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The Super-Labouring Co.

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THE
AGRICULTURAL MAGAZINE.

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[VOL. XIV.]

THE SUSSEX LABOURING OX.

[*With a Plate annexed.*]

The same gentleman who procured us the plate for Number 79, (Merino Ram,) has very obligingly furnished us with the portrait of a labouring ox of the Sussex breed, used four seasons, both at plough and cart, on the farm of a distinguished cultivator of that county.

For the Agricultural Magazine.

ON the subject of ox-labour, volumes have been written, but it has in a late treatise been brought to a point; the adverse arguments of Messrs. Cully and Bailey, and others, being confronted with nearly whatever can be said in its favour. It appears that oxen have been often rejected on very insufficient grounds, and that they are not even made the most of, by those who use them in preference. Sluggish and improper breeds have been tried, and very properly rejected; again, in counties where the practice generally prevails, the bullocks are sometimes so poorly fed, that a most inconvenient and unnecessary number of them are obliged to be kept in yoke. They are accustomed to yoke a great many together in Sussex and Kent, even to six or eight in a plough, for various reasons; sometimes on account of the work being very stiff and heavy, at others, merely because the bullocks are young, and may be better trained at light work. The Sussex yoke is also generally too heavy; indeed we think the labouring ox is well deserving of harness, instead of the galling yoke; but if the latter must be used, we prefer that of the West, and are given to understand that the yoke used in Lord Somerville's work, is light and convenient. The oxen of the famous county of which we now give a specimen, are like their sheep (the South-downs) truly excellent, yet the former are large-boned, and certainly too high in the leg; nevertheless we are not convinced, that for labour, they have any superiors, excelling both for speed and power in heavy work. The farm-servants in Sussex, say their oxen walk full as fast

as their horses, either at plough or cart; and whether it be from imagination merely, we are unable to determine, but we really suppose Sussex and Kentish beef to be superior in flavour, to most species of this country. The chief established labouring breeds, are the—DEVON, HEREFORD, SUSSEX, and GLAMORGAN, which may be propagated in any part of this country, either intire, or by the introduction of bulls, for the purpose of a cross from proper shaped home-bred cows. Bulls generally work well, and are capable of great labour: the noble Lord just mentioned, has occasionally worked bulls to great advantage.

PROPOSAL FOR THE COMMENCEMENT AND GRADUAL COMPLETION OF A GLOSSARY, OR EXPLANATION OF THE VARIOUS TERMS USED IN HUSBANDRY AND RURAL AFFAIRS, IN THE DIFFERENT DISTRICTS OF BRITAIN.—
By the Editor.

ON the advantages of this measure, in several points of view, there can be no dispute; and as it seems to be a favorite object with most of the correspondents of the magazine, the execution is respectfully submitted to themselves, as the best qualified for the task. One gentleman had already engaged for his own district, but bad health and indispensable avocations have hitherto prevented the fulfilment of his patriotic intention. We have yet no doubt of his punctuality, in due time. In the interim our recommendation is, that some one correspondent, in each county or district, will, to each communication, subjoin by way of postscript, the names and uses of such a list, as may at the instant occur to his memory, of every implement, or object appertaining to farming affairs. Recollection will soon point out those terms which are probable to be peculiar or provincial, and those which are general and needless to repeat, as cart, waggon, plough. In Suffolk as an example of the proper objects of a glossary,—and Essex, and generally in Norfolk, a dung cart is called a tumbrill, and the divisions of ploughed lands, *stetches*, consisting of a number of furrows. In other counties and occasionally in the same, these stetches are denominated *ridges*.—In Hants, Berks, and part of Surrey, they are called *lands*, and to describe their extent, the term *bout*, or turn of the plough is in use, as *five, or seven bout lands*. The general garden term in the case, seems to be *bed*, and in speaking of the raised and rounded partings of land in the Flanders, or rather Belgic culture, we make use of the term *bed*.

Thus much, or rather thus little, by way of illustration of

our meaning, with the addition, that should the proposal prove agreeable to our correspondents, it will be our future business to collect the scattered fragments into a useful whole.

MR. BARTLEY ON SHEEP.

To the Editor of the Agricultural Magazine.

SIR,

SHALL I trespass on your patience to favor me with the insertion of a letter of mine, in reply to one from a gentleman in North Wales, enquiring the price of a second rate Merino Ram, to which was added, the following P.S.

P.S. Pastorius, Number 81, page 222 of the Agricultural Magazine says, "He is informed there is a Spanish Ram, within two miles and a half of Alnwick, covered with a coarse coat of Yorkshire Manufacture."—Surely he must have been misinformed. If they require any thing like such care they will not do for this country."

THE ANSWER.

"In reply to your favor of the 28th past, I have a Merino ram which I would spare you at ——— guineas, and which I doubt not, would very considerably improve your description of sheep in the descending crosses—for instance, in the first cross, the improvement I guess would be double, at least in the weight of the fleece, and to add to the quality more than one shilling per pound; and as you seem to suppose that an increase in the weight of the carcass would be also an improvement, I am apt to conclude that such increase might be from two to three pound per quarter, and still more in subsequent crosses, as well as in the weight and value of the fleece.

"In reference to the ludicrous story of Pastorius as to the Yorkshire vestment, I presume it suggested itself to him from the practice adopted by Leicester breeders (himself being their champion), of wrapping their tups in flannel. In point of fact, I know not a hardier race of sheep than Merino, or better adapted to resist inclement situations, without exception of your mountaineers, of which I have also had some experience. A gentleman in this neighbourhood is not a little partial to the latter breed, having added to his flock last season upwards of fifty ewes; their lambs by a ram of mine, now running by their sides. Some years ago a ewe of this sort produced him a first cross, the fleece of which at the first shear weighed six pounds."*

* The coat of the ewe was less than two pound.

I appeal to your judgment, if little sheep of ten or eleven pounds per quarter, so clothed would stand in need of a *Leicester Jacket*.

The number referred to in the gentleman's letter I have not yet seen. I remain Sir,

June 1st, 1806

your obedient servant,
NEHEMIAH BARTLEY.

ON WHEAT, POTATOES, &c. (IN ANSWER
TO MR. BRIGHTLEY.)

To the Editor of the Agricultural Magazine.

SIR,

I RECEIVED in good part the strictures of your able correspondent Mr. Brightley, number 82, on my remarks as to the excellent properties of the potatoe—but I conceive that in a considerable degree, my intention and meaning is misapprehended by that gentleman.

No person can entertain a much higher opinion of the important value of wheat than myself, nor can any person more regret that its culture is not so extended as to preclude the necessity of foreign importation, by which in the course of several years past, a great number of millions sterling have been lost to the country, and this regret is the more sensibly felt in contemplating the period when it was otherwise, for I remember that period when the balance of the corn trade was much in favor of this country.

Wheat, as it ought, will always be an object of culture of first rate importance, nor did I propose the potatoe in the nature of a substitute; persuaded as I feel myself that the extension of both would be productive of consequences highly salutary, provided a cheap and expeditious method could be derived of concentrating the nutritious quality of the latter, for a long period of preservation.

In the absence of some such expedient, it must be obvious to almost every planter, that there are frequent instances of loss towards the close of the season, when the roots are not to be restrained from vegetation; but in some seasons I have known by the experience of myself, and many others, that this loss has been serious and heavy, inducing also, sometimes the opposite extreme, a scarcity, in the subsequent season. Mr. Brightley allows amongst others of my positions, that notwithstanding the encouragements by the board of Agriculture, the culture of the potatoe has been too much neglected; but I could wish to see its culture extended on a more regular and permanent basis, than by any partial and temporary incite-

ment, and which are seldom proposed until the calamity of scarcity is already existing, or apparent. The permanent incitement I consider to be some specific method for continued preservation of the surplus crop, whenever a considerable excess might happen; and at present none better occurs to me than that which I have adverted to: but it would afford me extreme satisfaction, if, in consequence of my starting the subject, any thing better should occur to Mr. Brightley, or any other of your intelligent correspondents; for in whatever degree Mr. B. may suppose me to be actuated by the paroxysms of enthusiasm; I may with truth assure you, that however I may be mistaken in the means, my sole motive is to contribute to the interests of agriculture, the *older*, and perhaps the *better*, sister of commerce.

Mr. B. seems to infer that I may be a sort of adept in the new chemical nomenclature—no such thing; I have no where I think employed the terms hydrogen, oxigen, nitrogen, azote, &c. &c.

In proposing something of an outline analysis of the potatoe, (which thus I have very frequently analyzed;) I only mentioned such component parts as are sufficiently obvious to the senses, namely, water, fibre, and farina; not concluding that chemical research is to be altogether rejected, in promoting the practical knowledge of agriculture, but that those terms were familiar and adequate to the understanding of practical men, and the things signified, answerable to the intention.

It has been matter of serious regret that no effectual method hath hitherto been devised, for preserving so precious an article of food as the potatoe, beyond that period which is well known to every cultivator; that which I have proposed, I consider not only to be the only effectual method, but that after a due degree of experimental appreciation, it will be generally adopted.

I introduced the subject with design that such experiments might be more generally tried by such as have inclination, opportunity or leisure, and they need not be tried on such a scale as, in case of failure, would be seriously detrimental to the experimenter. In my own particular practice, I have known the potatoe to vary in price from 1s. to 12s. a hundred; the latter may be taken as for wheat at 12s. per bushel, and to imply as the fact was, an uncommon scarcity of the article.—At the former price it must be evident at first sight, that on a commodity so bulky, the farmer would be scarcely reimbursed his expences. Many years ago, however, I sold at this price, delivered three miles distant nearly one hundred tons, a still greater quantity remaining on hand, altogether unsale-

able; in consequence a very considerable quantity was entirely wasted—but on some part I fed through the winter, twelve working oxen of the Devon breed: they fed wholly on potatoes and sweet barley straw, each *ad libitum*; and at the time of being turned out to grass in the spring, they were in condition so remarkably good, as to be the admiration of every one who saw them. But if at the present period I were in possession of such a surplus quantity, I think I should be tempted to detach the farina, and to wait a more propitious opportunity of application.

In a raw state potatoes are not thought to be an excellent food for pigs, and I am very much of the same opinion, raising from this consideration, that even the best, or *most mealy* varieties contain nearly three-fourths water; the inferior sorts perhaps more than seven-eighths, and the latter trash, for the most part, I suppose, may fall to the lot of those animals, any sort of trash being generally thought good enough for them; on the contrary I am of opinion with Mr. Brightley, that even for them the best, or most farinaceous varieties, ought studiously to be selected by the planter, the more especially, as referring to my own practice, I have obtained crops full as large from the best as from the inferior.

On the subject of selection, I am desirous of giving Mr. Brightley all the satisfaction in my power, very narrowly circumscribed as it is; for which purpose I may further trespass on your indulgence for a place in some one of your subsequent numbers.

I remain Sir,

Twerton near Bath,
June, 1806.

your obedient Servant,
NEHEMIAH BARTLEY.

DRILL-CULTURE AND EXPENCES OF LAND—POTATOES, BARLEY, CLOVER, WHEAT.

To the Editor of the Agricultural Magazine.

SIR,

Kent, June 8, 1806.

IF you think the following plan of management of eighty acres of good loamy soil, (part of a larger farm) situated near a town where plenty of manure is to be had, and demand for any quantity of potatoes and clover to be sold standing to the cowkeepers, &c. &c. worth insertion in your Magazine, it is at your service for that purpose, premising it is not an actual account for one year, but a fair average of several, that I have practised the following rotation. 1st potatoes, 2d barley, 3d clover, 4th wheat—twenty acres each.

Mode of operation. As soon after wheat season as possible, plough the wheat gratten, and in the spring carry out the dung, thirty loads of long per acre, and spread on the land.

In April or May plant the potatoes, (six sacks per acre) by opening balks with a plough at eight to the rod, drop the seed by women, and cover it by splitting the balks, (it may perhaps be more eligible, not to carry out the dung till after the balks are opened, then to be pulled from out of the cart by men, and the seed deposited on the manure), when you expect the potatoes to appear, dress the land down fine, and continue hand-hoeing and skimming them as necessary, in August earthing them up with a double mould-board plough. The latter end of October and November, the crop to be ploughed up by a plough opening every other furrow, to be picked by women and children by the sack, then the other furrows to be opened and picked, when finished let the land be well harrowed with a heavy harrow well loaded, and again picked. It may then be left till spring, and in March ploughed and immediately drilled with barley, (three bushels per acre,) from seven to nine inches apart, when up, to be hand-hoed and sown with clover, which may the next spring be either gypsumed or coal-ashed. The clover, (if handy to a town where there is a demand, to be sold standing at per perch, the purchasers to cut, remove, &c.) if no demand, to be either fed with sheep till June, (in which case the one-fourth part of trefoil seed should be mixed) and then seeded, or the first crop or both may be mown for hay. In November, the lay to be ploughed and drilled with wheat, (three bushels per acre) at from seven to nine inches apart, and well hand-hoed and hand-weeded during the summer. The land is perpetually clean, and may be continued ad infinitum, in a constant state of amelioration, and *few indeed* are the acres that would *necessarily require* a fallow. If the land *sickened* of clover being repeated every fourth year, a crop of tares might be taken in one course—if of potatoes, cabbages may be substituted also for one course.

POTATOES.—EXPENCES.		£.	s.	d.
To ploughing wheat-gratten	.	0	10	0
Harrowing	.	0	1	0
30 loads of dung and carriage	.	7	10	0
Spreading	.	0	1	6
Furrowing and covering seed	.	0	5	0
Seed and planting	.	2	0	0
Harrowing when the potatoes appear	.	0	0	6
Hand-hoeing 4s. 6d. skimming and earthing 7s.	.	0	11	6
Picking up 120 sacks at 3d per sack	.	1	10	0
Ploughing up, harrowing, and storing	.	1	1	0
Rent, rates, and tythe	.	2	8	0
Total		15	18	6

PRODUCE.		£.	s.	d.
By 120 sacks at 4s.	.	24	0	0
Expences	.	15	18	6
Profit per acre		8	1	6
Profit on twenty acres	.	161	10	0

BARLEY.—EXPENCES.

To plowing	.	0	12	0
Harrow and Roll	.	0	4	6
Drilling and hand-hoeing	.	0	5	0
Mowing 2s. 6d. binding 2s. carrying 6s.	.	0	10	6
Threshing 12s. binding straw 4s	.	0	16	0
Seed	.	0	11	0
Rent, rates, and tythe	.	2	6	0
Total		5	5	0

PRODUCE.		£.	s.	d.
By 6 quarters of barley at 30s. per quarter	.	9	0	0
2 Load of Straw	.	4	0	0
Expence		13	0	0
Profit per acre		5	5	0
Profit on 20 acres	.	110	0	0

CLOVER.—EXPENCES.

To seed and sowing	.	0	8	0
Stone picking	.	0	2	0
Coalash or gypsum	.	1	10	0
Mowing, &c.	.	0	15	0
Rent, rates, and tythe	.	2	6	0
Total		5	1	0

PRODUCE.		£.	s.	d.
By 4 ton of hay	.	12	0	0
Expence		5	1	0
Profit per acre		6	19	0
Profit on twenty acres	.	139	0	0

Memorandum, I have sold clover standing, clear of all expences, as high as seventeen guineas per acre.

WHEAT.—EXPENCES.		£.	s.	d.
To ploughing	.	0	12	0
Harrowing and drilling	.	0	5	0
Hand-hoeing	.	0	3	0
Harvesting, &c.	.	0	18	0
Threshing, &c.	.	1	1	0
Seed	.	1	2	6
Rent, rates, and tythe	.	2	6	0
Total		6	7	6

PRODUCE.		£.	s.	d.
By 4 quarters, at 3 <i>l.</i> per quarter	.	12	0	0
Straw 48 <i>s.</i> Stubble 6 <i>s.</i>	.	2	14	0
		14	14	0
Expence		6	7	6
Profit		8	6	6

Profit on 20 acres 166 10 0

RECAPITULATION.

	Expence			Produce			Profit p. acre			Total profit		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
Potatoes	15	18	6	24	0	0	8	1	6	161	10	0
Barley	5	5	0	13	0	0	7	15	0	155	0	0
Clover	5	1	0	12	0	0	6	19	0	139	0	0
Wheat	6	7	6	14	14	0	8	6	6	166	10	0
Total profit per annum on 80 acres										622	0	0

I am, Sir, your constant reader,
A MAN OF KENT.

ON THE COMPARATIVE LABOUR OF MULES, ASSES, HORSES,
AND OXEN, AND ON THE SCARCITY OF BREAD CORN,
IN ANSWER TO P. P.

To the Editor of the Agricultural Magazine.

SIR,
YOUR correspondent P. P. desires an opinion on the following subjects—“how far mules ought to be employed for labour of different kinds; and how it happened, that notwithstanding the extensive annual enclosures, and the great improvements said to be made in agriculture, and the increase

of its produce, we are continually making such vast importations of foreign wheat, and other grain, whereas formerly we were an exporting country?"

The keeping of mules for farm-labour, or driving them in a coach, as was the practice of the late Mr. Skey, of Bewdley, results generally, I apprehend, from whim or the affectation of singularity; or even if the parties taking such steps really act from motives of supposed interest, such are not probably the result of any very profound or extensive calculation.—One or two gentlemen in Berks, and in the West, have tilled their land, and done their carting business with asses. Another has contrived a hand-plough, and turned up his soil with human labour. Doubtless it is saying nothing to draw arguments against any particular practice, because it deviates from those in general use, but deviations surely ought to have sufficient grounds for their support. The advantages on the side of mules and asses, are, the smallness of their first cost, their cheapness of maintenance, compared with horses, their little liability to diseases of any kind, and the very long duration of their services, of the mule particularly; to which may be added, their general surefootedness.

In stoney and hilly, or almost impassible countries, much may be said for their use, and a great deal more in favor of their cheapness in all respects, to poor people in small country business, and yet the latter, in Britain at least, are observed never to retain their use any longer than their inability to do better, that is to say, to purchase horses, subsists.

To argue in the style of the ledger, arithmetically, a method of infinite excellence, and which, had it been adopted some fourteen or fifteen hundred years ago by divines and polemics, would have saved a world of misery and blood;—let us revert to the per contra side of the account of mules and asses. Here we shall perhaps find facts, as stubborn as the animals themselves, which will militate totally against their use any where, but in the pedling line. In the case of strong work, a man must keep a great number of such inferior beasts, to do the labour of two or three horses, and even then, his business, if ever thoroughly executed, must be done at miserable and teasing shifts. It is seldom also, that speed or dispatch can be made, with any of the ass kind, and in fine, allowing their full merits, the small size of the horse genus will ever be their superior at any labour, with perhaps the exception of that over mountainous countries. To what purpose insist on the superior cost of the horse if he pay it himself? The great age to which the mule will labour, perhaps even to his thirtieth year, has been much insisted on; to this Mr.

Lawrence has answered, that the ox never grows old, since you may labour him, eat him, and renew him *ad infinitum*: and, laughably as some may think, but in appearance very seriously on his own part, he recommends a light variety of the ox for inferior purposes of the saddle. Nor is such a thing without precedent, since the Right Hon. George Rose has an annual ox race near his seat in Hampshire, in which some of these horned racers have been known to come through the four mile course, at the rate of fifteen miles per hour, carrying a lusty plough-jockey; and farther, although it be not generally known, the letters have been carried a stage in that neighbourhood, by a bullock hackney, for several years past. Doubtless mules and asses might be much improved both in breed and by superior keep; and so may the inferior and smaller breeds of horses, which leaves the question precisely as we found it.

With respect to the second question, or the scarcity of grain, and need of constant import of late years, no doubt, I conceive, ought to be made, that however extensive our home growth has been, it has proved to be by no means sufficiently so. What can be a better proof that we ought to break up more of our own wastes, than a defect in the quantity of the first necessary, and the obligation of procuring it from foreign countries? All other considerations seems extraneous; but were we to go deeply and extensively into the subject, it would I think, appear in the conclusion, that a rapidly increasing population, both at home and in the colonies we partly feed, together with the inevitable waste of the present state of war, and warlike preparation, are the grand causes of the *deficit* in question. Suppose these causes temporary, are we to defer in consequence, a culture of our wastes, and so suffer the country to starve a while on speculation? I demand of certain persons, what sort of a situation this country might be in, next year, should the calamity of a general blight and mildew recur this summer; a thing I believe improbable, but by no means impossible? To talk of inferior modern culture, and the inferior comparative product of our arable lands, I have reason to know from extensive information, is to talk, pitiable nonsense. What then is to be done? Take away every unfair and dishonest bar to the culture of our wastes, the withholding of which from the use and sustenance of the people, is a gigantic fraud upon the country.

Tadcaster, June 12, 1806.

Q. Q.

ON DRILL HUSBANDRY COMPARED WITH BROADCAST, AND ON WIDTH OF INTERVALS.

To the Editor of the Agricultural Magazine.

SIR,

IN the last number of your miscellany, your Essex correspondent says "my information since last month has confirmed the idea, that in the north, they drill scarcely any thing but turnips and beans."—I can assure him, however, that in Northumberland we drill all sorts of grain; and that that method of cultivating Wheat and Barley is practised upon a pretty extensive scale. Undoubtedly the broadcast mode of raising culmiferous crops, still predominates; but our necessities, arising from the pressure of our enormously high rents, will (if they are not so high as to diminish our agricultural capital,) probably excite such a spirit of improvement, that the drill husbandry will soon be greatly extended. Similar causes will, in all probability, produce similar effects in Scotland, where, I believe, drilling is not so extensively practised as in Northumberland. On this part of the subject, however, your North British friends are unquestionably well informed, and I should be glad to see their sentiments in your Magazine.

