Mr. Plowman's Improved Sheep Fold.

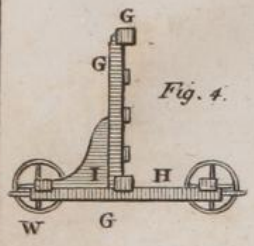


Fig. 4.

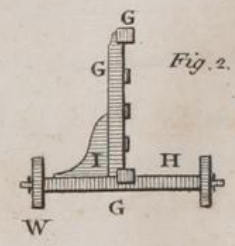


Fig. 2.

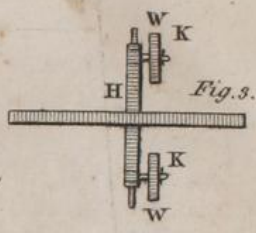
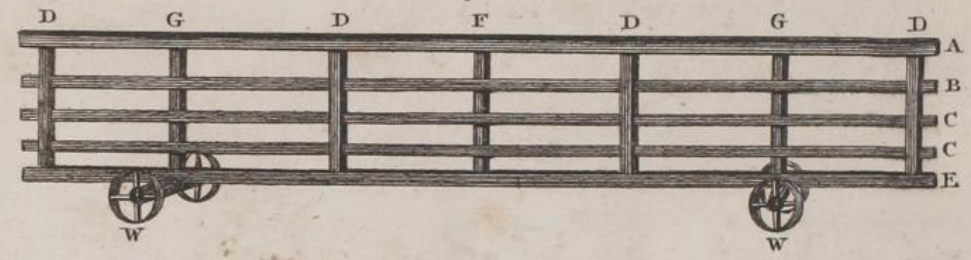
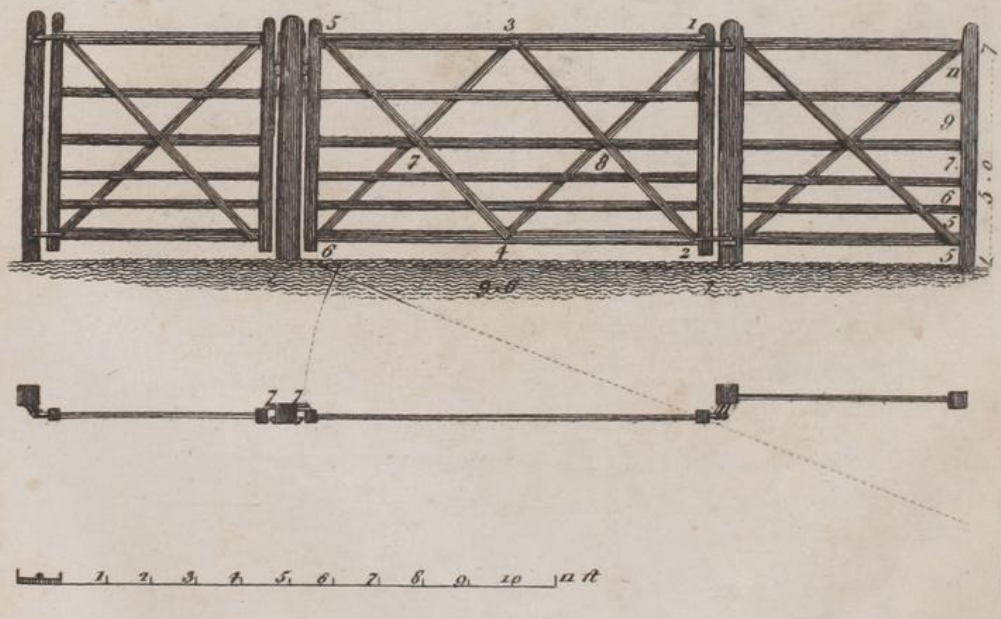


Fig. 3.

Fig. 1.



Mr. Waistell's Improved Field Gate.



THE

AGRICULTURAL MAGAZINE

No. LXIX.] APRIL, 1805 [Vol. XII.

AN ACCOUNT AND DESCRIPTION OF AN IMPROVED SHEEP-FOLD, AS COMMUNICATED BY THE INVENTOR TO THE SOCIETY OF ARTS, FOR WHICH HE RECEIVED THE GOLD MEDAL.

[WITH A PLATE ANNEXED].

