manure.—If he does, he is greatly mistaken; and if he can tolerably fertilize worn out lands, *merely* by cleaning, it is a wonderful discovery.

Equally astonishing is the assertion of Mr. Bartley, that "by growing potatoes instead of turnips, we might nearly double our flocks." I am as great a sceptic to this doctrine,

which I really think is a very dangerous one.—Such husbandry would, in my opinion, *greatly lessen* our flocks, and render our lands much less fruitful than at present. It seems of great importance to contradict that assertion; and if I were able to contend, on paper, with Mr. B. I would enter largely upon the subject, which I hope will soon be taken up by some of your able correspondents.

Yours, &c.

FARMER SLOUCH.

P. S. In your last number Mr. Brightley, in treating on the smut in wheat, says, "I must still adhere to my first principle of the superiority necessarily attached to the fundamental knowledge of causation."

He has only *blinked* at the powerful argument of your correspondent *Arator*, which, I think, clearly shows the superiority of *effects*; in other words, of a remedy without knowing the cause. I am willing to grant, that, if we perfectly knew the cause, it might lead us to what Agricola Northumbriensis calls the "most convenient and cheap" remedy. But it would not, probably, lead to a more effectual remedy than that already known.

As to what Mr. Brightley calls "the total impossibility of remedy," it seems a dangerous observation, inasmuch as it may prevent young and inexperienced farmers from using the necessary *pickles* in preparing their seed wheat. To men of *experience* it will only be a subject of laughter; for they well know that smut can be prevented by *a careful and proper application of certain substances*, particularly strong chamberlye and quick lime. Such men will not admit of even a comparison between the knowledge of the *cause* and that of the *cure*, though many of them would, perhaps, agree that a knowledge of both, would be most satisfactory.

I have had considerable experience, and affirm, in opposition to Mr. B. that good seed, properly prepared with lime and strong chamberlye, &c. will not produce smutty wheat. I believe, however, that pure wheat may be obtained from smutty seed by frequent washings, and the use of such *strong pickles* as will destroy the vegetation principle in one third, or nearly one half, of it.

I have not leisure at present, but I shall probably have a good deal more to say to Mr. B. on the smut in wheat, within two or three months.

F. S.

I much approve of your inserting papers on all regulations which affect farmers and agriculture.

MISCELLANEOUS HINTS, ON THE WEST COUNTRY WINDMOWS, AND POLITICAL DISCUSSION.

To the Editor of the Agricultural Magazine.

SIR, *Amesbury, Wilts, May* 10, 1805.

IT has for some time been matter of surprise to me, (who have long had the satisfaction of having your useful work conveyed to me on this lonely, but classical, spot) that among the various and respectable correspondents who favor the public, through your means, with their monthly communications, you should not include a single one in this extensive quarter, unless we consider as such the able members of the Bath and West of England Society.

Possessing a soil inferior to none, and giving name to a breed of sheep by no means despicable in the history of agriculture, with landholders of the highest public spirit, and farmers of enlightened assiduity, it is difficult to account for their denying themselves the indubitable advantage which a general communication of local practice and local circumstances throughout the kingdom must afford. That it does not arise from a disinclination to so much literature as is necessary for the purpose, is certain in a neighbourhood which an Harris ‡ illumined, and a Coxe ornaments, while on the spot on which I am writing, the elegant Addison was born, and every breeze still seems to whisper—

"The worthy Queensb'ry laments his GAY."

I have, therefore, to hope that some means may be used to attract some of my learned and respectable compatriots to acquaint the agricultural world, through the medium of your publication, with the state of husbandry in the West Country and to the North West. For myself, but little conversant with rural affairs, except as they form a part of the recreation of a mind too much burthened with other pursuits, I can offer no matter of sufficient promise for your Magazine, of a practical nature, nor indeed any other than can be produced by a mere bystander. Having, however, with the best intentions opened a correspondence with you, though humble, I shall venture a few ideas which you may either notice or reject, as best suits your purpose; and with the result of which, in either case, I shall be equally satisfied; as I shall at least have acted the part of a master of the ceremonies between my own country and yourself, and have performed the civilities of an introduction, which cannot fail of being advantageous to both.

The first object of which I shall disburthen my miscellaneous budget, is the result of an excursion which I was induced

‡ The father of the present Lord Malmsbury.

to make within these few last weeks; partly on business, and partly on pleasure, over a wide district comprehending the counties of Somerset, Devon and Dorset, and (stretching round to the north,) a part of Yorkshire. Not having been for some years from my present residence, where custom represents every thing as the best, I was agreeably surprized to find numerous changes, all tending to forward the conveniences and *agremens* of life; though not without the alloy ever attendant on humanity. Next to the healthful appearance of the produce of the earth, though in a backward state, the extensive introduction of mechanism to every purpose of manufacture, could not fail to strike me, from long established towns, even to a bleak hill in Yorkshire. Nothing now remains to be done by hand, except the attention of a child to the operation of vast wheels, that could crush it to atoms in a moment. The general use also of improved implements of agriculture, was a pleasing proof of the extinction of that bigotry to old customs, so hostile to the advantages of knowledge, and which once, within my cognizance, led half a parish to church up to their knees in mud, because a convenient causeway, newly formed, had not been made by their ancestors. What, is also the most agreeable to a philanthropic mind, the state of the peasantry is evidently improved; the labourer no longer groans over a small quantity of black rye-bread; but animal food is very generally superadded, and very little appearance of the feudal villain remains. Yet, on the other hand, the price of every necessary of life is universally high, with one exception only, in the whole country through which I passed. This was the delightful vale of Taunton, which might vie with the plains of Arcadia, where every thing is plenty, and every thing good. For prime mutton of the finest flavour, and sufficiently fat, only sixpence, per pound, was demanded at Taunton, and all other meat in proportion. If any thing could induce me to quit the little tranquil bottom in which I have fixed my home, it would be the vale of Taunton. Yet, there was scarce a family, which did not contain some one shivering with ague, and all its painful appendages.

One melancholy circumstance attracted my notice, even in some of the most healthy situations, and keenest airs through which I passed; for which, I should be obliged to some of your intelligent readers to account:----and in doing which, (if of the medical profession,) in a popular way, they might render an essential service to the country. This is the existence of a periodical contagion, the effects of which are locally terrible, and which will sometimes leave but a small number of very large families throughout a village; and this

even where health appears to revel on their countenances, and none of the squalid appearances of abject poverty are to be observed. I conversed on the subject with intelligent men on the spot, but the causes they assigned were neither decisive with themselves, nor worthy your attention.

I am wandering, however, Sir, to an extent not perfectly warrantable, before I know whether I shall obtain admission to your work; and shall, therefore, content myself at the present, with the few observations on that subject; adding only an enquiry, which arises from the articles on *hay making*, which have had place in your recent numbers. Pray, have you ever had an account of the mode practised in, and I believe confined to, Dorsetshire, to which they give the appellation of "*wind mows?*" If you have not, from the advantages ascribed to it by farmers, I shall be happy to furnish you with a description, which may not be useless.

I observed, in one of your very late numbers, an account of subjects discussed by the Holderness Agricultural Society, which appeared to involve a number of useful matters; but I anxiously hoped to have seen the result of their discussion, and the arguments of some of the gentlemen who contended them, or delivered their sentiments. Would it not, Sir, be a desideratum to your work to obtain a communication of them, which could not surely be difficult from the liberality of those composing such a laudable and intelligent association?

I have but one more observation, Sir, to trouble you with, and on which I am extremely diffident, from the characters of the correspondents to whom it will refer. Yet as an ardent advocate for the diffusion of knowledge, and consequently cautious of any thing which affects its dissemination, I cannot resist the opportunity of offering my opinion with the reasons on which it is founded, on a subject on which you have submitted yourself to your readers; and I beg you, Sir, and your correspondents, not to view them either as incorrect, or impertinent. That a dispassionate statement, by practical men, of the disadvantages attending any *proposed* law, affecting agriculture, either in financial projects, or partial regulations, might not be of utility even to the legislature itself, which often very properly courts such assistance, no one can attempt to deny; but the necessity ceasing, when the object has become a part of the constitution, and the legislature is to be understood as having decided with every assistance, what was before a laudable aid becomes a political evil, and a motive of contention where the strictest harmony should exist—in a correspondence for the purpose of communicating and receiving information on the most peaceful of all pursuits.

I am perfectly aware that from collision truth is elicited, but like many other positions, this may be dangerously extended; and no one is ignorant of the endless nature of controversy, when its object is either theological or political. In inserting, therefore, in your work reflections on any law, or political allusions, either conveying praise or censure, or even ridicule of any set of men (like that of the respectable farmers of the north by an absurd writer) you open a source of contention which must inevitably end in the alienation from your work either of one party or other. Nor is this all, Sir, for the dispute is extended even beyond the pale of your magazine. In this quarter I assure you, I have seen a valuable writer thrown aside, only for reciting an established fact. Hume and Gibbon, have occasioned several pitched battles in my neighbourhood, and the classics been nearly dismissed from a school. Nor would my next door neighbour, an excellent practical farmer and good man, whom I wish to seduce to your levee, forgive me for the possession of a magazine, in which the government was not considered infallible.

The most potent argument I have seen in favour of the introduction of discussions on the regulations relating to agriculture, is that of a correspondent who is a constant credit to your work, under the signature of Agricola Northumbriensis:---that, "without them, materials could not be found to supply such a publication monthly." Of this position, however, he is himself the most powerful confutation; for, judging from the constant appearance of his name in your work, on subjects of the highest importance, he is a source not to be exhausted, of which if you retain but a very few counterparts in different districts of the kingdom, no other difficulty can be found in regard to materials, but how to select them judiciously. For he is himself an host. Like Cicero in his villa, it is doubtful whether he dispenses information, with most ease, or judgment.

Such are the ideas I have taken the liberty, Sir, to obtrude upon you; which if they should find a vacant corner in your excellent magazine, may be continued from the same wish with which they are commenced. While they are offered, however, with every degree of deference, both to yourself and your abler correspondents, let me not depreciate my little miscellany too much, if it be but for the sake of the style. "Peace be," says Lord Shaftesbury, "to that courteous author, who first invented miscellaneous writing," &c.

I have the honour to be, Sir,

Your constant Reader, &c. &c.

S.

ON THRESHING MACHINES, &c.

To the Editor of the Agricultural Magazine.

SIR, *May 9th*, 1805.

HAVING been very troublesome to you and your intelligent correspondents, in pressing for information on various rural subjects, and having expressed my willingness to communicate in return, any intelligence in my power; I seize, with avidity, the opportunity now presented by the letter of A. Z. in your 68th number, of saying a few words upon threshing machines.

There are two or three in my neighbourhood, which were erected a few years ago; and the farms being but small, they were made upon a small scale, and cost from about forty-five to sixty pounds. They are moved by two horses driven by a boy. The sheaves are easily spread out and applied to the fluted rollers, by one man. A woman hands the sheaves to him; another sieves the corn as it falls from the spouts; and a third takes away the straw; so that in all, they employ five persons. Each will thrash about ninety Winchester bushels of potatoe, Poland, or Dutch oat in a day, but not so much of other kinds of grain. Indeed, the quantity of any sort, depends a good deal on its condition, length, and other circumstances.

Your correspondent will easily calculate the expence per quarter, of thrashing, from the price of labour in his neighbourhood. But if his farm is considerable, say from 300 to 360 or 400 acres, I must advise him to get a mill on a larger scale, at the expence of about 100 to 120 guineas, to be moved by water if possible; and if that cannot be obtained, by three or four horses. Such a mill, with the same number of people, will thrash much more corn in an equal time, and at considerably less expence; and besides, it will last longer and require less repairs. I say this from experience; at least my own, which is a strong one, has not yet needed any; while others, which are smaller and weaker, are often breaking.

I should suppose that your correspondent would obtain the best information, upon this subject, from Scotland or Northumberland, where the farmers are said to be most knowing with respect to mills for threshing corn. But be this at it may, I think, he and all your readers have had ample proof, that there are some powerful machines in those parts of the kingdom for *threshing* "witling critics."

Some farmers are anxious for the discovery of improved and more beneficial modes of management, others are content to drudge along in the old beaten path, and, upon the whole,

they do not seem sufficiently zealous in the cause of improvement. Such as myself, however, sometimes exceed in zeal to adopt and diffuse any new practice before its utility is well established, and of course, are laughed at by their neighbours.

I have sometimes thought that more might be made by growing potatoes than turnips, for cattle and sheep; though I must confess I have had but little experience, and durst not venture to deviate from the usual practice, for fear of losing in the first place, and in the next place, of being ridiculed by my brethren. I observe, that Mr. Bartley has given an opinion (in a note to his letter in your 68th number) that by substituting potatoes for turnips, we might almost double our flocks; and, in consequence, I am beginning to think still more favourably of the practice of cultivating potatoes upon a large scale; and should be glad if he would inform me which are the best kinds of potatoes for sheep and cattle, and the results of any trials he may have made between that root and turnips.

I should also be glad of the opinion of some of your other correspondents.

I am, yours,

A NOVICE.

P. S. Sir Joseph Banks imputes blight, smut, &c. to a parasitical plant, or fungus. Mr. Somerville to an insect, Mr. Lawrence to moist weather, honey dews, &c. Some of the contributors to your magazine are of opinion, that smut can be prevented by pickling *good clean seed*; and others, that these preparations will not prevent that disease. Amongst the latter, stands your correspondent, Mr. James Brightley, of Heddon Place, who seems to incline to the opinion that it is "without remedy." Under such diversity of opinion, I was, for some time, rather bewildered. I shall tell you, however, how I have reasoned, and what course I will adopt; which I conceive is the only safe one for such readers as myself. It appears clearly (said I) from the comparative experiment of Agricola Northumbriensis, (see your magazine, number 68) and also from that in Mr. Somerville's paper, introduced into your last number, that preparing seed-wheat is highly useful. It also appears, that almost nine-tenths of the farmers of this country pursue the practice of *pickling*, and as those who contend against the utility of that practice, and assert that the disease is incurable, have never pretended that preparing the seed in the usual manner, is hurtful, I am determined to pursue the old beaten path; at least, till such writers as Mr. Lawrence and Mr. Brightley, can satisfactorily account for

the difference between the produce of the prepared, and unprepared seed, in the above experiments, and clearly shew that it did not arise from pickling. They will, perhaps, tell us, that neither the one nor the other, was perfectly clear from smut. Granted; but it should be remarked, that the seed used in *both* these experiments was not pure, and that Mr. Somerville's preparation, was merely washing repeatedly in common water.

As to the comparative importance of cause and effect, to the practical agriculturist, I am surprised that any one should dispute the superiority of the latter—that is, of knowing how to prevent the malady, without being able to discover the cause.

A. N.

N. B. As you seem to wish for the opinion of your correspondents, on the difference of opinion between you and Agricola Northumbriensis, I will give you mine. As far as I can judge from the opinion of your readers, A. N. is right.

ON THE CULTURE, &c. OF HOPS.

It has always been our desire to meet the wishes of our Readers by the introduction into our work of useful matter which might not otherwise reach them, from a variety of adventitious circumstances, though not entirely original. To this view our attention has at present been called by several valuable Correspondents, and in compliance with the request of one who possessed the priority of application, we present to a certain portion of our Readers the following extract from Dr. Dickson's highly celebrated Work, on a subject which will shortly occupy their attention.

THERE is only one species of this plant, (the hop) in cultivation, but which has several varieties, as the *red-bind*, the *green-bind*, the *white-bind*, &c. It is chiefly grown for the sake of the bud and flower, which are employed in the brewing of beer and other malt liquors, for the purpose of imparting an agreeable bitter to them.

The first of the above varieties affords a small hop; but, from its hardy nature, is capable of being cultivated in exposed situations, and where the climate is cold and not adapted to the other sorts. It is said to possess the property of resisting the *blast* more effectually than any of the other varieties, often appearing healthy and vigorous, in seasons when the other kinds are greatly infested with flies and lice; and at the period of picking to be less exposed to injury from the effects of the sun or rain than those of other sorts.

The second or *green-bind*, though less hardy than the preceding kind, is considerably more productive, and on the

middling descriptions of land, in situations that are not too much exposed, often succeeds very well.

But the third or *white-bind*, which is still more delicate and tender, is the most in estimation, on account of its being more early, and the produce selling at a much higher price. In hops there are also male and female plants; the latter only afford the produce for which they are cultivated; the former should of course be extirpated as improper and useless.

It is obvious, that as these different varieties must of necessity suit different sorts of soil, and become ripe at very different periods, the planter should be cautious that plants of the different kinds are not set out in the same plantation; as when this point is wholly neglected, or not sufficiently attended to, there is much inconvenience experienced in the after-management of the crops, especially where they are large, from the difficulty of procuring a sufficient number of labourers to proceed with the business in so expeditious a manner as may be requisite for their safety; while by planting the separate sorts together in a detached manner, the business of securing and preserving the produce may be accomplished with greater convenience, as the crops become ready at different periods.