I am as decided an advocate for "the superiority of the general drill husbandry" as your correspondent in Essex; but, till I receive, from well conducted comparative experiments, such information as will convince me that I am wrong, I must retain the opinion (which I expressed in your 81st. number) that in the drill culture of turnips a greater produce may be obtained than in the drill culture of corn, comparing each species of crop with the broad-cast husbandry. All my own experience confirm this opinion. Those, however, which are recited in the above number of your work, seem to require farther explanation. I said "your Essex friend acknowledges that he is unacquainted with our drill method of cultivating turnips. I have repeatedly tried that and the broad-cast husbandry *with the greatest accuracy*; and the crops* under the former have always been superior in the ratio of four to three."—With respect to the experiments in the culture of wheat, I observe that I have omitted (owing probably to the pressure of business) to mention the quantities produced by the acre; and of course, though I stated that all the crops were *great*, the proportionate produce of turn-

* There is a typographical error in this, as in other parts of my letter. It seems particularly necessary to say, that at page 249, line 7, the words FOR WHEAT are omitted; and that at page 242, line 14, (from the foot) CULTIVATOR should have been CULTIVATORS.

nips could not be compared with that of the corn. I must, therefore, now inform your readers, that in the first wheat experiment (see page 249, number 81,) the broad-cast crop produced,

Winchester bushels per acre,	34	weighing	58lb	per bush.
The drilled at 10½ inches intervals	33¾	ditto	58	ditto
And the drilled with 9 ditto ditto	36	ditto	59	ditto

And in the second,

The broadcast crop produced	40	ditto	59	ditto
The drilled at 10½ inches intervals	40	ditto	59	ditto
And the drilled at 9 ditto ditto	42½	ditto	60	ditto

Your readers will now more clearly perceive a part of the reasons upon which I founded my opinion relative to the comparative superiority of the drill culture of turnips over that of corn.*

In the Northumberland turnip husbandry, it is as 4 to 3
 In the first wheat experiment as - - - - - 9 to 8½
 And in the second ditto - - - - - as 10½ to 10¼

But, an Essex farmer says "it is impossible to reckon my experiments decisive as to width of intervals, because, in a great number of trials at various periods, by other experimenters, the results have been different." I am ready to acknowledge that the results of some trials which have been made by other experimenters, have been different from those which I have laid before your readers. But though my trials (in which the superiority of the drilled crops, in corn and straw, added to the saving of seed, is equal to about thirty shillings per acre) afford sufficient encouragement to prefer the drill husbandry, I cannot think it so very advantageous as some writers have represented. Where lands have been long in tillage, or abound with root, and other weeds, I can readily conceive that the advantages of drilling will be most conspicuous, because the particles of earth (which become more adhesive from long aration) can be easily divided, and the weeds eradicated, by means of hoeing.— But why continue land long in tillage? Or why sow corn where weeds abound? Upon such soils, however, I would entertain no doubt of obtaining *double* the weight of turnips, by the Northumberland mode of culture, than could be obtained in the broadcast husbandry, the quantity and quality of the dung, and other circumstances, being equal. But even this result would not, perhaps, satisfy your Essex cor-

* I mean when the drilled turnip and corn crops are compared with those obtained (by accurate experiments) in the broadcast husbandry.

† I understand that your correspondent alludes to the quantity, and not to the value of the produce.

respondent. He would probably remind me of still greater advantages from the drilling of culmiferous crops; for in Dr. Dickson's "complete System of Modern Husbandry"—a most valuable work, it appears that the Rev. Mr. Cook obtained, by drilling, upon a cold clay soil, forty-four bushels five gallons and two quarts of wheat per acre; and upon the adjoining land under the broadcast husbandry, only nine bushels four gallons and two quarts. An astonishing difference! and such, I must own, as would "reduce turnip drilling to a mere matter of straw." Whether there is any mistake in this account, I cannot determine; I can only say that it is not noticed in the Doctor's list of errata.

From all I have seen and heard, of the drilling of culmiferous crops in some of our best cultivated districts, I cannot account for the results of some experiments, but by supposing a want of accuracy, or that the land has been in a foul state. I would entertain this opinion, even when the drilled and broad-cast crops, are in the proportion of four to three; and I should be much obliged to your Essex friend, if he would communicate to your readers, a detailed account of the experiments to which he has alluded. I request, however, that he will be very minute, not only as to the produce, but also in stating all the different operations of ploughing, harrowing, manuring, sowing, hoeing, reaping, thrashing, &c. and the quantities of seed; for I intend to analyze and examine them, with the eye of a pretty old and extensive practical farmer. Attention to minutiae in these matters, has always appeared highly necessary to me; and I have often regretted that some of our very zealous advocates for the drill husbandry, have not been sufficiently explicit in their publications of experiments. I cannot reckon a comparative trial fair and accurate, unless the crops are raised under precisely similar circumstances, (excepting the difference arising from the different modes of culture.)

I agree with your correspondent in Essex, "that the result of a single experiment or two in farming matters, often signifies very little;" and one reason why I entertain this opinion is, that they are *often* conducted without the necessary judgment and accuracy. But even when they are judiciously made, I would certainly pay more regard to a series of trials for four to seven years, than to one or two. When I make *two accurate* experiments, however, in conformity to the principles which I advanced in your November Number—with corresponding results, I cannot but allow them to have great weight, when I estimate the advantages of any particular mode of culture. I have not, however, recommended nine inches as the most profitable width of interval, upon all sorts

of land and in all seasons. I described the soil upon which my experiments were conducted. I likewise mentioned the time of sowing, and recommended that width in the spring cultivation of light friable ground; adding that "in autumnal sowing, on more deep and fertile soils, perhaps these intervals are too narrow." And as a proof that I really think so, I can state that I now have between seventy and eighty acres of wheat, upon loams and stronger soils, drilled at ten inches and a half intervals.

I never drilled any white corn at the distance of eighteen inches between rows (the intervals which are preferred by a Reverend acquaintance of your Essex correspondent,) but I now have a small quantity growing, upon some experiment ground, with intervals of fourteen or fifteen inches, the result of which will enable me to judge with more precision respecting these great distances. If I am to form an opinion, however, upon the practice of some of our best cultivated counties* the width of eighteen inches will have but few supporters in the present enlightened times. Soon after the days of Jethro Tull, even greater distances would have had their advocates among *theoretical* agriculturists. But in present practice, intervals of from six to twelve inches are preferred by almost every cultivator in this kingdom; and I believe a very great majority consider nine inches, or thereabouts, as the most profitable distance. Much, however, as I have already observed, depends upon the time of sowing and the nature and condition of the soil.

It is evident from the discussion which your friend in Essex has brought forward, that some difference of opinion exists as to the produce most advantageous, width of intervals, and, perhaps, quantity of seed, in the drilling of culmiferous crops; and as the subject is highly interesting to the agricultural world, I am particularly desirous of seeing it fully and completely investigated in the pages of your very useful magazine. When I reflect upon the zeal and intelligence of your correspondents, in various parts of the kingdom, I confidently rely upon their exertions, particularly in collecting facts, to bring it to such an issue as may be the means of maintaining the celebrity of your work, and of extending, upon the solid basis of experience, the most advantageous modes of culture. In the prosecution of this design, I think I may reasonably expect the able assistance of Agricola Norfolciensis in particular; for he communicated to you, in the last or preced-

* Or the statements of Mr. Young in, I think, his Eastern tour. According to these statements, crops at eighteen inch intervals, have yielded scarcely one half of the quantities obtained by drilling at nine or ten inches.

ing year the results of some relative experiments, which were favorable to the practice of drilling, upon light soils, at intervals of nine inches. He also stated his sentiments upon the too small quantities of seed used by some of our most ardent drillers; and I fully agree with him. This gentleman can also communicate accurate information as to the practice of drilling culmiferous crops in Norfolk, in which I hope he will be supported by your other correspondents in that county.— Thus Sir, you will probably be enabled to lay before your numerous readers, a pretty accurate account of the drill husbandry in the counties of Norfolk and Northumberland; whose cultivators, it will not be denied, stand high in the scale of agricultural fame. At present I think I may venture to state that the general quantity of corn from the drilled crops of the former county* is to that obtained in its broadcast husbandry, as about thirty-six to thirty-one, or thirty-two, nearly.† In this county I have not heard that drilling has been followed by greater advantages, where good husbandry has been pursued. In most situations, upon land in a perfectly clean state, I understand the difference has not been so great in favor of that practice.

Below you have the results of all Mr. Amos's comparative experiments in the drilling of culmiferous crops. (Extracted from his "Theory and practice of Drill Husbandry").

		intervals,	quantity of seed	bushels.	
1st. Oats.	Produce of the drilled acre	8 inches	12 Pecks	56	Produce
	Ditto. Ditto broadcast ditto			50	
2d. Barley.	Produce of the drilled acre	9 ditto	8 ditto	58	
	Ditto ditto broadcast ditto			51	
3d. Wheat.	Produce of the drilled acre		7 ditto	36	
	Ditto ditto broadcast ditto			30	
4th. Barley.	Produce of the drilled acre	9 ditto	8 ditto	52	
	Ditto ditto broadcast ditto			47	
5th. Wheat.	ditto of the drilled acre	9 ditto	8 ditto	42	
	Ditto ditto of broadcast ditto			36	
6th. Barley.	ditto of the drilled acre	9 ditto	7 ditto	56	
	Ditto ditto of broadcast ditto			49	

Mr. Amos has not been sufficiently explicit with regard to these experiments. I am even at a loss to determine upon what sort of land they were made; and whether its condition was good, bad or indifferent. Their results, however, your readers will remark, confirm my assertions relative to the superior advantages attainable in the Northumberland turnip

* This I do in support of my proposition respecting the comparative advantages of drilling turnips and corn. Your Norfolk friends are, doubtless, well informed, and if I am wrong as to the general superiority of the drilled corn crops of that county, they will correct me.

† Which are generally sown at intervals of about nine inches.

culture; for that which is most favorable to your Essex correspondent is only as six to five in favor of drilling corn.— He will observe that Mr. Amos has given the preference to nine inch intervals.

It is but fair, however, to state another *astonishing result* in your friend's favor. "The practical statements (says Dr. Dickson) of a later experienced drill cultivator, may probably be more satisfactory, and afford a more correct view of the superiority of the practice. (The Doctor is not here, making a comparison with Mr. Amos's trials.) The writer after a short trial with another drill machine, and becoming more acquainted with the nature of the drill culture from a more extensive observation of it in different places, determined upon making use of Mr. Cook's machine, and the method of management which he has recommended. He began by drilling in November, 1791, two acres and a half of light, dry, loamy, land, not worth more than twelve shillings the acre, middling barley soil, broken up from the state of a foul, poor pea stubble, with red lammas wheat, at the rate of one bushel to the acre, in rows with nine inch intervals; another part of the field, confessedly better by five or six shillings the acre, being sown at the rate of two bushels to the acre in the broadcast method, and managed in the best manner of that practice. The crop of the broadcast sowing was, on account of the thinness of that of the drilled, it is said, much superior in its appearance during the winter, and the early part of spring; but the other after being scarified once in March, and horse-hoed the last week in May, exhibited a decided superiority, the broadcast declining considerably; and on the crops being reaped, that part under the drill system afforded nineteen bushels and three pecks on the acre; while the part managed in the broadcast method did not produce quite five bushels on the same extent of land." More experiments may be stated in your friend's favor, at least with regard to comparative produce; but your readers will see in that which is last recited, a confirmation of my suspicions respecting the state of the land on which the trials have afforded so much more corn in the drill, than in the broadcast husbandry as would establish his position. Far more, however, may be found, in the works of Dr. Dickson, Mr. Secretary Young, and other authors, to uphold what I have asserted. In these the superiority of produce in the drill-husbandry, is from about two to four, five, or six Winchester bushels per acre. These results were consonant to the experience of farmers, whose soils were clean and well pulverised, when the seed was committed to the ground; and I consider it as no small compliment to the Northumbrian,

and other able husbandmen, that they cannot obtain such great advantages from the drilling of culmiferous crops, as the cultivators of some other parts of the kingdom. What would be the increase of our already enormously high rents, if we could, like some southern cultivators, quadruple the present produce of our broadcast crops of wheat? If we could raise from one hundred and sixty to two hundred Winchester bushels of wheat per acre, Northumbria's bleak hills and cold retentive plains, would exceed the fertility of the Delta or Bengal.

"I never intended (says your Essex friend) to give the preference to broad-casting turnips." In another part of the same page, he also says, "I doubt very much the utility, and have often suspected the danger, of depositing the muck in the turnip ridges." It appears, therefore, either that he deems the mode of drilling upon a flat surface, or that of applying the dung as in the broadcast way, superior to our northern practice. I shall be very glad to see his arguments in support of this opinion. In the mean time I must briefly observe, that in *theory* it appears of great consequence to have the whole of the muck well covered, and placed a little below the earth in which the seed is deposited by the "turnip drill;" that in accurate comparative *practice*, I have always found this mode of application superior to any other; *that it is supported by the almost universal practice of our Scottish and Northumberland farmers*; and that in drilling turnip seed upon a flat surface, at intervals of about twelve inches, I have not been able to obtain greater crops than in the broadcast mode of culture.

I am, Sir,

Yours, &c.

AGRICOLA NORTHUMBRIENSIS.

June 14, 1806.

P. S. I am surprised at some remarks of your Essex correspondent, respecting the hoeing of drilled culmiferous crops; for I stated nothing to induce an opinion that I am not friendly to that judicious practice. I stated that in one of my experiments, the crops were hand-hoed; and that, owing to the mistake of a servant, they were not horse-hoed. I should have found no greater difficulty, however, in horse-hoeing the drills which were nine inches apart, than in horse-hoeing those with the broadest intervals, (ten inches and a half.) The land upon which the other experiment was made, was not only as clean as a garden, but sown with grass-seeds. It was, therefore, not hoed.

A. N.

ON SPRING FOOD FOR CATTLE, BORECOLE OR KAIL, KOHL-RABI, &c.—ON THE POOR AND POOR LAWS—IN ANSWER TO R. W.

To the Editor of the Agricultural Magazine.

SIR,

HAVING a little leisure of late, I have found an agreeable amusement in turning over the volumes of the complete set of the Magazine you lately sent me by the waggon, and shall not omit to remind several of my neighbours, who have but lately become your subscribers, to take the advantage, as well as myself, of the information which is to be obtained from having your work complete from its first publication. I have obtained the promise of several intelligent farmers to correspond with your Magazine, whenever any matter of information may occur, in particular of an old friend in Hertfordshire, on whose mature knowledge in every thing relative to husbandry, you may safely rely, not only as it respects his own district, but many other parts of this island.

In Number 77, p. 384, I found some very useful reflections on that most important branch of husbandry, Spring-Food for cattle, by Agricola Norfolciensis, one of the most valuable correspondents or pillars of the Magazine: these are also accompanied with the recommendation of some useful practice. It is a subject in which I *ought* to have much experience, my late father's husbandry being in its zenith at that period when Arthur Young first stirred up the attention of our cultivators to cattle crops of every description; in course, we have, at one period or other, tried nearly every species.

A. N. very feelingly and forcibly repeats, what both he and I have, no doubt, too often seen; and his words, as follow, should be worked into a sampler by the daughters of certain farmers (I shall really recommend the measure to a tenant of mine) in order to be framed and glazed, and hung up in the parlour. "How great soever may have been the provision for cattle, which a prudent farmer has secured against the severity of the winter season, yet it frequently happens, in an unusually backward spring, that an interval of a month, and sometimes even of two months, proves exceedingly distressing for want of grass, or other spring food to supply its place. The consequence has been, that recourse is had to the artificial grasses, in too early a state, which then receive a check that they never recover from the whole ensuing summer. Nor does the mischief end there: the cattle themselves are half-starved, stopped in their growth, and seldom or ever become worth what they would have been, but for this unfortunate period of general distress."

In the first place, I rather wonder that A. N. did not mention drawing and storing common turnips, as a certain resource for the spring; I say common turnips, because his poor and sandy soil is not good enough, either to produce the Swedish of large size, or full succulent quality. As to the difficulty he adverts to, of the hardness of the Ruta Baga, we do not find it so prevalent in the superior large and yellow species, and at any rate, we never fail of a remedy in slicing them. I think him fortunate in finding a substitute in Scotch Kail, which I really did not suppose would succeed sufficiently to pay, on a poor sand, having been repeatedly disappointed myself, by the small bulk of that otherwise excellent article, on middling loams. As to any difficulty in finding room for it, that circumstance did not occur to me, who never observe any particular course of crops, a thing perfectly void of consequence where the whole of the land is under the drill. My only questions are, in contemplation of sowing, what articles will be most in request, and whether the land be proper for them. There is, I believe, a species of perennial kail, which being cut down and finished in April, on being manured, will revive during the summer, and be fit to begin upon the following winter, through which it may be used, until April again. On this I request information from your Scotch correspondents. Kail succeeding so well with A. N. surely he cannot do better than to join it with the turnip culture, as a standing dependance, and provide accordingly. There is a superior kind of Kail, not yet sufficiently known or attained in South Britain. As to the Kohlrabi, very inferior to Kail, *Chorex a mille tetes*, Ruta Babaga, and other articles, it is of course no longer any object of concern. Cabbages must be entirely out of the question upon such a soil as A. N. describes, and I am at this instant writing in sight of a crop of cabbages, upon a strong, but cold clayey loam, which are comparatively a very poor crop, merely from insufficient goodness in the soil, which manure does not seem very greatly to amend. I beg leave to recommend Burnet to A. N. which, on his sandy soil, provided he shuts it up early enough in the summer, he will find a most valuable spring resource, at once nourishing and medical to his sheep.

I must next beg leave to notice the opinions of another of your very able correspondents, and a Norfolk man also, on the subject of the poor laws, on which I am truly sorry to declare, that I must, in conscience, totally disagree with him. Alas! this is among the misfortunes of humanity, that we cannot always agree in sentiment with those whose talents and good intentions we otherwise highly respect. I must however be brief as the nature of the subject will admit,

having already nearly reached those bounds I had presented to myself. It is a remarkable feature in R. W.'s arguments, that he has generally reasoned *ex parte*, and like his precursor, Mr. Malthus, either from that deficiency, which may be occasioned by prejudice, in the strongest minds, or from design, has left unnoticed a main principle, or governing member of his subject. Their hypotheses, in consequence, are invariably lame on one side. R. W. says, 'The appearance of our poor laws is beautiful on paper.'—I answer, there has ever been one grand and fatal defect in our poor laws. R. W. exemplifies fully, what the elder Mirabeau said in his *Ami D'Hommes*, that it is always expected of the poor, that their conduct should be invariably correct, in fact, that they should be something more than human; and they bring us to the *mote and the beam*, and the conduct of the Pharisees in the old Jewish story. Why is our ill conduct in the management of the money raised for the supply of the poor, to be laid to their charge? If temptation be placed either in their, or our way, is it not but too natural, that we should follow it? The multifarious parish business in which I have been at different periods involved, however, strongly induces me to suspect the accuracy of these pretended exorbitant grants of relief to the poor. Let us beware of the conduct of the Pharisees of old, who laid burdens on men's shoulders, which they would not even touch with their fingers. I have too often seen, in times of general distress, that instead of fairly calculating the sum a family must expend for a mere subsistence, they who had the disposal of the funds, would, with grave and knowing faces, and nods and winks, fix upon an arbitrary allowance, however insufficient, and tell the half-famished claimant he must shift with that, and that it was enough. I recollect also, at that afflicting period to all people of sensibility, that a member of parliament was absurd and ignorant enough to remark, that the poor were full of complaints and ungrateful, and that their equals, in other countries, were much worse fed, even to the feeding upon bark of trees. Now, I must be free enough to declare, that generally speaking, I know of no bounden duty of gratitude from the poor in this case, more than from us to them; and it is of unspeakable importance, that these things be openly explained, since they are so generally, and may be so fatally misunderstood.

The labourer who bears the brunt of the day, and through whose toil and sweat continued to the end of life, the support of life for *all* is procured, naturally says, if he reflects at all, why should he be reduced to starving and destroying shifts, whilst those whom even his blood is supporting, are

rolling in full-fed luxury? According to R. W's account, there are some of them who really do reflect, and who well know the title to support in time of need, which they derive from the still partial, and to them unfavourable laws of their country. But setting aside the positive direction of the law, is it possible, that men like Mr. Malthus and R. W. can be ignorant why the English labourer has the clearest right to his maintenance, when fairly unable to obtain it by his labour? Surely such a thing must be impossible. Is it possible again, that men can stare at, and complain of the immense amount of the poor's rates, and yet never stumble upon the grand original cause? Some writer that I lately turned over, has in a quotation, made Mr. Malthus say, "that we are not obliged to maintain the poor when they cannot obtain subsistence by their labour." I do not recollect observing this in Malthus's book, and hope he will not be found guilty of having made so weak and sorry a remark. Are we then, to reward their long services and sufferings by letting them at last die of hunger? And exclusive of human policy, is there neither obligation nor force in the natural law of humanity.

R. W's. reading must be less extensive than I should have expected, or he would not, I think, have found much novelty in the idea of a population destitute of checks, doubling itself every twenty-five years. Besides, the position as Mr. Malthus has stated it, sounds to me very nonsensically: for where did we ever, or ever shall we, find a population destitute of natural or accidental checks, and in defect of those, of legitimate, obvious, and practicable relief? The quotation from Malthus, about the single parish, had it fortunately been known to Fielding, might have been introduced into the tragedy of *Tom Thumb*, with much propriety and effect. Whoever doubted the truth of these pompous nothings, so admirably calculated to fatten those wiseacres, that are now at a loss for brain food, since plans for the conquest of France and the delivery of Europe, are no longer digestible.

It is sagely demanded,—Could any sum of money that we could give the poor, increase the supply of wheat? Suppressing a direct and obvious answer to that, I ask who occasioned the scarcity? Not the poor. "The noble independent spirit of the English peasant." Once again, can it be possible, that either Mr. Malthus, or R. W. should be unaware, that dependance is intailed by law, upon the English peasant, in consequence, that an application to the parish for relief, is no more a degradation to him, than in any public functionary, for an increase of salary. The quotation from Mr. Malthus concerning the Swedes, is much to his discredit, whether as

a man of feeling or of political science. Is there any reason that Britons should be abject and unreflecting slaves, because the Swedes are such? The impatience of the English labourers at the near, or even distant approaches of misery and want, not induced truly, by their ill conduct or omissions, is that which is justly due to the safety and comfort of themselves and families. Are we to monopolize even foresight and the power of complaint.