The high price of Timber, and the great conſumption of this valuable article in Gates and Fences, induces the Editor to think he can ſcarcely introduce to his Readers two more intereſting objects, than a GATE and SHEEPFOLD, lately recommended by the Society of Arts, &c. which appear to unite the ſeveral advantages of cheapneſs, elegance, and utility.

To the Secretary of the Society of Arts.

Sir,

WITH this you will receive a model of a sheepfold, invented by me, on an improved and very simple principle, combining many advantages over the old and expensive method of folding by hurdles; and as the whole fold can be removed with ease at all times, it will be found peculiarly useful in feeding off turnips on the land in frosty weather, when hurdles cannot be used; and, as the saving of labour in agriculture is a leading object, I have no doubt of seeing it, in a very few years, generally adopted.

The expence, in the first instance, will exceed that of hurdles, for the same given quantity of sheep; but having had one in use nearly three years, I am satisfied the saving will be very considerable: for, before I adopted this method of folding, I lost from thirty to forty nights' folding in the year, owing to the land being hard in dry seasons, such as the two last; which renders folding almost impracticable, as they never can be set without great labour and destruction of hurdles. I am also clearly of opinion, that the stock of sheep will be greatly increased when this method of folding becomes more known; and that it will enable many small farmers to keep from 50 to 100 sheep, who now are deterred from it, on account of the small quantity of feed they have, not answering to keep a man for that purpose only; but by this plan, they may keep a boy at 3s. or 3s. 6d. per week, who can attend on 100 or 200 sheep, and move the fold him-

self without any assistance. In heavy gales of wind it frequently happens that hurdles are blown down, and the sheep, of course, being at liberty to range over the crops, do incalculable mischief; which cannot happen with my fold.

In some counties in England, where hogs are folded, great difficulties are experienced for want of stowage, for them to feed off winter tares, &c. &c. as they root up every stake or hurdle; and having tried the experiment, I am certain my my fold will keep them in, and defy their attempts to displace it.

I have inclosed a drawing, which you will find to correspond with the model, and a description, by which you will see what an astonishing quantity of time is saved, when a man can remove a fold to contain 300 sheep in five minutes, which, by the old method, frequently takes some hours to accomplish.

I have also enclosed a certificate of gentlemen, who are now using folds from my model; and I have the honour to add the testimony of his Grace the Duke of Bedford in its favour, for whom I have a sheepfold now making.

If this fold should appear to the Society to possess the merit which I think it does, I shall be happy to receive any honorary mark of distinction they may please to confer on,

Sir, your very obedient servant,

THOMAS PLOWMAN.

Broome, Norfolk, March 28, 1804.

CHARLES TAYLOR, Esq.

Description of a Sheepfold invented by Mr. Thomas Plowman, of Broome, in Norfolk, which one man may remove with ease in five minutes, though large enough to hold 300 *sheep.*

Fig. I. Twenty-one feet long, and three feet eleven inches high, composed of a top rail.

A. Three inches deep and two inches thick.

B. The upper bar, three inches deep, and three-quarters inch thick.

C C. The two lower bars, four inches by three-quarters of an inch, which, with the upper bar, are morticed through the uprights.

D D D D. Which uprights are oak, three inches by two inches.

E. The lower bar, three inches by three.

F. An upright bar, with the horizontal bars halved into it.

G G. Two oak uprights, three by two inches.

Fig. II. Shows the oak uprights G G.

H. The axletree, three inches by three, and three feet between the wheels.

I. An oak knee, which connects the uprights G G with the axletree, by means of two screws and nuts.

Fig. III. A plan, in which the axle H is shown with two arms K K at right angles to H, which are made to act as pivots to the wheels, when intended to be moved in a direction at right angles to the bars.

Fig. IV. Is a view of the same parts described in Fig. 3.

The wheels marked W, in all the figures, are of cast iron, and cost 3s. 6d. each.

Sir,

IN answer to your favour of the 16th instant, I have the honour to inform you that, where the fold is wanted to be used on very hilly ground, you must begin at the top, and work it down to the bottom, for the ease of removing it, and then draw it up again with a horse. This, however, I have never had occasion to do; for the land with us is ploughed in a contrary direction. and we work the fold in the same course as the ridges. By this means, the inconvenience is avoided of crossing the furrows, and they are also a guide to keep the fold in a strait direction.