The most proper situations for plantations of this kind are those that have an easy, natural, sloping position towards the south, or which are more level, and possess the advantage of a south-westerly exposure, and which are well protected and sheltered from the effects of the north and north-easterly winds, by high grounds, tall fences, or trees of the forest kinds, rising at some distance from them. But, as the plants grow closely together, and rise to a considerable height in the stems, they should not by any means be confined, or too much closed up in the plantations themselves, but have the benefit of a full and perfectly free admission and circulation of air, as well as light and the influence of the sun; as these have not only the effect of promoting the vigour and healthy growth of the binds, but, by quickly dissipating and drying up the superabundant moisture that may rest upon them, prevent the crops from being so much injured by the *blast* or *mildew*. This is fully shown by the circumstance of the middle or more close parts of such crops, especially where they are extensive, being greatly injured in this way, while the outside parts, that have the advantage of being more fully exposed to the air, sustain no injury at all in these respects.

It has been remarked by a late writer, that such situations as are in the immediate vicinity of the sea, or near marshy and fenny levels, seldom answer for the culture of the hop-plant, as they almost invariably miscarry in bad seasons.

The soils most adapted to the culture of the hop-plant are those of the more deep, strong kinds, whether of the loamy, clayey, or sandy qualities. They should be such as incline to dryness, without being too deficient of moisture, and that have a considerable depth of good, rich, vegetable mould. The thin, gravelly, and chalk soils are wholly improper for the growth of plants of this nature; the former not being sufficiently retentive of moisture for the vigorous growth of the plants; and the latter, from its absorbent quality, imparts its humidity to the roots of the binds in too scanty a proportion for the healthy support of their luxuriant vegetation.

There is, however, a sort of thin slatey soil, intermixed with good rich mould, which has an under stratum of stone, that is found, by experience, to be admirably suited to the growth of the hop-plant, and on which it often rises to its fullest height and luxuriance, producing an equally abundant produce with those of the most deep, strong, and fertile kinds. Hops are extensively cultivated on a soil of this description in the vicinity of Maidstone in Kent.

Hops may be cultivated on such lands as have been in a state of tillage; but in these cases it is absolutely necessary that a sufficient proportion of manure be applied, to bring them into a proper state of fertility for the perfect support of the plants. Such land as has been long in a state of pasture, and which has, in consequence, accumulated a large proportion of vegetable matter, as that of old orchards, rich, dry meadows, or other grass lands, is however the most proper for the purpose.

In either case the ground should be reduced to a perfectly fine state of mould by repeated ploughing and harrowing, or digging it over with the spade. This last is the most effectual method where the land is to be broken up from the state of sward, and should be performed in the autumn, in order that it may have the advantage of the effects of the frosts during the winter season. By these means the plantations are not only to be brought into a perfect state of pulverization, but also rendered clean, and free from all sorts of weeds. In the last operations, the ground should always be left in as even and level a situation as possible, if it be sufficiently dry; but where it is inclined to the retention of moisture, it may be ridged, in order more effectually to remove the superabundant wetness. And immediately before

the season of planting, a quantity of compost, formed from well rotted dung and good fresh vegetable earth, by being intimately blended together and remaining in that state for a considerable length of time, should be applied in small heaps, so as to afford about a bushel for each hole.

The business of planting out the sets is then to be commenced, which is performed at different times, according to the nature of the plants. Where sets from the cuttings of old binds are made use of, the work is best performed in the latter end of February, in March, or the beginning of April, as the season may suit; as these are the periods of cutting over and dressing the old binds, when sets of this sort can be the most easily obtained; but, when bedded, or root sets are employed, as may sometimes be the case on digging up former plantations, the autumn is the most proper season, as about the latter end of October, or beginning of November.

In the first of these methods the sets or cuttings should be made from the most healthy and vigorous binds, each being cut to the length of about five or six inches, having two or three eyes or joints, which are the buds, from which the roots and stems or new binds, proceed. They are sold by the hundred of six score, at from sixpence to a shilling. In the planting, different forms and distances are preferred by different planters, according to the manner in which the after-culture of the crop is performed. Where it is executed by means of horse labour, the best method is that of setting them out in rows, at suitable distances, so as to form straight lines in every direction. But, in cases where it is to be executed by the hand, this is not of so much consequence, provided a sufficient space be allowed for the healthy growth of the plants. In this way some practise the row method, while others prefer a triangular plant. It is evident, however, that the planting in equi-distant rows, so as to admit of the ground between the plants being kept clean by the harrow and nidget, must be much less expensive than that of the irregular mode, in which hand labour must be employed.

The distances at which the plants are set out, or rather those of the holes and hills formed for their reception, are different according to circumstances. Some cultivators advise six feet and a half or seven feet, while others prefer a five or six feet plant. As the hop-plant, from the luxuriance of its growth, rises to a great height, and sends forth much bind and foliage, it must of necessity require considerable space, as where the plants stand too closely together they are not only more liable to become diseased, but to *house* or

run together above the poles, by which so much shade is produced, as to prevent the hops below from completing their growth; and of course the quantity of produce is much lessened.

On these grounds it would appear that this plant cannot be cultivated with perfect success in less space than from six to seven feet: on good rich soils the latter distance may be the most adviseable, as the plants will be more at liberty to effect their full growth. In this way there will be a distance of from eight to nine feet from the centre of the hills.

The holes are set out in different ways, according to the particular custom or practice of the cultivators; some making use of a line, in which knots are formed at the distances intended, which is extended the whole length of the plantation, small sticks being then thrust down at the knots, and the land measured off from these by sticks of a proper length; others mark the holes off at once by means of stakes drove down into the ground at suitable distances each way: but a more expeditious method than either of the above is that of striking furrows by the plough in different directions of the plantations, at proper distances, so as to form a sort of squares, the holes being made in the angles where the furrows cross each other.

In making the pits or holes, the earth is taken out by a spade or *spud*, to the depth of about twelve inches in a circular form, having the diameter of about eighteen inches, the bottom mould being a little stirred. These are then partially filled with the earthy compost mentioned above; and the mould that was taken away replaced upon it so as to make a little rising or hillock. On these hillocks seven sets or roots are mostly planted by means of a dibble, one in the middle or top of the hill, and the others around it, at equal distances, about four or five inches from the sides of the holes. The sets are generally put in to the depth of about two inches in the compost, and so as to have the tops wholly covered by the mould on the surface of the hills. Some planters, however, prefer covering them lightly with the fine earth taken from the holes, after they have been planted out in the compost, to the depth of an inch and a half or two inches.

Nothing further is now necessary till about the middle of May, except keeping the ground about the plants clean from weeds; when, from the increasing growth of the young plants, it will be proper to apply an addition of fine mould about them on the hills, which may be scraped up from the intervals. And in order to check the growth of the young shoots, and thereby increase the vigour of the roots, some twist them together in a sort of knot. Others, however, advise that two

small sticks, about a couple of yards in length, be set in each hill, in order to direct the climbing of the shoots, three or or more being led up each stick, and tied occasionally during the summer with bass or sedge. A second moulding up will be required about the latter end of July or beginning of August, which is to be performed in the same manner as before.

There is still another mode of planting practised in some districts where the land is of the boggy kind and much inclined to moisture. This is that of forming the plantations into a sort of beds about sixteen feet in width, by digging out trenches three feet in width, and from two to two and a half in depth, spreading the earth thus removed evenly over the beds previously prepared. On these the sets are put in, after the holes have been made a spit in depth, twelve inches in diameter, and six feet apart in each direction, so as to admit three rows on each bed, in the same manner as in the other methods. The plants in this mode are poled in the course of about three weeks with old short poles, to each of which two or more of the binds are tied; the land being afterwards kept in order by hoeing and raking. The operation of hilling is performed in the latter end of June or beginning of July. This appears, however, a tedious and expensive plan, without its possessing any superiority, except that of rendering the lands somewhat more dry.

It is the custom with some planters to cultivate other sorts of crops at the same time with the hops, as common beans, cabbages, french beans, and onions; but this is a practice by no means to be recommended, as much injury may be done by their crowding the plants, and preventing the free admission of air, light, and sun to them, especially those that are of tall growth. The onion is the least objectionable, as not rising to any great height, and being capable of being sown at the time the sets are planted out.

It is seldom adviseable to take any produce the first year, as where this is attempted much injury is frequently done to the future produce of the plantations. In the Suffolk method of planting, a produce of three, four, and even five hundred weight of hops is sometimes however afforded the first year. And where bedded or roots sets are made use of, a small crop may be afforded the first season, as the plants or binds will be nearly as forward at that time, as those from cuttings are in the second season.

Where hop-plantations have been carefully formed in these methods, and the land is perfectly suitable to the growth of the plants, they will continue to bear well for twenty years or more, care being only taken to supply the defects that may

occur in particular hills from the destruction of plants. But though this sort of plantation may be continued in the above manner, it is suggested as a more adviseable practice, in many instances, to renew them at much shorter distances of time, or even to keep renewing particular parts occasionally as may be necessary. And in order to render them the most productive, whether they are managed by the plough, the spade, or the hoe, the ground in the intervals should be well stirred two or three times when the seasons are favourable, and in other cases more frequently.

In the following winter after the plantation has been formed, it will be necessary to provide and prepare the poles. Where the hop-binds are healthy and vigorous in their growth, two poles may be sufficient for each hill, or in the proportion of two thousand six hundred to the acre. But where the plants are weak and less luxuriant in their vegetation, a greater number of poles will be required, as three to each hill, or at least two to each other hill, which in the latter case will be in the proportion of three thousand two hundred and fifty to the acre. But as the poles need not be so long, or of so much strength, there will probably be but little difference in the expense. In bringing the poles they should not be carted upon the ground, but be placed at the outsides, to be afterwards removed by the labourers to the places where they are wanted.

In the second year of the plantation it is seldom necessary to apply any manure to the hills, but the land in the intervals should be stirred in the autumn, in the same manner as in the first; but in the early part of the spring, when the weather is suitable, as about the middle of March, the hills must be opened, and the earth be well cleared away from the principal roots, by means of a tool which has the title of a *picker*, in order to afford the means of pruning and dressing the stocks; in which operations all the preceding year's bearing stems are cut off within a joint or two of the roots, and all such shoots or suckers as were not permitted to attach themselves to the poles, or which have risen on the edges of the hills, fully cleared away, nothing being suffered to remain that can possibly injure or prevent the vigorous growth of the new binds. In performing this business, care should be taken to bare the different stalks and roots so completely, and to such a depth, that every thing that is hurtful may be discovered and wholly removed. And in the cutting experienced labourers should, if possible, be employed; for much depends on the work being properly executed, as great injury may be done by leaving too great a length of bind, as well as by cutting the stocks too closely. In the former case the crops may be exposed to the *canker*, and, in the latter, the hills be so much weakened as

not to afford shoots in sufficient abundance. It is therefore necessary that the work should be carefully overlooked. After the business of pruning and dressing has been thus accomplished, the earth should be raked back again upon the plants, so as to rise into hills as before.

At this period all such plants as have been destroyed, or that have a weak and unhealthy appearance, should likewise have others put in their stead, in order that the plantations may be kept as perfect as possible. Such of the prunings as are cut from the most healthy and vigorous plants may be reserved for the purpose of forming new plantations.

In this season, as well as the preceding, three hoeings and one good moulding should be performed; the first about the beginning of May, the second in June, and the third in July; a little mould each time being drawn to the roots of the plants on the hills, in order to keep them sufficiently moist. The moulding should take place in the early part of August, the earth being well laid upon the hills round the root-stems of the plants; and it should be executed, if possible, soon after some rain has fallen.

In the poling, which is the next operation to be performed, the common rule is to begin as soon as the binds have advanced two or three inches above the surface of the ground, which is in general about the latter end of April, or beginning of May. The number of poles that are the most proper and advantageous for each hill has not been yet well ascertained by planters: but as it has been shown that a full and free admission of air, light, and sun, is essentially necessary to the healthy growth of the plants, they should never be too much crowded. Three is the most usual allowance, though a greater number is often employed. They should be placed in such a manner as to leave the largest spaces or openings towards the south or south-west, that the plants may derive the more full influence of light and heat; and the stoutest on the side which has a northern aspect, the more powerfully to resist the winds. The poles are most commonly fixed in the ground by means of an iron crow, with which holes to the depth of eighteen or twenty inches are formed, and the sharpened root ends of the poles forcibly placed in them, the earth being immediately afterwards well rammed or trodden about them.

The difficulty of this business chiefly consists in pitching the holes to proper depths, in setting the poles down with such exertion as that they may fix themselves firm at the bottom, and that the tops of the poles may have such a direction outwards as to obviate, as much as can be, the *housing* of the binds. Where due attention is not bestowed in

these points, much injury and loss may be sustained by the destruction of the plants. When the poles are set, two or three of the binds may be directed up each of them, being tied, in the manner advised above, in different places by labourers employed for the purpose, and which is to be repeated as there may be occasion for it. When the poles are high and the binds strong, standing ladders may be useful in tying them near the tops.

It has been observed that this work demands particular attention in the early part of the summer. When short and slender poles have been put to hills where the binds prove of strong and vigorous growth, it may sometimes repay the trouble to have them removed, and others of a taller and stronger kind put down in their stead. The benefit obtained by this practice is often considerable.

During the summer, in the more early growth of the plants, the superfluous binds of every kind should be repeatedly removed as they present themselves, reserving only one or two on each hill to supply the places of such as may be hurt in being trained to the poles at first, as accidents of this nature often occur in consequence of the tender buds being bruised or rubbed off by the agitation of the winds.

This is the whole of the culture that is required till the season at which the hops become ripe, and are ready to be *picked*, which is known by the fragrant smell which they emit, their becoming firm, and acquiring a brown colour. It is usually about the beginning or middle of September.

As a preparation for this business, *baskets*, *bins*, or *cribs*, are procured or formed, in number proportionate to the extent of the plantation, and the pickers that are to be employed. The latter are constructed by nailing four or more pieces of boards on as many upright posts, as frames set into the ground. When finished, they are about seven or eight feet in length, three feet in breadth, and about the same in height. The apparatus being thus made ready, the hop-binds are cut over close to the surface of the land by a person accustomed to the work, and the poles drawn up by a tool for the purpose, which is termed a *dog*, or *pulling-hook*. They are then placed upon the frame with the bind upon them, mostly two, but sometimes three, in order to be picked; three, four, or more pickers being employed in clearing the binds of the hops on each side of the different frames: these, with the person engaged in sorting the poles, are denominated a *set*. Women and children are frequently employed in this work. The hops, after being carefully separated from the leaves and binds, are dropped into a large cloth hung round on tenter-hooks within, underneath the frame. When this has been

filled, the hops are put into a large sack, in order to their being taken home, to be dried on kilns for the purpose. This should always be performed as expeditiously as possible after the hops have been picked, that they may not sustain any injury by remaining together in their green moist state; as where this is the case they are often liable, especially when the weather is warm, to be be much damaged, both in colour and flavour, in the course of a few hours, by the heat which they take on. For this reason, it is necessary to keep the *oast* or kiln constantly at work, both night and day, during the time of picking. The number of pickers should therefore be as nearly as possible proportioned to the quantity of hops that can be dried off by the *oast*. And where, from the nature of the season or other causes, the undried hops are suffered to accumulate, they should always be placed only a few together, without being closely packed.

In cases where the crops are pretty abundant, a diligent picker will separate from eight to ten bushels a day, which, when dried, may weigh about one hundred weight. It is usual in many places to let the picking of this crop by the bushel. The price is variable according to the abundance or scarcity of labourers. From sixteen to twenty expert pickers will be necessary, in favourable seasons, and where the produce is rather abundant, to keep an *oast* at work that is capable of drying off eighty bushels at each measuring.

Besides the pole-puller and pickers, another person will be requisite in the hop plantation, in order to pick up the scattered branches of the binds, and convey the produce to the kiln. A boy is in general employed in this business, who from the nature of his work, is commonly called the *poke, boy*. The conveyance of the hops is accomplished by means of a cart, horse, or hand-labour, according to the distance of the plantation from the kiln.

The *drier*, or person employed in the kiln, should be perfectly acquainted with the business, regular and steady, as much of the planter's profit depends upon this work being properly performed. To this part of the management, as well as that of the pickers, the hop farmer ought to be careful to direct his attention as much as possible.

The wages of the different persons engaged in these operations are always considerably influenced by local and other circumstances. In Kent, before the late advances in the price of all sorts of farm-labour, it was usual for the pole-pullers to have from eighteen-pence to two shillings the day, with small beer; the driers half a crown, with an unlimited allowance of both beer and spirits; the pickers from three

halfpence to twopence the bushel, with allowances of spirits, &c. These wages, however, at present are greatly advanced.