The matrimonial checks of Mr. Malthus, did they not demonstrate too much of a selfish spirit, and of an unfair monopoly of the choicest blessings and enjoyments of life, would be truly ludicrous. Let me task my small wits, to see if I also, cannot find wholesome and effectual expedients for the prevention of poverty. Suppose we were to bring a Bill into Parliament next sessions for the annual castration of a certain number of our poor, in every parish of the united kingdom, male and female. Many of them might, in the first place, turn out singers, either for the opera or church service, and the bulk of them having no families to provide or care for, would, no doubt, prove excellent labourers.

R. W. it seems desires a repeal of the poor laws. Has he reflected on the tremendous consequences that must result, in a country circumstanced as this at present is, were there no public provision for the poor? The example of Scotland is extremely fallacious; in another view I fear much exquisite misery in that country, is hidden on no very humane motives. Among other heart-rending accounts, I recollect one in a Scotch city, of a poor prostitute perishing in the streets, of mere famine, for no one would take her in! But I remember something else, if possible, still more atrocious in speculation:---I have heard that a certain Scotch author coolly observes, should a few paupers perish for want in the streets, it would be only a useful example to stimulate the survivors to industry! I would not be the author of that damnable position for a king's ransom.

To conclude, I humbly conceive, that Mr. Malthus and R. W. have ventured to publish to the world, crude and dangerous speculations, upon the most momentous subjects, of which I would recommend to them both, to re-consider the grounds, hitherto, I fear untouched by either of them. The acting up to such cruel political sophisms, I believe, first unsheathed the revolutionary sword in France, which cut up all property by the roots; it may yet have a similar effect, or that of approximating society to the savage state.

Hants.

W. W.

P. S. I freely join issue on the necessity of thoroughly cleansing that Augean stable of corruption and mismanage-

ment, our pauper system; but to what end attempt it, on partial and selfish principles, in other words, without grounds or principles, excepting as heretofore, to be perpetually dabling, in order to render bad worse. Let us not forget, that in the ultimate, *honesty is the best policy*; let us go deeper into this and certain other important national questions.—
Felix qui potuit rerum cognoscere causas.

AGRICULTURAL ENQUIRIES.

To the Editor of the Agricultural Magazine.

SIR,

WE have so many discordant opinions in agriculture at last, after so many years of endless speculation and extensive practice, that it is perfectly unaccountable; either the science itself must be the most uncertain of all others, or those whose practice it must be the most negligent and unobserving. I shall adduce a few, by no means unimportant examples, and being really in need of information, do most earnestly request it, of some of your more experienced and practical correspondents.

In the drill husbandry, beginning with the celebrated Mr. Tull, and concluding with the Rev. Mr. Hill, of Suffolk, there has ever been within that period, a certain set of drill-cultivators who have experienced the superiority of wide intervals, and have attained an equal quantity of wheat per acre, from eighteen inch rows, as from nine and twelve. Another set have yet always preferred narrow intervals. Some farmers, and those of high reputation insist, that it is preferable to leave arable land whole, throughout the winter; others contend for the practice of ploughing and fallowing it as early as possible in autumn. Some direct to sow poor land very thin of seed, as unable from its weakness to bear the burden of vegetation: others will have it best, to allow an extra quantity of seed to such soils. on account of the usual failure of seeds in barren ground. Some think it a kind of madness to leave turnips after they have reached their full perfection, to the risk of frosts, and to rot and wither in the soil; others slight the alledged advantages of storing turnips, which they represent as not worth the cost, and pretend they may be kept in general, throughout winter, in very good condition in the earth. In Norfolk and Suffolk, and certain other counties, a clover ley has been hitherto reckoned one of the best seed beds for wheat, an opinion to the best of my recollection, supported by Mr. Arthur Young. In the North, particularly in Scotland they account it very bad practice to sow wheat upon a clover ley. Thus much for the present, from

Market Harborough.

AN INQUIRER.

ON MERINO AND LEICESTER SHEEP, &c.

To the Editor of the Agricultural Magazine.

SIR,
I WROTE to you on the 17th ult. and as my letter is not inserted in your last number, I apprehend it has been too late.

I certainly did say that I should be glad to see the opinions of your practical readers on the dispute between Mr. Bartley and myself; but will Mr. Wright say that I engaged not to offer any remarks upon these opinions?—My letter in your 81st. number, which I have just read, contains nothing whatever to warrant Mr. W. in saying that his observations have made me “angry;” or that I will send him “empty away.” I received these observations in very good humour, and I hope your readers will allow that I am not in the habit of sending my opponents “empty away.” I always endeavour to give them something, and with what I conceive to be propriety and good nature; adhering, however, to that freedom of discussion which appears conducive to the establishment of truth. If in this I have erred, I have mistaken the design of your publication. I believe, however, that I fully understand its nature.

Mr. Wright stated that his whole flock was of the new Leicester breed. If he had said that he had also tried South Downs or Ryelands, then would I not only have admitted that he was, in a considerable degree, qualified to judge of the merits of anglo Merino sheep, but also withheld some remarks to which he has stated an objection.

It appears from Mr. Wright's last communication, that the Stamford Butcher sold the Spanish lambs at about nine pence per pound—this is certainly a great price. Mutton at the time appears to have been about one halfpenny per pound lower; butchers' meat, therefore, must have been dear. After mentioning these particulars Mr. W. says, “will new Leicester lambs, the first week in October, make 30 shillings each?” To this question I answer, *far more*.—I have had Leicester lambs in October, 14 to 16 lbs. a quarter, and it certainly requires but little arithmetical knowledge to show that, at nine pence a pound, they would raise from 45 to about 50 shillings each. On fertile lands about 13 to 14 lbs. a quarter, are the common weights of good Leicester lambs in September and October.

What I formerly stated as to the length of time necessary for Anglo-merinos to lay on a comparatively thin covering of fat, is not refuted by the Stamford Butcher's account of the Spanish lambs which he killed. Nothing is better known amongst attentive and experienced breeders and graziers than this, that lean and ill-formed animals often yield great quantities of milk, and that the young of certain inferior breeds

thrive well during the sucking season, and very indifferently after being weaned.—I always observe when I have a few Cheviot, or South Down Ewes upon my best lands, either for the purpose of experiment, or the supply of my table with lamb, that their lambs attain to pretty good condition and often fatness, but that when kept forward to wedders, they do not progressively improve like the new Leicesters. On the contrary, when the latter, upon similar food, are very fat at two shear, and at three as fat as “a seal or a Hampshire hog,” those of the short-woolled breeds are very far from being in proper condition for general consumption; nay, so lean, at the first period, as not to be “nicked on the tail head.”—The more this matter is considered, the more, I flatter myself, will my remarks be found to rest on the strong basis of experience. All my information confirms this idea: and I should be glad to see the opinion of your practical and attentive correspondents upon it. Let them not imagine, however, that I am “inviting them to a feast,” and that they will be sent “empty away.” I hereby promise them all the attention I have invariably paid to such agreeable visitors. Every thing they say, will meet my respectful attention, and if I should venture to reply, I hope they will consider it as a mark of *good breeding*. If they should happen to *gall* me, I shall undoubtedly *wince*, but, I hope not “*confoundedly*,” for I should wish, most ardently, to retain the powers of replication.

How did Mr. Wright happen to think the “saddle” he brought forward for Mr. Bartley, had *galled* me? *No proofs of such an effect appear in my letter wherein it is noticed.* Mr. W. should have recollected that *his* “saddle” afforded but a feeble support to my able opponent, who had defended himself upon grounds where it was perfectly useless. Where have I disputed the superiority (*in the opinion of adepts in good eating*) of the quality of the mutton of small short-woolled sheep? While I admitted its superiority in flavour, muscular fibre, and delicious gravy, I strenuously maintained the superior fitness of the thick and fat mutton of the new Leicesters, for general consumption, for the plentiful supply of our markets and the keen appetites of our numerous labourers, artisans, manufacturers, &c. &c. When these matters are considered, Mr. W. will readily perceive that his “saddle” could not possibly *gall* me in any way whatever.

“Lord Somerville (says Mr. Wright) can make ten guineas per acre of his Spanish wool, when will Pastorius make that in wool and mutton?”—Without saying one word, Mr. Editor, upon the credulity of some minds, and the occasional most stubborn incredulity of my own, which prevents me from giving credit to every thing I hear, in this age of wonders,

I shall endeavour to answer your friend's question. When I experiment upon such productive land as will well maintain ten Merino sheep per acre, "the year throughout," then will I make more than *twice* ten pounds by the wool, and mutton of my new Leicester sheep upon that quantity of ground.—If my recollection does not fail, however, I think Mr. Wright should have valued the Spanish wool, in the wonderful cases to which he has alluded, at only eight or nine pounds an acre, taking in even the present prices (of four to four shillings and sixpence per lb.) of the commodity before it be scoured, or those of four shillings to six shillings and six pence, and in some cases seven shillings per lb. when completely sorted and cleaned. He should also have considered the objections I have urged, with complete success, in my dispute with Mr. Bartley, against calculating upon the present prices of Spanish wool, in our views of the comparative merits of new Leicester and Merino sheep; and the prices to which long wool would rise, if we had no more long-woolled sheep in the kingdom than we now possess of the Merino kind. Long wool, of proper quality, cannot be obtained but in this kingdom; and were I to calculate upon the vast increase of price, *from this limited number of sheep*, would not Lord Somerville, and other breeders of short-woolled varieties, justly accuse me of puffing off my sheep upon false principles? Would not such enlightened judges of the leading principles of trade and political economy, remind me of the greatly diminished prices to which my followers would be obliged to submit, *under such an extension of my favourite breed as would supply our long wool manufacturers*. Is Mr. Wright bold enough to dispute the principles by which I have satisfactorily shewn the prices to which Spanish wool would be reduced, if we possessed a sufficient number of Anglo-merino sheep for the supply of our manufacturers of superfine cloth?—Is he disposed to contend against the authority of the "renowned Dr. Adam Smith," and all our political economists and experienced merchants? Has he fully considered the consequence of our having the above number of Anglo-merino sheep, and, *at the same time*, the Spanish, and other foreign markets open to us? Surely, Sir, he has not, or he would not have brought forward Lord Somerville's 10 guineas an acre as a proof of the intrinsic value of Merino sheep.—With equal justice might I state the present price of Champaign in London, as a proof of that which it would sell for if certain restrictions were removed.

But let us take the cases mentioned by Mr. Wright, as they have been stated, without being very scrupulous. Ten Anglo-merino sheep, and 10 guineas per acre for their wool, will then appear before your readers: no unpleasant sight for

the farmer, in these burthensome times! And certainly an agreeable subject for the contemplation of our present juvenile, but able, financier, Lord Henry Petty.—Lord, Sir, why talk of pecuniary difficulties, or any thing but inexhaustable resources? We may now war, if not for ever, at least till Buona parte and his numerous allies be completely confined to the continent without a single acre of foreign ground or a solitary bark upon the ocean!—Why should Mr. Fox's philipics against his predecessors embolden our enemies? What have our ministers to do but repose upon “a bed of roses!” What are all the mines of Mexico and Peru, with all the “gold of Opher,” compared to the wealth of this kingdom! Pardon me, Sir, for this digression, and permit me to return to the circumstances which gave rise to it, to 10 Spanish sheep and 10 guineas an acre, for their wool.

Before I proceed farther, I must remind Mr. Wright of the proofs I have advanced that sheep do not consume food in proportion to their weight, and that Leicesters consume less in proportion than any other breed. What number of Leicester sheep, then, will I be justifiable in placing upon an acre of land that will maintain 10 Merinos “the year throughout?” Certainly not less than seven. Upon these data, let us see how the account will stand.

	<i>L.</i>	<i>s.</i>	<i>d.</i>
First we have the wool of 10 Spanish sheep at the present prices, which are improper to calculate on.	10	10	0
And 10 Spanish sheep, 12 lbs. per quarter, at 7 pence per pound, sinking	14	0	0
	24 10 0		

Upon the next acre we have seven new Leicester sheep, 26 lbs. a quarter, at the above price per lb. sinking offal.

And 7 fleeces of wool, 10 lbs. each, at 1s. 3d. per lb.

4	7	6
* 25 12 2		

I have supposed the sheep put to grass, on the 1st. of June, immediately after being once shorn, and continued till the 2nd.

* Here the balance is greatly in favor of my “wool and mutton.” Perhaps Mr. Wright may think that I should have calculated on no more than 6 Leicesters against 10 Merinos. Upon these numbers the balance of the account would be in my favor, if the wool of the former were taken at 12 lb. per fleece, as, perhaps it ought to be, and the mutton at seven pence halfpenny per lb. and I am certain that, in our great mutton markets, mine would sell at more than a halfpenny per lb. above the mutton of the Spanish breed.

shearing in the succeeding year. Reduce the Spanish wool to the price it would sell for if we could supply ourselves, from British and Irish sheep, with the quantity generally imported, and the balance in my favor will be very greatly increased.

Perhaps the advocates for the Merinos will say that I should have calculated upon these sheep being more than 12 lbs. per quarter. I must, however, request them to consider the advantages (which I have on former occasions pointed out) of preferring animals which attain early maturity, and that I cannot allow their "slow feeders" to live much more than 2 years—a period within which the new Leicesters attain perfection:—why should the stomachs of our valuable labourers suffer from hunger in waiting three or four years for the mutton of our short-woolled breeds, when very large supplies can be obtained from the new Leicesters in half that time?

I must now conclude, Sir, by saying that I have very lately seen the Spanish ram in the neighbourhood of Alnwick, in Northumberland, which I am informed was bred by an eminent breeder in the west of England and selected for the purpose of diffusing the breed in the north.—We may therefore conclude that he is a pretty good sample of Spanish sheep.

The sight of this animal has confirmed the opinion I formed at an early period; namely, that a breeder who is well acquainted with the South Down and other short-woolled varieties, and with the writings of Lord Somerville and Mr. Bartley, may form a pretty correct opinion of the Anglo-merinos without experience in breeding them. I must confess, however, that this ram is less in size, and worse formed than I supposed. He is upwards of two years old, has been kept in good health, upon plenty of good turnips and grass, since November last, when he served only about 40 South Down ewes. Yet I am much mistaken if his weight exceeds 10 or 11 pounds per quarter. If I am wrong let Agricola Northumbriensis, or any of the respectable gentlemen to whom the ram belongs, contradict me. I did not "handle" him, but am informed that if he were shorn, his ribs might be clearly seen by a person at a great distance.* These particulars will, I hope, induce your impartial readers to conclude that I have not deprecated the Merino sheep in the above calculation.

June 14, 1806.

Yours, &c.

PASTORIUS.

P. S. I am exceedingly obliged to Mr. Wright for his kind and polite invitation. He will readily conceive, I hope, that

* If he does not produce a great deal of inside fat, he will not weigh the weight I have mentioned.

his accommodations are sufficiently "elegant" for a man who very frequently attends *flocks and herds* on fair Scotia's verdant hills and fruitful vallies.

In answer to the remarks of your able and valuable Norfolk correspondent, R. W. on the drawing of a Spanish ram, in a late Number of your work, I am persuaded that when he is better acquainted with that breed of sheep, he will think the form of the animal has been considerably improved by the engraver.

ON SHEEP.

To the Editor of the Agricultural Magazine.

SIR,

May 17, 1806.

IT is with much pleasure that I trace Mr. Bartley's pen in your last publication, not only because I consider his papers therein as a proof of the improving state of his health, but because I never read his communications without acquiring an increase of knowledge in some respect or other, though we have fought a long and hard battle, and differed materially on the relative merits of the new Leicester and Spanish breeds of sheep. Seeing, by his last letter upon this subject, that our correspondence is about to cease, at least till new facts arise for farther discussion, I must now beg leave to offer a few *parting* remarks to the consideration of your numerous readers.

"I have nothing new to advance," says Mr. Bartley, "nor hath any thing been advanced by Pastorius in any degree tending to alter the opinion I have formed, and repeatedly expressed that, from equal quantities of food, Merino sheep will produce more and better wool, and better and more mutton than Leicester sheep. On the three first points it is impossible for me to entertain a doubt. The relative superiority in weight of mutton, is a point, it must be granted, which requires the minutest accuracy of experiment to determine; and, when so determined, I am apt to believe that the balance in favor of either, as to this particular, could be found not very materially to affect the balance or the general statement of all the points."

Different avocations, Mr. Editor, have lately pressed-upon me in such a manner, that I have not, till this hour, had an opportunity of making any remarks for you upon Mr. Bartley's letters in your last number; and, indeed, I scarcely, I fear, have leisure to fill this short paper, much less to collate his former communications with the above quotation. But if I am not mistaken, he now speaks in a different tone, and is less confident than on former occasions. Formerly, I think, no

doubts were entertained by him as to a much greater produce of mutton from Merinos than from Leicesters, upon equal quantities of food. Now, however, his opinion respecting the comparative produce of these two breeds of sheep, the one extremely handsome, with all the distinguishing criteria of quick feeders and decisive proofs of astonishing progress in pinguefaction, and the other the worst formed of the sheep species, seems to be enveloped in doubt, or clearly to show that in *his mind* the difference in the quantity of mutton is immaterial. I have not the least doubt, however, that after he makes fair and impartial experiments, the envelope will burst and dissipate his doubts. Then he will clearly perceive the great superiority of the new Leicesters in the produce of mutton from equal quantities of food. I say *mutton*, Sir; for these sheep are, comparatively, solid masses of flesh unencumbered with bone; while those of the Spanish breed produce the latter substance in so great a proportion, that even one of my opponents, in your Magazine, has denominated them "*bags of bones*."—The new Leicester produce vast quantities of *human food*, and less *bone* in proportion to weight, or dimensions, than any other breed. Their mutton is so thick and substantial as to defy even the "desperate cut" of a "saucy Norfolkian;" while the poor, meagre, flat ribbed, narrow backed, Merinos, produce little but "*sweet pickings*" to gratify the taste of a town's epicure; whose knife is not, like that of a Norfolk labourer, wetted for deep cutting in substantial food. If our numerous agricultural labourers, manufacturers, mechanics, &c. were reduced to the necessity of *scraping from the bones* the scanty pittance of flesh afforded by Merino sheep, loud discontent would prevail, and the cry of *dearth, dearth*, would be the order of the day. If we could raise a sufficient supply of provisions in the kingdom for the consumption of its inhabitants, the very extensive diffusion of the Merino breed, which some writers have recommended, would be more easily defended. But under the present circumstances of this country, an extension of this nature to place them upon our productive lands, and thus diminish the number of our own new Leicester sheep, would produce dangerous consequences. It would be nothing less, in effect, than to provide the finest *coats* from British wool, for a people whose *stomachs* could not be filled with the flesh of our domestic animals.

But Mr. Bartley now says, "from the general tenor of my past communications, it may be collected, I presume, that it was my chief object to inculcate the national importance of extending the breed of Merino sheep, as an internal resource for the supply of our fine cloth manufactures."

I have already said, Sir, that I cannot, at present, examine Mr. B's "past communications." But if the above quo-

taion is perfectly reconcileable with his former statements, my memory is defective. I think these statements will prove that he formerly contended for a much greater extension of the Merino breed than seemed necessary for the supply of our "fine cloth manufactures" upon their present footing. Indeed, an argument for such an extensive diffusion of his favorite breed as would supersede the greatest part, if not the whole of our new Leicester sheep, seems to follow from his recently avowed opinion respecting the very superior value of the wool and mutton of the "Merinos from equal quantities of food," as well as from what he has repeatedly stated as to the superiority of these sheep upon the most fertile, nay, upon *all* sorts of land. Why does he *now* confine them within such narrow bounds as merely to supply our manufacturers of superfine cloth with about two millions of fleeces—the quantity annually imported from Spain?—Or why does he not argue for such an increase of Merinos as would supply wool for a much greater manufacture of the finest cloth than we have hitherto pursued? A change has evidently taken place; and if it has been produced by any thing I have advanced, my object is, in a great measure, gained. I have laboured to obtain more regard for that which fills the hungry stomach, than for that which would cover an emaciated body with a coat of superfine cloth. But conceiving that from one to two millions of sheep of the Merino breed, may be reared in this country upon pastures which are at present occupied by our native short-woolled breeds (many of which are not very productive of mutton), and consequently without encroaching upon richer lands, which are now under our new Leicesters, I agreed with Mr. Bartley that their introduction within such limits, would probably be advantageous to certain breeders and the nation at large. And we therefore bring our controversy to an end with a smaller difference of opinion than that which prevailed at its commencement, *without any concession on any part*.—I never objected to the introduction of Merinos, but when they were opposed to the most valuable breed which we possess—the new Leicesters:—a breed which, I hope, I have proved to be superior to the Spanish upon productive lands, both in a private view as the question relates to the farmer, and in a public one as it relates to the community.—On these points, I think my papers, in various numbers of your valuable miscellany, contain satisfactory refutations of Mr. Bartley's arguments, and I therefore beg leave to refer to them.

Yours, &c.

PASTORIUS.

This letter arrived too late for insertion in our last number.

E.

ON DIBBLING—THE CONTESTED QUESTIONS OF SMUT IN
WHEAT, WITH AN EXPERIMENT AND RESULT—RENTS—
MODES OF LIVING—SPRING AND AUTUMNAL PLOUGHING
—SHEEP.

To the Editor of the Agricultural Magazine.

SIR,

I AM really sorry that your respectable friend, Mr. Wright, should have put himself to the trouble of using any *arguments* whatever against my remarks relative to the crime of "Sculduttery" being facilitated by the practice of dibbling (considering the light in which he seems to have viewed them). He has surely imagined that I had no objection to the extension of dibbling, but its effects in promoting a certain crime. He should recollect, however, that I had pronounced it *barbarous* management, and much inferior to drilling with machines. If I had not entertained this opinion, I certainly should not have said a word upon its injurious effects in a moral point of view; though I contend that we should guard the morals of our labourers, and throw as few temptations in their way as the nature of our business will admit. Temptation and opportunities, are unquestionably increased by dibbling, and surely it would be doubly wrong in those who coincide in my opinion of its comparative inutility, to pursue it; for they would not only promote, in others, the commission of a great crime, but would also subject themselves to the imputation of folly by preferring the worst of two modes of row culture.