With respect to the sheep getting under, I do not recollect that circumstance to have ever happened, nor do I conceive that any land, which is cultivated can be so uneven as to admit of it.

I remain, Sir, your most obedient servant,

THOMAS PLOWMAN.

Broome, May 26, 1865.

Charles Taylor, Esq.

Satisfactory certificates accompanied the above papers;—stating, that the sheepfold fully answers the purpose intended; and that it is a very valuable improvement.

AN ACCOUNT AND DESCRIPTION OF A NEWLY-INVENTED FIELD GATE, AS COMMUNICATED BY THE INVENTOR TO THE SOCIETY OF ARTS, FOR WHICH HE RECEIVED THE THANKS OF THE SOCIETY.

[WITH A PLATE ANNEXED].

To the Secretary of the Society of Arts.

Dear Sir,

THE various methods used in bracing common gates for fields, prove that not one of them is greatly superior to the rest; for, if it was, that method would have been gene-

rally adopted. Most gates are loaded with superfluous timber in some of their parts, and are constructed upon such bad principles, that they are frequently broken by their own weight, aided by the concussion of the head against the falling post; and this, long before any part of the wood has begun to decay. I have for some time given this subject considerable attention, being impressed with the idea, that if common gates could be constructed with less timber, and upon better principles, the saving of timber only would be of national importance; for we have many millions of gates to uphold in Britain, and their numbers are annually increasing. The result of my labours has been the plan which accompanies this letter. Gates made according to it, possess great strength, are very light, and of easy and simple construction. Although uniformity of appearance be not essential in a common gate, yet it is worth having when it can be obtained, as in this gate, without additional expence.

My gate is made with short, and consequently less valuable oak or ash timber, than those of the commonest construction; its strength is much greater than any other gate made with a like quantity of timber, there being at four distant points between the head and the heel, two bars and a brace crossing each other; and I doubt not that it will be found proportionably more durable; it is, besides, very easy to construct, and requires less labour than most other common gates. Twenty-nine years ago I designed plans for ornamental gates, with semi-oval and semi-circular braces, and had them executed; the plans were sent to my friends in various distant parts of this kingdom, as also to Ireland; and I have the pleasure to observe, that they are become almost the only ornamental gate in many parts of England. The plans of them I never published, although they were prepared for engraving fifteen years ago; and I should be as indifferent about my present design, of a common field gate, if I did not conceive that its publication would materially benefit the public; the introduction of this form being, I conceive, of some national importance, as timber has been lately greatly enhanced in price, and is rapidly on the advance.

This gate was designed for the approach to a country residence; but for common purposes, the wicket on one hand, and the short length of rails on the other, may be omitted. I shall thank you, if you will have the goodness to lay my plan before your respectable Society, of which I have, for many years, had the honour to be a member. And should this plan be approved of, I may probably furnish some designs for park gates on an improved construction.

I am, dear Sir, your very humble servant,

March 22, 1805. CHARLES WAISTELL.

Mr. Charles Taylor.

Reference to the Engraving of Mr. Waistell's Gate.

DIMENSIONS.

The heel of the gate to be about	$3\frac{1}{2}$	inches square.
The head of ditto - -	$2\frac{1}{2}$	by 3 inches.
The top rail or bar - - -	$3\frac{1}{2}$	by $1\frac{1}{2}$ inches.
The bottom bar - - -	$3\frac{1}{2}$	by $1\frac{1}{4}$ inches.
The bar in the middle of the gate	3	by $1\frac{1}{4}$ inches.
The other bars, and the four braces	$2\frac{1}{2}$	by $1\frac{1}{4}$ inches.

Observations on its Construction.