The structure of the hop kiln, or *oast*, is not very different from that employed in drying malt. It may be of different dimensions, as twelve, fourteen, or sixteen feet square; and have a suitable proportion preserved between the height and breadth and the sides of the steddle that contains the fire: thus, where the kiln is twelve feet square on the top, it should be eight feet in height from the fire; and the steddle six feet and a half square. It is covered with hair cloth, on which the hops are spread out, in an even manner, to the depth of from six or seven, to eight, ten or twelve inches, according as the season is more dry or moist, and the hops are more or less advanced in ripeness. Before the hops are laid upon the kiln it should be rendered a little warm, and the heat afterwards kept up by a regular gentle fire, increasing it gradually till, by the heat of the kiln and the warmth of the hops, it is found to have attained the proper height. An even steady degree of heat should then be preserved for eight, ten, or more hours, according to the state of the hops at the time they are applied; by which the ends of the hop stems become in a perfectly shrivelled and dry condition; which, with that of their rattling on being touched, is the principal indication that they have attained the proper state of dryness. Much practical experience is however necessary to conduct the process with the best effect, and in the most œconomical manner in respect to fuel.

Where what is termed a *cockle oast* is made use of, sea-coal is mostly employed as fuel, a chaldron being considered the proper allowance to a load of hops. But where *hair kilns* are in use, as the smoke of that sort of coal would be injurious, charcoal is had recourse to for the purpose, which in Kent is generally bought for about fifty shillings the load, which consists of fifty sacks.

After the drying has been properly performed, the hops are removed from the kiln by means of a shovel, into an adjoining room constructed for the purpose, which is called the *stowage room*. In this chamber they are kept five, six, or more days, according to circumstances, before they are in a proper condition to be put into the bags; as when they are bagged too soon they are brittle, and do not *draw* so good a sample, or weigh so heavy. They should always remain so long as to attain a tolerable degree of toughness, which may be easily judged of by the feel.

For the convenience of bagging the hops, a round hole or trap is prepared in the floor of the stowage room, exactly

equal in size to that of the mouth of the bag, on which a frame of wood is placed, to which the edges of the opening of the bag are securely attached all round. A very small handful of hops being then tied firmly in each of the lower corners, the bag is let fall below, and a person termed the packer gets in, and with a heavy weight, which he keeps continually moving round, where he is not immediately treading, tramples and presses the hops down as closely as possible into the bags, as they are thrown in, in small quanties, by another person employed for the purpose. In this manner he proceeds until it is quite filled, when each of the upper corners has a few hops inclosed in them in the same way as the others, which serve the purpose of handles; and the bag is drawn up, and the mouth of it well secured, after being disengaged from the frame. In performing this business, the closer the hops are pressed into the bags the better, as they preserve their colour, smell, and taste more perfectly.

In the operations of drying and rendering hops proper for the bag, some loss of weight must of course take place. According to some, sixty bushels of well ripened fresh gathered hops, which have not been attacked by the fly, will produce when dried and bagged about one hundred weight.

The goodness of a sample of hops depends upon different circumstances, as the clammy feel of the yellow, farinaceous, powdery substance which is sprinkled over them, and their colour. The former in the language of the hop planter is termed the *condition*, and the sample is esteemed the more or less valuable by the buyer, in proportion as the feel is more or less clammy. and in regard to the latter, it is of the utmost importance in the sale of hops, that it should be preserved as bright as possible, though it is not always the case that those which are the brightest in their appearance are the strongest in flavour.

It is this property, however, that induces the planter to make a distinction in the bagging of the article. The brightest hops, and those which have the finest colour, are put into bagging of a better quality, and termed *pockets*; while those of the brown kind form bags, being put in bagging of a coarser and more heavy sort. The first sort are made use of in the brewing of ales and all the finer sorts of malt liquor; but the latter chiefly in the making of porter. Where hops are to be kept for some length of time, the coarse bagging is however the best.

The length for a *bag* is about two ells and a quarter, and that for a *pocket* nearly the same, each having an ell in width. The former, where the hops are good, well cured, and tightly trodden in, weigh about two hundred and a half;

and the latter, when of the Canterbury pocketing, about one hundred and a half. Where they much exceed or fall short of these weights, it may be suspected that they are either of an inferior quality, or have been injured in their preparation. The planter will be best directed in respect to the duty on hops, by a copy of the excise laws respecting them.

After these operations have been performed, it will be proper to clear the poles of the binds, and set them up in stacks as soon as possible, unless, as is sometimes the case, it has been done at the time of picking, as they are apt to sustain much injury by remaining upon the ground with the bind upon them. The work is usually performed by the acre, the polas being piled up into square stacks; thirty or forty poles being set to each corner, which should stand about twelve feet apart in each direction at the base, the tops uniting as closely as possible. In this way an opening is formed below, which contributes to dry and preserve the poles.

At this period all such poles as are too short, or in any way improper for further use, should be laid aside, in order that such of them as are suitable may be employed in the new plantations; and that the planter may fully ascertain the proportion of fresh poles that may be necessary for the following season, which it is of great advantage to have provided, brought upon the ground, set up conveniently in stacks, and sharpened, when there is leisure in the winter months. The points of the old ones may also be put in order at the same time, and nothing be thus left to interrupt the business of poling at the proper season. The best poles, which are those of ash, chesnut, and willow, of the length of from eighteen to twenty-four feet, will seldom last longer than six or seven years; and those of an inferior kind, as from beech, maple, oak, &c. not nearly so long. The bark is shaved off all the sorts except those of the ash kind, (in which it separates of its own accord in the second year,) in order to prevent their being destroyed by worms lodging in them.

After the poles have been stripped and stacked up, the bind should be cleared away, which, in some districts, is done by tying it up into bavins or small bundles when perfectly dry, and putting it in stacks, sheds, or other convenient places, for the purpose of fuel in ovens, &c. This work is performed at the rate of about sixpence the hundred. In others it is burnt upon the ground; and, in some, the labourers are permitted to take it home for their own use. But whatever method is adopted, it should invariably be removed, to prevent its interfering with the future digging of the plantation, which is the next operation to be performed.

This should be executed as early as possible in the autumn or winter months, in order that the land may have the full influence of the frosts. The work should be performed in a dry season, and be accomplished with as much expedition as possible, the most careful and trusty labourers being always employed. It is usually done at a fixed price for one hundred hills, as from two shillings to half a crown. The labourer makes use of a three-pronged fork, which in some places is termed a *spud*, for the purpose, each prong being about an inch and a half in breadth. It is of great consequence that this operation be executed in a very perfect manner, much of the success of the plantation depending upon it. If there should be any binds of an improper kind, they may be now removed, and others of the proper sorts put in their stead.

And though manure may sometimes be omitted in the second year where the soil is very rich, it should be carefully applied before the business of winter-digging commences in each succeeding one, in the proportion of about twelve full cartloads to the acre; fifteen loads of good fresh vegetable earth having been well blended and incorporated with it by frequent turning, for ten or twelve months before. In putting this compost upon the land, small one-horse carts with three wheels are sometimes recommended as the best adapted to the purpose. It should be laid in small heaps; and, in digging the plantation, be well blended and intermixed with the mould that surrounds the hills, at the distance of about a foot from them The old stocks, when they begin to decline, as every tenth or twelfth year, or much longer in some cases, should be taken up, and another portion of ground fresh planted; or, what is better, a suitable proportion of the old plantation, and an equal portion of new, broken up and planted annually, or every other year, so as to preserve a regular succession, at an easy and gradual expence, as has been already observed.

There is scarcely any sort of crop that varies more in the quantity of produce than that of hops, affording, under different circumstances of soil and season, from two hundred to upwards of twenty hundred weight on the acre. On medium soils, in tolerably favourable years, it may be estimated at from six to eight or nine hundred weight, from ten to fourteen being considered as good crops. A produce of twenty hundred weight but rarely occurs, and is much too large for the planter in general to fix his expectations upon.

In most cases the very forward binds suffer more from all the different accidents to which hop crops are exposed, than those that are later and of a less vigorous growth. It may,

on this account, therefore, sometimes be adviseable to remove all the very forward binds.

These crops are exposed to the attacks of disease at almost every period of their growth. In the very early stage of the growth of the hop plant, it is liable to be wholly devoured, as it rises above the surface of the ground, by the ravages of the *flea*. And, in a more advanced state, it is subject to the still more prejudicial attack of the *green* or *long-winged fly*, *red spider*, and *otter moth*: the first of these, by the deposit of their ova, afford the means of producing *lice* in great abundance; by which the plants are often very greatly if not wholly destroyed, and the larvæ of the last prey upon the roots, and thus render the plants weak, and liable to be attacked by other diseases. The *honey dew* is likewise another disease to which the crops are exposed about the same time, and by which they are often much hurt. The *mould* or *fen* mostly occurs at a somewhat later period, but is equally prejudicial in its effects. There are still other injuries to which hop-crops are exposed, such as the *blight*, and what is termed the *blast*, which occur at different times, but mostly towards the latter periods of the growth of the plants.

The *flea*, which is asserted to be an insect of the same kind as that which is so destructive to the young turnip, is said to make the greatest havock in those seasons when the nights are cold and frosty, and the days hot and inclined to be dry. In its attacks it eats off the sweet tender tops of the young plants; and which, though they are not wholly destroyed by it, shoot forth afterwards in a much less strong and vigorous manner; from which they become more exposed to the attacks of other vegetable diseases. It has been remarked that this insect is the most apt to commit its depredationt on the plants in those grounds that have received a proportion of dung the same year. And on the supposition that dung in its crude state has a tendency to encourage the production of this insect, it has been suggested that the manure employed for the purpose of covering the hills should be previously well mixed and incorporated with good fresh mould for a considerable length of time before it is made use of, as has been already directed; and that it should be applied either over the whole of the land, or only the hills, immediately after the plants have been cut over: the first is the most adviseable practice where manure can be easily obtained.

This insect commits its greatest depredations in the more early cold spring months, as the latter end of April and beginning of the succeeding month, disappearing as the season becomes mild and warm.

The principal remedy in this case is that of having the land in a sufficient state of fertility, to enable the young plants to shoot up with such vigour and rapidity as to become quickly incapable of being fed upon and devoured by the insect. Stirring the mould about the roots of the plants by means of the hoe may also be of utility in the same intention.

The *green* or *long-winged fly* generally makes its appearance about the latter end of May, and in the two following months. The prevalence of north-easterly winds about the above period has much effect in producing these insects, which are very destructive of the young leaves of the plants. Under such a state of the wind they are said to scarcely ever fail covering the leaves; and by dropping their ova produce an abundance of *lice*, by which the crops are often much injured, as when they have once obtained complete possession of the plants they seldom or ever leave them before they are wholly destroyed. The forwardest and most luxuriant hop-binds are said to be in general the most disposed to be attacked by insects of this sort. The removal of the insects chiefly depends upon a change taking place in the wind from the above points more to the south, and the setting-in of mild and warm weather.

The *otter moth*, by producing its larvæ upon the roots of the plants, subjects them to be attacked by them, and the healthy growth of the hops to be in that way greatly impaired, the crops being of course much injured in respect to their produce. In this case, stirring the earth well about the roots of the plants may probably sometimes be serviceable.

The *honey dews* mostly occur after the crops have been attacked by some of the above kinds of insects, and when the weather is close, moist, and foggy. In these cases a sweet clammy substance is produced upon the leaves of the plants, which has the taste of honey. They have at first a shining appearance, but afterwards soon become black. The nature of this vegetable affection does not seem to be yet well ascertained. It is supposed by some to be the excrement of insects of the *aphis* kind, deposited by them upon the leaves of the plants after it has been extracted by their puncturing the leaves. Others however contend that it is a morbid exudation proceeding from the plants themselves; which is much more probable, and more consonant to analogy; since from its taste, which resembles that of the vernal sap-juice of plants, and its supporting bees, ants, and other insects, it must be of a nutritious quality. This supposition is rendered still more probable from the circumstance of its occurring after the insects have been some time present upon the plants, and disappearing long before they leave them. It would ap-

pear indeed that this exudation may in some measure be caused by the punctures of the insects, as it most commonly takes places after the nights have been cold, moist, and foggy, and the succeeding days hot and sunny, the irritability of the plants being so much increased by the former as to render the action of the latter more powerful in promoting the circulation of their juices, and consequently in forcing their passage more abundantly through the fine openings afforded by the punctures of such insects.

This disease mostly happens in the more forward crops. The chief dependence of the planter for its removal is that of heavy thunder showers taking place, as by this means, when the destruction of the hops has not proceeded too far, they are often much restored, the insects that devour the leaves and binds being greatly destroyed, the growth of fresh shoots promoted, and a favourable bloom brought on.

The *fen, mould,* or *mildew*, is a disease to which the hop is exposed at a later period of its growth. It chiefly attacks the part where the hop is attached to the stem. Its production is greatly promoted by moist damp weather and a low situation; those hop-crops that grow on low, close, rich grounds being the most liable to be attacked by it. It is fond to soon spread itself over the whole crop, after it has once seized upon any part of it. The nature of this vegetable disease is not probably yet perfectly understood It has lately however been ingeniously suggested to be a plant of the fungus kind, that is capable of growing without light or change of air, attaching itself to the plants already in a morbid condition, and by its roots penetrating their vessels. On this supposition, the best remedy is believed to be that of thinning the plants, or wholly removing those immediately about it, in order to afford a more free circulation of air, and admit the light more extensively; by which the vigour of the hop-plants may be restored, and the disease be of course removed. If this opinion of the nature of the disease be well founded, it is probable that by planting the hills more thinly and making them at greater distances from each other, this vegetable malady might be in a great measure prevented from occurring in those situations where it most frequently shews itself.

CRITICAL CATALOGUE.

A Treatiſe on Agriculture, by J. Carpenter, of Chadwick Manor, Worceſterſhire, and No. 38, Arundel-ſtreet, Strand, in 2 vol. 8vo. 10s 6d. each, in boards. Rivingtons.

[CONTINUED FROM OUR LAST.]

THE epiſtolary form has been well choſen by Mr. Carpenter, (though not often adapted to agricultural ſubjects) as admitting that familiarity of diſcuſſion, and digreſſive eaſe, which are neceſſary to the variety of objects of which he treats. They are indeed numerous and of much promise, nor are we diſappointed in the reſult. For, though in point of compoſition the volumes are frequently faulty, they are by no means contemptible; and the information collected in them is of the moſt valuable kind, being ſuch as to uſe the words of the great Lord Verulam, "cometh home to men's boſoms."

An experience of more than thirty years in the improvement of different estates has ſufficiently qualified the author for the work he has produced; and ſo much have we been pleaſed with the whole, that during its peruſal we have conſidered him as a patriarch in his fields, ſurrounded by his neighbours and friends, to whom his letters are ſo many converſations, in which the tyro of his art would do well to join.

We ſhall proceed regularly through the whole of the letters, which form alſo the diviſions of the ſubjects; and we doubt not that, from moſt of them we ſhall be able to ſelect what is deſirable in every work but not always to be found—ſomething not only to inſtruct but to interest, if not to amuſe, our readers.

In his firſt three letters the author treats on a ſubject at once intereſting to the farmer and the country—"the management of *worn-out* farms, conſiſting of light ſoils." On this ſubject we ſhall obſerve but little, as we recollect to have been favoured by an erudite and moſt reſpectable friend to our work, with the matter of ſome of theſe pages in our present work.

We, however, venture an Extract on the ſubſtitute of a crop of turnips on exhauſted ſoils:---(p. 2.)

"In order to make proper fallows for turnips, estates of the above deſcription ſhould be entered on at michaelmas if poſſible, inſtead of lady-day; as there is in the winter more time to provide and forward buſiness for the enſuing crop, in ploughing, curing, and preparing manure for the object in view:—In many inſtances the coming-on tenant may agree to enter at this time on reaſonable terms to mutual advantage, but if the going-off farmer ſhould prove obſtinate, you muſt wait the time and make the best of it.

"Such was the caſe with thoſe farms you ſaw in the ſpring of the year, when I was begining to prepare for the turnip crop. But however by diligence and conſtant attention they were put in a good ſtate of cultivation the enſuing ſeaſon, by much the greateſt part with a good crop of turnips, the other part without manure,

but well fallowed and laid down with clover ſeeds, and rye-graſs, in a perfect clean ſtate, though the whole was entirely filled with couch graſs, and many of the fields plentifully ſupplied with tares, charnock, wild mary-gold, &c. They were brought into this foul ſtate, and exhauſted condition by repeated crops of grain, to the certain impoveriſhing of the land, as well as the occupiers, with as certain an expence and trouble afterwards attending thoſe who ſucceed ſuch management; and I believe it is not in the power of any one to guess, at the expence and labour that attends improvements ſucceeding ſuch a repeated bad courſe of huſbandry, except thoſe who have made the trial.

" Firſt rule to obſerve is to ſow neither wheat nor barley upon light ſoils, but upon turnip fallow, the wheat to ſucceed the early crop of turnips, and the latter crop of turnips to be ſucceeded by the barley crop, and both laid down with ſeeds and grazed for two years with ſheep, and young cattle, but principally with ſheep. Then plough up the turf for the purpoſe of turnip fallow, which ſhould be done as ſoon after harveſt as poſſible, then ſow, (and well harrow) the land with rye and winter vetches, let each ſort be ſown ſeparate, ond ſome fields will do well mixed and ſown together; by theſe means you are pretty certain of providing a ſufficient quantity of good keep for your ewes and lambs or other ſheep, about the month of April, a time of the year ſheep keep is almoſt ſure to be ſcarce, and wanted more than at any other period."*

Letter IV.—Furniſhes an account of the introduction of turnips into this country, from Kent's General View of the Agriculture of Norfolk, with ſome judicious obſervations on their cultivation. (p.21.)