Convince me, Sir, that dibbling is superior to sowing with drill machines, and I shall immediately say that the nature of our business—the raising of the greatest possible quantity of food, for the good of mankind, imperiously demands its adoption. I said not a word against employing men and women together in hoeing, &c. though Mr. Wright has argued as if I had done so. I am, he may readily suppose, satisfied that we are often obliged so to employ them in carrying on our business; and if they will commit sculduttery, let us take care that the sin be solely imputable to themselves, and that no part of it can be applied to the demerits of the employment. Let us never so mix them, but when it is necessary, in order to discharge our duty in raising the greatest possible produce for the advantage of the human race. Let us not bring them together to promote any barbarous or injudicious cultivation. But I must now remark to your Lincolnshire friend, that I *merely* asserted a *fact*, namely, that dibbling, by bringing together still more young men and women, than other modes of husbandry, increased a certain crime and also the poor rates. Will he deny the probability of the effects?

Ag. Mag. Vol. 14.

S G.

I am much obliged to Mr. W. for his information on dibbling. I wish he had followed it up by giving some practical *proofs* of its utility in promoting a greater produce than other methods. He seems to think that clover lays cannot be well sown with the drill machine. Some of your Norfolk correspondents, however, if I am not mistaken, can give a different account, and I should be glad if they would do so; for I still think dibbling a sort of disgrace to our husbandry.—What! shall we still pursue the same mode of drilling that Adam pursued after he was sent forth from the garden of Eden; and this too, at a time when we are boasting of our vast improvements in the arts, and, amongst the rest, in mechanics and agriculture?

I suspect, Sir, that the silence of Agricola Norfolciensis on the subject of dibbling, may be considered as a proof not only that he does not approve of it, but that he does not wish to have it mentioned as any part of the practice of Norfolk.

I have considered, and, again and again, almost burst my very brains, in endeavouring to find the means of understanding the arguments, or rather the observations, of Clericus et Colonus, p. 229, No. 81. “How is it possible, (he says) for instance, to argue with a man on the subject of smut, who could write the following sentence without being aware of its weak side?” *But, Sir, if the N.E. winds really caused the smut in the crop from the dressed seed, how did it happen that they totally missed the adjoining piece?* These words in italics, Mr. Editor, are undoubtedly mine; and from the exordium of Clericus, I began to be rather uneasy, wishing that I could erase them from your pages.

From his *confident* manner, this impression lasted till I arrived at the end of his epistle, and from thence again at my own question. It was soon, however, entirely obliterated, and after considering, and reconsidering, and straining my brain several times, I can see no reason at all to be ashamed of it. On the contrary I now repeat it, and request a direct answer without any sort of evasion or quibbling. I am confident that ideas similar to those which induced me to ask the question, would be entertained by almost every other practical farmer. A correspondent of this description (Arator) has asked nearly the same question; and I shall be obliged to Clericus et Colonus to exhibit to your readers its “weak side.” Permit me, however, to remind him that he related the experiment which gave rise to my question, as an *accurate* one. I hope he does not entertain so very mean an opinion of the reasoning powers of practical husbandmen, as to decline going farther into this dispute, to exert his abilities in improving their logical faculties.

I must now beg leave to make the following quotation, on the authority of Malpighi, from Chambers. "Insects take particular care to deposit their eggs or seed, in places where they may have a sufficient incubation, and where the young, when hatched, may have the benefit of proper food, till they become able to shift for themselves; those whose food is in water, lay their eggs in water; those to whom flesh is proper food, in flesh; and those to whom fruits, or leaves of vegetables are food, are accordingly deposited, some in this fruit, some on that tree, some on one plant, and some on another, but constantly the same kind in the same plant; as for others that require a more constant and greater degree of warmth, they are provided for by their parent animal with some place, in or about other animals; some in the feathers of birds; some in the hair of beasts; some in the scales of fishes; some in the nose, some in the flesh; nay, some in the bowels and inmost recesses of man, and other creatures. And as for others to whom none of these modes are proper, they make them nests in perforations in the earth, in wood, and the like, carrying in and sealing up, provision that serves both for the production of their young, and for their food when produced."

"It may not be unreasonable or unnatural, then, (says a respectable writer, in a celebrated collection of agricultural papers,) to suppose some insect may deposit its eggs or seed on wheat when growing, and that if that egg, eggs, or seed, be not killed before the corn is buried in the earth, it may there, after proper incubation, become an insect, and feed upon the tender root of the plant; and as I conceive every corn in an ear of wheat has a capillary tube, that conveys food from the root to that particular corn, if that conveyance be stopt by the insect having injured or wounded the tube; perhaps the corn, (the flour that should be) for want of proper food, may corrupt and become a black feid powder, or what we farmers call burnt, or bunts, (or smut); or it may not be unnatural to presume that the fœces, effluvia, respiration, or rather the expiration of the insect, may in some measure taint the juices with which the plant is fed, and be a means of producing in the ears, corns filled with a black rancid powder, instead of a sweet white flour; on that the minute animalcules may insinuate themselves into the tubes of the plant, and ascend with the food into the husk or bran of the corn, and not having strength sufficient to break it, may by its effluvia, &c. or death, occasion the fetid smell and dark colour. If part of the tubes only are injured by the insect, part of the corns in the same year may be burnt, the other part good. If the stem of a burnt ear be cut just above the root, it will be found considerably harder than that of a sound

one; probably the juices of the one may be stopt, by the insect having injured the tubes, and continuing to ascend in the other, may occasion the difference.

“ Impressed with the idea, three years since, that insects are the cause of smut, I tried the following experiment in the middle of a twenty acre close; the residue of the said close was sowed with the same kind of wheat, treated in the same mode, as number 1 and 2, and equally as clean, and my crops have been so ever since: my mode of medicating my wheat is number 2.

“ No. 1, sowed five drills (with Mr. Cooke’s machine), with wheat treated agreeable to Mr. Middleton’s recipe.

“ No. 2, sowed five drills, with wheat wetted with old urine, three quarts to a bushel, and turned about with a shovel till all the urine was imbibed, then plenty of quick lime sifted over it, and turned over and over with a shovel, and left in a heap till next morning.*

“ No. 3, sowed five drills, with wheat steeped two hours in a strong lye, made of wood-ashes and lime, and laid on the barn floor to dry.

“ No. 4, sowed five drills, with the same kind of wheat, *dry*.

RESULT.

“ Nos. 1, and 2, scarce a burnt to be found in them.

“ No. 3, about a twentieth part burnt.

“ No. 4, near a fourth burnt.

“ No. 5, picked ten good corns out of an ear, the remainder were burnt; planted them in the garden; six only vegetated, which produced seventy-two ears, *one* root of which only was burnt, consequently the opinion that the good corns in a burnt ear produce burnt again is fallacious, otherwise the whole must have been burnt.

“ The above experiments seem to say that wetting wheat with old urine, and drying it with lime, is a preventive; and I conceive that an insect, by depositing its egg, eggs, or seed, on the corn when growing, is the *cause of burnt*. Supposing this to be the case, the wetting the corn with brine, urine, or strong lye, would of course destroy some of the eggs or seed, or even an animalcule, and the lime by its corrosive quality annihilate the remainder; but should any of the eggs, &c. remain on the corn animable, there may be here and there a burnt in the crop. But if on the other hand, the insect should deposit its egg, eggs, or seed, in the earth, it is possible the

* Lying so long in this state, I have reason to think, proves injurious in destroying the vegetative principle of a part of the seed. Keeping it in this manner, however, is advantageous in preventing smut. I believe it is frequently too soon sown after being mixed. F. S.

brine, urine, and lime, wherewith the corn is as it were coated when sowed, may be displeasing to the delicate taste of the little animal, and prevent its wounding the tubes of the plant."

"Respecting J. B——h's reason given for the cause, it is true it is philosophical, and, from common observation only, I should have concluded it was the true one; but a too intimate acquaintance with bunts, obliges me to dissent. If the cause came from the atmosphere, I should think it singular indeed if ten rows in the middle of a twenty acre close received the *whole* of the malady, and the other part of the corn growing on each side none at all*. If nitrous drops, &c. were the cause, they would be more diffusive, nor would it be in the power of any nostrum to prevent it, which experience contradicts."

"In answer to S——, and "An improver of nature," I must beg leave to say, that if the former cultivates a piece of land in the best manner possible, and the latter picks some wheat from the best ears he can procure, and sows this picked wheat *dry*, on his highly cultivated soil, I have not a doubt but the produce will be bunt, and if wetted with brine or urine, and well limed, the reverse; in short, I look upon lime to be the *grand specific* to remove the *cause of bunts*. As brining and liming wheat before sown, is universally practised, and I believe justly acknowledged to remove the cause of bunts, it naturally leads to an enquiry of what that cause can be, and where lodged, that brine and lime, urine and lime, or water and lime, have a power of annihilating; and I must confess I cannot see a more probable cause, than that it is an egg, eggs, or seed, lodged on the corn by an insect, and if so, the plump corn is as liable to contain them as the thin, and the well-tilled land to give them birth, nurture, and maturity, as the bad."

Without entering into an investigation of the merits of every part of the above extracts, I must now request Clericus et Colonus to inform your readers how he accounts for the difference in the crops under the above experiment, and particularly for the clean produce of No. 2, without imputing highly advantageous effects to urine and quick lime. I must also request your readers to pay particular attention to the words of the author. "*My crops (says he) have been clean ever since: my mode of medicating my wheat is No. 2.*" That mode †, Sir, I have long pursued myself, with similar

* Thank you, Mr. Author. This is an able support of my ideas which led to the question that Clericus et Colonus has treated so contemptuously. I beg that your readers, and particularly my opponent, will pay great respect to this part of the author's opinion, as well as that of Arator. F. S.

† I prefer immersing the wheat in the urine.

success; and I believe almost every *accurate* practical farmer in this district will give it equal support.

Agricola Norfolciensis will see by my letter in your last number, that I cannot allow him to impute the superior rents of land in this district, to the expensive habits of our Southern brethren. If he will consider the general extent of the farms in this part of the kingdom, (from about the middle of Northumberland to the Firth of Forth) he will readily perceive his mistake. In this district our capitals are generally large: many of them such, that at 5 per cent only, they would enable their owners to live in the stile of gentlemen.—Many of our farmers are well educated, and with large farms and long leases, it will easily be seen, that they will not live like tenants at will occupying small farms. *The latter systems are the bane of your English husbandry.* If they were extended to the north, the large supplies with which we feed our fellow subjects of the south, would soon diminish to an alarming degree, to the no small advantage of cultivators of the northern parts of the continent.—I consider our very superior rents * as the consequence of the general superiority of our northern management †. We have some advantages, no doubt, in the more simple fare of our labourers, but these are overbalanced by their greater *money* wages; and I cannot help remarking, that it is much better to pay them in money and the necessaries of life, than in money and large quantities of ale and other luxuries. The hasty pudding and milk ‡ which a “Saucy Norfolkian” would view with disdain, (See Ag. Mag. Norfolciensis, in your 8th Number) are more wholesome, and will longer invigorate the labourer, than animal food and ale.—Our luxurious modes of living, especially amongst the lower class of Englishmen, are big with danger of the most serious kinds.

I must now, Sir, conclude with a few remarks upon the last communication of Mr. Brightley, and am sorry that time will not permit me to answer his letter on the comparative advantages of autumnal and spring ploughing.—This correspondent has asserted, that Mr. Bartley has *earned* the *victory* over Pastorius in the controversy respecting new Leicester and Merino sheep. My opinion is very different, and considering what Mr. Brightly advanced about the middle of the combat, I really did not expect such an opinion from him. But I need not point out to Pastorius any appearance of inconsistency in his opponents. When there is any, he is sufficiently sharp-sighted to avail himself of it. I must just

* Compared with those of Norfolk.

† At least in Roxburg shire, Northumberland and Berwickshire.

‡ To Breakfast.

observe, however, that if Mr. Bartley had *merely* contended, like *Pastorius* and *Mr. Brightley*, for the substitution of Merinos for a considerable part of our *short woolled* sheep, few would have ventured to dispute the propriety of his conduct; but by extending his wings, and attacking the most valuable breed of sheep in the kingdom, (the new Leicesters,) he has been completely defeated.

June 10, 1806.

Your's, &c.

FARMER SANDY.

ON MALTHUS'S TREATISE, &c. IN ANSWER TO
MR. FAREY.

To the Editor of the Agricultural Magazine.

SIR,

ONE of your correspondents, in Number 82, (Mr. John Farey) from apparently very ingenuous and handsome motives, notices an observation I lately made, in a Review of the Herefordshire Report, on the work of Mr. Malthus on Population. Mr. Farey supposes Mr. Malthus unfairly treated, because a decided character of his work was given in few words, unattended with analysis, quotation or proof: but he has overlooked a material circumstance of the case, namely, that the work in question was introduced incidentally and with no view to criticism, and that it is usual, and may be often necessary, simply to characterize a book, as good or bad. Indeed to treat a book under review, in such mode, can be allowable only in one case; namely, when it may be found beneath criticism. The question Mr. Farey presently asks, demonstrates most amply, that he has indeed much to learn on the subject, which seems so greatly, and so deservedly to interest him.

I repeat, that, so far as I am able to judge, *the feelings and principles of Mr. Malthus's book are superficial*; nor does the system of the work, or a certain particular position therein, respecting population and supply of food, present ought of novelty, but to superficial readers. The work is doubtless ably and plausibly written, a thing the public had every reason to expect from the considerable talents of Mr. Malthus, but its partial principles are most dangerous, calculated to foster in the minds of the classes of property erroneous notions of their relative situation, and by no means to improve their sensibility towards their suffering fellow men. What you may think, Mr. Editor, of Mr. F's proposal to enter into a full discussion of the subject of Mr. Malthus's treatise in your Magazine, I cannot exactly tell; but in my opinion, your correspondents will prefer topics more imme-

diately appropriate, and will look to you, rather for practical lessons and facts, than extensive speculations, or indeed any thing of the controversial kind. Those who may stand in need of information, and who desire to understand, as well as read, Mr. Malthus's book, I counsel, in the first place, to consult a very able analysis and investigation of the work, to be found in one of the numbers of the *Critical Review* of last year; in the next, to read with attention, Dr. Hall, on the effects of civilization. I feel no difficulty in agreeing with Dr. Hall, as to causes; but great indeed in regard to his proposed remedy, in which he appears to me, to have fallen into an error very common with other men of great talents and the purest intentions.

Mr. Farey desires of me a proof, that "fungi are the effect and not the cause of mildew." My proofs are various and experimental, but a mere recital of them could be, by no means, so satisfactory to him, as ocular demonstration of the fact, very easily attainable by any one disposed to take but a part of the pains which have been repeatedly taken by

Sir, your humble servant,

AN OCCASIONAL REVIEWER.

ON CHEMICAL AGRICULTURE, SMUT AND STEEPS, MOWING WHEAT, ROWS NORTH AND SOUTH, OX-LABOUR QUESTION.

To the Editor of the Agricultural Magazine.

SIR,

May 24, 1806.

WITH the most heart-felt pleasure have I lately beheld your pages filled with useful matter from the pens of really practical agriculturists. The subjects discussed have been important, and many of them highly interesting, to myself in particular, considering the share I had in some of them on former occasions, more especially the *Chemico-Agrarian* matter. I assure you, Sir, I have lately felt a great inclination to put in a word or two, now and then; but your intelligent correspondents seemed to be so keenly engaged, and your pages so well filled, that I was apprehensive you would not be able to spare a corner for any observations from the pen of so insignificant a correspondent as a *Novice*. I cannot any longer, however, remain silent, and must now beg of you to *thrust in* the following remarks, in some corner or other, if you possibly can. If you cannot insert them in your next impression, pray do in some future Number; and if you cannot insert them at all, let me beg of you not to give them to your servants to put *backward*, to

the most ignoble purposes, like a certain Editor of a literary journal, but commit them to the flames.

I must first notice the chemical disputes lately brought forward by some of your correspondents. The long Paper from the Edinburgh Review, I read with great attention, but, alas! it proved too far in---too learned---for me. I was very little wiser when I was done, than when I begun with it.---Thus much, however, I have collected from it, combined with the subsequent remarks of Clericus et Colonus; that the wonderful matter called carbon, about which some of your friends have said so much, and about which I have repeatedly, and ardently, enquired in vain, is the "fat and oleaginous qualities" of the food of plants.---Thus, though I am raised a step higher in the scale of science, than I was the last time I ventured to write to you, it will be apprehended that I am still considerably in the dark. But, Sir, how is this "fat and oleaginous quality," this explanation of Clericus et Colonus, to be reconciled to the statements and remarks of several of your other correspondents relating to carbon? Conceiving that chemistry is a wonderful science; and seeing, as I long since stated to you, that some chemical farmers in my neighbourhood, or not far off, are the best managers of their lands and manures, I request the attention of some of your learned friends, to the seeming discordancy to which I have alluded. And if they will explain, their terms, and other matters, as they proceed, so as to bring them within the comprehension of such readers as myself, I shall be highly obliged to them. From what I lately heard, when I had the honour of a seat in company with some of the brethren of Clericus et Colonus, (who cultivate their glebes with much success), I am inclined to think that Agricola Norfolciensis is quite right as to the useful nature of chemistry in the descriptions of soils. These learned gentlemen did not confine themselves to *light* and *strong*. They talked of several sorts of land between these, and used terms by which they appeared to understand the proportions of sand, clay, &c. &c. But the devil of the matter is this; that I neither remember all their terms, nor did I understand them. They talked, however, about argile, and silex, and calcareous, and many other sorts and mixtures, which, in my humble opinion, it would be advantageous for practical farmers to know.

But I must again observe, that if any of your friends take up the subject, they should give such full explanations as are suited to the capacities and information of farmers, for they may just as well write in the language of *ancient Babel* or of

the *Calmuck Tartars*, as in that so commonly used by chemical men.

I dare not, Sir, venture into the dispute respecting the comparative merits of our northern and southern farmers. The stream seems to flow in favour of the former; notwithstanding which, I am rather inclined to think they are, in some respects, getting exalted rather beyond their deserts. But as I am a half-way man between the north and the south, and not sufficiently skillful for controversial matters, I must, for the present, hold my tongue, lest I raise Farmer Sandy's *Scotch bluid*, and feel, severely, the *sharp nib* of his pen as he proceeds to the southern counties.

Much ingenious *argument* has lately appeared in your work on smut, blight, &c. in wheat, but I wish we could obtain more *facts*. It is stated in your Number 81, p. 270, "that Mr. Knight for many years, steeped his seed in water only, and yet his corn was always as free from smut and mildew as that of his neighbours." This does not seem to make against the practice of *preparing* seed-wheat. Indeed it would appear from an extract with which you favoured your readers, in the past year, from the publications of Mr. Robert Somerville, that steeping and washing with water, was either completely, or very considerably efficacious, even when the seed was blacked. It would have been more satisfactory, to have seen an account of the results of comparative trials, in Mr. Knight's case; of the produce from washed and unwashed seed. In the same page is the following remark: "When expedition and great bulk of straw are the objects, we prefer mowing wheat, on condition that it be still bound in sheaves. Expert mowers will, after the first swathe, very adroitly and regularly throw the ears of wheat upon the straw." This, I am sorry to say, is different from what I have observed; and it is also different from the statements of your very intelligent friend, Agricola Norfolkensis. If the ears could be regularly laid, as above, the mowing of wheat would be practised very extensively; and it is a misfortune that they cannot; for certainly mowing is the most cheap and expeditious mode of harvesting wheat, besides the great advantages of gaining more straw than in the common way. I should be glad if any of your experienced readers in the west of England, or any other part, would address you upon this subject, and describe the scythes, manner of mowing, &c. by which the wheat can be so regularly laid, as is above mentioned; not omitting the expence compared with common reaping with the sickle.

At page 273 of the same Number, the writer, in mentioning orchards, trees, &c. says, "the rows should extend from

north to south, as in that direction, each part of every tree will receive the most equal portions of light and heat." *Quere*, have any of your correspondents pursued this mode of drilling corn, turnips, &c. and are they satisfied that advantages result from it?

In the following page, something is advanced upon the long controverted question, of the comparative advantages of horses and oxen for draught. The preference is given by the writer, who quotes Mr. Lawrence in support of his opinion, to the latter animals. And then your reviewer follows it up by saying, "beyond this we are induced to judge by experience, *that four Herefordshire oxen, well fed, will do as much labour at plough, as any four horses in England or in Europe, are accustomed to do.*" This was the subject of conversation, a few days since, between a traveller, at an Inn, and myself. I was against oxen. I stated the additional quantity of work done here by horses; that oxen are laid aside in Yorkshire; and in a particular manner, I held firmly by the communications of your Norfolk friends, respecting the ploughing of two acres per day, with a two-horse plough, without a driver. The traveller admitted that that quantity of land was frequently ploughed in Norfolk, in a day, with one plough and one man; but that two fresh horses were used in each half day, which, in fact, was taking four horses for the work. If this is the case, the surprise of Farmer Sandy will cease. I cannot determine this matter, but am inclined to think the traveller had been ill-informed. I should be glad if some of your Norfolk correspondents would put a finishing hand to it.

Oxen seem to be your favourite animals, Mr. Editor; but as I am of opinion that horses are more profitable in the labours of a farm, I must solicit your pardon for saying, that I think your correspondent Agricola Northumbriensis, has highly the advantage of you, upon this important subject. Nay, I hope you will excuse me for saying still more. Yours is merely opinion, unaccompanied by either facts or arguments, while his statements in favour of horses, are fully supported by a great deal of both. These statements I have lately examined, in consequence of some assertions that have appeared in your publication, as well as of some arguments I have lately heard on this question; and am strongly of opinion that it is no easy task to refute them. But as I am anxious for further information, I should be glad to see upon what your opinion is founded, and how you support your assertions.

Your's, &c.

A NOVICE.