The head and heel of the gate may be of oak, and the bars and braces of fir. Narrow and thick bars, when braced as in this design, are stronger than broad and thin ones, containing the same quantity of timber, and they also oppose a less surface to the wind. The two points in the heel of the gate, to which the thimbles are fastened, may be considered as firm or fixed points. From these points, viz. 1 and 2, two braces to proceed to 4 and 3, in the middle of the bottom and top bars, and being there secured, these become fixed points, and from these two points, viz. 4 and 3, two braces proceed to 5 and 6, fixing those points. The gate is thus doubly braced, viz. from the top of the heel to the top of the head, by means of the braces 1, 4, and 4, 5; and from the bottom of the heel to the bottom of the head, by means of the braces 2, 3, and 3, 6. On each side of the gate are two braces, and those parallel to each other. The brace proceeding from the bottom of the heel of the gate, and that which is parallel to it, as also the bottom bar, are all strained in the way of compression, and the brace proceeding from the top of the heel, and the other brace which is parallel to it, and also the top bar, are all strained in the way of extension. The strains in this gate being none of them transverse, but all longitudinal, it would support a vast weight at its head without having its form altered. The braces all serve the double purpose of keeping the gate in its true form, and of shortening the bearings of the bars, and strengthening them. Few gates have less timber in their braces; and perhaps in no other way can a gate be so firmly braced with so small a quantity of timber.

At 3, 4, 7, and 8, two braces and a bar of the gate are firmly screwed together by means of iron pins and screw nuts. At the other points, where only one brace crosses a bar, common gate-nails are used.

If, in some cases, a strong top bar be wanted, to resist the pressure of heavy cattle, a bar or board, about six inches broad, and one inch thick, may be laid with its broad side upon the top bar, and fixed thereto by means of the ends of

the braces in the middle, and by the heel and head of the gate at the two ends of it. This board will, in this position, resist exactly the same pressure as a thick top bar, three inches broad, by four inches deep, although it contain no more than half the timber.

In the ground plan, or horizontal section, *Fig.* 7 represents a piece of wood, about four inches cube, pinned to the falling post, a little below the catch, to stop the gate from swinging beyond the post: another stop near the ground may be useful.

When gates are hung to open one way only, their heels and heads generally rest against the hanging and falling posts; but when they are hung according to this design, gates may be made about one foot shorter for the same opening, and consequently they must be lighter, stronger, and less expensive.

Of the hanging of Gates.

When the two hooks in the hanging-post are placed in the same perpendicular line, a gate, like a door, will rest in any direction in which it may be placed. But, in order that a gate may shut itself when thrown open, the hooks are not placed exactly perpendicular; the upper hook declining a little towards the falling-post, or a few feet beyond it. In whatever direction that hook declines the farthest, in the same direction will the gate rest, if unobstructed, and its head cannot then sink any lower. Make the head describe half a circle, and it will thus have attained its utmost elevation, and will be equally inclined to descend either to the right or to the left.*

The following method of fixing the hooks and thimbles, will, I think, be found to answer very well for a gate that is intended to open only one way. Supposing the face of the hanging post to be set perpendicular, and the upper hook driven in near its inner angle, as is represented in the preceding design, and that the lower hook must be four feet and a half below it; suspend a plumb-line from the upper hook, and at four feet and a half mark the post; then at one inch and a half farther from the gateway than this mark, drive in the lower hook; this hook must project about half an inch farther from the face of the post, than the upper hook. In the section or ground-plan of the gate, the two white circles near the hanging-post, represent the places of the two hooks, when brought to the same horizontal line; that nearest the gateway represents the place of the upper hook. A line drawn through the middle of these two circles, and extended each way, will, on one hand, represent the gate's natural line of rest, and, on the other, the line of its highest elevation. A gate thus hung

* See Ch. II. of Mr. Parker's Eſſay on the Hanging of Gates. And alſo the Agricultural Report for Northumberland, by Meſſrs. Bailey and Culley.

will, when thrown open nearly to the line of its highest elevation, return to the falling-post, with a velocity sufficient to resist a moderately strong wind. This velocity will be either increased or diminished, accordingly as the upper hook declines more or less, from a position perpendicular to the lower hook. In order to adapt the thimbles to these hooks;—as the lower hook is one inch and a half farther from the gateway than the upper hook, the lower thimble must have its eye an inch and a half farther from the heel of the gate than the eye of the upper thimble, in order that the bars of the gate may be in a horizontal position when it is shut. And, as the upper hook projects half an inch less from the hanging-post than the lower hook, the upper thimble should be fixed half an inch nearer the farther side of the heel of the gate, than the lower thimble, in order that the gate may be in a perpendicular position when shut. If the thimbles have straps embracing the heel of the gate, and proceeding a few inches along each side of the bottom and top bars, and if they are fixed to the heel bars and braces, by means of iron pins and screw nuts, great firmness will be given to the gate at those two points, which are those that suffer the greatest strains. WAISTELL.