" Not only this country, but many other parts of England, are indebted to the Townſhend family, for the introduction of this root into this country. Before that time, turnips were only cultivated in gardens and ſmall ſpots, and hoed by gardeners; but in the reign of George 1st. the then Lord Viſcount Townſhend, grandfather to the preſent Noble Marquis, attended the King to Hanover, in the quality of ſecretary of ſtate, and obſerving the advantage of this valuable root, as there cultivated at that time, and the fertility it produced, brought the ſeed and practice into England, and recommended it ſtrongly to his own tenants, who occupied a ſimilar ſoil to that of Hanover. The experiment ſucceeded, and by degrees it ſpread over this country, and in the courſe of time, to other parts of England, though their cultivation is by no means ſo general as it continues here. A good acre of turnips in Norfolk will produce between thirty and forty cart

‡ " It is likewiſe found to anſwer well to plough and ſow with turnips what quantity of land you can ſpare, of two or three years old turf, about the firſt or ſecond week in Auguſt. This keep will be very welcome in the ſpring of the year. This land will be as ready for the ſucceeding turnip crop as that ſown with winter vetches and rye. It makes ample amends for a few week's loſs in the graſs, and produces more manure for the advantage of the enſuing turnips, than either of them.

loads as heavy as three horſes can draw; and an acre will fat a Scotch bullock, from forty to fifty ſtone, or eight ſheep.

"But the advantage of this crop does not end here, for it generally leaves the land so clean, and in ſuch fine condition, that it almoſt enſures a good crop of barley, and a kind plant of clover."

In anſwer to the obſervation, that the ground does not reliſh turnips ſo well as formerly, Mr. Carpenter obſerves,—"I do not amongſt divers inſtances recollect a crop of turnips fail, when made from a clean turf fallow in good condition, and I am perſuaded that turnips, in general, thrive *the most* (more,) from land of this deſcription than from land in a different ſtate."

Mr. Carpenter, (p. 24,) ſtates his intention of communicating to the public, before the next turnip ſeed time, if he ſhould find encouragement, a means of driving "the flies out of a field of turnips, if they appear ever ſo numerous; to ſecure the crop, and many inſtances do material ſervice to the young plants in their future growth." If he ſhall produce ſo deſirable an end, he will doubtleſs deſerve the gratitude of the public, and we cannot but wiſh him every poſſible ſucceſs.

Letter V. Deſcribes the improvement of ſixty acres of boggy land, with the aſſiſtance of Mr. Elkington, and under the direction of Mr. Maſters, in a manner ſo conciſe and intelligent, as to familiariſe any one with the ſubject. We ſhall not injure it by a quotation.*

Letter VI. On the cultivation of potatoes on light ſoils. We are indebted for this valuable root (the beſt ſubſtitute for bread) to America or Spain. They were uſed as a foreign dainty in the reign of Queen Elizabeth, and cooked as ſuch, according to the account of Gerard, in his Herbal, 1597: "Potatoes," ſays he, "grow in India, &c. and in other hot regions, of which I have planted divers roots (that I bought at the Exchange in London) in my garden, were they flouriſhed until winter, at which time they periſhed and rotted." Speaking of the modes of cooking this exotic, he ſays, "they were roaſted in aſhes; and that ſome, when they are ſo roaſted, infuſe them, and ſop them in wine; and others, to give them the greater grace in eating, do boil them with prunes, and ſo eat them; and likewiſe, others dreſs them (being firſt roaſted) with oil, vinegar, and ſalt, every man according to his own taſte and liking."

Mr. Carpenter remarks, that "next to planting on turf, (either by digging or ploughing) I find it beſt to grow them after turnips, as they want no other manure, and it is a ſure way to preſerve the crop in a clean ſtate. The mode I adopt, is to give the land two ploughings, after the firſt ploughing and harrowing, plough the field over in two furrow ridges, the furrows of a moderate breadth, leaves the opening between each double furrow a proper diſtance for the growth of the potatoes; the women and their children that are able to work, drop the ſeed in each opening, at the diſtance of ſix inches apart, this done, draw with one horſe a pair

* Has the writer ſeen the premium of the Board of Agriculture on this ſubject? Rev.

of light harrows acroſs the furrows to cover the ſeed: the land being previously in a clean fertile ſtate, requires hoeing or moulding acroſs but once, after the manner of peas and beans. When the crop comes to be gathered, there being no couch graſs or other weeds, prevents much trouble and expence."

Letter VII. On cultivating flax on light ſoils. Mr. Carpenter conſiders theſe the beſt; the ſubject of this letter is highly intereſting.

"It ſhould be conſidered, flax is a crop that takes very little root in the ground, and when ſown in good time, about the middle or latter end of March, or the beginning of April, according to the forwardneſs of the ſeaſon, moſt commonly proves an early harveſt, when the land has been in high condition. I have had turnips after the flax crop, by being expeditious in ploughing and ſowing the land,) in ſome ſeaſons worth more than double the rent of the land; you muſt be careful that it grows not till it be over ripe, nor gather it before it is ripe, which may be known by the ſeed.

"The chaff of flax is ſuperior to any produced from other kinds of grain, and excellent food for horſes mixed with oats or beans. The oil produced from the ſeed, is likewiſe of great value. The oil cake is made use of to fatten cattle. No one that has made the trial, is unacquainted with its merit; and the manure that is made from the cattle, is ſuperior to all other manure yielded by fattening of them, with any other kind of food.

"A farther benefit reſpecting the cultivation of flax, is the tythe being fixed at five ſhillings the acre. Parliament alſo, in order to encourage its growth, ordered a bounty to the grower of fourpence per ſtone, which if the flax crop is only a middling one, amounts to ten ſhillings an acre, and if a good one, conſiderably more.

"Notwithſtanding the legiſlature encouraging the growth of flax, many landlords forbid its growth on their reſpective eſtates, though it may prove of great advantage to the tenant, and more ſo when grain is cheap; at which times, I have frequently found, flax has fetched a good price. To obviate the foregoing difficulty, the occupier of the land may be obliged (though his own interest requires him) to make a ſummer fallow the year ſucceeding the flax, by which means, the land will be made in better condition, than it was previous to the flax crop.

"For ſowing, I would recommend the beſt Riga flax ſeed, as producing the beſt quality both in ſtem, ſkin, and ſeed, and it continues ſuperior to other ſorts of flax ſeed, for the enſuing two or three years, or more. The Riga ſeed is dearer in the firſt inſtance, than the common ſort, but is cheaper in the end, like every thing elſe that is beſt of its kind."

Letters VIII. IX. X. Throw no particular light on their ſubjects, though the obſervations contained in them are all intereſting.

Letter XI. From the Remembrancer (p. 64) we ſelect the following list of articles recommended to be procured at once, to prevent

the neceſſity of borrowing, of which Mr. Carpenter complains, as very cuſtomary with ſome farmers on arriving at a new ſtation.

For the uſe of the Arable Land.

Waggons and Carts
Ploughs and harrows, (a proper aſſortment of each.)
Forks
Sickles
Weed hooks
Pitchforks
Rakes
Sledge
Roller
Hopper
Scythes

Meadows and Paſtures.

Scythes
Rakes
Pitchforks and prongs
Cutting knife for hayricks
Dung and Mole hill ſpreaders

Other neceſſary Implements,

Wheel-barrows
Hand barrows
Hammer and nails
Cheſt of tools, ſuch as ſaws
Pincers
Sciſſars
Axe, &c.
Billhooks, for hedging, &c.
Garden roller
Grindſtone
Whetſtones
Beetle and wedges
Hurdles
Leavers
Shears for ſheep and hedges
Hoes
Hog yokes and rings
Geeſe yokes

Barn and Stable.

Flails
Ladders, long and ſhort
Winnowing machine
Meaſures for grain
Sieves
Brooms
Empty bags or ſacks
Scuttles
Pails
Currycombs
Mane combs
Whips
Goads
Harneſs for horſes
Yokes for oxen
Panniers
Pack ſaddles
Bridles and ſaddles
Surcingles
Side ſaddle
Cart ropes
Screen for corn
Scales and weights
Marks for ſheep or cattle
Elkington's bore for under-draining
Spades, ſhovels, &c.

Letters XII. and XIII. Are occupied by ſubjects which we could wiſh to ſee more extended. It has been too long the faſhion to conſider only the higher departments of ſcience without any intimate application to the orders which moſt require it; * Mr. Carpenter pays an attention to the ſmall farmer and his houſewife, that convinces us he has been ſeldom refuſed an eaſy ſeat, and the hoſpitality of the ſnug farm-houſe. We beg to quote his obſervations at length:---(p. 69.)

‡ The preſent writer has long contemplated a ſyſtem of education for the labouring orders, ſo ſingularly neglected by the numerous works on this ſubject. REV.

"In the courſe of about thirty years, it has been my lot to occupy the following ſmall farms in addition to a larger:—

One of about 40 Acres	Ditto 64 Acres.
Ditto 60	Ditto 48
Ditto 50	Ditto 57
Ditto 27	Ditto 72
Ditto 28	Ditto 70
Ditto 30	Ditto 22

Out of the whole may be reckoned, 51 acres of wateed meadows and old paſture land, each of which had been pretty well attended to; the remainder, except a trifle, intirely worn down and exhausted by continual cropping, *and* conſisted of light turnip ſoil, except about fifty acres of ſtrong clay in no better condition.

The aforeſaid farms, I put in a good ſtate of cultivation, and have ſince parted with ſome of them to farmers who do well; and whatever may be urged for the neceſſity of large farms, or againſt ſmall ones, I muſt confeſs myſelf to be decidedly in favour of the latter; for it ſhould be conſidered from the above ſtatement, the loſs to both landlord and tenant, muſt be placed to a bad ſyſtem of huſbandry, and not to the ſmallneſs of the farms; for if thoſe lands had been occupied chiefly with dairy cows, ſome ſheep, and pigs, and only one third in tillage well huſbanded; it would have produced as much grain and ſtraw for the cattle in winter, as the whole did in bad culture. When ſuch a ſtate of culture has been adhered to, I do not recollect it to have failed in a ſingle inſtance, and theſe little farmers with their families, might have lived comfortably, and been much better ſupplied with diet and other neceſſaries. But as it was, they had fairly worn out their land, as well as themſelves.

"But keeping a number of horſes on a ſmall farm, inſtead of cows, is in itſelf ſo abſurd a method, that one would imagine no perſon would ever pretend to it; as they conſume the greateſt part of the produce. It is, however, no uncommon caſe.

"Small farmers upon light ſoils, may do their work with few horſes. Two good horſes will do a deal of ploughing and harrowing; and thoſe who live near each other, find it often convenient to join theſe ſmall teams together in ſeed time, drawing manure, and harveſt work, to aſſiſt and expedite the work at ſuch buſy times. In many ſituations, oxen would be more profitable than horſes; but, for thoſe that do not like to work oxen, good boney uſeful mares are beſt for their purpoſe, and if well fed and properly attended to, will do nearly as much work as geldings, and altogether ſo, except a little hindrance at foaling time. The profit of a good foal at weaning time, when four or five months old, is a valuable conſideration.

"Large farms, I conſider as uſeful in their place as ſmall ones; and I do not comprehend the neceſſity in fixing the number of acres any farmer is to occupy; it militates too much againſt choice and liberty, which as Britiſh ſubjects it is hoped, by all who wiſh well to their country, may be long enjoyed.

"A person occupying a large farm, may sometimes assist the lesser one, in doing him a day's ploughing, or drawing him some manure, &c. without any prejudice to himself, on the contrary, I have found, the performing a few kind offices, a benefit; there is no one in so low a situation, says farmer W——, but that he may some time or other, do us a piece of service; and there is no one who who is desirous of living in a comfortable way, can procure too many friends in his neighbourhood, or too few enemies; a good neighbourhood is valuable, and the good will of an honest industrious little farmer, is more to be esteemed and regarded, than an imperious, domineering individual, let his profession and elevation be as consequential as they may. It is well for the repose of mankind, such persone are not very numerous; and that we have the pleasure of knowing many exemplary instances among the great, that do infinite honour and credit to themselves, and impart comfort and happiness to those around them. The uneasy, unjust sort, are mostly composed of those, who have accumulated wealth in a sudden, unexpected manner; which causes a difficulty in finding out a rational method of disposing of their time or property, in such a way, as to be agreeable either to themselves, or those who happen to have any concerns with them.

"Small farmers are still more valuable on account of bringing up part of their children for service. Their children in general, are bred up in habits of sobriety, frugality, and industry; make in general the best servants, and after them, the children of day labourers, and both together may be considered (next to the sailors) the most valuable part of his Majesty's subjects; subjects not affluent, but strong, hardy, and loyal, and cannot in reason be too much encouraged.*

"It is the interest of all great land owners to instruct their agents, to divide some of their larger estates into smaller ones, when opportunities occur; the public would be better served with many articles, than they are at present, and the landlord would be amply repaid for the expence of buildings, repairs, &c. in the advance of rents; which small portions of land for the most part are let at, in comparison with large ones.

"I am thoroughly convinced, the nation receives much injury from the neglect of small ones; besides, it has a melancholy appearance to see in some places, valuable old farm-houses and out buildings uninhabited, and the former occupiers, sometimes forced to move into manufacturing towns, to learn a new business; and from a cleanly, frugal, and virtuous course of life, are taught intemperance, and acquire diseases; instead of being well clothed and fed, they become ragged and dirty, their mo-

* There are many instances, of servants wanting to settle on small farms; these are in general, the descendants of little farmers and day labourers, who have by frugality, industry, and long service, saved themseves a part of their wages, a sufficiency of cloathing, and other necessaries; and it is much to be lamented, when such deserving persons cannot procure a small tract of land, as a reward for past good conduct, to add to their future comforts.

rals corrupted, and their food sometimes precarious; which leaves us to experience, and regret *of* the poet's prophecy.

> " Ill fares the land, to haſt'ning ills a prey.
> " Where wealth accumulates, and men decay;
> " Princes and Lords may flouriſh, or may fade;
> " A breath can make them, as a breath has made.
> " But a bold peaſantry, their country's pride,
> " When once deſtroy'd, can never be ſupply'd."

The " hints to the wives and daughters of little farmers," deserve much attention, and may very well be enlarged. We confess we were a little disappointed at not finding them extend to those objects in which the little farmer's wife may assist her husband, as the author promised.

Letter XIV. On granting leases, affords much judicious advice to both landlord and tenant. We are pleased with the manner in which Mr. C. enters into his subject, and his observations on the effect of a tenant's fondness for sporting, as sometimes losing him a good farm, is correct. Landlords are also advised with some judgment, not to include *assigns* in a lease, in addition to heirs and executors, " leaving an open field to the execution of villainy." Mr. C. (who appears to have no greater regard for some members of the legal profession than their biographer, the celebrated Mr. Robert Holloway) mentions a gentleman who, he says, (page 100) " *obtained possession of many valuable estates both in England and Wales, by leases being made assignable,* notwithstanding the common clauses to the contrary, of leave being first obtained of the landlord in writing under his own hand. He thereby ruined the tenant, injured the landlord by damaging the buildings, committing other depredations, pulling up mounds and fences, likewise leaving all the lands in a beggared state, and the premises in a most ruinous condition; some of such dreary performances, committed by the said attorney, I have had occular demonstration of.

" Therefore it is adviseable the landlord should take a proper bond from the tenant, with such security as he, the landlord, shall approve. for the strict observance of covenants."

The covenants between Mr. Coke and his tenants follow, with important remarks.

Letter XV. is employed on the benefit of inclosing, particularly waste lands. This is an important though divided subject, but having already made such large extracts, we must forbear in the present instance.

The remaining letters of the first volume, from XVI. to XXI. are entirely miscellaneous, involving, and treating with considerable acuteness, a variety of interesting matters. We resign them however, for the present, and reserve the second volume for our next number.

HISTORY,

Agriculture.

PROCEEDINGS OF AGRICULTURAL SOCIETIES.

Premiums in Agriculture.

WE have procured from J. C. Curwen, Esq. of Worthington Hall, a particular list of the premiums, he has offered for his tenants the present year, and hope that similar exertions, amongst other gentleman of larger landed property, may tend to introduce more general improvements and spirited emulation.

Mr. Curwen proposes to give the following premiums for 1805, to such of his tenants and farmers, as may be entitled thereto, on the determination of competent judges, to be appointed by him for that purpose.

Silver cups of six guineas value
For the best crop of Swedish turnips not less than two acres.
For the best crop of common turnips not less than four acres.
For the best crop of cabbages, not less than one acre.
For the best four acres of land laid down to grass.
For the best and cleanest crop of potatoes.
At Winandermere; four cups for improved breed of sheep and cattle.
For the best shearling tup;
And the best ewe ditto, cross of the South down.
For the best yearling long horned bull, and
The best two year old heifer.

The grass lands to be viewed at Midsummer: the potatoes in July: the winter crops in October.