ON THE DISEASES OF SHEEP, SCAB, RUBBERS,
FOOT-ROT, MEGRIM, &c.

To the Editor of the Agricultural Magazine.

SIR,

ON the subject of diseases, whether animal or human, I am very much of the opinion of the author of the *General Treatise on Cattle*; namely, that little good can be expected from either the speculation, or the practice of such people as are not of the medical profession; and that where recourse cannot be had to regular Veterinary practitioners, our diseased cattle and sheep must even take their old chance, which according to my experience, has indeed been generally a poor and forlorn one. As to the prescriptions and practice of cow-doctors and farriers, the case ever has been, and still is, heads or tails, kill or cure; and to set the affair in its most favourable light, is, when we may rationally hope, if these learned doctors fail to do good, that they will not do harm; by the bye, an expectation seldom quite rational. There is, however, one great certainty, that their time, labour and hodge-podges, notwithstanding all those may be grievously misapplied, must be paid for. In the name of all that is in the least degree allied to common sense, how could our sober and sedate fore-fathers, and how can we, their hopeful children, possibly expect, since miracles are acknowledged not to be a modern growth, that ignorant and illiterate mechanics should be able to acquire a knowledge of medicine?—and even the most difficult branch of it, animal medicine, far more difficult than the human, in as much, as that the brute is ever unable to tell his tale, or to afford the least assistance towards the developement of the cause of his disease. In almost every case of public grievance, the fault subsists in the public neglect: thus we have ever encouraged the set of men, of whom we speak, and enabled them, as well as other fortune-tellers and jugglers, to earn a livelihood by the practice of imposture.

The keepers of cattle may however, by the early and constant exercise of their powers and opportunities of observations, sometimes discover the causes of unfavourable change and of sickness, which is a most material step towards the discovery also of the proper remedy; for the grand opprobrium here, and in divers other cases, is groping in the dark, and taking things on trust. For example, eruptions on the skins of sheep, are frequently caused by exposure to a severe and unchangeable atmosphere, and by low keep, alias starvation. Now it often appears, that a man overlooking the ori-

ginal causes of his misfortune, will be daubing and anointing his sheep, still kept under the influence of these causes, to no manner of purpose, excepting that of busily employing himself in mischief. I cannot better illustrate my meaning in this place, than by a reference to one of your best practical correspondents, John A——. In your last Number, p. 287, he describes a case of *rubbers* in his sheep, one patient under which he very rationally kept three weeks in a warm house, but without trying any experiments. At the end of this period, '*the pelt appeared to be moister, the young wool growing, and the small dry scabs which were upon its back, when put into the house, had disappeared.*' A little pollard, bran, or barley meal, with as much salt as the sheep would eat, would doubtless have hastened and ascertained the cure. This gentleman, it seems, was disappointed at not finding a maggot in the brain of one of the sheep which he killed, an expectation however, into which he was misled by those who had confounded the disease with another species. In fact, the *rubbers* is often confounded with the *megrin* or *gid*, because, perhaps, sheep in this last disease are often seen rubbing their heads: but that malady generally known in Norfolk and Suffolk by the name of *rubbers*, is merely an eruption on the skin, a variety, I suppose, of the scab or mange, originating in some of the same causes, and curable by remedies of the same kind. As to *megrin*, or giddy diseases, or bladder in the head, it generally arises from dropsy of the brain, and the author above-mentioned, judges that it is often occasioned by cold, caught whilst the animal is young. Your correspondent very rationally attributes this eruption on his sheep to the wet and cold seasons, of which we have had a succession of late years; but as to its originating in breeding from the same stock, I trust he pays no regard to such an antiquated and groundless notion. A man might doubtless breed from the same stock to the end of time, with success, granting they were originally good, and that he acted with judgment. As to the foot-rot, it is occasioned by the feet remaining too much in the wet or dirt, and heavy sheep are ever most liable. A good straw-yard is the best preventive, and the common method of cure given by Mr. Carpenter, in one of your late Numbers, is generally successful, if the sheep's feet in the mean time be kept dry.

I am, Sir,

Your humble servant,

Surry Hills.

X. X. X.

LOSS OF LAMBS.

To the Editor of the Agricultural Magazine.

SIR,

ACCORDING to the public Papers, Mr. Nathaniel Clarke, of Bisbrooke, near Uppingham, in Rutlandshire, lately lost ninety-nine lambs, through injuriously dressing his ewes with scab ointment. As I once lost some lambs in an unaccountable way, I have now reason to suspect it might have been from a cause similar to the above, and should think myself obliged to Mr. Clarke, or any farmer of his neighbourhood, to describe, through the channel of your Magazine, the kind of ointment made use of, how applied, and in what manner the lambs were affected; how long before they were carried off, and in general, as many circumstances as possible.

I am, Sir,
Your's, &c.

South Downs, Sussex.

S. W.

NORTHUMBERLAND AGRICULTURAL REPORT.

To the Editor of the Agricultural Magazine.

SIR,

June 16, 1806.

THE frosts and snows of March having been succeeded by ungenial weather, almost the whole of our seed oats and barley were committed to the ground rather late in the season. Of course our crops, upon most of the strong and wet soils of this district, are not so forward as usual; and upon a great part of the latter, their present state is not propitious to the views of the husbandman.—The wet and cold spring destroyed a very considerable part of the wheat plants; but though our crops of that sort of grain are generally thin, their growth has lately been vigorous, with a good colour, the weather in the present and much of the past month, having been generally dry and warm. Some fertilising rains have also improved our crops, which, upon the dry and light lands, are almost universally luxuriant.

Our crops of artificial grasses are, upon the whole, but indifferent.—The turnip fallows have been well prepared, about one half of which are already sown under the most promising circumstances: dung, from the luxuriance of last year's crops, is a plentiful article, and we may reasonably expect an abundant turnip crop.

Almost ever since the appearance of war with Prussia, our corn markets have been in a fluctuating state.—At present

wheats are worth about nine shillings and sixpence to ten shillings, and some very fine samples, ten shillings and threepence; barley, four shillings; pease, four shillings and sixpence to five shillings; and oats, three shillings and fourpence to three shillings and eightpence, per Winchester bushel. Very considerable quantities of corn are still in the stack-yards.

The demand for grazing stock has been great, and the prices higher than those obtained in the spring of last year. The markets for fat stock have also been brisk in the past and present month; and cattle are now readily sold at seven shillings and ninepence to eight shillings, and some at eight shillings and threepence; sheep (wanting the fleece) at eight shillings and sixpence to eight shillings and ninepence; and lambs at eight shillings and ninepence to nine shillings and fourpence, per stone of fourteen pounds, sinking the offal. The demand for draught horses has lately been very great; and those which are young and good, have been sold at from thirty-five to forty guineas, and some as high as forty-five to fifty pounds. The price of labour, in the last spring, increased about fourteen to seventeen per cent. or more, in this part of the country.

ON RENTS AND COMPARATIVE HUSBANDRY, NORFOLK AND
NORTHUMBERLAND—COMMUNICATIONS TO THE MAGAZINE.

I am inclined to think that Agricola Norfolkensis should attribute the difference of land rents in Northumberland and Norfolk almost entirely to our superior system of rural economy, especially to our rotation of crops and superior breeds of black cattle and sheep. What he has stated as to the expensive habits and relative "artificial wants" of the farmers of these two counties, does not appear to me to be founded on the most correct information. This, however, is a delicate subject, and I leave it in the hands of Farmer Sandy, who has already offered a few remarks, and who will probably mount his "whiskey," and, aided by *estates* and plenty of *port and brandy*, drive vigorously through it.

The climate of Norfolk is certainly more favourable than that of Northumberland.—On the quality of the land, I find it more difficult to judge. Each county, no doubt, contains a very great proportion of poor, with a good deal of middling, and some rich grounds. Upon the whole I am of opinion there is not a material difference in this respect. Perhaps it may be in favour of Norfolk, which contains the greatest proportion of turnip soil—a soil which farmers in general prefer.

The question which I lately put to you, Mr. Editor, on the insertion of politico-agrarian matter, is not correctly quoted by Agricola Norfolkensis. There is an addition of a little monosyllable*—I certainly did intend to insinuate that the remarks of this excellent correspondent confirmed my opinions relative to the difficulty of filling your pages with useful matter, without encouraging Politico-Agrarian discussion. I perfectly understood what he stated, as to extracts from Lord Dundonald, Dr. Dickson, &c. &c. On this subject, I have already said, my opinion coincides with his.

I am sorry to say that your compositor has again committed some mistakes.—In your last Number there are several errors in punctuation in my letter. These, however, may have arisen from the shaking of my own hand. This shaking is particularly felt when a farmer leaves the plough stils and sits down to write. Then, you know, he may easily make a comma where there should be nothing at all; a colon for a period, and a semi-colon instead of a comma. But if such errors are made by the writer, it is the duty of your compositor to rectify them, more especially where the mistake is clear and obvious.

My letters, I know very well, are not so legible as I could wish, not only from that shaking of the hand which almost every ploughman feels, especially when he is writing for publication, but also from the want of leisure. I am certain, however, that in writing the letter which you have inserted in your last Number, I was very particular in writing *Mobility*. I am certain that the shaking of my hand did not make the *M* an *N*. Yet the word is printed "nobility." (See p. 295, line 38, Number 82.)—This is very vexing, for no man entertains a higher respect for the nobility of this country, than I do; and I have to request, in a most particular manner, that your compositor may steadily resist the effects of the Gallic mania which has attempted to convert *mobility* into *nobility*. At least I shall be "d—d angry," if a similar mistake again appears in any of my papers.—The above letter contains some more uncorrected errors, particularly *overrated*, for *enervated nations*.

I am, Sir,

Yours, &c.

AGRICOLA NORTHUMBRIENSIS.

* Perhaps a typographical error.

ON SPRING WHEAT.

FROM DR. DICKSON'S PRACTICAL AGRICULTURE.

THE Rev. Dr. Pike has stated, upon the conviction of many experiments, that wheat will thrive as well, and produce as full a crop, if sown in the spring, as if it had been committed to the ground the autumn before; and in many situations he is of opinion (where it is subject to much wet during the winter) the crop will be much better in quality and more abundant in quantity. "I have frequently sown," says he, "in the spring, both the white and the Kentish red wheat, sometimes as late as the middle of March, and never had a crop fail that was sown at that time: nor have I ever found any considerable difference in the times when the autumnal and the spring crops ripened."

Dr. Wilkinson, of Enfield, an intelligent agricultor, recommends the cultivation of spring-wheat, as a species of grain which, although sown so late as the 11th of May, he has found, by experience, to ripen with the autumnal wheat. He observes that spring-wheat was known to the Romans, as a species distinct from the common wheat, and described as such by Columella, who conceived it very acceptable to the farmer, when, on account of floods or rains, or other causes, he had been prevented from sowing the autumnal kind. And Mr. Dickson, in his account of the Agriculture of the Antients, took it for granted that it had never been cultivated in England, and expressed a wish that the experiment might be made. He considers it as well adapted to the wet climate of Scotland, where, owing to heavy rains, the farmers are frequently restricted in regard to the quantity of wheat that can be sown. Common wheat, he says, has been sown in the spring in Scotland, but has frequently failed. By Linnæus it is termed *Triticum æstivum*, summer or spring wheat.

It has four flowers in the calyx, three of which mostly bear grain: the calyxes stand pretty distant from each other, on both sides of a flat smooth receptacle. The leaves of the calyx are keel-shaped, smooth, and they terminate with a short arista. The glumes of the flowers are smooth and bellying, and the outer leaf of the glumes in every calyx, is terminated by a long arista; but the three inner ones are beardless. The grain is rather longer and thinner than the common wheat. It is supposed to be a native of some part of Tartary.*

* Bryant's Flora Diætetica.

Mr. Ray also, he says, classes it as a distinct species. It is generally supposed to have been introduced into this country about the year 1773, under the name of Siberian wheat, Switzerland wheat, or *bled de Mars*. It is, however, mentioned by Harrison, an historian in the time of Elizabeth, though he says it was known only to few husbandmen.

In Dossie's *Memoirs of Agriculture and other Œconomical Arts*, Vol. III. a detail, the Doctor observes, is given of some experiments on the cultivation of this wheat, communicated by several gentlemen, to the Society of Arts. The observations there recorded, he says, agree with his own experience. The latest sown, however, was the latter end of April; the produce is stated at three and two quarters per acre. The experiments seem to agree in deciding, that no advantage was gained by sowing it early. Wheat sown in April, ripened as early as what had been sown the beginning of March. That it does not tiller like common wheat, but shoots up immediately from its first appearance above ground. That the grains are smaller than common wheat, but increase in size when sown on rich land. That it is liable to the smut. That it would succeed in the fens and low lands, which are subject to winter-floods. That it would be worth trying in the mountainous parts of Derbyshire, Yorkshire, &c. where little or no wheat is sown, the situation being too cold for wheat sown in the autumn to stand the severity of winter, frosts, and rain, without perishing. In the first volume of the *Transactions of the Society of Arts*, Sir Wm. Fordyce, he remarks, gives an account of an experiment on spring or Siberian wheat, in which two bushels of wheat produced two quarters of grain. It was sown the beginning of April, after turnips, and was found to prove an excellent nurse of clover and ryegrass, sown at the same time. The turnips had been drawn, and not fed off by sheep. The soil a mixture of gravel and clay. And in the *Annals of Agriculture*, Vol. VII. and X. some important experiments on spring wheat are recorded by Mr. Ruggles, of Clare. Seed two and three bushels per acre; the produce from two to three quarters. Time of sowing the end of March. Mr. Ruggles observes, that this wheat is apt to receive injury from frost and dry weather. That it requires a dry mouldy soil; if moist, so much the better; but he does not conceive the crop equal to spring corn, unless the price of wheat should exceed the average difference between that grain and barley, or when, from an uncommon quantity of rain in autumn, the wet lands may not have been sown. The weight sixty-three pounds and a quarter each bushel, containing eight gallons three pints. Mr. Duckett, the Doctor says, has cultivated spring-wheat on a

large scale. He drills two bushels per acre, about the middle of March. He has grown it on the same land for three years successively. He has reaped this wheat on the 25th of July, got in turnips, and then wheat again in spring. And Mr. Marshall, in his Survey of the Midland Counties, remarks, that spring-wheat is cultivated and approved of in that district. It was likewise stated in the General Evening Post, of November 1st, 1800, that in an account of an experiment made that year on the genuine spring-wheat:—A person at Bridgenorth, sowed ten acres with the above wheat, on the 29th and 30th of April, which produced on the average more than twenty-one threaves, common-sized sheaf, per acre; and, from a trial made of its produce, yielded more than sixty quarts of fine wheat per threave. Seven acres was a two year old clover-ley, cold clay land, ploughed more than seven months before sowing. Four acres of the above seven, were manured with four hundred bushels of lime before sowing, the other three with one hundred bushels of soot six weeks after. The remaining three acres were sown on rather light land after turnips. The whole sown on one ploughing, and housed early in September.

The result of the Doctor's extensive experience on the cultivation of spring wheat, is as follows:—1. That it is a distinct species of wheat, as observed by Columella, Linnæus, and Ray. He has sown it in spring, at the same time, and in the same field, with common wheat. The common wheat failed, while the spring-wheat rose to a crop. 2^{dly}, That being liable to be hurt by the frost, no advantage is gained by early sowing. That though the proper season may be about the middle of April, yet it may be sown so late as the 15th of May, as he found by experience last year, when, notwithstanding the unfavourable season, it ripened before barley sown at the same time, and on the same field, and was cut on the 20th of September, immediately after the autumn-sown wheat; the crop two quarters per acre. 3^{dly}, That about two bushels may be the proper quantity of seed per acre; when drilled, less; his has been sown broad-cast. That the average produce may be about two quarters per acre, unless when sown after turnips fed off by sheep, when he has gained three quarters per acre. 4^{thly}, That the average value may be about one shilling less per bushel than the common wheat. He sold this year the spring-wheat at ten shillings, while eleven shillings was given for the common sort. 5^{thly}, That being a smaller grain than the common wheat, it ripens earlier and with less sun: in a wet harvest, therefore, it dries sooner for grinding, as he experienced last year. That it receives but little injury from a wet summer and autumn,

but will ripen earlier than barley in such a season. And, 6thly, That when harrowed in on autumn-sown wheat, in places where the crop has failed, it will ripen at the same time without injuring the sample; which would not be the case with either barley or oats. It may therefore, he thinks, on a large farm, deserve the attention of the husbandman, and be worth his while always to cultivate a small quantity, as the best means of restoring a thin wheat crop. Magazan beans, when dibbled in, will answer the same purpose, but perhaps not equally well, as they may be longer in drying than the wheat.*

But though Dr. Wilkinson recommends the *Triticum austinum* as best adapted for spring culture, Dr. Pike thinks that in some northern parts of the island, where the common wheat is generally found to fail when sown in spring, it may probably be so: but continues his assertion that he has repeatedly sown both the common red or Kentish wheat, and the white, in the spring, and had excellent crops. Dr. Pike has not, however, mentioned the nature of his land.

The former of the above writers has likewise given some useful observations, the result of his own experience, on the nature and cultivation of another kind of wheat, usually known by the title of *Egyptian* or *Prolific wheat*, though little attended to by writers on husbandry. He found the first year, on three acres of moist loam, which had been previously fallowed, that nine bushels of seed produced nine quarters of wheat. In the same field, after a similar preparation, the same proportion of white wheat, sown at the same time, produced three quarters four bushels per acre. In both cases the fallow was dressed with about one hundred bushels of lime per acre, at seven-pence per bushel delivered. Four bushels of the Egyptian wheat, though weighing four pounds more than the same quantity of white wheat, yet produced twelve pounds less of flour, the bran being coarser and heavier.

After the month of May the growth was more rapid than that of common wheat; on which account, he should suppose it might be sown with advantage in spring. The ensuing spring will present a fair opportunity for the trial. The straw so nearly resembles a reed, that it has been called reed wheat. Being heavy and tough, it is cut with difficulty; on which account the reapers require an extraordinary price. It is excellent for thatching, and he has employed it for this purpose on a large hay-barn. The trusses, on account of their weight, would appear so small, that the straw would not be saleable in the London market. The ears are bearded like the cone

* Monthly Magazine, Vol. IX. p. 244.

wheat, but in shape resemble the square wheat or rivet. The length of the straw and weight of the ear make it liable to lodge.

“ On exposing it to sale, he found the millers not inclined to purchase it. They complain that it is of too horny a nature; that it grinds hard, and obliges them to set their stones too close. The flour is coarser and darker than that of the common wheat. A miller who purchased some was charged by his customers with grinding rivets. Great part of the crop sold at a price but little above that of good barley. As the crop, though apparently thin on the ground, had yielded three quarters per acre, he entertained hopes that the cultivation might answer even at the price of barley,—if on lighter land, and a warmer soil, he could secure a larger produce. With this view, therefore, the following year, he sowed on a lighter loam two acres with this wheat, and the remaining six acres of the field with the common red wheat: the whole on a clover ley. The produce of the red wheat was three quarters per acre, but of the Egyptian not above two quarters per acre; and he found great difficulty in disposing of it even at the price of barley. He concludes, therefore, that this wheat will not answer in this country, where wheat of a superior quality can be cultivated to advantage, unless it can be introduced as a spring corn. He has since met with an account of this grain having been sown in the spring, as Egyptian or Siberian barley, under which name it was introduced into this country in the year 1767.

The Rev. Dr. Pike has sown it as spring corn in the middle of April, and has had above four quarters per acre. It was on very good land, and kept perfectly clean from weeds. If it be truly a native of Egypt, he should have judged, that a light but very rich soil might have been most proper for it: nevertheless, he thinks he has found, that (like English rivets) strong land suits it best. It gives a very bold, plump, sound grain, of a good colour. He cannot think that it is the same as the Siberian wheat (or barley, as some have called it). The grains do not answer the description which some authors give of that species. That was, he says, introduced into this country about the year which Dr. Wilkinson mentions; but this was known here at least above one hundred and twenty years before; for he has found a short description, and a tolerably good figure, of it in Parkinson, page 1120, under the name of *Triticum multiplici spicâ*. In the figure, its very remarkable distinction from all other sorts is well expressed, by a number of short ears growing out of the sides of the chief ears. He calls it in English double-eared wheat, and says that it grows about *Lyons* in France.

ON DISCOLOURED BARLEY AS SEED.

FROM DR. DICKSON'S PRACTICAL AGRICULTURE.

IN opposition to an opinion stated by Mr. Kerrich, that "out of a coomb of discoloured barley, more than two bushels will not in most instances, work on the malting floor;" and that he is of opinion, it cannot be relied upon for seed, "*as the seeds do not vegetate better in the ground than they do upon the floor:*" an intelligent Norfolk farmer, determined to try the vegetative powers of barley in different tints of discoloration; and found, as he expected, that the mere circumstance of discoloration, had nothing to do with the process of germination when the seed is committed to the ground. If the corculum, the speck of vitality, be not injured, the seed, he believes, will invariably germinate: the cotyledons are merely organs of nutrition, which convey the oily farinaceous matter of which they are composed, to the infant plant: if the nutritious substance be liberally communicated, which we suppose to be the case when the cotyledons are large, plump, and firm, the plant, it is obvious, will thrive better and more rapidly, than when the cotyledons, shrunk and shrivelled, distribute a parsimonious mucilage. Still, however, the deficiency of natural nourishment in this latter case may, he is persuaded, be in a great measure supplied by imparting an additional fecundity to the soil. He selected from a heap of barley, which lay in his barn, twenty kernels, the most thin and meagre which he could find; this was during the severest part of winter. He planted them in some very rich mould, and kept the pot in his study; where every one of them germinated, tardily indeed at first, but the radical fibres soon spread, and the plants grew luxuriantly. In his garden he afterwards planted some of the blackest barley he could find, a large proportion of which grew, and was healthy: the corculum of some few kernels had been injured, probably rotted by excessive rains, and those kernels made no effort to germinate.