THIS is to certify, that I have constructed several field gates, after Mr. Waistell's plan. I approve of them beyond those after any other plan, and find them to answer well in use. All the field gates I have had made, these three or four years, have been after his plan. They take less timber, are less expensive, and are stronger and more durable than those made in the common way.

EDWARD SIMPSON,
Master of the Academy at Woden Croft Lodge,
July 20, 1803. Near Barnard-Castle.

ON FARMING IN THE NORTHERN COUNTIES.

To the Editor of the Agricultural Magazine.

SIR, *March* 28, 1805.

BEING informed, through various channels, that Mr. TAYLOR, of the Society of Arts, is not only a gentleman of extensive knowledge, but a warm friend to agricultural ameliorations, and that he enjoys opportunities of collecting materials of the most valuable nature; I observe, with great satisfaction, that you can include his name in the list of your correspondents.

It appears from a letter in your last magazine, that Mr. Curwen is laudably engaged in promoting improvements and a spirit of emulation, among his tenants in Cumberland, and

when I consider the state of that and the adjoining county of Westmoreland, I agree with that patriotic gentleman, that "at present our farming system in many parts of the north of England, is very defective." I cannot so well elucidate this to your readers, as, by quoting the words of two very able breeders and agriculturists, Messrs. Bailey and Culley, in their Survey of Cumberland.

"At Penruddock, (say they) we observed some singularly ugly rough legged sheep: On asking an old farmer, from whence they had that breed, or from whence they got their tups? he innocently replied, "Lord Sir! they are sic as God sent upon the land, we never change any!" The latter part of the statement we readily believe: but that God set upon the land such ill-formed, unprofitable animals, we cannot so readily assent to, and rather think they have acquired their present ill form and bad properties, by the ignorance and indolence of the owners. We wish we could avoid adding, that the same practice which guides the men of Penruddock, is too prevalent in every part of the county."

In another page they say, "On asking a farmer at Uldale, why they sowed no clover or grass seeds, he replied, *We have no occasion, for the land is naturally girs-proud.*—— Those that are experienced in cultivation, will admit, that after growing from six to twelve white crops in succession, it can scarcely be otherwise than *grass-proud*. There is certainly grass in abundance, but of such kinds as no good farmer would wish to possess. This barbarous system is practised on many dry, loamy soils, which, after being thus left to grass, cover amazingly fast with moss, probably owing more to the bad cultivation, than to the wetness of the climate, to which it is generally attributed."

From these quotations your readers will have a pretty correct idea of the general management of Cumberland; and of the ample room which is there afforded for the extraordinary exertions of such benevolent, spirited, and patriotic proprietors, as Mr. Curwen. Fortunate would it be for the country at large, if such exertions were general; for even in Cumberland and Westmoreland, they would produce considerable improvements.

But the proprietors of these counties may shew the advantages of the best systems of cattle and sheep farming; they may diffuse the best modes of cropping, and the most valuable information relative to the nature and qualities of soils and manures; they may expatiate on the advantages of cleaning, draining, and enclosing lands; and they may inculcate the perusal of all the best books in husbandry; yet it will be obvious, Mr. Editor, that their success will be far—very far....

from commensurate, to their benevolent and spirited exertions, 'till the size of farms be greatly increased —'till the occupiers obtain a *certainty* of enjoying the advantages of *substantial* improvements, for a reasonable, determined length of time—'till they hold their farms under the security of leases, with liberal covenants, for fifteen to twenty-five years.

What can they expect from the occupiers of the present small farms of Cumberland, three fourths, or four fifths of whom, hold their lands at the will of the landlord? Very little more, Sir, than the same practice which has been pursued with little, if any, variation, ever since the days of their great grandfathers. In fact, they possess, in general, neither the necessary knowledge nor capital; and it is unreasonable for the proprietors to expect, that farmers of knowledge and property, will settle in a district of small farms, of fifty to one hundred and twenty pounds a year, held under so precarious a tenure, as the will of the landlord.

Let these land owners travel to the eastward—Let them view the state of husbandry, &c. from the Tyne to the Firth of Forth, including Roxburghshire; and above all, let them minutely enquire into the circumstances which have led to its present flourishing state in that well managed district; and they will be convinced of the propriety of enlarging their farms, and granting long leases on liberal terms. In this county, indeed, they will discover that one estate—the largest in the kingdom, is now occupied by tenants at will; but they will also find that that mode of occupancy has been but lately adopted; and that the system now pursued upon it, is evidently injurious.