Kimbolton Agricultural Society. (Northamptonshire).

A list of the premiums ordered to be distributed at the annual meeting of this Society, which will be held at the White Lion inn in Kimbolton, on Wednesday the fifth day of June, 1805.

	l.	s.
For the best one shear ram.	2	2
Second best ditto.	1	1
For the best two shear ditto.	3	3
Second best ditto.	2	2
For the best theave.	3	3
Second best ditto.	2	2
For the best one shear wether.	2	2
Second best ditto.	1	1
For the best two shear wethers which shall have been fed upon grass, turnips, coleseed, and other green food and hay only.	3	3
Second best ditto.	2	2
For the best two shear ditto which have been fed by any other means.	3	3
Second best ditto.	2	2
For the best Bull not exceeding eighteen moths old.	3	3
Second best ditto.	2	2
For the best Heifer not exceeding eighteen months old.	3	3
Second best ditto.	2	2
For the best Boar not exceeding eighteen months old.	2	2
Second best ditto.	1	1

The cattle to be entered with Mr. Day, or some other person appointed

by him at the White Lion inn, Kimbolton, by ten o'clock in the forenoon of the day of ſhewing, and to be penned, (under the direction of a perſon who will attend for that purpoſe), on the premiſes of his Grace the Duke of Mancheſter, and ready to be ſhewn by eleven o'clock. The premiums, will be given to ſuch owners of cattle as were the breeders thereof only, of which as well as of the ages, ſatisfactory proof muſt be given to the committee. The rams and theaves to be produced for inſpection in their wool and then to be ſhorn, and the committee in determining theſe premiums to take the wool as well the as carcaſe into conſideration. All the other ſheep to be produced ſhorn; no animals to receive two premiums from this ſociety, except the firſt claſs of two ſhear wethers which, in caſe any corn fed wethers ſhould be entered to be ſhewn, may be again ſhewn on the ſame day, for the premiums of that claſs alſo.

To the labourer in huſbandry who ſhall have brought up, or be then bringing up, the largeſt family, without parochial aſſiſtance. 3 3

Ditto next largeſt ditto. 2 2

To the ſervant in huſbandry who ſhall have lived the longeſt time with one maſter or miſtreſs, or on the ſame farm. . . 3 3

To the labourer in huſbandry who ſhall have lived the longeſt time with one maſter or miſtreſs, on the ſame farm, three guineas.

Ditto next longeſt ditto, two guineas.

The candidates for the premiums to labourers and ſervants to deliver their certificates to Mr, Day, or a perſon appointed by him at the White-lion inn in Kimbolton, by ten o'clock as no certificate is to be received after that hour. Theſe premiums to be determined under the ſame rules and regulations as in the former year.

The ſociety to aſſemble at the White lion inn in Kimbolton, on the morning of the annual meeting, at ten o'clock. The committee for determining the premiums to be appointed at eleven, and the ſhew to take place preciſely at twelve o'clock, after which a committee will be appointed for ſettling the premiums and rules for the enſuing year, ſo that the whole of the buſineſs may be finiſhed before dinner.

St. Neots. WILLIAM DAY, Treaſurer and Secretary.

Norfolk Agricultural Society.

The next meeting of the committee of this ſociety well be held at the Red lion inn in Fakenham, on Friday the ſeventh of June, at eleven o'clock in the forenoon, on or before which day all claims of premiums to be adjudged at the anniverſary, muſt be ſent to the Secretary.

By the fifth rule of the ſociety no new rules nor premiums can be propoſed at the anniverſary unleſs they have been approved by this meeting.

The Members of the Committee are.

The Preſident and all Vice Preſidents.

Mr. B. Rackham.	Mr. T. Purdy.
Mr. D. Reeve.	Mr. A. Burk.
Mr. J. Reeve.	Mr. F. Bagge Jun.
Mr. C. Money.	Mr. J. Lloyd.
Mr. S. Bircham.	Mr. T. Dewing.
Mr. J. Repton.	Mr. H. Blythe.
M . W. Salter.	Mr. W. M. Hill.
Mr. G. Smith.	

The anniverſay will be held at Swaffham on Friday the twelfth of July.

Scarning. ST. JOHN PRIEST, Secretary.

Shiffnal Agricultural Society, (Shropshire).

The firſt meeting of the Shiffnal agricultural ſociety, will be held the firſt Monday in June next, at the Jerningham Arms Inn.

Right Hon. Lord Bradford, Preſident.
Thomas Whitmore, Eſq. Vice Preſident.

The ſtock to be in Maſefield's Yard, between ten and twelve o'clock. Dinner at three.

Neachill. GEORGE BAYLISS, Secretary.

Premiums to be given as under.

For the beſt ſhearling ram, a ſilver cup, value five guineas.
The ſecond beſt ditto, four guineas.
The beſt theave, four guineas.
The ſecond beſt ditto, four guineas.
The beſt bull, three years old this ſpring, five guineas.
The beſt heifer, three years old this ſpring, five guineas.
The beſt ſtock, two years old ditto, five guineas.
The beſt ſhearling wether, five guineas.
The ſecond beſt ditto, four guineas.
The beſt two ſhear ditto, four guineas.
The ſecond beſt ditto, two guineas.
The beſt grey-faced ditto, three guineas.
The ſecond beſt ditto, two guineas.
The beſt boar pig, three guineas.
The beſt gelt, three guineas.
The beſt ſhearer of ſheep, to ſhear in the field, two guineas.
The Second beſt ditto, one guinea.

The liſt of premiums for October, to be hereafter publiſhed. A ſubſcription of one guinea each, to ſhew the beſt four acres of Swediſh turnips, ſeven ſubſcribers.

A ſubſcription of one guinea each, for ſhewing the beſt yearling ram, ſix ſubſcribers.

N. B. The ſubſcriptions due, are requeſted to be paid to the treaſurer, Mr. John Cuxſon, ſolicitor, Shiffnal, without further notice.

Cleveland Agricultural Society, (Yorkshire).

At a general meeting of this ſociety, held at Guiſborough, the 30th day of April laſt, the following premiums were awarded and paid to the perſons undermentioned, viz.

To Mr. John Parrington, of Ormſby, for the beſt bull, five guineas.

To Mr. Thomas Beſt, of Kirk Leavington, for the beſt blood horſe, for getting hunters and hacks, three guineas.

To Mr. Wm. Weatherill, of Marſke, for the beſt bay or brown horſe for getting coach horſes, three guineas.

To Mr. Wm. Wilſon, of Barwick, for the beſt boar, two guineas.

By order of of the meeting,
W. POWEL, Secretary.

Stokeſley.

Cornwall Agricultural Society..

The annual exhibition of cattle, &c. will be held at Bodmin, on Tueſday, the 28th day of May, 1805, when the following premiums will be given.

For the beſt bull, ten guineas.
Second beſt ditto, five guineas.
Beſt ditto, not exceeding two and a half years old, five guineas.
Second beſt ditto, three guineas.
Beſt milch cow, under three years old, five guineas.
Beſt ditto, under two and a half years old, three guineas.
For the beſt ram, free for all England, ten guineas.
Beſt ditto, yeaned in Cornwall, the property of a perſon within the county, five guineas.

Second beſt ditto, three guineas.
Beſt hog ram, five guineas.
Second beſt ditto, three guineas.
For the beſt fat four teeth wether ſheep, to be ſlaughtered the day before the exhibition, three guineas.
Next beſt ditto, two guineas.
Beſt fat two-teeth ditto, ditto, three guineas.
For the heavieſt entire fleece of wool, from a ram, two guineas.
Second beſt ditto, one guinea.
To the beſt ſhearer of ſheep, three guineas.
Second beſt ditto, two guineas.
Third beſt ditto, one guinea.
Fourth beſt ditto, ten ſhillings and ſixpence.
Free for all perſons whereſoever reſident. The ſhearers to provide ſhears.
The claimants for the above premiums, to give notice of their claims to the ſecretary, at leaſt fourteen days before the exhibition.
For the beſt cart, five guineas.
For the beſt new or improved huſbandry implement, ſuperior to any in common uſe in this county, three guineas.
Second beſt, two guineas.
Third beſt, one guinea.
To the perſon who ſhall produce the beſt ſpecimen of cheeſe made in this county, with the method of making the ſame; the quantity made within the year, not being leſs than 112 pounds, five guineas.

JOHN WALLIS, Secretary.

N. B. The committee for examining the treaſurer's accounts, and for receiving propoſals, and arranging the ſame for the confirmation of the general meeting, will meet for theſe purpoſes at the ſociety's room, the evening before the exhibition.

Thoſe who intend offering ſtock for ſale at the above exhibition, are deſired to ſend the particulars to the ſecretary ten days before, that proper notice may be given, and arrangements made for the purpoſe.

Newcaſtle under Lyme and Pottery Agricultural Society, (Staffordſhire.)

At a meeting of the ſociety, held on Thurſday the 14th February, 1805.

Sir J. E. HEATHCOTE, Preſident, in the chair.

The under-mentioned premiums offered at a meeting, held on the 28th February, 1804; were this day adjudged as follows, viz.—

The premium No. 3, of a ſilver cup, or five guineas, for cultivating in the beſt and moſt productive manner, without dung, the greateſt quantity of potatoes, to M. Robert Cox, of Lawton.

The premium No. 4, of a ſilver cup, or five guineas, for cultivating in like manner the greateſt quantity of potatoes of the beſt quality, to Mr. Joſiah Timmis, of Keel.

The premium No. 5, of a ſilver medal, cup, or five guineas, for the beſt crop of turnips, to Mr. Samuel Hopkins, of Leaforge.

The premium No. 6, of a ſilver medal, or three guineas, for the ſecond beſt crop of turnips, to Mr. Thomas Dart, of Oulton.

The premium No. 7, of a ſilver medal, or five guineas, for raiſing the greateſt quantity of cabbages of the beſt quality, for the purpoſe of feeding cattle, to Mr. Timmis of Weſton Hall.

The premium No. 8, of a ſilver medal, or three guineas, for growing by field culture the greateſt quantity of carrots of the beſt quality, to Mr. Robert Cox, of Lawton.

The premium No. 12, of a ſilver cup, or five guineas, for the greateſt improvement by irrigation, to Mr. Samuel Hopkins, of Lea-forge.

The premium No. 16, of a ſilver cup, or ſeven guineas for the greateſt improvement, by marling on the green ſward, to Mr. George Becks, of Keel.

It was alſo this day reſolved, that the following premiums, for the year 1805, be offered and advertiſed, viz.

I. For the beſt prepared and cleaneſt fallow for wheat, not leſs than ten acres, the lands not adapted for the cultivation of green crops, ready to be viewed before the 16th September next, a gold medal, or ten guineas.

II. For the beſt prepared and cleaneſt fallow for wheat, not leſs than five acres, ready to be viewed before the 15th of September next, a ſilver cup, or five guineas.

N. B. The claims for the above premiums to be delivered previous to the 15th of Auguſt next, and to contain a ſtatement of all the fallows on the claimant's farm, the whole of which are to be viewed and reported.

III. For raiſing in the year 1805, the beſt crop of turnips, in every reſpect to be thoroughly cleaned from weeds, and properly and equally thinned by hoeing, not leſs than three acres, a ſilver medal, cup, or five guineas.

IV. For raiſing in like manner, the ſecond beſt crop of turnips, not leſs than three acres, a ſilver medal, or three guineas.

N. B. The claims for the two laſt mentioned premiums, to be delivered before the 1ſt October, and the crops to be viewed before the 1ſt November next.

V. For raiſing in the year 1805, the greateſt quantity of cabbages of the beſt quality for feeding cattle, not leſs than an acre, a ſilver medal, or five guineas.

VI. For growing in the year 1805, by field culture, the greateſt quantity of carrots of the beſt quality, not leſs than half an acre, a ſilver medal, or three guineas.

VII. To the perſon (not being a nurſery man) who ſhall raise the greateſt quantity of white thorns, or hollies, from the berry, before the 29th of September, 1807, two guineas.

VIII. To the perſon (being tenant of the eſtate) who ſhall drain in the beſt and moſt durable manner not less than ſix acres of land, between the 25th March 1805, and the 1ſt of May, 1806, a ſilver medal, or five guineas

IX. To the perſon being owner of the eſtate, who ſhall drain in like manner, not leſs than ſix acres of land, within the like time, a ſilver medal, or five guineas.

X. To the perſon who between the 1ſt January 1805, and the 1ſt January 1806, ſhall improve not leſs than two acres of meadow or paſture land, not uſually overflowed in times of flood, by throwing water over it in the moſt judicious and equal manner, a ſilver cup, or ſeven guineas.

XI. To the perſon who ſhall within the ſame period improve not leſs than the like quantity of ſuch land by throwing water over it in the next beſt manner a ſilver cup or five guineas.

XII. To the perſon who ſhall in the year 1805, make in a ſubſtantial or durable manner the beſt reſervoir in his farm for the reception of dirty water, either for floating or carrying off in carts. A ſilver medal cup or five guineas.

XIII. To the perſon who ſhall lay down for paſture not leſs than eight acres of land in the beſt manner and cleareſt from weeds, and ſowed with white clover or graſs ſeeds the ſame to be viewed in may 1806, A ſilver cup or ſeven guineas.

XIV. To the perſon who ſhall lay down not leſs than five acres of land in like manner, a ſilver cup, or five guineas.

XV. To the perſon who ſhall in the year 1805, improve by marling on the green ſward in the beſt and moſt effectual manner not leſs than eight acres of land, a ſilver cup or ſeven guineas.

XVI. To the perſon who ſhall in the year 1805, improve by marling on the fallow in the beſt and moſt effectual manner not leſs than five acres of land, (to be viewed before the marl is turned under), a ſilver cup or five guineas.

XVII. To the perſon who ſhall exhibit the beſt clover or trefoil growing on land, which ſhall have been cabbages or turnips in the year 1803, ſuch crop conſiſting of not leſs than two acres and to be viewed in May, 1805. a ſilver cup or five guineas.

XVIII. To the perſon who ſhall exhibit the beſt crop of wheat, growing on land which ſhall have borne cabbages or turnips, in 1803, and clover in 1805, ſuch crop conſiſtng of not leſs than two acres and to be viewed in July 1806, a ſilver cup or five guineas.

No perſons except ſubſcribers to this ſociety can be entitled to any of the foregoing premiums, nor will any perſon be allowed to receive more than one of the premiums, reſpectively for fallows or turnips. No more than one for irrigation or laying down paſture land with white clover or graſs ſeeds reſpectively. All claimants muſt give ſufficient notice in writing to the ſecretaries, for a view to be had by the committee, and the claims muſt be accompanied with vouchers and certificates. In all caſes where the merit of claims is otherwiſe equal, the greateſt quantity will be entitled to the preference, but the ſociety reſerve to themſelves the whole of the premiums, where no ſubſtantial or adequate merit in the claims ſhall appear to the committee. No claimant will be hereafter entitled to receive a premium for a ſimilar object of competition more than once i three years.

XIX. To any labourer in huſbandry reſiding within the diſtrict of this ſociety, (which extends twelve miles round Newcaſtle) who ſhall have brought up the greateſt number of legitimate children not being leſs than ſix without aſſiſtance from the pariſh, five guineas.

XX. To any next labourer who ſhall have brought up in like manner the ſecond greateſt number of children, three guineas.

XXI. To any ſervant man in huſbandry, reſiding within the like diſtrict, who ſhall have continued the greateſt number of years, (not leſs than fifteen) in the ſame ſervice, two guineas.

XXII. To any woman ſervant in farming buſineſs, within the ſame diſtrict, who ſhall have continued the greateſt number of years, not leſs than fifteen years in the ſame ſervice, two guineas.

N. B. Applications for the four laſt mentioned premiums, to be delivered the ſecretaries on or before the firſt of September next, which muſt deſcribe the ground of claims, and be accompanied by a certificate, ſigned by the reſident miniſter of the pariſh, or by maſter or miſtreſs, under whom the claimant is ſerving, and two other creditable houſeholders, having a poſitive knowledge of the facts certified.

XXIII. To the labourer who ſhall have plaſhed in the beſt manner, within the diſtrict of this ſociety, not leſs than twenty roods of quick fence between the twenty ninth of September, 1804, and the thirtieth of April 1805, one guinea.

N. B. Claims for the laſt mentioned premiums to be delivered on or before the thirtieth of June next

XXIV. To the ploughman who ſhall have ploughed within the ſame diſtrict, not leſs than ten acres of land in the beſt manner, between the firſt of November 1804, and the twenty fifth of March 1805, two guineas.

Claims for the laſt mentioned premium to be delivered on or before the twenty-fifth of June next.

GEORGE TOLLETT, Esq. was appointed president, and
JOHN GILBERT, Esq. Vice president, for the year ensuing.

J. E. HEATHCOTE, Chairman.

N. B. All letters, notices and applications relating to this society, are to be addressed to Mr. Poole or Mr. Fenton the Secretaries.

Premiums offered by the Board of Agriculture, 1805.

The objects of the premiums of this important national institution we are happy to find are increased by fifteen new ones, in addition to those of last year, no way inferior in their advantage to the community to any that have hitherto occupied its consideration.