In contradiction of the second position, he picked from the floor of a neighbouring maltster sixty kernels of barley, which having been in the heap (as he was assured by him) for nineteen days, had refused to malt. He told him, perhaps truly, that those kernels would certainly not vegetate, however long they remained on his floor. He planted them in his garden: and out of sixty, forty-five grew as rapidly and vigorously as he ever saw barley in his life. In short, it is evident that warmth and moisture, however essential to germination, are not of themselves sufficient to induce it. Is it not probable,

says the experimenter, that the coreculum of these kernels which refused to germinate on the floor, was stimulated into action by the larger proportion of oxygen which the mould of the garden contained? If so, and the fact is very easily ascertained, the maltster is not so much at the mercy of the seasons as Mr. Kerrich would lead us to imagine: he may surely contrive to impart a portion of oxygen to his malt-heap without much difficulty, and without much expence.

Encouraged by the success of his little experiments on the growth of discoloured barley, he sold his brightest corn, and trusted his whole crop to the most ordinary and the darkest seed he had. And the present appearance of his crop, consisting of more than forty acres, gives him reason to expect an abundant produce. Although barley will grow in the ground after having received considerable discoloration, nay after an incipient germination has taken place in the ear as it has lain on the ground, yet it certainly may be so injured as to be very unsafe for seed. He agrees, therefore, with Mr. Kerrich, in earnestly recommending to those, who at any future season may be disposed to sow dark barley, "first to try a small quantity of what they may reserve for seed, that they may ascertain whether it will grow or not, before they sow their general crop."

ENUMERATION OF PATENTS LATELY ENROLLED.

March 8, **P**ATRICK WHYTOCK, of Liverpool, in the county of Lancaster, Merchant; for an improvement in the manufacture of piece goods, composed of cotton, of flax, or of hemp, or of any mixture or mixtures of two or more of these articles, by which such goods will resist the rotting action of wet or moisture much better than similar fabrics manufactured by the methods in common use.

..... John Curr, of Sheffield Park, in the parish of Sheffield, in the county of York, gentleman, for a method, different from any that has hitherto been invented or known, of spinning hemp for making of ropes or cordage.

..... Richard Willcox, of the parish of St. Mary, Lambeth, in the county of Surrey, merchant; for certain machinery for glazing and graining leather, now usually performed by hand.

..... 12. Edward Dampier, Edward Jackson, and James Shackleton, of Primrose-street, in the city of London, manufacturers, for certain machinery for rasping, grating, or reducing into small parts or powder, such woods, drugs, and

other substances, for the use of dyers and others, as are not easily to be pulverized by mere percussion.

March 13. Michael Logan, of Paradise-street, in the parish of Rotherhithe, in the county of Surrey, engineer, for an entire new system of marine, fort, and field artillery.

..... 18. Charles Robert West, of Plough-court, Fetter-lane, in the city of London, optician, and William Buc, of King's Head-court, Shoe-lane, in the city of London, Optical Turner; for improvements in day or night Telescopes, whereby the same will be rendered more portable than they now are.

..... 21. Henry Gove Clough, of Norton-street, in the parish of St. Mary-le-bone, in the county of Middlesex, Surgeon; for improvements in the instruments or apparatus commonly called trusses, which are used for compressing and supporting such parts of the human frame as are or may be ruptured or disposed to protrude.

..... Francis Place, of Charing-cross, in the parish of St. Martin in the Fields, in the county of Middlesex, Taylor and Mercer; for improvements in locks for Muskets, pistols, fowling pieces, carriage guns, and every species of fire arms.

..... Richard Ottley, of Myrtle-hill, near Carmarthen, in Carmarthenshire, esq. and James Jeans, of Portsmouth, in the county of Hants, ship builder; for improvements in chain-pumps, in the mode of working the same, and in the wells for receiving such pumps; whereby much manual labour will be saved.

..... 26. Joseph Hinchliffe, of Dumfries, in that part of the united kingdom called Scotland, cutler and surgeon's instrument-maker; for a method of manufacturing elastic spring trusses for ruptures or rupture bandages.

..... 26. Bracey Clark, of Giltspur-street, in the city of London, Veterinary Surgeon; for improvements upon horse-shoes.

..... Quinting M'Adam, of Anderston, near the city of Glasgow, in the county of Lanark, in that part of the united kingdom called Scotland, manufacturer; for an improved method of dressing yarns for weaving, by means of a new and useful machine.

..... William Parr, of Bermondsey New-road, in the county of Surrey, gentleman, Richard Bevington, of Gracechurch-street, in the city of London, merchant, and Samuel Bevington, of Grange-road Bermondsey, in the said county of Surrey, leather-dresser; for a machine for splitting hides, skins, pelts, or leather, in an improved manner.

CRITICAL CATALOGUE.

A General View of the Agriculture of EAST LoTHIAN: drawn up for the consideration of the Board of Agriculture and Internal Improvement, from the Papers of the late ROBERT SOMERVILLE, Esq. Surgeon, in Haddington.---Nichol and Co.

[Continued from our last.]

THE best ROTATIONS in the district are said to be those of alternate green and white crops, with some exceptions of a succession of two white corn crops, on dry loams. Under the drill culture indeed, such exceptions, and many others, would have no ill effects; in the Lothians it must be bad practice.

WEEDING.

“ This operation is of so much importance, in agriculture, that it well deserves to be treated as a separate branch of improvement; at the same time, it is so much attended to in East Lothian, as to merit particular notice in a survey of that county. The clearing of the lands from weeds is so essential to good husbandry, that, if it be neglected, we may safely pronounce it impossible to carry on any other operation to advantage. The farmer who does not clean his land can never reap good crops from it, never so good, at least, as he might obtain. He may bestow plenty of manure, and he may reduce his ground to a fine mould, in order that his plants may readily extend their roots in search of the nourishment which he provides for them, but every weed left in the soil must take so much from the artificial plants which it is his object to rear. The natural inhabitants of the soil will have the full share of every benefit bestowed, if the strangers placed among them should starve. The manure bestowed, in such circumstances, may be regarded as in a great measure thrown away; one half of it would unquestionably produce greater effect if enjoyed exclusively by the useful plants.— In truth, it not unfrequently happens, that very rich fields, overrun with weeds, yield much worse crops than others of a far inferior quality, which are kept clean.

“ There are some weeds, no doubt, in every field; in some fields they are extremely numerous; now, if for each weed of a considerable size, a stalk of corn would grow, how greatly would the fertility of any spot be increased by being rendered perfectly clean!— Every weed that is removed leaves room either for an additional stalk of corn, or for those which grow to be more productive. The very first object of the farmer then, should be to destroy every weed to the utmost of his power, and, in proportion as he renders his land clean, he may insure himself that his crops will receive the full benefit of all his labour and of all his manure.”

OBSTACLES TO IMPROVEMENT.

The sentiments of Mr. Somerville, on the subject of covenants, are so liberal and judicious, that we cannot resist the temptation,
Ag. Mag. Vol. 14.

much as we have already extended this article, of quoting them somewhat at large.

“ In the best improved districts some improper practices may be supposed still to remain, and some prejudices to be entertained against things, which more mature experience shall prove to be beneficial. There are disadvantages of soil and climate too, from which few places are entirely exempted, and for which human industry cannot provide a perfect cure. Man is not answerable for the obstacles which nature has opposed to his exertions; but, in as far as his progress is impeded by his own prejudices and by customs, which he has established, he deserves to be condemned even for want of success. There are perhaps fewer artificial obstacles to improvement in this country than in most others, and those which do exist, are neither peculiar to it, nor retained so much, it is probable, through obstinacy, as through inattention to their effects. The mutual interest between landlord and tenant seems, upon the whole, to be sufficiently understood, and the connexion between them regulated on fair and liberal principles. There are still some things, however, which may be said to shackle the husbandman in his exertions, and consequently to impede the progress of improvement.

“ It may be laid down as a first principle, that whatever deters the tenant from laying out his capital on the ground, operates as an obstacle to the improvement of the soil. The merchant and manufacturer lay out their capital without hesitation, because it is liable to no other risk than what results from the ordinary hazard of trade; and it is this freedom, which causes trade to flourish. If the cultivator of the soil had no other danger to apprehend except that which results from bad seasons, he would lay out his money with equal confidence; but if he labour under disadvantages peculiar to himself, they ought certainly to be removed, in order that he may be placed on an equal footing with other traders, and be equally successful. Farmers are not here, and perhaps no where in Britain, placed on that equal footing with other traders, which the interests of agriculture require.

“ One of the first and greatest obstacles to agriculture in this county is, that the farmer has no power to dispose of his lease. It is understood, that by the common law of Scotland he has not the liberty of reletting, unless it be expressly secured to him in the deed, under which he possesses. On abstract principles, nothing appears more absurd or unjust; the shop-keeper may let his shop, deliver over his goods to his successor, and take a sum of money for giving up an established business. On what principle ought the farmer to be prohibited from transferring his established business to another, for a valuable consideration? Why should he not relet his farm, sell his stock, if he please, and put another in possession of that trade, from which he chooses to retire? By every rule of fair reasoning, the cultivator seems entitled to the same power over his trade as the merchant and manufacturer. It sometimes happens, however, that what appears just in theory, would be unsafe in practice. Let it be considered, then, whether the interest of agriculture be injured in

fact, as it seems to be, in theory, by not placing the farmer's lease on the same footing with any part of his property. There are three very supposable cases, in which it would be clearly for the interest of the farmers that leases were subject to the same laws as other property: in case of a tenant wishing to transfer his lease to another; his becoming bankrupt; or, his dying without an heir capable of managing a farm, or being disposed to engage in such pursuits.

“ It is impossible to specify the various inducements, which farmers may have for reletting their farms: but there are some of them so obvious, that they cannot be overlooked by any person. A farmer may be desirous of retiring from the fatigues of an active employment, and have a favourable opportunity of obtaining from another, remuneration for the expense, the labour, and the risk, at which he has brought his lands into an improved state. He may have highly improved his farm, and desire to withdraw his capital for the purpose of employing it in improving some other place, which promises a good return for his money and labour: he may find, that he has engaged in an undertaking not unprofitable in itself, but above his means, and wish to give it up, before he be ruined by it; or, finally, he may choose to withdraw his capital from farming, in order to employ it in some other way more to his taste. These are certainly all very supposable cases, and in every one of them, it would manifestly be for the advantage of the individual, that he could dispose of his lease without lying at the mercy of his landlord. And why should he, more than other men, lie under a restriction, which exposes him to the chance of not being able to enjoy a manifest advantage, or of incurring a certain loss? It is nothing to the purpose to allege, that proprietors will seldom withhold their consent when tenant can dispose of their farms to manifest advantage; proprietors, who thoroughly understand their own interest, will not; but why should any have a power which some may abuse?

“ Now it certainly requires no great acuteness to perceive, that whatever *may* prevent a person from drawing in his money, or deriving full benefit from it, *must* render him cautious about laying it out. Ask any intelligent and considerate farmer, whether, if he had no prospect of leaving his lease to a person, whose interest he regarded as his own, he would lay out his money as freely in draining, liming, manuring, &c. under a restriction not to transfer his lease, as he would do, if he might dispose of it at his pleasure. The question would be easily answered; in case of having full power of his lease, he would consider all money laid out on improvements, as put to interest, and likely not only to yield him some advantage in the mean time, but an ample remuneration if he should relet his farm; on the other hand, if he had not that power, he would regard all the money laid out on improvements, promising only a distant return, as probably thrown away.

“ Supposing a farmer to become bankrupt, it is neither just nor reasonable, that his creditors should be prevented from disposing of his lease to the best advantage; they could in most cases,

do nothing better than sell the reversion of it by public auction, but they are debarred from this by law, as it is understood at present to stand; they may often have the mortification to see themselves deprived of the benefit, which might soon have been derived from improvements effected perhaps in a great measure by their own money. It is easy to see how this may frequently operate against improvements; a farmer, whose solvency is doubtful, is less likely to obtain credit than any other person in similar circumstances; he is regarded something like the spendthrift heir of an entailed estate, whose property is sufficient to pay his debts, but placed beyond the reach of his creditors. It is not extravagant to suppose, that farmers might frequently be saved from bankruptcy, if they could give a proper security on their leases. A little money, advanced at a particular crisis, might carry matters on, and enable a person at last to fulfil all demands, and have a comfortable reversion to himself, which without that aid, he could not have accomplished, nor even have paid his debts.

“ It sometimes happens, that a farmer at his death leaves a number of Children, whose principal support is to be derived from his lease; while none of them can direct the affairs of a farm, they could adopt no plan so profitable as that of selling the lease, and yet they are often, either forced to lie at the mercy of servants, who may be ignorant and careless, or throw up that, from which they were entitled to expect much benefit. A widow and a number of young children often struggle to carry on the business of a farm, which in their own hands yields them nothing; but, if disposed of to a proper person, might have rendered them comfortable. It may happen too, that a tenant, in the prospect of his demise, instead of leaving his lease exclusively to one member of his family, would choose to convert it into money, and divide the produce equally among all. In fine, his heir at law may be a person, for whom he has no reason to entertain much regard, and therefore he would rather leave his lease, or the advantages arising from it, to another more deserving.

“ In all these supposable cases, it is very plain that the tenant's interest and comfort would be greatly promoted, if he could dispose of his lease in the same manner that a merchant or manufacturer can dispose of his trade; and it is equally plain, that the very idea of wanting this advantage must often cramp him in his exertions, and render him less liberal in laying out capital and employing labour, which cannot be restored for a considerable time. In no branch of trade is it more necessary to assure the trader, that in laying out money, nothing shall prevent him from reaping the profit, which it may eventually yield. When a tenant drains, limes, or even gives his ground a complete fallow, he is to be paid in several successive years; in proportion then, as you diminish his security for reaping, in every possible way, and to the last moment of his contract, all the advantage of his labour and expense, you lessen his inducements to do more than is barely necessary; you reduce him in some degree to the condition of a tenant at will, or a life-renter. There are many cases, it will readily be allowed, in which want of power to dispose of a

lease will have no such influence : but it is sufficient for the argument if there are many in which it has and must have this effect.

“ It will not certainly be maintained, that the want of this power, though unfavorable to the tenant, is not an impediment to improvement. Whatever is injurious to the tenant must operate against the landlord, and ultimately against the country. If the husbandman be discouraged from improving, the land of the proprietor does not increase in value, and the public receives not that advantage in increasing fertility, which might be enjoyed. The idea is as unjust as it is illiberal, that the interests of the landlord and of the tenant are necessarily at variance, and that they should always be jealous of each other. No doubt it is natural for the former to desire as high a rent as can possibly be obtained, and equally natural for the latter to desire his land as cheap as possible. But, if the landlord, by excessive rent or severe restrictions, cramp the tenant in his improvements, he must prevent the amelioration of his property, he is in fact killing his hen that lays the golden eggs ; on the other hand, the farmer cannot raise heavy crops to enrich himself, without increasing the value of the proprietor's land, nor can he injure that land without injuring himself. In reality, the ultimate object of both landlord and tenant is, to bring the soil to the highest possible state of fertility ; in attaining this object the public is equally interested ; and it must be manifest to every one capable of the least reflection, that the direct and only way to accomplish what is universally so desirable, is to encourage the husbandman to exert all his skill and to employ all his capital. The proprietor would consult his own interest, were he to offer a premium, for the encouragement of his tenants in making improvements ; but this is not often necessary, he needs only to let them alone ; let him give leases of a sufficient length, containing proper clauses for protecting his property during the last three or four years ; the rest may be safely left to the industry of the tenants, prompted by their own interest. If the proprietor take care not to let his lands to an improper person, he may be satisfied, that, whether it be occupied by the original lessee or a substitute, it can be in no danger ; and he will be so much the more certain of his rent, as the security of two or more persons is preferable to that of one. Nothing is contended for, that can be injurious to the interest of the proprietors ; they are not required to give up their claim on the person with whom they originally transact, and their security cannot, in any respect, be lessened by the intervention of another party to the agreement ; it cannot diminish the advantage of the lessor, if the original tenant derives some profit by a transfer of the lease, for the substitute cannot afford him this profit, without increasing the productive powers of the soil, and consequently the value of the property. It may be affirmed with confidence then, that the law which hinders a tenant from disposing of his lease, like any other piece of property, is extremely injurious to the interests of agriculture ; it is the greatest obstacle to improvement, which exists in this county and while it prevents the farmer from laying out his capital with perfect freedom, it ultimately injures the proprietor, by preventing his land from attaining its highest value.”

On most of the great questions of public and rural economy, this author seems to have had extensive and enlightened views, and like a true disciple of his illustrious countryman, Adam Smith, who is falsely asserted to have been the copyist of the French Encyclopedists. They preceded him indeed, but Smith possessed a great original stock of his own, and is totally free from *their* errors. Mr. Somerville, however, did not possess powers or leisure sufficient, to comprehend the full scope of Smith's plan, instances of which present themselves in his book. We find also occasional weak parts, as well in his observations, as in the Lothian agricultural practice. Much has been said, as we have observed, of this highly cultured district, yet here as in all districts and farms, under broadcast culture, weeds and grassy bottoms of arable land are to be found. *We demand an explanation or proof of the necessity and profit of growing weeds, being alike utterly ignorant of either the one or the other: and we must demur, before we pronounce any farm correctly cultured, on which weeds are suffered to grow.* On this head we recommend to our readers, a perusal of their New Farmer's Calendar.

Page 111, we find a very grave recipe how to make PICKLE: had it been a new and superior one, for mangoes or onions, we had been better pleased. Pickles of this last species, accompanied with a quarter of a stone of good Highland Scot beef, are an excellent preventive of hunger, *prob est.* Mr. S. very fairly allows that—"some do not scruple to affirm that they have no smut, though they never practice pickling; others assert that they have tried it with all imaginable care, and found it no security." His subsequent reasoning (page 113) is far beneath him. He asks what need of cabbages where turnips can be grown. But what, where they cannot be grown? It reminds us of a certain reporter, who asked what possible fallow crop could be grown upon clays. Carrots too are fit for nothing but the garden. What will Mr. Secretary Young, what will our Suffolk, Essex, Kent, and Surrey, readers say to this? We shall make our conclusion with a little fashionable science; although grown old we must not be altogether out of fashion.

Page 7 "The beneficial effects of heat and sun-light on vegetation, are now well understood; and it is an established fact, that the colour of flowers, as well as the nutritive qualities of all the productions of the earth, depend upon the proportion of light and heat they enjoy during their growth and ripening." *Now well understood!—an established fact!!*

He made an implement to know,
If the moon shine at full, or no,
And could, as soon as e'er she shone straight,
Whether 'twere night or day, demonstrate.

It is unnecessary to remark, that we do not make these quotations out of the smallest disrespect to the memory of the ingenious and worthy author, who we are convinced, wrote such sentences merely *pro forma*, and with the same view that he put on a new fashioned hat, or coat. Our chemical farmers may find a luscious treat in page 284 to 293, Analyses by distillation, of the various soils. If they extract a single novel or useful principle therefrom, we felicitate them on

their sagacity, and humbly request the favour of their communications. In page 289, it will appear that the author either did not live long enough to catch a glimpse of the newest new light, or that Doctors differ on this, as on all other subjects. Mr. S. seems to have restored *salts* to their ancient rank; and to have been unapprized that the college had determined that *iron* should be thenceforth a fertilizer.

HISTORY

OF

Agriculture.

PROCEEDINGS OF AGRICULTURAL SOCIETIES.

Kent Society, for the Encouragement of Agriculture and Industry.

AT the anniversary of this Society, holden at the Fountain Tavern, Canterbury, on Friday the 30th of May, 1806; the following premiums were adjudged

CLASS 1, SERVANTS.

Married. To Wm. Piper, Bailiff to Mr. Wise, of Borden, thirty-two years, two guineas.

To George Rogers, Waggoner to Mr. Cobb, of Selling, twelve years, two guineas.

Single. To Wm. Stone, Bailiff to Mr. Sankey, Chartham, seventeen years, two guineas.

To James Hulkes, Bailiff to Mr. Adams, of Wye, thirteen years, two guineas.

Female. To Elizabeth Poulter, Allworks, maid to Mr. John Gurney, of Chiffet, eighteen years, two guineas.

To Hannan Odiam, Dairy maid to Mr. Stephen Love, of Headcorn, fourteen years, two guineas.

For the Boy premium, no candidate.

CLASS 2, LABOURERS.

To Stephen Davis, Shepherd to Mr. Denne, of Littlebourn, fifty-one years, two guineas.

To John Ancock, Labourer to Mr. Stephen Pym, of Chilham, forty-one years, two guineas.

To Thomas Taylor, Labourer to Mr. Vinson, of Borden, forty-one years, two guineas.

CLASS 3, COTTAGERS.

To Thomas Norris, of Ickham, fourteen children born, eleven brought up, two guineas.

To Richard Marsh, of Lyminge, thirteen children born, nine brought up, two guineas.

To Thomas Beer, of Chillet, ten children born, eight brought up, two guineas.

BEE PREMIUM.

To William Greenstead, of Borden, for twenty-one hives of bees, two guineas.

Best cart Stallion, To Mr. Wm. Weeks, of Woodchurch, for the best of four produced, five guineas.

Best two yearling cart Colt or Filly, bred in Kent. To the Rev. J. C. Beckingham, for his Colt, no Competitor, five guineas.

Officers appointed for the ensuing year.

Right Hon. Lord Sondes, President.

Sir Henry Oxenden, and Rev. Sir John Fagg, Barts. Stewards.

Allen Grebell, Treasurer and Secretary to the Committee.

Baron De Montesquieu	Edward Tayler	Captain Honeywood
Hon. George Watson, M. P.	Wm. Hougham	Wm. Wightwick
Richard Milles	Thomas Brett	Edward Russell
Rev. J. C. Beckingham	Thomas Castle	Thos. G. Hilton
Rev. J. Randolph	George J. P. Leith	George Carter
Lieut. Gen. Harris	John Boys	George May
Rev. R. Price	Robert Rich	Thomas Neame
E. H. Sandys	Carr Culmer	Austin Neame

ALLEN GREBELL, Secretary.

Ashridge Ploughing Match.