If they advert to the state of Norfolk, and other well managed districts, the same truths will be discovered. Their own interests, then, as well as those of the community at large, imperiously demand a change of system. A change, which I will venture to say, would, (without any increase in the price of the produce of the soil), treble the rents of most of the arable lands of Cumberland, within thirty or forty years.

I am aware, however, that there are obstacles to improvement in Cumberland, which exist to a greater degree than, perhaps, in any other county. One arises from the great number of small land owners, provincially *statesmen*. Mess. Bailey and Culley say, that this "great obstacle to improvement, seems to arise from a laudable anxiety, in the customary tenants, to have their little patrimony descend to their children. These small properties, (loaded with fines, heriots, and boundaries, joined to the necessary expence of bringing

up and educating a family) can only be handed down from father to son, by the utmost thrift, hard labour, and penurious living; and every little saving being hoarded up, for the payment of the *eventful fine*, leaves nothing for the expence of travelling, to see improved modes of culture, and to gain knowledge of the management and profits of the different breeds of live stock, and be convinced, by ocular proofs, that their own situations are capable of producing similar advantages. And even should they be half-inclined to adopt a new practice, prudence whispers, that should the experiment fail, it would require the savings of many years to make good the deficiency.

The *customary tenure* is allowed, on all hands, to be a great grievance and check to improvement. Would not this be best done away on the division of commons, as was the case at Brampton, &c. when Lord Carlisle had one-twelfth for his consent, as lord of the soil, and for enfranchising the allotments. There are other lords who ask one-fourth for their consent and enfranchising. The yearly value of the various customs, fines, &c. might be easily settled by commissioners; and twenty-five years purchase on *this value*, be the price of enfranchisement, which might be allowed out of the allotment, upon the division of a common; or paid in money, at the option of the tenant.

On these terms neither party would have reason to complain; but where a tenant cannot enfranchise, under forty years purchase, it would be a humane act of the legislature to relieve these bondages by law, or laudable in the Board of Agriculture, to induce such lords of manors, to accept a fair equivalent for these dregs of vassalage.

Letting no leases, or leases for five or seven years, is another great obstacle to improvement. To such proprietors of land we would beg leave to hint, that no tenant will ever make improvements under the uncertainties of a short lease, much less where there is none. A tenant may be well convinced, that by proper culture, draining, improved breeds of stock, &c. he could make his farm, in a few years, worth one third more than it is at present; but this cannot be done without laying out money: Suppose 100l. and suppose, by this means, the encreased yearly value of the crop is 20l.—Now it is clear, it will be six years before he can be repaid the principal and interest of the sum expended. Should his lease expire in the fifth year, he would be a loser; and should he have no lease, he might be turned off his farm at the end of the second year. Under such circumstances, the chance of loss is much greater than the prospect of gain. By reasoning in this manner, he concludes, that it is much safer to

have his 100l. at interest, at five per cent. than risk it in improving his farm under such uncertainties; and that it will be the surest game, to take *every advantage* of the farm in his power.

On the other hand, if his lease had been for twenty-one years, he would have foreseen, that, by laying out his 100l. he would gain 200l. and as "the hope of reward sweetens labour," he would have doubled his exertions, and gone on from improvement to improvement; and at the expiration of his term, his landlord would have the satisfaction of seeing his tenant had acquired a competency, his farm increased in value, and the community benefited by the increased produce. We have heard, it is true, some arguments urged in favour of letting *no leases*; such as would have been used by a feudal lord, and which we are persuaded, cannot long be held by liberal and benevolent minds, enlightened by science, or anxious to promote the true interests of their country.

My sentiments are in unison with those of the respectable authors of the Agricultural Survey of Cumberland; indeed, I should suppose, it would be almost universally admitted, that few, if any, tenants, will *substantially* ameliorate their farms, when they have no certainty of possessing them longer than the time necessary for the cultivation of one crop; or expend their money in improvements, of which another may reap the benefit. It seems unreasonable, therefore, to expect that the face of the country will be much amended, where proper leases are withheld; on the contrary, there is too much reason to believe, that the same unprofitable management will continue to prevail, of which so many of the county surveyors have justly complained in their reports to the board of agriculture. Whatever therefore, has a tendency to induce the proprietors of the soil, to grant their tenants leases of proper endurance, must be considered of great moment.