As the standing premiums will be found in the Agricultural Magazine for July 1804, we have conceived it unnecessary to repeat them in our present number, we shall therefore proceed to notice only those which have been added, or have received some alteration since their publication last year.

No. I, II, III, IV, and V, relate as before to Cottages and the Cottager, except (as in succeeding instances also) with regard to the dates.

VI. Management of Dairies, and Milk for the Poor.---To the person who shall write and produce to the board, the best dissertation on the management of dairies, and on the most effectual means of supplying poor families in winter with milk, at a reasonable price, the cows producing it being fed entirely with green food, viz. cabbage, rape, turnips, potatoes, carrots, parsnips, or beet, giving no other food, straw and oil-cake only excepted--the Gold Medal.

Accounts to be produced on or before the first Tuesday in March, 1806.

No. VII to XIV. Plants--Cattle---Food for Animals--Waste Lands--Draining---and Folding Sheep.

XV. Wool.--To the person who shall communicate to the Board, the best essay on the growth of wool, from the Spanish breed of sheep, or from some cross between the Spanish and British breeds in Great Britain, which shall include a detail of experiments made, with a full explanation of the advantages that may have attended them, in respect of wool, carcase, application of food, freedom from distempers, cross in the breed, &c. and which shall point out the most effective means of spreading this race of sheep.---Fifty guineas, or a piece of plate of that value.

To be produced to the Board, on or before the second Tuesday in April, 1806.

XVI. Spanish Ram.--To the person who shall produce to the Board, the best *Spanish* ram of the whole blood.---A piece of plate of the value of twenty guineas.

To be produced on the last Monday in April, 1806.

XVII. Wool.--To the person who shall clip from sheep, bred by himself, wholly or part *Spanish* blood, in the year 1806, the greatest value of wool (not under 5s. per pound scoured), ascertained by actual sale.---The Gold Medal.

Accounts, specifying the weight, number of fleeces, and breed, to be delivered in, on or before the first Tuesday in February, 1807.

The same premium for the clip of 1807.

The same premium for the clip of 1808.

XVIII and XIX. Irrigation---Horses and Oxen.

XX. Comparison between Horses and Oxen. or spayed Heifers.---To the person who shall make and report to the board, the most satisfactory experiments for comparing horses and oxen, or spayed heifers, in which their merit in regular work (an equal number of each being used), shall be ascertained.---Fifty pounds, or plate to that value.

It is required that both be fed equally: that the quantity of hay and corn, which each team eats, be noted; that they perform the same work for one year, the oxen or heifers in harness: that both be weighed at the commence-

ment and concluſion of the experiment; and that the oxen or heifers be not under five years old, nor the horſes under ſix. Alſo, that an account of the daily work performed, and of the expence, be accurately kept and reported.

Accounts to be produced, verified by certificates, on or before the firſt Tueſday in May, 1807.

XXI. Compariſon between Horſes and Oxen or Spayed Heifers, in One-Horſe Carts.---It having been repreſented to the board, that there are roads in ſome parts of the kingdom, where much carrier's work is regularly done with one horſe carts; and as, in ſuch caſes, it is conceived that it might be eaſy for ſuch carriers to ſubſtitute oxen, or ſpayed heifers in ſome of their carts for compariſon, the board will give to the carrier, or other perſon, who ſhall make the experiment, in the moſt ſatisfactory manner, during one year, and report the reſult to the board.--Fifty Guineas.

It is required, that the oxen be fed in the ſame manner as the horſes, and not to be under five years old.

Accounts to be produced on or before the the firſt Tueſday in May, 1807.

XXII to XXIX. Manures --Marl and Chalk.---Litter.---Graſs, and Able Lands.—Peat.--Salt.---Plough.

XXX. Thraſhing Mill.---To the perſon who ſhall exhibit to the board, within ſix miles of London, that moveable thraſhing mill which ſhall be found the beſt, on compariſon of

1. Facility of moving
2. Expence of firſt coſt
3. Expence of working
4. Quantit corn thraſhed
5. Cleaneſs of work, and
6. Leaſt damage to ſtraw

One Hundred Guineas.

Notice to be ſent to the board, on or before the firſt Tueſday in February, 1806, that the mill is ready for trial, and that wheat in ſheaf, and barley looſe, are depoſited for an experiment.

XXXI to XXXVI. Graſs.---Seed wheat. --Barley.---Oats.---Wheat.

XXXVII. Spring Wheat.---To the perſon who ſhall report to the board, the reſult of the moſt ſatisfactory experiments on ſpring wheat, which ſhall aſcertain the ſoil, the ſort of wheat, the time of ſowing, the produce and value, the comparative advantages of this and common wheat, and other circumſtances uſeful to be known.---A piece of plate, of the value of 20l.

The report to be produced on or before the firſt Tueſday in April, 1807.

XXXVIII. Mildew in Wheat.---To the perſon who ſhall, during the year 1805, make and report to the board, the moſt ſatisfactory experiments and obſervations on the nature, cauſes, effects, and moſt probable means of preventing the mildew in wheat.---A piece of plate of the value of fifty pounds.

Accounts to be produced on or before the firſt Tueſday in February, 1806.

The ſame premium for 1806.

XXXIX to XLII. Hemp.---Weighing machine.---Reaping machine.

XLIII. Machine for Reducing Lime ſtone to a fine powder.—To the perſon who ſhall produce to the board, a model of the cheapeſt and moſt effective machine for reducing lime ſtone to a fine powder.---Fifty pounds.

To be produced on or before the firſt Tueſday in April, 1806.

XLIV to XLV. Diſeaſes of Cattle —Sheep.—Swine.

XLVII. To the perſon who ſhall write, and produce to the board, the beſt practical treatiſe on the diſeaſes and cures of cattle, ſheep, and ſwine, founded on the experience of the writer, or on ſuch information as can be depended on.—Fifty pounds, or its value in plate.

As the merit of ſuch a work, will depend entirely on the proofs of the efficacy of the medicines, or methods propoſed, the board requires full ſatisfaction in that reſpect.

To be produced on or before the firſt Tueſday in April, 1806.

XLVIII. To the perſon who ſhall report to the board, the beſt deſcription of ſome one diſtemper in cattle, ſheep, or ſwine, and the means of preventing or curing it.—Ten Guineas reſpectively for every Diſtemper.

As the merit of ſuch reports, will depend entirely on the proofs of the efficacy of the medicines, of methods propoſed, the board requires full ſatisfaction in that reſpect.

To be produced on or before the firſt Tueſday in April, 1806.

The ſame premium for 1807.

N. B. In the ſeveral premiums reſpecting the diſeaſes of live ſtock, the board do not require that the candidate ſhould be the original diſcoverer of the remedies propoſed, as the object is to aſcertain the merit of ſuch remedies, by whomſoever invented or produced.

XLIX. Operation of Tillage.—To the perſon who ſhall report to the board, the reſult of the moſt ſatisfactory experiments in cultivation, comparing the effects of ploughing and ſcarifying land, in order to prove how far land may be cultivated to advantage, with the leaſt poſſible uſe of the plough, and by the ſcarifier, or ſome ſuch inſtrument alone or nearly ſo—the Gold Medal.

It is required, that the ſoils on which the experiments are made be carefully deſcribed, and that the implements with which the operations are performed, be explained.

Accounts, verified by certificates, to be produced on or before the firſt Tueſday in March, 1806.

Thirty Guineas will be given, inſtead of the Gold Medal, for the beſt report produced to the board on or before the firſt Tueſday in March, 1806.

L and LI. Food for Mankind.

LII. Prevention of Scarcity.—It appearing to this board, from various authentic documents, that the crops of grain in Great Britain are, upon an average of ſeaſons, inſufficient for the annual conſumption, the board will give to the perſon who ſhall produce the beſt diſſertation on this ſubject, in which the facts ſhall be examined, the cauſes explained, and the eaſieſt and moſt effective means of obviating the evil pointed out.—One Hundred Guineas.

To be produced to the board on or before the firſt Tueſday in May, 1806.

LIII to LVII. Paring and Burning—Clay, Loam, or Marl—Leaſes.

LVII. Diſeaſes of foreſt, or other timber trees.—To the perſon who ſhall draw up, and preſent to the board, the beſt diſſertation on the diſeaſes and accidents to which foreſt or other timber trees are liable, with the cauſes, and preventatives, and cure.—Fifty Guineas, or a piece of plate of that value.

To be produced on or before the firſt Tueſday in April, 1806.

LVIII. To the perſon who ſhall draw up, and preſent to the board, the beſt diſſertation on foreſt or other timber trees, including the ſoil, culture, and management, growth, produce, profit, application, comparative utility and value.—Fifty Guineas, or plate to that value.

To be produced on or before the firſt Tueſday in April, 1806

The concluding Conditions having received a ſmall alteration, we repeat them.

GENERAL CONDITIONS.

All candidates are deſired to obſerve, that

1. The Board reſerves to itſelf the power of with-holding any premium, when the communication or communications, implement or implements, &c. is or are, not deemed ſufficiently important to merit reward.
2. The MSS, &c. which ſhall obtain premiums, to remain the property of the Board.
3. All memoirs, &c. ſent in claim of premiums, to be without the name of the Author, or any intimation to whom they belong (except where otherwiſe directed), but with a mark or number, and accompanied by a ſealed letter (on which is to be written the ſame mark or number), containing the name and addreſs of the claimant, and the certificates; which ſealed letter will not be opened, unleſs the premium be adjudged to the MSS. &c. bear-

ing that mark or number. Without the attention of the Candidate to this circumſtance, the Board cannot vote any reward to ſuch MSS &c.

Perſons ſending memoirs, or implements, &c. in claim of premiums, are requeſted to deſire ſome perſon to enquire the determination of the Board, within twelve months after the MSS, &c, is delivered:

SOCIETY *of* ARTS, ADELPHI, *May, 28th.* 1805.

The Rewards conferred by the SOCIETY *will be preſented this Day to the reſpective* CANDIDATES, *by his Grace the* DUKE OF NORFOLK, *the President, in the following order:*

IN AGRICULTURE.

To the Right Hon. the Earl of Breadalbane, Park Lane, for Plantations of Fir Trees; the Silver Medal.

To Thomas Johnes, Eſq. M. P. Hafod, Cardiganſhire, for Planting Oaks, Claſs 3; the Gold Medal.

To J. C. Curwen, Eſq. M. P. Workington Hall, for the culture of Beans and Wheat; Claſs 32; the Gold Medal.

To Mr. William Taylor, Beamiſh, Durham, for improving Land lying waſte; Claſs 60; the Gold Medal, or Thirty Guineas.

To Captain John Miller, New Park, Axminſter, Devonſhire, for a pair of Sheep Shears; the Silver Medal.

To Samuel Taylor, Eſq. Moſton, for the growth of White Thorn; the Silver Medal

To Mr. W. Wallis Maſon, Goodreſt Lodge, near Warwick, for the Culture of Carrots; the Silver Medal.

To Mr. John Farey, Crown Court, Weſtminſter, for Experiments in the growth of Timber; the Silver Medal.

To Mr. William Smith, Buckingham Street, for irrigating Boggy Land; the Silver Medal.

To Mr. William Watſon, North Middleton, for comparative Culture of Turnips; Ten Pounds.

To Mr. Seth Bull, Ely, for Planting Oſiers; Claſs 14; Thirty Guineas.

IN CHEMISTRY.

To Mr. Thomas Vanherman, for Paints made with Fiſh Oil; the Silver Medal, and Twenty Guineas.

To Mrs. Jane Richardſon, No. 3, Willis' Place, Chelſea, for Clearing Feathers from their animal oil; Claſs 90; Twenty Guineas.

To Mrs. Anne Morris, No. 41, Union Street, near Middleſex Hoſpital, for her method of cleanſing Silk, Cotton, and Woollen Goods; Fifteen Guineas.

IN POLITE ARTS.

To Miſs H. Auguſta Jackſon, Hanover Street, Hanover Square, for an original Drawing of Venus Marina, and Cupids; Claſs 124; the Gold Medal.

To Miſs Mary Hay, of Chandos Street, for a Drawing in Chalk of our Saviour, taken from the Croſs; Claſs 125; the Silver Medal.

To Miſs Hancock, St. Helens, Norwich, for an Oil Painting of an old Woman after Nature; the Silver Medal.

To Mr. Thomas Palmer with J. G. Walker, Engraver, Hammerſmith, for a Pen and Ink Drawing of a human Figure; the Silver Medal.

To Miſs Mary Anna Jones, No. 103, Leadenhall Street, for a Drawing of a Landſcape; Claſs 128. A Drawing from Nature of Gorhambury, near St. Albans, formerly the ſeat of Lord Bacon, Baron of Verulam; the Gold Pallet.

To Mr. Henry Corbould, No. 70, John Street, Fitzroy Square, for an Hiſtorical Drawing; Claſs 130; Ajax defending the Body of Patroclus; the Gold Pallet.

To Miſs Cockerell, Weſtbourne, Paddington, for a Drawing of the Virgin, Chriſt, and St. John; the greater Silver Pallet.

To Mr. George Jones, No. 74, Great Portland Street, Marylebone, Hiſtorical Drawing; Claſs 131; Ulyſſes's deſcent into Hell; the greater Silver Pallet.

To Miſs Zornlin, No. 42, Newington Place, Kennington, for a Drawing of the Venus de Medicis, from a Caſt; the Leſſer Silver Pallet.

To Miſs S. C. Day, No. 5, Lower Bryanſton Street, for an original hiſtorical Drawing of Calypſo, inviting Telemachus to a Banquet; the leſſer Silver Pallet.

To Miſs Elizabeth Porret, of the Tower, for a Chalk Drawing from one of Raphael's Cartoons; the leſſer Silver Pallet.

To Mr. William Ward, North End, Hamſtead, for a Drawing of Ewell Church; the leſſer Silver Pallet.

To Miſs Mary Hay, as an additional compliment to the great excellence of her performance; Twenty Guineas.

IN MANUFACTURES.

To Mr. William Corſton, Ludgate Hill, for a Subſtitute for Leghorn Plait for Hats, &c; the Gold Medal.

To Mr. J. Beard, of Coggerſhall for crooking Wires for Cards, uſed in the Cotton and Woollen Factories; the Silver Medal and Forty guineas.

To Mr. John Auſtin, Glaſgow, for various Improvements in Manufactures; the Silver Medal.

IN MECHANICS.

To Mr. George Smart, Ordnance Wharf, Weſtminſter Bridge; Claſs 172; for Chimnies Cleanſed by Mechanical Means; the Gold Medal.

To Mr. Gilbert Gilpin, Old Park Iron Works, Shifnall, for a Crane for raiſing Weights; the Silver Medal, and Thirty Guineas.

To Mr. John Prior, Neſsfield, Yorkſhire, for a Larum for pocket Watches; the Silver Medal, and Twenty Guineas.

To Mr. Robert Salmon, Woburn, for an Improvement in Canal Locks; the Silver Medal, and Ten Guineas.

To Mr. Joſeph Davis, No. 14, Creſcent, Kingſland Road, for a Day and Night Telegraph; the Silver Medal, and Ten Guineas.

To Mr. Robert Salmon, Woburn, for a Geometrical Quadrant and Staff; the Silver Medal, and Ten Guineas.

To Mr. J. J. Hawkins, Dalby Terrace, City Road, for a Machine for cutting paper and the Edges of Books; the Silver Medal.

To Mr. John Antis, Fulneck, near Leeds, for improved Door Latches; the Silver Medal.

To Mr. Andrew Flint, for an expanding Band-wheel; Fifty Guineas.

To Mr. William Hardy, No. 1, Knowles Buildings, Iſlington; for a compenſation Balance; Thirty Guineas.

To Mr. J. Watkins, No. 9, Giltſpur Street, Weſt Smithfield, for an improvement in time Keepers; Thirty Guineas.

To Mr. John Antis, Fulneck, near Leeds, for a detached Eſcapement of a pendulum Clock; Twenty Guineas.

To Mr. Thomas Parker, No 6, Blue Croſs Street, Leiceſter Fields, for a Machine for Shoe-makers; Fifteen Guineas.

To Mr. Henry Ward, Blandford, for a new ſtriking Clock Movement; Fifteen Guineas.

To Mr. Peter Herbert, No. 33, Bow Street, Covent Garden, for a book-caſe Bolt; Ten Guineas.

To Mr. Charles Le Caan, Llannelly, for a Check to Carriage Wheels; Ten Guineas.

IN COLONIES AND TRADE.

To Dr. William Roxburgh, Calcutta, for Communications on India Products; the Gold Medal.

To Mr. William Hughes, Upper Canada, for the Culture of Hemp; Thirty-five Dollars.

Account of the Members elected since October last, whose Titles and Names are as follow.