After the Dinner of the last Smithfield Cattle Shew, the EARL of BRIDGEWATER announced his intention, and explained his motives, for offering a prize of 50 guineas, to the owner of any plough SUPERIOR to the common Hertfordshire plough, for the peculiar and difficult land, which is found in the great range on the top of the Chalk Hills, completely covered with rough flint stones; with an additional twenty guineas, if such plough should be found on trial, to make BETTER WORK, and require LESS FORCE to draw it. His Lordship also offered Prizes of Three, Two, and One Guinea, to the Three best Ploughmen, in the intended trials.

On Wednesday the 18th of June, the Noble Earl gave a grand dinner, at his seat, at Ashridge, in Hertfordshire, to EARL WINCHELSEA, LORD SOMERVILLE, LORD GAGE, SIR JOHN SINCLAIR, SIR JOHN SEABRIGHT, and a select company of the Patrons of Agricultural Improvements; and, on Thursday morning, a most numerous assembly of agriculturists, farmers, and mechanics, were collected at Ashbridge, from every different quarter. About nine o'clock, nine candidates appeared in the field, with their ploughs, and seven Hertfordshire ploughs, against which the others were to contend. We cannot too much commend the conduct of the Judges appointed on this occasion by his Lordship, in causing printed particulars to be previously distributed to the candidates, fully detailing the order of proceeding, and the principles on which the Judges would be guided in forming their judgment on the comparative merits of the performances. Owing to the excellent dispositions and arrangements which had been made by his Lordship on the preceding day, by ten o'clock the whole were completely ready for starting. A spring whipple-tree, by Mr. Mac Dougal, was intended to have been used, for ascertaining the force of draught, but the wood-work of the one sent being defective, it broke; and a spring dial, invented by Mr. Salmon, and made by Mr. Shepherd, of Woburn, was substituted, which performed to the satisfaction of the Judges appointed on this occasion, viz:—LORD SOMERVILLE, JOHN ELLMAN, and JOHN FIELD; with whom Messrs.

Bevan, Griffin, and two other gentlemen, were joined as assistants in the necessary observations and calculations. The several ploughmen drew lots for their order in the plots of ground marked out; the performance of the seven Hertfordshire ploughs were found as uniform as could be expected; their average results were as follows:—

Owner's Names.	County of the Plough	Width of Furrow in Inches.	Depth of Furrow in Inches.	Force of Draught in Cw.	Calculated proportional Effect.
7 Ploughs' average	Hertford —	$9\frac{1}{2}$	$6\frac{1}{4}$	7	8.8
Mr. Wood. —	Suffex —	$8\frac{1}{2}$	$5\frac{1}{4}$	$4\frac{1}{2}$	10.8
Mr. Cook —	Wiltshire —	8	$5\frac{1}{4}$	5	9.2
Sir John Seabright	Berkshire —	$8\frac{1}{2}$	6	$5\frac{3}{4}$	8.9
Mr. Plenty —	Hampshire	$9\frac{1}{4}$	6	$6\frac{1}{4}$	8.8
Mr. Caswell —	Essex —	$8\frac{1}{2}$	$6\frac{1}{4}$	$6\frac{1}{4}$	8.5
Mr. Wilson —	Northumberland	$8\frac{1}{2}$	6	$6\frac{3}{4}$	7.6
Mr. Lane —	Dorchester	$8\frac{1}{4}$	$6\frac{1}{4}$	$7\frac{1}{2}$	7.6

The two remaining ploughs were found too weak for this strong and stoney soil, rendered so excessive stubborn by the late parching droughts, and their owners gave up the contest. Mr. Salmon, of Woburn, attended with an instrument of his contrivance, for accurately and expeditiously measuring the depth of furrow, which was used by the judges's assistants in these experiments.

From the above calculations, of Mechanical Effect only, it might have appeared, that the Suffex, Wilts, and Berkshire ploughs, were superior to the Hertfordshire ploughs; but the work of the latter was so superiorly done, in an agricultural point of view, that the decision of the judges, when announced, gave almost universal satisfaction, viz.

“ We, the Judges appointed by the Earl of Bridgewater, have duly considered the claims for the premium offered by his Lordship in his printed proposals, and having carefully ascertained the powers or weight of draught, the depth, breadth, and level bottom of the furrow, we adjudge as follows:—The first premium to Mr. Smart's ploughman (Hertfordshire); second ditto, Blacknell's ditto, (ditto); third ditto, Mr. Halley's ditto, (ditto).

“ The premium of Fifty Guineas is hereby withheld; but we recommend Mr. Wood's ploughman (Suffex plough), and Mr. Plenty's ploughman, (Hampshire plough), to Lord Bridgewater's bounty; and we hold these ploughs, together with Mr. Lane's (wheeled Dorset plough) in less severe drought than the present worthy the Farmer's attention on strong soils. Further we notice, the work done by Messrs. Adam Channels, George Channels, and Daniel Bedford, as worthy of good husbandmen.

(Signed) SOMERVILLE.
JOHN ELLMAN.
JOHN FIELD.”

“ Ashridge, June 19, 1806.”

It was estimated, that not less than 1000 persons were present at this truly national and useful trial of skill; at the conclusion of which, the Noble Earl entertained his noble visitors, and about 150 of the most eminent agriculturists and graziers of the surrounding counties, with a sumptuous

|| Such of our readers, who have not the advantage of mathematical learning may approve of being informed, that the numbers in this column are obtained by multiplying those in the third and fourth columns together, and dividing the product by the weights in the fifth column: or, by the sliding rule thus, let the width of furrow, in inches on the line A, to the draught in hundred weights, on B. then against the depth of furrow in inches on B, will be found on A, the proportional effect, or numbers in the last column of the above table.

dinner, in a large temporary room fitted up for the occasion, and tastefully decorated with devices of ploughs, harrows, forks, rakes, &c. encircled with laurel wreaths. After dinner the principal toasts were—

The King.

The Queen.

The Earl of Bridgwater (proposed with three times three, by Lord Somerville).

Lord Somerville and the Judges.

The Farming Societies of England and Ireland.

The Duke of Bedford.

Mr. Coke and the Meeting at Holkam on Monday.

Success to Farming and Breeding, three times three, &c. &c.

His Lordship's Steward, at the same time, entertained above 150 of the principal farmers and mechanics with a dinner, at the table, in his hall.

After dinner, several different kinds of agricultural implements were exhibited. A shew of some excellent cattle and sheep belonging to his Lordship was made, after which some sheep were sold by auction.

From Alhridge, Lord Somerville, Sir John Sinclair, and the greater part of the amateurs in agricultural matters, proceeded across the country to Holkam, in Norfolk, the seat of T. W. Coke, Esq.

On Monday next, the 7th. the Barmoor Sheep Shew commences (as in our last) where a very full attendance is expected.

Holkam Sheep Shearing.

On Sunday, June 22, Thomas William Coke, Esq. M. P. gave a grand dinner, at his seat, at Holkam, in Norfolk, to Earls Thanet and Talbot; Lords Somerville, Anson, and William Ruffel: Sirs, John Sinclair, (President of the Board of Agriculture,) John Wrottesley, and Robert Harland-Bernard Howard, Esq. and a select party of Agriculturists and Breeders; preparatory to his Clipping, or Agricultural Fete; which drew together, on Monday morning, all the principal farmers and breeders of Norfolk, and the adjoining counties, with many others from the most distant parts of the United Kingdom.

In the forenoon, the new Leicester tups, intended for letting in the evening, were brought out, one by one, and examined by the amateurs present. Several new and valuable agricultural implements were exhibited: among which, a machine for dibbling wheat, to be moved either by a man or a horse, attracted much of the attention of the company.

About three o'clock near 170 noblemen, gentlemen, respectable farmers, mechanics, &c. sat down with Mr. Coke to a sumptuous dinner, at the Hall; after which, the usual toasts enlivened the truly rational conversation and discussion which never fail to arise among so widely collected a group of agriculturists and other ingenious men, engaged in the same pursuits.

On returning to the farm yard, five new Leicester Shearling Rams were let by auction, as follows, viz.

No. 1, which had clipped 9lb. 8 oz. of wool, at	L.5	5	0
2, 9 0	7	7	0
3, 10 3	23	2	0
4, 9 0	14	14	0
5, 8 14	21	0	0

Six two-shear new Leicester rams were next let, as follows, viz.

No. 1, which had clipped 9lb. 2 oz. of wool, at	L.43	1	0
3, 5 5	65	2	0
4, 7 8	26	5	0
5, 6 1	7	7	0
8, 5 12	8	8	0
9, 6 11	17	17	0

Three aged Leicester Rams were sold as follows :

No 1, which had clipped 4lb. 6oz. of wool, at	L. 11 11 0
2, 6 0	8 8 0
7, 5 11	10 0 0

Earls Thanet and Talbot, were among the hirers of the two shear Rams.—Mr. William Smith, mineralogist and drainer, attended, and delivered, to his numerous subscribers present, his recent work on The Utility and Management of Water-Meadows, dedicated to T. W. Coke, Esq. for whom, the Duke of Bedford, Earl Thanet, and many others, Mr. Smith has lately constructed several meadows, in different counties, of the most improved kind. We are happy to observe this most essential improvement making its way rapidly at this time through the county of Norfolk.—Messrs. Buckley, Walton, Tollet, &c. were present.

SECOND DAY.—On Tuesday morning, the company assembled still more numerously than on the first day; at eleven o'clock they proceeded to the Sheep-house, where a sale of thirty-two new Leicester Theaves took place as follows, viz.

	L. S. D.		L. S. D.
Lot 1 5 Theaves to Earl Thanet	16 16 0	Lot 5 3 ditto . Mr. Grigg	29 8 0
2 5 ditto . ditto	18 18 0	6 3 ditto . Earl Thanet	36 15 0
3 5 ditto . ditto	22 1 0	7 3 ditto . ditto	37 16 0
4 3 ditto . Mr. Buckley	39 18 0	8 5 ditto . ditto	22 1 0

Fifty-eight new Leicester Ewes were next sold as follows :—

	L. S. D.		L. S. D.
Lot 1 5 Ewes . Mr. Buckley	35 14 0	Lot 6 5 ditto . ditto	37 16 0
2 5 ditto . ditto	38 17 0	7 5 ditto . ditto	42 0 0
3 6 ditto . ditto	28 7 0	8 5 ditto . ditto	26 5 0
4 5 ditto . Sir J. Wrotterley	50 8 0	9 5 ditto . ditto	34 13 0
5 5 ditto . Earl Thanet	53 11 0	10 12 ditto . Mr. Buckley	51 9 0

The company next repaired to the Farm Yard, to examine the new implements which were exhibited, as follows : an instrument adapted for the extirpation of weed.—An implement, called an arator, by which 50 acres of land was stated to have been ploughed in one week, with a pair of horses!—A one horse plough, calculated for very light lands.—A scuffer and couch-harrow.—A flour dressing machine, which was much admired for the cleanness and perfection with which it can dress flour for private families.

The company afterwards inspected the shearing of the sheep in the great barn, intended to be let in the evening : some beautiful three-year old fat Devon oxen were also inspected, which were much admired.

On returning to the house, Mr. William Smith, the mineralogist, had the honour of submitting his maps and sections of the strata of England and Wales, to Sir John Sinclair and a great many persons of distinction and science, and of pointing out the progress which he has made of late, toward the completion of this great and novel undertaking. About three o'clock 250 persons sat down to dinner; among the company we noticed Earl Winchelsea; Sirs, Jacob Astley and W. W. Wynne, E. Darell, Lamb, A. S. Gordon, Henley, J. W. Tomlinson, Sylvanus Bevan, Werman Martin, Brettingham, Slater, &c. Several foreigners were present, among whom two were, we understand, Danish counts, and a third was a gentleman from Russia. The toasts after dinner were nearly as usual; Mr. Tollet made some important remarks to the company, on the superior advantages of the Merino breed of sheep.

At six o'clock the party repaired again to the Sheep-house, where 77 South-Down Thaves were sold as follows :

L. S. D.			L. S. D.		
Lot 1 10 Theaves	42	0 0	Lot 5 11 do. to Sir W. W. Wynne	57	15 0
2 10 do. to Sir W. W. Wynne	52	0 0	6 10 ditto to Money Hill	49	7 0
3 10 ditto to Money Hill	42	0 0	7 10 ditto to ditto	-	55 13 0
4 11 do. to Sir W. W. Wynne	54	12 0	8 5 do to Sir W. W. Wynne	36	15 0
Eleven South-Down Ewes were next sold, viz.			L. S. D.		
Lot 9 5 Ewes to Sir W. W. Wynne			32	11	0
10 6 ditto to Sir R. Harland			31	10	0
11 1 ditto			8	8	0

The letting of eight South-Down aged Tups then commenced, for the following season, viz.

L. S. D.			L. S. D.		
No. 11, clipped 4lb. 6oz. at	15	15 0	No. 3,..... 5lb. 1oz. at	42	0 0
18,..... 7 8	42	0 0	9,..... 6 8	36	15 0
7,..... 5 14	31	10 0	16,..... 6 6	31	10 0
13,..... 4 2	42	0 0	15,..... 5 4	31	10 0

Six two year old South-Down Tups were then let as follows:

L. S. D.			L. S. D.		
No. 17, clipped 4lb. 4oz. at	36	15 0	No. 12,.... 5lb. 14oz. at	31	10 0
8,..... 5 4	31	10 0	19,.... 4 3	31	10 0
1,..... 6 7	42	0 0	11,.... 7 0	42	0 0

For the hire of the last tup, no less than twenty-nine candidates appeared, who drew lots, and he was obtained by Mr. Seppings. The business of this day concluded by the exhibition of a fat Sheep, one of the most beautiful of Mr. Coke's excellent South Downs; when a sweep-stakes of half-a guinea was entered into by most of the amateurs present, for guessing the weight of this beautiful animal when killed, on the morrow; the weight which each gentleman named was wrote down, and at half-past nine Mr. Coke and his visitors repaired to his truly hospitable mansion, and the company separated highly gratified.

THIRD DAY.—On Wednesday, by half-past ten o'clock, the company had assembled very numerously, at Mr. Coke's Farm-yard; the carcases of the fat sheep, shewn alive on the former days, and slaughtered the preceding evening, were inspected, and their weights declared, viz. four South-Down Ewes as follows:

Mr. Davis's (alive 11st. 7lb.) Carcase 7st. 11lb. Tallow 1st. 1½lb. Skin 9lb. Pluck 11lb. Entrails 12lb.

Mr. Blythe's (do. 11st. 1lb.) Carcase 7st. Tallow 10½lb. Skin 9lb. Pluck 10lb. Ent 12lb.

Mr. Coke's—Carcase 7st. 13½lb. Tallow 1st. 2lb. Skin 11½lb. Pluck 11½lb. Ent. 13lb.

Ditto... Carcase 8st. 6½lb. Tallow 1st. 8lb. Skin 8lb. Pluck 10lb. Entrails 11½lb.

By the weight of the last carcase, Mr. Bell was declared the winner of the Sweep-stakes, for guessing its weight when alive.

Two South Down fat Weather Carcasses appeared as follows, viz.

Mr. Pundy's Carcase, 8st. 2lb. Tallow, 1st. 2lb, Skin, 9½lb. Pluck 6, Entrails, 15

Mr. George's 7 5½ 1 2 7 11½ 12½

Two fat New Leicester Weathers, appeared as follows, viz—

Mr. Reeve's Carcase, 8st. 1lb. Tallow, 1st. 12½lb. Skin, 10½lb. Pluck 9 lb. Entrails 14.

Mr. Pundy's 11 9 1 2 11 12½ 17lb.

A head of beautiful Devon Cows, belonging to Mr. Coke, were next inspected, and were much admired by the amateurs, for their symmetry and lightness of bone and offal. The clippers were now proceeding with the Tups intended to be let in the evening, and which were previously examined in their wool by the breeders and amateurs.

Mr. Powel, of Brownthorp, showed a shearling South-Down Ram, against another belonging to Mr. Dewings, of Castle Acre, in order to decide a bet between those gentlemen. The Judges appointed decided in favour of Mr. Powel; and it was regretted, that the excellent tup which he produced, was not entered as a candidate for Mr. Coke's premium in this class of live stock.

The company now repaired to the field, to witness the trial of the agricultural implements inspected on the preceding day. The couch-harrow performed much to the satisfaction of those present. Mr. Fukey's arator succeeded, very completely, in gathering the couch-roots from a soil previously pulverised. A scuffler, of cumbersome make, drawn by four horses, cut the land very deep on which it was tried, but seemed more calculated for heavy soils. A strong plough, for bottoming up hard dry land, was tried, and seemed, from the attention which Sir John Sinclair, and others of the best judges paid to it, to be thought, with a slight alteration, a valuable implement.

Mr. Parkinson exhibited a scuffler, which was tried; but we heard no particular opinion expressed by those who witnessed the trial.—The one-horse plough seemed to justify the expectation formed of it, for stirring light land.

About four o'clock, 17 persons sat down with Mr. Coke to dinner, at the conclusion of which, the judges' reports on the merits of the cattle, implements, &c produced by the several candidates, were read, and silver cups were delivered to several, the particulars of which we beg to defer till our next.

In the evening the company repaired again to the Farm-yard, to a sale of four Devon Heifers, which sold for 1, 13, and 15 guineas, respectively.

A Devon two-years old Bull was next sold for 23 guineas, and another for 8 guineas.

Three aged South Down-Tups were then let for the season as follows:—

		L.	S.	D.
No. 2	clipped 4lb. 13oz.	15	15	0
4	ditto 5 6	21	0	0
6	ditto 6 6	10	10	0

Six shearling South Down Tups were let as follows:

		L.	S.	D.			L.	S.	D.
No. 3.	clipped 5lb. 6oz.	15	15	0	No. 10	ditto	6	9	15 15 0
4	ditto 6 4	21	0	0	11	ditto	4	14	26 5 0
7	ditto 6 1	21	0	0	12	ditto	9	0	10 10 0

This highly interesting *fete* concluded by a shew of some Merino Rams, belonging to Mr. Coke, which gave great satisfaction to all who know the importance of producing superfine or Spanish wool, for the use of our broad cloth manufacturers. About nine o'clock the company separated, and Mr. Coke's visitors returned to the Hall with him; next morning several of the amateurs set off from thence on a tour, in order to visit some of the principal Norfolk agriculturists, and thence to those of Lincolnshire, Yorkshire, Durham, and Northumberland, so as to arrive at Barmoor Castle, the seat of Francis Sitwell, Esq. in time for his Sheep-show and agricultural *fete* on Monday se'nnight.

The National Cattle Plate Work, will be shortly published by Messrs. Boydell and Co. This work will be dedicated by permission to His Majesty, and is under the superintendance of Lord Somerville. It will be Published in Numbers of Imperial Quarto size, each containing two or more Prints, from Pictures drawn from the life, by Mr. James Ward. The history and descriptions, uses, merits, and defects of the Cattle, with their adaptation to various sorts and situations, by Mr. Lawrence, author of the New Farmer's Calendar, General Treatise on Cattle, &c.

A CAUTION.—Mr. Nat. Clarke, of Bisbrooke, near Uppingham, lately lost ninety-nine lambs, through injudiciously dressing his ewes with scab ointment.

LONDON PRICES OF GRAIN for June, 1806.

MARK LANE, Monday, June 2, 1806.

Our supply of Wheat to-day was inconsiderable, and the want of fine samples still enhances the value of the little up of that quality, hence high prices are named for such and for no other; the second and inferior sorts being dull, with few buyers, at last reported prices.—Barley is in plenty, and rather lower: Malt is likewise a trifle cheaper, with a general heaviness in the sale of both.

Boiling Pease continue a short supply, with advance in price.—In Grey Pease, and Beans of both sorts, we have little alteration.—Good Oats, like fine Wheats, are scarce, and nearly maintain their former value; but the common are almost unsaleable. Prices of all Grain as follow.

Price of Grain, on board Ship, as under.

Wheat	60s 65s 75s	White Peas	32s to 40s od	Ticks, new	29s to 35s
Fine	78s to 82s	Boilers	44s to 50s.	Ditto, Old	—s to —s
Superfine	84s to 88s	Suffolks	52s	Oats	25s 25s to 29s
Rye	36s to 44s	Grey Peas	32s to 38s	Polands	30s to 32s od
Barley	28s to 33s od	Beans, new	38s to 46s od	Oats for feed	—s
Malt	68s 73s od	Beans, Old	—s		

Monday, June 9.

We had not an abundant, though a tolerable supply of Wheat to-day; in the sales of which, fine samples were taken off at nearly last Monday's prices, and good Red Wheats fetched from 80s. to 82s. per quarter, but second and ordinary samples were again dull and cheaper.—Rye is likewise a trifle lower, and Malt has little sale.—Barley and Beans continue nearly as last.—White Pease are still dear, but Grey Pease rather on the decline.—We had but few fresh arrivals of Oats, and the very small proportion of those of first quality, caused samples of that description to fetch something more than last week.

Wheat	60s 70s to 78s	White Pease	36s to 44s	Ditto, old,	—s
Fine	—s 80s to 85s	Boilers	46s to 50s	Ticks, new	28s to 38s
Superfine,	86s to 89s	Suffolks,	—s to 51s	Ditto, old,	—s
Rye	34s to 43s	Grey Peas	30s to 38s	Oats	20s to 25s 30s
Barley	28s to 31s	Beans, new	36s to 46s	Polands	31s to 33s od
Malt	62s to 68s				

Monday, June 16.

Notwithstanding our supply of Wheat was very short this morning, yet the buyers were so few, that neither prime nor any other samples could obtain last week's terms.—We have had a tolerable quantity of Barley up, chiefly from Kent; this article is quite as dear as last reported.—In Malt we have little doing, and not much variation in price.—Pease, Oats, and Beans, are all of them dearer; the result of short supplies.—Prices nearly as under.

Wheat	54s 60s 78s	White Peas	37s to 44s	Ditto, Old	—s
Fine	80s to 83s	Boilers	46s to 51s	Ticks new	30s to 38s
Superfine	84s 87s	Suffolks	—s to 52s	Ditto, Old	—s
Rye	36s to 42s	Grey Peas	36s to 40s	Oats	22s 26s to 30s
Barley	28s to 34s	Beans new	39s to 47s	Polands	30s 33s 6d
Malt	66s to 71s				

Monday, June 23.