But though it has been asserted, (perhaps justly) that the lands of a country should be considered as the capital stock of the *state*; yet, in one so free and enlightened as this, it would be questionable policy to compel, by legislative regulations, the land-owners to grant leases against their inclination. I sincerely hope that a proper attention to, and regard for, their own and their country's prosperity, will render such interference unnecessary.

The question of leases seems to involve the best interests of the country, whether it be considered as a moral and political, or as an agricultural and economical one; for not only the regard of the lower, for the higher orders of so-

ciety, but the increase of produce upon which national prosperity so greatly depends, rests upon it; and, as the much wished for reformation may be considerably promoted by frequently discussing the subject in such publications as your's, I should be glad to see it often taken up by several of your readers, more especially by those that are both land-owners and practical agriculturists, who can unite the extensive views of the philosopher and legislator, with the minute attention of the husbandman), for the *interested* motives of the farmer are sometimes imputed to such correspondents, as

Sir, your's, &c.

AGRICOLA NORTHUMBRIENSIS.

ON THE BREEDING OF SHEEP.

To the Editor of the Agricultural Magazine.

SIR, *March* 30, 1805.

ALTHOUGH my statements and arguments in your 66th number, are not answered, and still remain in full force; I shall now make a few observations on the letter of "your obedient servant," (it is without signature) at page 102 of your last magazine.

In that letter you are informed that "Pastorius has fallen into a very usual error; he has been writing copiously on a subject, only one side of which has come within his own observation; and to that side, a common consequence, he manifests a strong prejudice." Your correspondent, then says, that he has engaged a Spanish ram for next season, with a view of trying a cross from him, instead of the new Leicesters and South-downs; the two breeds he has hitherto kept—from which it appears that his practice has not yet brought "within his own observation," the effects of such crossing.

I do not, however, mean to assert that he is, *therefore*, unable to form a pretty correct opinion, as to the effects of introducing a portion of Merino blood into his flock. But I must beg your permission, to caution him against too free an exercise of the liberty he seems disposed to withhold from others.

I have not, it is true, made experiments with Spanish sheep; but I have heard and read so much respecting them, that I am far from considering myself quite unqualified to judge as to their merits. And when I add, that my own flocks of long and short wooled sheep, (including South-downs) are pretty large—perhaps, more numerous, than those of Lord Somerville, Mr. Bartley, and Dr. Parry, united; and that I am neither young nor inattentive, I flatter myself I shall obtain with your readers, credit for some knowledge, as to the pro-

perties of these two kinds of sheep. And when we consider that the most zealous advocates for Spanish-sheep, have not maintained that they are better in the carcase, or that they have a better propensity to take on fat, than the South-downs and other British sheep; but merely, that owing to the superior value of their fleeces, they are more profitable than any of our native breeds: I cannot see how your correspondent can reasonably dispute my power of judging as to *their* merits, at a time when the nature and value of their wool, have been particularly described in publications circulating in almost every corner of the kingdom.

Now as the friends of the Merino blood, formed the enormous estimates of profit derived from it, merely on the superior value of the fleece; most of which, they say, is worth from 5s to 6s per lb, because it can be produced in Britain of as fine a quality as that imported from Spain, (which sells readily at these prices,) I must again contend, that if such large flocks of Spanish crossed sheep as would supply our fine cloth manufactories, were kept in Britain, the price of the finest wool would greatly decline, while that of the coarser sorts would rise. Because, we would not only have the Spanish markets open to us, but a large supply of the former sort, of our own growth; and because these fine wooled sheep would necessarily displace a proportionate number of our native breeds.

If I were to assert that I could raise as abundant crops of sugar in Berwickshire, as in the West India Islands, (and, perhaps, that county is as congenial to the growth of that article, as most of Scotland is to the rearing of Spanish-sheep,) You would, perhaps, suspect that something near my *cranium* was in a disordered state. For the sake of argument, however, allow me to *suppose* that in this county, I could raise sugar as *well* as in the West Indies; and that in Britain, we could produce enough, for our own demand, upon one million of acres of our best corn soils. Now, could it be maintained, under these circumstances, that it would be right to calculate on the *common* prices of sugar and grain, in our comparative estimates of profit in the culture of these articles? Undoubtedly, Sir, such calculations would be fallacious, for it is clear, that sugar would decline in value, while corn would rise. This argument arises not from theoretical speculation, but from the application of one of the simplest and plainest principles of political economy—principles which are as applicable to wool, as to sugar, or any other commodity—to Britain as to all parts of Europe—and to America, as to the whole civilized world.