Hon. James Hewitt, Sir William Welby, Bart. M. P. Sir Robert Lawley, Bart. M. P. Sir James Pulteney, Bart. Col. Bradſhaw, Mr. Bryan Donkin, Samuel Taylor, Esq. John Atkin, Eſq. Thomas Horne, Jun. Eſq. Richard Holt, Eſq. Mr. Charles Rivers, J. Cummins, Eſq. Charles Warren, Eſq. Caleb Bryant Waymouth, Eſq. W. Kinnard, jun. Eſq. Mr. Joſeph Stevenſon, Thos. Selby, Eſq. Wm. Savage, Eſq. Mr. John Auſtin, Mr. E Williams, Mr Joſeph Fox, David Day, Eſq. Daniel Wakefield, Eſq. Wm. Hibbert, Eſq. John Fiſher, Eſq. Wm. Pirner, Eſq. Mr. Wm. Gall, Wm Young, jun. Eſq. George Walker, Eſq. George Preſtwidge, Eſq. Rev. William H. Carr, Wm. Henry Hoare, Eſq. Rev. I. G. Spurgeon, Nicholas Wm. Middleton, Eſq. James Hulkes, Eſq. M P. Mr Edw. Glover, Humphrey Hall, Eſq. Mr. John Edwards, Thomas Cock, Eſq. Mr. Thomas Harriſon, Joſhua Jon. Smith, Eſq. Mr. Roger Smith, Mr. John Kerſhaw, Abraham Atkins, Eſq. Wm. Wallis Maſon, jun. Eſq. Mr. Geo. Anderſon, John Hanſon, Eſq. Mr. Wm Jones, Mr. John Loudon, Mr. Wm. Hall, Mr. Rowland Evans, John Dawes, jun Eſq. Mr. John Iſaac Hawkins, Anthony Cardon, Eſq. John Pugh, Eſq. Mr. Henry Walther, Mr. Peter Grimalde, Joſeph Harris, Eſq. Mr. Charles Dibdin, jun. Joſhua Brookes, Eſq Mr. Jos Dickenſon, Thomas Chevalier, Eſq. Wm. Purſer, Charles S. Portal, Eſq. Rev. Robert Bree, Rev. Mr. Daviſon, Mr. Wm. Coriton, Mr. Mowley Gillman, Thomas King, Eſq. Mr. John Luſlo, W. B. Thomas, Eſq. Charles Kent, Eſq. Thomas Bacon, Eſq. Wm. Maxwell, Eſq. Henry Philip Hope, Eſq. Mr. Charles Almon, F. Grove S. Farrer, Eſq. Philip French, Eſq. John Greenwood, Eſq. Wm. Lloyd, Eſq. Peter Denys Eſq. John Kirkman, jun. Eſq. Wm. Forſyth, Eſq. Mr. Henry Richards, John Allday, Eſq. Mr. H. F. Smith, John B. Galt, Eſq. Stephen Thornton, Eſq. Mr. S. H. Swanſton, Arthur P. Arch, Eſq. Nettam Giles, Eſq. Mr. Thomas Maſcall, Robert Peel, Eſq. Samuel Hibbert, Eſq. George Baſter, Eſq. P. B. Neale, Eſq. John Wm. Lubbock, Eſq. James Graham, Eſq. Mr. Arthur Woolſe, Mr. Thomas Rowntree, Charles Birkhead, Eſq. Robert Wilmott, Eſq.

PLOUGHING MATCH.

On Tueſday the 7th. the ploughing match under the patronage of the Bath Society took place near Radſtock, in a field of very ſtiff ſoil. The candidates were Mr. Billingſley, Mr. Rodberd, and Mr. Ludlow, Mr. Billingſley's man, with a two-furrowed plough, drawn by ſix oxen with a driver, completed his half acre in one hour and thirty minutes. Mr. Ludlow, with a ſingle plough by two horſes, without a driver in two hours, eight minutes and a-half; and Mr. Rodberd's with a light one wheeled plough drawn by three horſes, with a driver in one hour fifty eight minutes. The deciſion of the judges ranked Mr. Billingſley, as entitled to the firſt, Mr. Ludlow to the ſecond, and Mr. Rodberd to the third premium.

The arrangements for this biennial ploughing match were as follows:

The field ſelected for the purpoſe was an old French graſs layer, the ſoil very ſtiff and abounding with looſe ſtones.

Sundry portions of half an acre each had been previouſly marked out, and

it was new agreed by the ſociety's deputies, that Farmer Merchant, of Chilcompten, Farmer Buſh, of Radſtock, and Farmer Love, of Wellow, ſhould be the judges.

Lots were then drawn for the reſpective ſtations, and the three candidates elected.

For the firſt hour, the horſe teams greatly outwalked the oxen, and turned nearly three hours to two, and throughout the whole trial, they maintained a very briſk pace, conſidering the ſtiffneſs of the land. Indeed it would have been impoſſible, for them to have continued ſuch a ſtep, through a regular day's work, of eight hours.

The oxen from the beginning to the end of the conteſt, ſupported a ſteady uniform ſtep, ſuch as they ſeemed accuſtomed to, and ſhewed no appearance of fatigue at the concluſion. They turned a regular furrow of four inches deep, and the general opinion ſeemed to be, that it was the beſt work.

From this trial, it appears, that the double and the Beverſton ploughs maintain their wonted ſuperiority, which ultimately muſt bring them into general uſe, for there ſcarcely can be found any ſoil to the cultivation of which one or other is not adopted; and it is no exaggeration to aſſert, that in fair ploughable land, the double plough drawn with ſix oxen, will, in a day of ſeven or eight hours, and for weeks or months in ſucceſſion, turn two acres and an-half; the Beverſtone with two horſes, one and a-quarter acre per day.

Farmers of the greateſt experience, acknowledge, that they are at ſome loſs to which of theſe excellent implements of agriculture to give the preference, The following, however, is the prevailing opinion:—that on a large farm, level in its ſurface, loamy in its ſoil, and graſſy in its nature, and on which an ox team can be well kept, and conſtantly employed in ploughing only, the uſe of the double furrow plough drawn by oxen, is to be recommended; but in all other caſes, the Beverſtone drawn by a pair of horſes.

FAIRS

At Shrewſbury fair, the cattle ſold from ſix-pence to ſeven-pence per pound. Sheep and pigs have advanced ſince the laſt fair. Good horſes ſold high, inferior ones had no demand, cheeſe from fifty five to ſeventy pound the cwt. bacon ſix-pence to ſeven-pence per pound.

Drogheda fair (Ireland) was held the 13th inſt, the concourſe of people who came to buy and ſell, and thoſe who came from curioſity was immenſe; there appeared a great ſhew of horſes, and a great demand, as any of tolerable figure were bought up the night before the fair or early next morning, at a high price, milch cows and ſpringers of a good kind were ſcarce, and dear. Dry cows and bullocks ſold for twenty ſhillings to a guinea under laſt year's price. Wethers in good condition, which were few, ſold high. Thoſe eſtimated from twenty-five to twenty-ſix pounds a quarter, brought from fifty ſhilliags to ſixty ſhillings.

There was leſs wool than uſual.

Mr. Wingfield's ſhews of ſheep will beat Pickwell near Melton, (Leiceſterſhire) June 6. and at Tuckenote near Stamford on the eighteenth.

At Saliſbury Lady fair a large quantity of cheeſe was pitched for ſale, and a great deal ſold the very prime went as high as four guineas the cwt. good middling at from fifty to ſixty ſhillings, inferior at forty eight ſhillings. Of old cheeſe there was but little, and for the very ordinary ſort there was no demand.

At Barnſley fair, (Yorkſhire) the ſhew of neat cattle was pretty large, and thoſe that were of the better kind, ſold readily at high prices, in the early part of the day; but a conſiderable depreſſion took place in all kinds of ſtock towards the cloſe; and many of thoſe of inferior quality were driven away unſold, though offered at reduced prices from what was obtained in

the morning. The ſhow of good horſes was ſmall, and very great prices were eagerly given for them; indifferent ones were in great numbers, and ſold at prices proportionally high. A very numerous company attended, and the light-fingered gentry were unuſually ſucceſsful. Mr. Rhodes, of Crofton, near Wakefield, had his pocket picked, of between twenty and thirty pounds, and ſeveral other neighbouring gentlemen were equally unfortunate.

In every market in the north of England, the ſhew of cattle and ſheep have lately been very great, and the prices tolerable.

There was a large ſhew of ſtore cattle, ſheep and lambs, at Llanelly fair lately; the former rather declined in price, ewes and lambs ſold from ten and ſix pence to twenty one ſhillings the couple, and yearling ſheep from nine ſhillings to twelve ſhillings each.

A gentleman of Somerſetſhire, member of the Bath and weſt of England ſociety has lately offered to ſhew a pair of oxen, againſt any two in England, (the property of an individual grazier) for a hundred to fifty guineas, for greatneſs of ſize beſt proportion of make, fatteſt in the moſt valuable points &c, the moſt complete finiſh in the ſhorteſt ſpace of time. Theſe oxen have been grazed upon a different principle or plan to any ever uſed in the weſt of England, from whence it is proved that cattle of the greateſt ſize can be made immenſely fat, at a moderate expence within four or five months, after taken from graſs.

A new mode of ſwindling is adopted with conſiderable effect by aſſuming in provincial towns the names of reſpectable farmers.

As this is the ſeaſon of the commencement of buſineſs in the dairy, milch cows and thoſe near calving obtain great prices. Notwithſtanding which large droves lately brought to St. Ives's market out of the fens in a very low condition were equally bought up.

Small pigs proper for the dairy are dear, the larger ſort much cheaper, and a great ſtock on hand.

Sheep, although bought at all the late fairs in great plenty ſtill obtain good prices, particularly ewes and lambs provincially called couples, which are nearly as dear as they have been for ſome ſeaſons paſt.

Young freſh cart geldings are much in demand and obtain high prices.

A provincial agricultural report ſtates, that the continuance of favourable weather has enabled the farmers to finiſh the ſowing of barley, and oats in the moſt complete manner, the land every where being in an excellent ſtate for ſeed and in the ſouthern diſtricts the ſowing is nearly finiſhed. In the northern part of the kingdom alſo it is in an unuſual ſtate of forwardneſs. The farmers in the fens have never enjoyed a better ſeaſon for their buſineſs, the low grounds promiſing great abundance.

The dryneſs of the weather has permitted the rolling of the wheat and ſpring crops and has afforded a fine opportunity of ſetting up the turnip fallows. The wheat, winter tares, and the paſture improved daily. Much ſtock has already been turned out. Fruit trees every where are in bloom, which it is more than probable will ſuffer from the recent cold winds. The wall and the ſmaller berry fruit in the garden promiſe great abundance.

Shews of ſheep are taking place with great ſpirit in Ireland, in Tipperary, Kilkenny, Carlow, &c, &c.

Wool cut from diſeaſed ſheep is greatly inferior to that taken from an animal in health, and the cloth made of it is deſtitute of ſtrength.

CAUTION.—The abundance of turnips at the latter end of the preſent ſeaſon, has not been very favourable to the lambing ſeaſon, as a number of ewes have died in conſequence of being in too high condition. It is a circumſtance that all farmers ſhould attend to, not to have any animal too fat at the time of bringing forth their young, as the pain and difficulty of parturition are much encreaſed by it.

A ploughman in a field near Aylſham in Norfolk has had the good luck to plough up a pot full of money, among which there are upwards of five hundred pieces of ſilver coin, chiefly groats of Henry VII. pennies of the Edwards, and two gold angels of Henry VI.

On Saturday the 11th inſt, a numerous and very reſpectable company of the gentlemen who had attended the ſpring courſe of lectures of Mr. Brookes (at his theatre in Blenheim-ſtreet great Marlborough-ſtreet) on Anatomy, Phyſiology and Surgery, dined together at the Crown and Anchor tavern in the Strand; Lieutenant General Watſon preſided, and expreſſed to Mr. Brookes in a very handſome manner, that the public were much indebted to him for the experiments he had made, by which the inconveniences of anatomical inveſtigation are counteracted by his antiſceptic proceſs, and which Mr. Brookes has ſo far improved that the florid colour of the muſcles is preſerved and even heightened, and the inveſtigation of diſeaſe purſued without danger. Mr C. Taylor, the Secretary to the Society of Arts, noticed that from the opportunities of Mr. Brookes's pupils making experiments in comparative anatomy, conſiderable improvements are likely to ariſe in the veterinary art, and that the groſs blunders ariſing from the practice of many Farriers and Cow doctors will probably be corrected, by the attention of men of abilities being directed to a ſubject which has been too much neglected, but which is of eſſential conſequence to the patrons of agriculture, and to every perſon connected with agricultural buſineſs.

Hemp.—Mr. Brealle, of Amiens, has diſcovered a new proceſs for ſteeping hemp, the utility of which has been confirmed by numerous experiments made by celebrated men. It conſiſts in heating water in a veſſel or vat to the temperature of from 72 to 75 degrees of Reaumur, diſſolve in it a quantity of green ſoap in the ſame proportion to the hemp, as 1 to 48. The water employed for this purpoſe ſhould be about 40 times the weight of the hemp. Throw the latter into the water ſo as to float on the ſurface, cover the veſſel and extinguiſh the fire. Let the hemp remain in this ſituation two hours, when it will be found to be ſufficiently ſteeped. The advantages derived from this method are various, independant of the ſaving of time and expence, the ſame quantity of hemp yields more tow. The new method likewiſe tends to encourage the culture of hemp, by facilitating its prepation even to thoſe who do not live in the neighbourhood of a river, ſtream, or pond; and it obviates the ill conſequences that might reſult either from the infection of the air, or the corruption of the waters, which ſometimes deſtroy all the fiſh they contain, and muſt of courſe prove highly injurious to the catttle that chance to drink of them.

Captain Mac Arthur has returned to Port Jackſon, with his new ſtores and ſtock for his extenſive farm in that ſettlement. He has now in various flocks, near ſix thouſand ſheep, moſtly croſſed from tups of the Spaniſh breed; and from this ſtock under a genial climate, he flatters himſelf with the hope of ſoon rendering it unneceſſary for England to depend on the Spaniſh market for fine wool.

Again is the complaint circulated, that "upon actual experiment on ſtraw purchaſed in the Haymarket, London, one ninth of the grain remained in the ears amounting to the enormous loſs of 150 quarters per week, in the conſumption of ſtraw in London only!"

Fecundity. Mr. Benjamin Robinſon, of Wawn, near Beverly, in Yorkſhire, has had 139 ewes this ſeaſon in lamb, which have produced no fewer than 264 lambs. Eighteen of the ewes have now three lambs each; eighty nine, 2 each; and only twelve 1 each. The whole of the lambs are uncommonly fine, and in general of a good ſize.

CHELMSFORD.—The agricultural meeting to be held here on the 31ſt inſt. is expected to be attended by a large party of the moſt diſtinguiſhed agriculturiſts. Thoſe already mentioned, are the Duke of Bedford, Mr.

Coke, Lord Somerville, the Right Hon. John Foſter, the Earl of Winchelſea, Sir Wm. Rowley, and Lord Petre. Lord St. Vincent has alſo promiſed to attend. Some tups, the property of Sir Wm. Rowley, of Mr. Ellman's beſt blood, will be ſold by auction. After the meeting, a public dinner is ordered at the Shire Hall, where Dignum, with ſome other of the moſt diſtinguiſhed vocal performers, have engaged to be preſent.

The following very ſingular wager was lately decided. Mr. Reed Jun. of Weſt Dean, near Chicheſter, engaged for a wager of fifty pounds, to find out from a flock of 200 ewes, the lambs which belonged to each. Mr. Reed completely ſucceeded to the ſatisfaction of all preſent, in finding the mother of each lamb. Conſiderable bets were depending on the event of this curious undertaking.

Naſh Court farm, in the Iſle of Thanet, is to be ſold by auction early in the enſuing month.

Mr. Mansfield's annual ſhews of ſheep, will be at Pickwell, near Melton, Leiceſterſhire, on thurſday, the 6th June proximo.

Mr. Jellicoe's annual ſhew of new Leiceſter rams, takes place at Benthall, in Shropſhire, on May 31. The ſires and dams of the ſheep have been ſelected, or immediately deſcended from the prime ſheep, of Nicholas Buckley, Eſq. who has long held a diſtinguiſhed place among eminent breeders in Leiceſterſhire.

A writer in the Shrewſbury Chronicle, deſcribed to be a clergyman of the Eſtabliſhed Church, aſcribes, among other excellent effects of the union, between this country and Ireland, many agricultural advantages:—"It is," ſays he, "extending with aſtoniſhing degree of rapidity, and the value of land daily increaſing. From my window I ſee a track of corn country, that twenty years ago was a deſolate moor covered with heath, or interſected with turf-pits," &c. &c. If ſuch a reſult be true, we truſt the happineſs of the peaſant will be proportionate, and the union cannot in that caſe be ſufficiently appreciated.

Experiments. It is aſſerted in ſeveral parts of the country, that "ſowing about a peck of buck wheat, per acre, with the turnip ſeed, will preſerve the plants from the fly."

Fifty capital Leiceſterſhire rams are to be ſold by auction at Lalford in Warwickſhire, on the 4th of June proximo, belonging to Mr. George Penrice. The ewes of the ſame ſtock will be ſold in September.