The Wheats left over from last week, and the additional arrivals of to-day, did not constitute a very large supply; prices, nevertheless, declined 8s. per quarter since last Monday. At the conclusion of which Flour likewise gave way, and should not have been quoted at more than 70s. per sack.

Spring Corn of every description, on the other hand, is on the advance.—Barley is 2s. and 3s. per quarter dearer.—White Pease, likewise, being a short supply, and wanted by Government, have risen considerably.—Grey Pease, as well as Beans of both sorts, are also higher; and Oats, a short supply, partaking of the general advance, are up 1s. and 2s. per quarter.—N. B. The present fine weather favourable to the Wheat Crops, but not to the other sorts of Grain.

Wheat	48s 58s to 68s	White Pease	40s to 52s	Ditto, old	—s
Fine	70s to 75s	Boilers	55s to 58s	Ticks, new	35s to 42s
Superfine	76s to 79s	Suffolks	59s od	Ditto, old	—s
Rye	36s to 45s	Grey Peas	37s to 42s od	Oats	24s 28s to 33s
Barley	30s to 37s	Beans, new	44s to 50s od	Polands	—s to 33s od
Malt	64s to 71s od				

*Prices of Hops, Meat, Seed, Leather, Tallow, &c. for
June 1806.*

<i>Price of Hops.</i>	1st Week		2d Week		3d Week		4th Week	
	s.	s.	s.	s.	s.	s.	s.	s.
<i>Bags.</i>								
Kent	130 to 147		100 to 140		130 to 150		130 to 150	
Suffex	130 to 149		100 to 136		126 to 140		130 to 140	
Effex	120 to 140		100 to 136		120 to 136		120 to 136	
<i>Pockets.</i>								
Kent	136 to 160		110 to 147		130 to 160		130 to 160	
Suffex	130 to 147		110 to 140		120 to 150		120 to 150	
Farnham	160 to 200		160 to 200		180 to ---		180 to ---	
<i>Seeds.</i>								
Broad Beans, (per quarter)								
Long Pods								
Tares								
Rye Grass								
Carraway, (pr cwt.)								
Coriander								
Trefoil								
Red Clover								
White ditto								
White Mustard Seed, pr bu.								
Brown ditto								
Canary Seed								
Turnip								
Rape Seed, (per last)								
<i>Meat at Smithfield,</i>								
To sink the offal, p. ft. 8lb.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Beef	5 0 to 6 0		4 4 to 5 4		4 0 to 5 0		4 0 to 5 0	
Mutton	5 0 to 6 0		4 8 to 5 4		4 0 to 4 8		4 0 to 4 10	
Veal	5 4 to 6 4		4 8 to 5 6		4 0 to 5 8		4 0 to 5 6	
Pork	5 0 to 6 0		4 0 to 5 0		4 8 to 5 0		4 8 to 5 4	
Lamb	6 6 to 7 6		5 0 to 6 6		5 8 to 6 8		6 0 to 7 0	
Head of Cattle—Beasts about	1,800		1,9 0		1,800		2,000	
Sheep and Lambes	9,500		15,000		16,000		17,000	
<i>Price of Leather.</i>	d.	d.	d.	d.	d.	d.	d.	d.
Butts, 50lb. to 56lb. each			20½ to 22		21 to 22		21 to 22½	
Ditto, 60lb. to 65lb each			24 to 25		24 to 25		19 to 21	
Merchants Backs			21 to 21½		— to 21½		20½ to 22	
Dressing Hides			19 to 20		19 to 21		19 to 21	
Fine Coach Hides			21 to 22½		21 to 22		20½ to 22	
Crop Hides for cutting			21½ to 23		21½ to 23½		21½ to 23½	
Flat Ordinary			19 to 20		19½ to 21		19 to 20½	
Calf Skins, 30 to 40lb. p. doz.			30 to 40		30 to 42		30 to 42	
Ditto, 50lb. to 70lb. do.			38 to 43		36 to 42		36 to 42	
Ditto, 70lb. to 80lb. do.			37 to 39		36 to 39		36 to 39	
Sm. Seals (Greenland)			42 to 46		24 to 46		42 to 46	
Large do. (per dozen)			51 to 91 10		51 to 91		61 to 91 10	
Goat Skins per doz.			— to —		— to —		— to —	
Tanned Horse Hides prhide			25s to 38s		25s to 38s		25s to 38s	
<i>Price of Tallow.</i>	s.	d.	s.	d.	s.	d.	s.	d.
St. James's Market	3	11½	3	11	3	9	3	10
Clare Market	3	11½	3	10½	3	9	3	10
Whitechapel Market	3	10	3	9	3	9	3	9
Per stone of 8lb. Average	3	11	3	10	3	9	3	9½
Town Tallow	67	0	65	6	65	0	65	6
Russia (Candles)	66	0	66	0	65	0	65	0
Russia ditto (Soap)	64	0	64	0	64	0	63	0
Melting Stuff	55	0	54	0	54	0	53	0
Ditto rough	36	0	36	0	37	0	37	0
Graves	11	0	11	0	11	0	11	0
Yellow Soap	82	0	82	0	82	0	80	0
Mottled ditto	92	0	92	0	90	0	90	0
Curd ditto	96	0	96	0	94	0	94	0
Candles per doz n	11	0	11	0	11	0	11	0
Moulds	12	0	12	0	12	0	12	0

Prices of Raw Hides, Hay and Straw, &c. for June 1806.

Raw Hides.	First Week		2d Week		3d Week.		4th Week.	
	s.d.	s.d.	s.d.	s.d.	s.d.	s.d.	s.d.	s.d.
Best Heifers & Steers, pr ft.	3 2 to 3 4		3 3 to 3 2		2 10 to 3 6		3 0 to 3 2	
Middling — —	2 10 to 3 0		2 8 to 2 10		2 6 to 2 8		2 8 to 2 10	
Ordinary — —	2 4 to 2 6		2 2 to 2 4		2 2 to 2 4		2 2 to 2 4	
Market Calf — —	12 6 each		12 6 each		12 6 each		12 6 each	
Eng. Horse — —	17s to 19s		17s to 19s		16s to 19s		16s to 18s	
Lamb Skins — —	3 0 to 3 9		2 6 to 3 6		6 to 3 4		2 0 to 3 0	
Sheep Skins — —	0 0 to 1 4		0 0 to 1 0		0 0 to 1 0		0 0 to 1 1	
<i>Price of Hay and Straw.</i>								
	<i>l. s. d.</i>		<i>l. s. d.</i>		<i>l. s. d.</i>		<i>l. s. d.</i>	
St. James's—Hay —	3 14 6		4 0 6		3 19 0		3 19 0	
S raw — —	2 6 6		2 5 0		2 5 0		2 6 6	
Whitech.—Hay — —	3 15 0		4 0 0		4 3 0		4 4 0	
New — —	0 — 0		0 — 0		0 — 0		0 — 0	
Clover — —	4 10 0		4 14 6		5 2 0		5 0 0	
Straw — —	2 2 0		2 1 0		2 3 0		2 0 0	
<i>Newbury.</i>								
Wheat — — —	66s to 93s		70s to 95s		60s to 93s		62s to 93s	
Barley — — —	26s to 33s		25s to 33s		26s to 33s		27s to 34s	
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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	
<i>Salisbury.</i>								
Wheat — — —	70s to 89s		70s to 82s		70s to 82s		70s to 81s	
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Barley — — —	28s to 30s		28s to 31s		28s to 31s		27s to 31s	
Beans — — —	—s to —s		—s to —s		—s to —s		—s to —s	
Oats — — —	29s to 33s		29s to 33s		29s to 33s		29s to 32s	
Peas — — —	—s to 33s		—s to —s		—s to —s		—s to —s	

TO OUR CORRESPONDENTS.

WE beg leave to return our thanks to our old and steady friend, for his Drawing of the Sussex Ox, to which we trust our Engraver has done justice.

Our correspondents generally join us, in hailing the return of Mr. Bartley to his post of honor and utility, in the Magazine; and we beg to remind him of the varieties of the Potatoe, and of the Glossary, &c. as far as relates to his own vicinity.

It were needless to repeat how much we desire to hear, as often as possible, from our highly esteemed correspondent, the Man of Kent, as well as from our enlightened and respectable friends of the North.

We request W. W. will accept our most grateful acknowledgments for his solicitude in procuring us friends, one of which we think we recognize in the correspondent from *West Herts*, from this gentleman, whom we know to be so eminent as a practical husbandman, we shall ever be glad to hear; and we regret that his paper did not arrive in time for a place in this Number.

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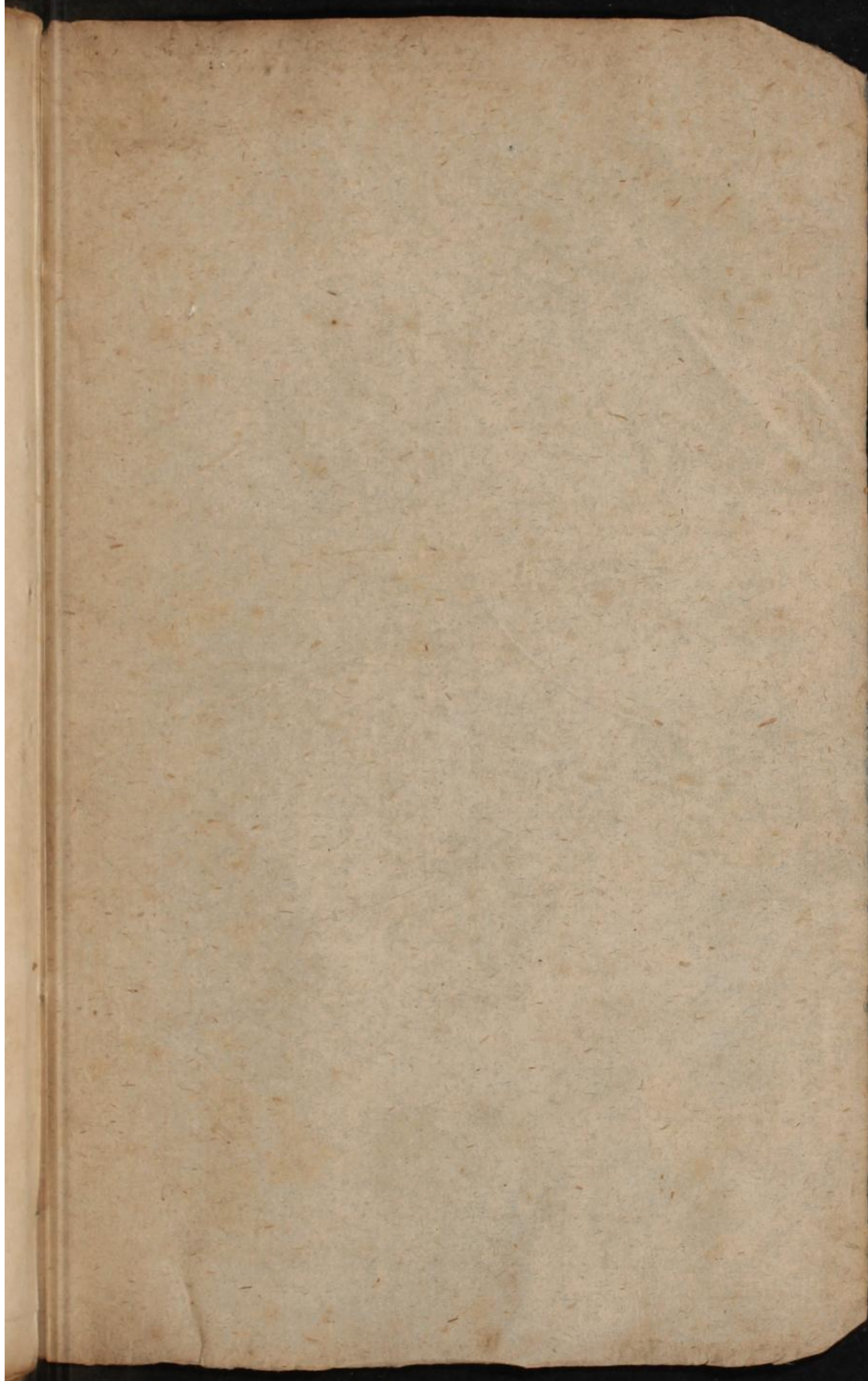
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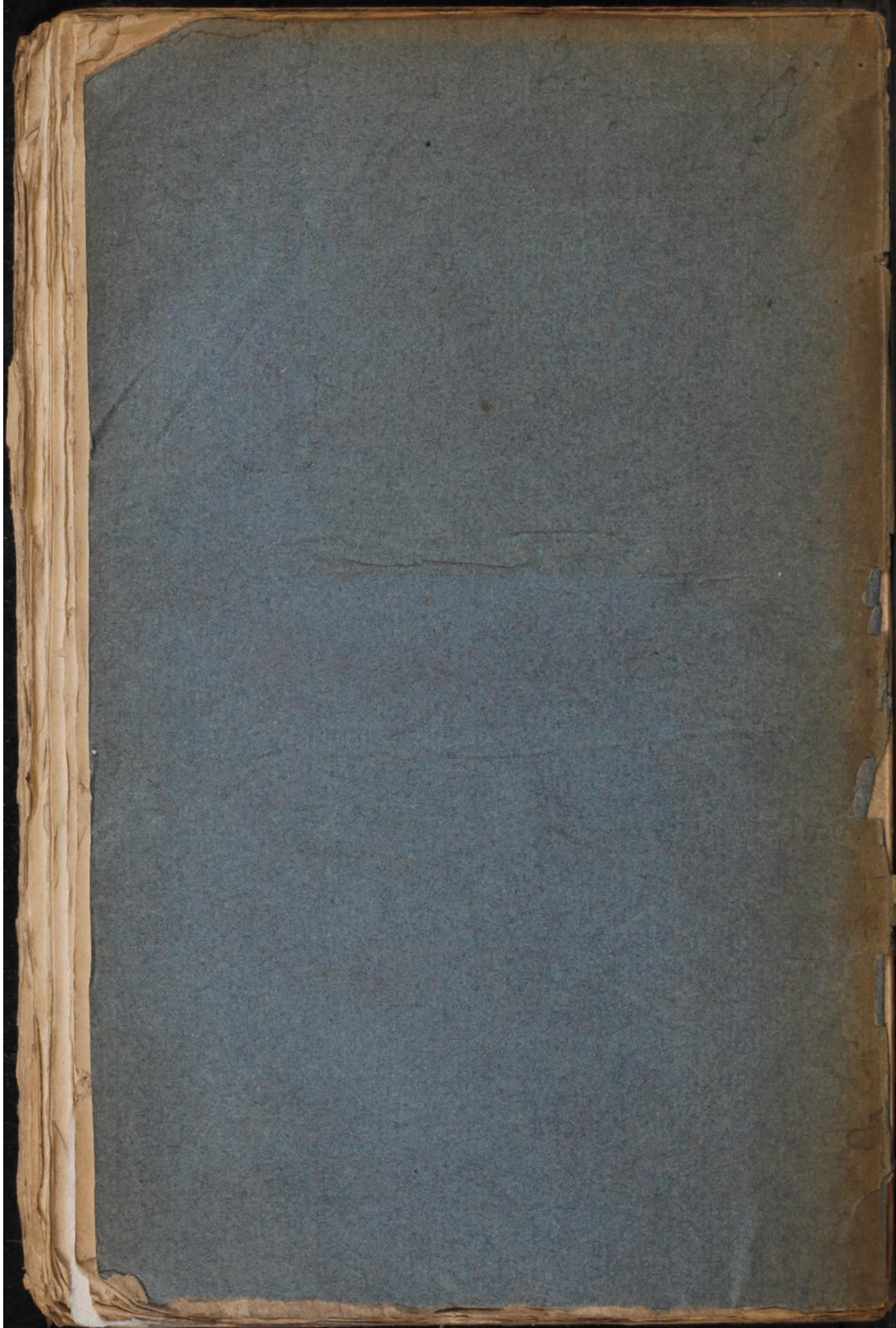
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ERRATA IN VOL. X.

- Page 10, line 31, for *carry* read *convey*.
 37, for *since being* read *since mine being*.
 33, 4, for *such gigantic* read *of such gigantic*.
 41, 11, add *hint* between the words *first* and *from*.
 12, for *filled* read *fitted*.
 13, for *too* read *so*.
 15, for *chain* read *man*.
 42, 17, for *space* read *spaces*.
 42, for *having* read *waving*.
 43, 1, for *trod* read *two*.
 6, for *trod* read *two*.
 44, 29, for *procure* read *produce*.
 32, for *plate to plate* read *plant to plant*.
 85, 12, for *head* read *load*.
 86, 2, for *reign* read *regions*.
 28, for *corn* read *even*.
 119, 28, for *corn* read *even*.
 120, 12, insert *that of* between *than* and *the*.
 122, 16, for *or* read *and*.
 179, 13, for *or* read *on*.
 181, 7, from the bottom, insert *as* between *and* and *it*.
 194, 15, from the bottom, for *contaminous* read *enterminous*.
 195, 10, for *evidently* read *considerably*.
 22, for *account* read *amount*.
 196, 26, for *even* read *ever*.
 199, 8, for *known* read *however*.
 283, 12, from the bottom, for *farming* read *farmers*.
 284, 6, for *frequently* read *generally*.
 285, 7, for *farms* read *farmers*.
 11, for *death* read *dearth*.
 18, for *advert* read *adverted*.
 20, for *observe* read *drew*.
 333, between lines 27 and 28, from the bottom, insert the following,
 " *Insisted on the divine indefeasible right of kings, with the prosperous and glorious reigns of the Princes of the House of Hanover, who*"
 334, line 10, for *to* read *for*.
 14, for *establishment* read *people*.
 12, from the bottom, for *on* read *our*.
 5, from the bottom, for *murmurs* read *discontents*.







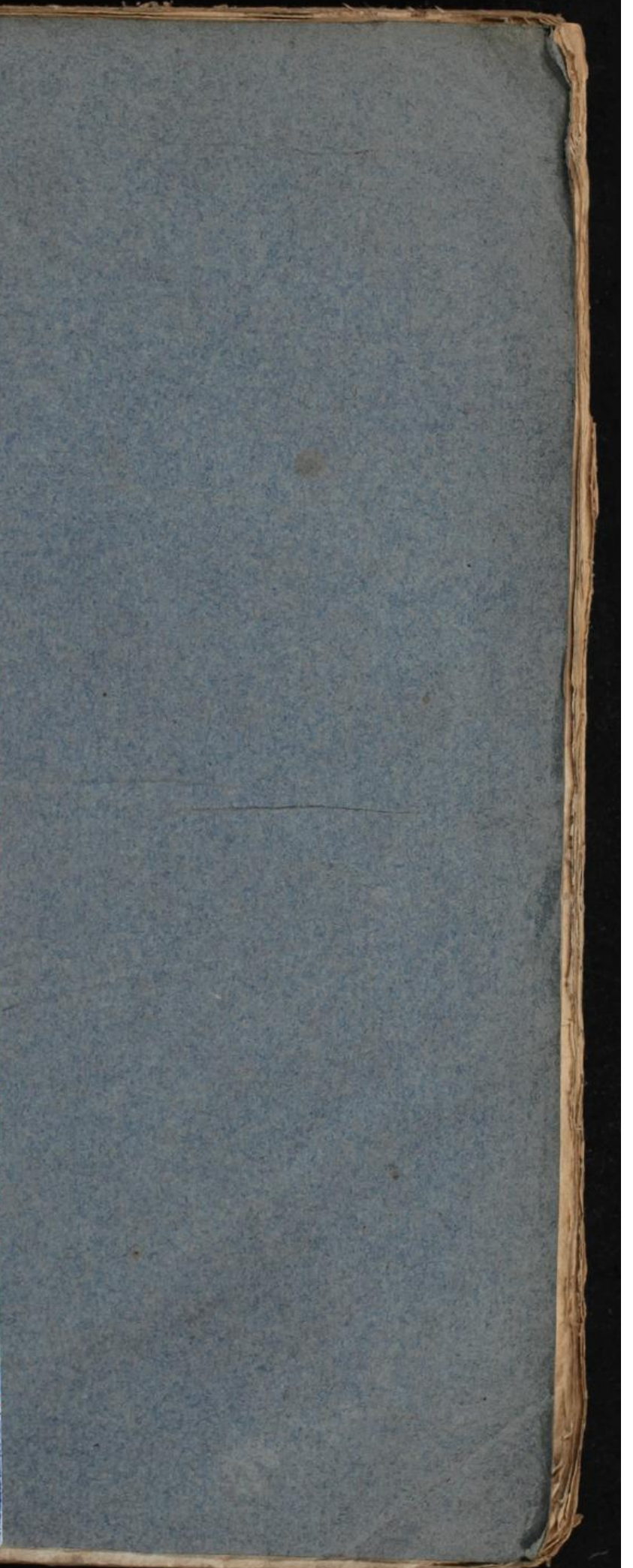
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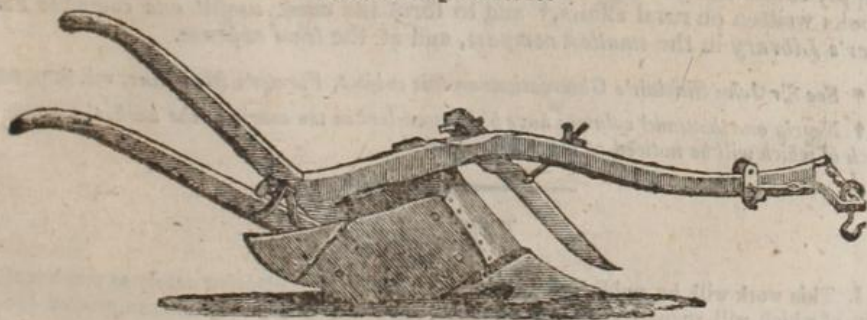
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