The cultivation of turnips in Ireland, excites a laudable ſpirit of emulation amongſt the principal agriculturiſts of that productive iſland. The Marquis of Sligo, grew laſt year in his domain 180 tons weight, upon ſix roods of ground, (one acre and a half,) and four of theſe turnips weighed 112lb.

Experiment. Improvement in the culture of potatoes. A member of an agricultural ſociety at Greenock, recommends an improvement in the culture of potatoes of which he ſays, he has had ſeveral years' experience. The firſt year he cut the potatoe in three pieces, the top, the middle, and the bottom parts, (every one knows that the principal eyes are on the top) and planted theſe in three rows, the top plant was ten days earlier than the middle plant, and a much greater crop; the middle plant was earlier than the bottom, and a better crop; the bottom produced but a very indifferent crop. For ſome ſeaſons paſt he has planted only the top eyes, and declares that he has the beſt crops and drieſt potatoes in the country. None need be deterred, he adds, from this plan on the ground of waſte, for after the top is cut off, the remainder then keeps better and longer for uſe than if the potatoe had been preſerved entire. As a proof of this, lay a whole potatoe on the top of the ground or in any expoſed place, and it will ſhew that the top plants grow faſter, and are ſeveral inches long, before there is any growth from the bottom.

AVERAGE PRICES OF CORN, by the quarter of eight Winchester bushels; and of OATMEAL, per boll, of 140 pounds Avoirdupoise:

From the Returns received in the Week, ended May 18, 1805.

INLAND COUNTIES.

COUNTIES.	Wheat.		Rye.		Barley.		Oats.		Beans.		Peas.		Oatmeal.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Middlesex	87	2	58	2	39	4	29	11	42	4	46	10		
Surrey	102	4	46	0	41	8	30	8	44	0	46	0		
Hertford	80	9	40	6	45	0	26	9	41	6	41	6		
Bedford	84	9	68	9	42	5	26	6	42	0	48	0		
Huntingdon	86	10			41	8	24	10	37	11				
Northampton	89	4	66	6	46	9	24	6	45	0	46	0		
Rutland	87	6			49	0	23	0	46	0			62	0
Leiceſter	85	2			48	1	24	6	44	3	44	3	41	4
Nottingham	87	0	67	0	47	4	26	0	44	2				
Derby	87	4			57	0	30	8	49	4			42	6
Stafford	89	4			42	9	29	4	50	6			41	5
Salop	88	5	64	0	50	5	27	0			58	11	65	10
Hereford	84	6	51	2	43	10	27	10	48	0	46	0	63	3
Worceſter	89	9			46	3	28	4	51	9	48	6		
Warwick	98	6			50	6	28	8	52	7	58	7	47	2
Wilts	81	4			41	0	30	1	3	8	48	0		
Berks	87	4			42	3	27	11	48	11	50	0		
Oxford	86	0			41	9	27	0	45	11				
Bucks	79	1			44	11	29	6	45	5	47	3		
Brecon	84	10	51	2	46	4	24	0			48	0	41	11
Montgomery	84	10			43	2	23	7					50	10
Radnor	85	3			47	2	24	11			44	9		

Maritime Counties.

Eſſex	84	4	52	0	37	8	30	6	38	9	39	0		
Kent	96	8			41	4	31	8	42	8	44	0		
Suſſex	96	6			47	0	34	2						
Suffolk	84	11	48	0	36	4	30	9	36	10	45	0		
Cambridge	79	4	52	0	38	3	21	9	36	10				
Norfolk	85	10			31	2	24	8	38	0	42	0		
Lincoln	84	11	66	9	41	8	22	5	43	4				
York	79	1	74	8	39	10	23	11	41	2	72	0	54	3
Durham	82	11					25	0						
Northumberland	78	1	60	0	48	8	22	7	42	0	36	0	17	0
Cumberland	90	7	57	6	44	0	27	8						
Weſtmoreland	100	0	63	0	36	2	27	8					20	0
Lancaſter	88	3			41	4	28	8	49	4			22	4
Cheſter	1	5			50	6							23	6
Flint					51	8								
Denbigh	92	9			49	11	25	11					48	4
Angieſea	80	0			48	0	20	0						
Carnarvon	86	8			44	0	21	9					49	3
Merioneth	90	2			49	4	24	8			93	4	40	3
Cardigan	80	0			38	0	20	0						
Pembroke	79	4			47	0	20	0						
Carmarthen	93	10			54	4	21	5						
Glamorgan	91	6			56	0	28	0						
Gloucester	86	1			46	9	26	6	45	10				
Somerſet	92	0			46	6	27	5	48	0	44	0		
Monmouth	96	4			49	2								
Devon	98	11			45	9	28	3						
Cornwall	96	0			46	3	25	5						
Dorſet	88	1			40	10	35	3	52	0				
Hants	91	2			38	11	32	4	52	0				

LONDON PRICES OF GRAIN for *May*, 1805.

MARK LANE, *Monday, April* 29, 1805.

Since our laſt of this day ſe'nnight, our Market for all grain has been on the decline. To the Wheats from our own coaſt, the remaining over from laſt week, with ſome arrivals of foreign, we have a good ſupply, but, unfortunately, with very few buyers. This laſt circumſtance, with the ſale of a large quantity of Wheat announced to be ſold by auction this afternoon, leaves us in poſſeſſion of no better prices than thoſe of the end of laſt week.—Wheat, it may be noted, is 10s. per quarter cheaper. Barley and Malt are materially on the decline. Other articles according to our currency below.

Price of Grain, on board Ship, as under.

Wheat	57s 70s 78s	Malt	68s to 74s od	Fine old	45s
Fine	80s to 84s	White Peas	38s to 44s od	Tick Beans	34s to 38s
Superfine	85s	Boilers	45s to 47s	Fine old	41s
Fine old		Suffolks	—s to 49s od	Oats	21s 24s to 26s
Rye	48s to 53s	Grey Peas	37s to 41s od	Polands	28s to 29s od
Barley	32s to 37s od	Beans, new	38s to 42s od		

Monday, May 6.

Our arrivals of Wheat to-day from Eſſex and Kent were not very conſiderable, but the foreign on hand rendered the ſupply, on the whole, a pretty good one. In the early part of the morning there was an evident briſkneſs in the ſales, and 5s. per quarter more obtained for fine ſamples than laſt week; towards noon, however, this ſpirit ſubſided, and the trade cloſed at about our laſt currency. Barley and Oats, of which we had but ſhort ſupplies, found buyers, the former at 2s. and the latter at 1s. per quarter dearer. In other articles, they not being ſubject to any material alteration, we refer you to our prices as under. Flour is named at 80s. per ſack, but we cannot hear of any ſales at that price.

Wheat	48s 60s to 78s	Malt	68s to 73s od	Fine old	46s
Fine	80s to 83s	White Peas	35s to 40s od	Tick Beans new	36s to 38s
Superfine	84	Boilers	42s to 48s	Fine old	42s
Dantzic		Suffolks	—s to 49s od	Oats	23s 26s to 28s
Rye	46s to 52s	Grey Peas	38s to 42s o	Polands	29s to 30s
Barley	35s to 40s od	Beans, new	38s to 43s od		

Monday, May 13.

We had but a middling ſupply of Wheat today, and a few picked ſamples (as was the caſe laſt Monday) fetched higher prices than generally quoted. Barley is dull in ſale, and Malt equally flat, and rather cheaper. White Peas have not varied much ſince our laſt. We have no Grey Peas at Market. Beans of both ſorts (the ſupply being ſhort) are dearer. We have not many freſh Oats, and they are ſomething higher than this day ſe'nnight.

Wheat	—s 63s to 76s	Malt	66s to 72s od	Fine old	50s
Fine	80s to 88s	White Peas	36s to 42s od	Tick Beans new	40s to 44s
Superfine	—s to 90s	Boilers	43s to 48s	Fine old	46s od
Fine old White	94s	Suffolks	—s to 49s od	Oats	25s 27s to 30s
Rye	50s to 54s	Grey Peas	—s to —s od	Polands	31s to 32s 6d
Barley	33s to 39s od	Beans, new	42s to 47s od		

Monday, May 20.

We had not many freſh arrivals of Wheat to day, but having ſome on hand, the ſupply upon the whole was not a bad one. Fine ſamples, at early part of the day, obtained an advance of 3s. and 4s. per quarter, but not generally through the day; the ordinary dull. Good Malting Barley keeps its price. White Peas, Beans of both ſorts, and Grey Peas, being rather a ſhort ſupply, are dearer. Oats are a fair ſupply; a few foreigners in ſince our laſt, and prices without much variation.

Wheat	58s 74s to 90s	White Peas	36s to 42s	Old	50s
Fine	92s to 94s	Boilers	44s to 49s	Tick Beans new	36s to 41s
Superfine	—s to 96s	Suffolks	—s to 50s	Old	46s
Rye	48s to 52s	Grey Peas	40s to 44s	Oats	25s 28s to 30s
Barley	34s to 41s	Beans new	42s to 46s	Polands	31s 32s
Malt	66s to 72s				

Prices of Hops, Meat, Seed, Leather, Tallow, &c. for May, 1805.

Price of Hops.	1st Week	2d Week	3d Week	4th Week
Bags.	s. s.	s. s.	s. s.	s. s.
Kent — —	84 to 100	84 to 100	80 to 100	80 to 100
Suſſex — —	80 to 95	84 to 94	80 to 94	80 to 96
Eſſex — —	80 to 95	80 to 95	80 to 94	80 to 98
Pockets.				
Kent — —	84 to 112	96 to 112	90 to 112	100 to 108
Suſſex — —	80 to 100	90 to 110	86 to 105	10 to 116
Farnham — —	40 to 168	120 to 140	140 to 160	120 to 140
Seeds.				
Broad Beans, (per quarter)				
Long Pods				
Tares — —	32 to 40	31 to 38		
Rye-Graſs — —	10 to 26	8 to 27		
Carraway, (pr cwt.) —	122 to 130	122 to 130		
Coriander —	10 to 13	10 to 13		
Treſoil —	6 to 26 6d	6 to 28		
Red Clover — —	46 to 88	46 to 88		
White, ditto —	52 to 96	52 to 96		
White Muſtard Seed, pr bu	6 to 11	6 to 11		
Brown ditto — —	10 to 18	10 to 18		
Canary Seed	7 to 8	7 to 8		
Turnip, —	18 to 24	18 to 24		
Rape Seed, (per laſt) —				
Meat at Smithfield,				
To ſink the offal, p. ſt. 8lb.	s. d. s. d.	s. d s. d.	s. s.	s. s.
Beef — —	4 6 to 5 8	4 6 to 6 0	4 8 to 6 0	4 8 to 5 8
Mutton — —	5 0 to 6 0	5 0 to 6 0	5 0 to 6 0	4 8 to 5 4
Veal — —	5 0 to 6 4	5 0 to 6 4	5 0 to 6 6	5 0 to 6 0
Pork — —	4 8 to 5 4	4 4 to 5 4	4 4 to 5 4	4 4 to 5 4
Lamb — —	6 0 to 8 0	6 0 to 8 0	5 0 to 7 4	6 0 to 8 0
Head of Cattle—Beaſts about	2,000	1,800	1,800	2,000
——— Sheep	8,500	7,500	8,500	11,000
Price of Leather.	d. d.	d. d.	d. d.	d. d.
utts, 50lb. to 56lb. each	23 to 24	23 to 24	22½ to 23½	22½ to 23½
Ditto, 60lb. to 65lb each	25 to 26	25 to 26	25 to 25½	25 to 25½
Merchants Backs —	23 to 23½	23 to 23½	23 to 23½	23 to 23½
Dreſſing Hides —	22 to 23	22 to 23	22½ to 23½	22½ to 23½
Fine Coach Hides —	23 to 26	23 to 26	2 ½ to 25	23½ to 25
Crop Hides for cutting	22½ to 23½	22½ to 23½	23 0 24	23 to 24
Flat Ordinary —	21½ to 22½	21½ to 22½	22 to 23	22 to 23
Calf Skins, 30 to 40lb. p. doz	35 to 39	35 to 39	33 to 39	33 to 39
Ditto, 50lb. to 70lb. do.	35 to 39	35 to 39	33 to 39	33 to 39
Ditto, 70lb. to 80lb. do.	34 to 38	34 to 38	34 to 38	34 to 38
Sm. Seals (Greenland)	42 to 48	42 to 48	44 to 46	44 to 46
Large do. (per dozen)	61 to 91	61 to 91	61 to 81 1 s	61 to 81 10s
Goat Skins per oz.				
Tanned Horſe Hides pr hide	25s to 42s	25s to 42s	25s to 42s	25s to 42s
Price of Tallow.	s. d.	s. d.	s. d.	s. d.
St. James's Market —	3 7	3 10	4 1	3 11
Clare Market — —	3 6½	3 10	4 0	3 11
Whitechapel Market —	3 6½	3 10	4 0	3 11
Per ſtone of 8lb. Average	3 6½	3 10	4 0½	3 11
Town Tallow — —	60 6	66 0	68 0	67 0
Ruſſia (Candles) —	62 0	65 to 67s	68 to 6 s	66 to 67s.
Ruſſia ditto (Soap) —	— 0	66 0	66 0	66 0
Melting Stuff — —	52 to 53s	55 0	55 0	52 0
Ditto rough — —	36 0	37 0	38 0	36 0
Graves — — —	1 0	11 0	11 0	11 0
Good Dregs — —	10 0	10 0	10 0	10 0
Yellow Soap — —	76 0	76 0	76 0	76 0
Mottled ditto — —	86 0	86 0	86 0	86 0
Curd ditto — —	90 0	90 0	90 0	90 0
Candles, per dozen, —	11 0	11 0	11 6	11 0
Moulds — — —	12 0	12 0	12 6	12 0

Prices of Raw Hides, Hay and Straw, &c. for May, 1805.

	First Week	2d Week	3d Week.	4th Week.
Raw Hides.	*s.d. s.d.*	*s.d. s.d.*	*s.d. s.d.*	*s.d. s.d.*
Beſt Heifers & Steers, pr ſt.		3 6 to 3 8	3 6 to 3 8	3 6 to 3 8
Middling — —		3 2 to 3 4	3 2 to 3 4	3 2 to 3 4
Ordinary — —		2 10 to 3 0	2 10 to 3 0	2 10 to 3 0
Market Calf — —		12	12s	12
Eng. Horſe — —		18s to 21s	17s to 21s	17s to 21s
Lamb Skins — —		2 9 to 4 0	3 0 to 4 3	3 0 to 4 0
Sheep Skins — —		5 0 to 8 0	4 0 to 8 0	4 0 to 8 0
Prices of Hay and Straw.	*l. s. d.*	*l. s. d.*	*l. s. d.*	*l. s. d.*
St. James's—Hay —	3 16 0	3 17 3	3 19 9	4 4 6
Straw —	2 8 9	2 10 3	2 14 0	2 10 3
Whitech.—Hay —	4 3 0	4 3 0	4 5 0	4 5 0
New —	0 — 0	0 — 0	0 — 0	0 — 0
Clover —	4 14 6	4 14 6	4 14 0	4 14 6
Straw —	2 4 0	2 1 0	2 4 0	2 7 0
Newbury.				
Wheat — — —	56s to 100s	60s to 106s	64s to 100s	60s to 104s
Barley — — —	32s to 40s	34s to 49s	36s to 50s od	34s od to 44s
Oats — — —	24s to 30s	25s to 30s	24s to 30s	27s to 30s
Beans — — —	—s to —s	—s to —s	—s to —s	—s to —s
New ditto — — —	—s to —s	—s to —s	—s to —s	—s to —s
Peas — — — —	—s to —s	—s to —s	—s to —s	—s to —s
Saliſbury.				
Wheat — — —	76s to 94s	70s to 90s	76s to 88s	80s to 96s
New ditto — — —	—s to —s	—s to —s	—s to —s	—s to —s
Barley — — —	34s to 38s	34s to 38s	38s to 42s	40s to 44s od
Beans — — —	—s to —s	—s to —	—s to —s	—s to —s
Oats — — —	24s to 30s	26s to 31s	27s to 31s	28s to 33s
Peas — — — —	—s to —s	—s to —s	—s to —s	—s to —s

TO OUR CORRESPONDENTS, &c.

WE have had the honor to receive from J. C. Curwen, Esq. a List of his Premiums, to which we have paid due attention.

After what has occurred between our valuable correspondent, Agricola Northumbriensis, and ourselves, respecting the introduction of political allusions, it becomes necessary to our own feelings to declare, that our prohibition is not confined to him, but refers also to several other favors we have received; and that it is only as furnishing the most important of these communications, that we have addressed ourselves to a writer whose invariable aim is utility, and whose execution is always equal to his purpose.

We have given place to the "Miscellaneous Hints," because we expect something of more importance from the same hand—he has only, however, forestalled our own intentions in regard to the Holderness Society.

ERRATA.

No. 68. page 178. line 4. The words "of 25 per cent," ſhould have been omitted.

180. 6. "5d. or 6d." ſhould have been 1-5th or 1-6th.

No. 69. 268. 5. For "letter," read letters.

14. For "ſcales," read ſale.