Is is a *principle* laid down by Dr. Adam Smith, the Earl of

Lauderdale, and all other writers of celebrity, on political economy; that the prices of articles of trade, depend upon the proportion between the supply and demand; and every attentive merchant well knows that it is upheld by *facts*.

It was the application of this principle that led me to state, in a former letter to you, that, if we raised enough of the finest wool in Britain (instead of importing it from Spain) it would be right, in estimating the comparative merits of Spanish and new Leicester sheep, to calculate on data very different, from those assumed by certain new-fangled breeders. Such data would oblige, even these gentlemen, to acknowledge that the wool of their favourite breed, could not equal, in the value per fleece, that of the new Leicesters and other large sheep; and as they dare not compare carcases, that breed would sink *greatly*, even on their own estimation.

Your correspondent says I have been led into a variety of errors, and that "no favourers of Spanish sheep, ever pretended to the idea of their superseding long woolled sheep." It would, however, have been more satisfactory, if he had *proved*, instead of merely *asserting*, these "errors."

I should be glad if he would condescend to state what is more likely to induce mankind to entertain the idea, that one breed will supersede another, than such accounts as have been published, of the very great superiority of profit derived from crossing with Spanish sheep, or using the pure breed? He will not deny that profit is the principal object of the breeder, and that if the farmers of this country could be induced *thoroughly*, to believe all the above accounts of enormous profit from preferring Merino blood, they would soon change their sheep.

I shall not, at present, trouble you with long extracts from publications, in praise of the Spanish sheep; but if your correspondent will examine Lord Somerville's book on "sheep, wool, ploughs, and oxen," he will see that they have been represented as *far* more profitable than the new Leicesters, even on land "proverbially known to be one of the most fertile spots in the kingdom;" and that, in the same page, his Lordship exultingly exclaims, "how many thousands, how many tens of thousands of acres are there in Great Britain, which stand exactly in the same predicament!" Sentiments nearly similar, will likewise be found in Mr. Young's annals; your magazine; and various other publications. On these sentiments I shall offer no comments, but leave it to your readers to decide, whether the "favourers of Spanish sheep, have pretended to the idea of their superseding long woolled sheep."

A course of proper and accurate experiments instituted to

try the comparative merits of the different breeds of cattle and sheep, is certainly a great *desideratum*. The question, however, could not, I think, be decided by such as those recommended by Mr. Lawrence, and quoted by your correspondent; for without weighing the food as well as the sheep, a proper conclusion could not be drawn as to the most profitable.

Besides, why begin the experiments with *two year old* sheep? No sheep should be kept, on our productive lands, which will not, at that age, attain maturity. The Leicester sheep would *then* be completely fat; the small sheep would not; and no man of judgment will contend, that an animal completely fat, will improve, in as great a proportion in a given time, as another only half or two thirds, fat. The experiment should, undoubtedly, be commenced as soon as the lambs are weaned, and continued till they be eighteen to twenty-four months old. I am astonished that Mr. Lawrence, (some of whose works I have read with great pleasure and advantage) should have proposed such an experiment as that mentioned by your correspondent; and also that in a publication which will probably be read in all parts of the kingdom, he has not been more particular in stating weights; that is, whether the stone is 8 or 14lbs. &c. &c.

As Mr. Lawrence has written so extensively, and ably, on rural affairs; it is probable that he is a reader of your magazine, and other works in which the opinions of practical men, in various parts of the kingdom, may be collected; and as I observed, in the newspapers, that he has lately engaged a Spanish ram at 110 guineas, for next season, I should be glad if he would state (in your publication) his opinion, more at large, with respect to comparative experiments and the merits, of the new Leicester and Anglo-Spanish breeds, on our productive lands.

What has induced Mr. Lawrence, who is often so well informed, to state that the small mutton would sell at 4d. per stone, (I suppose a halfpenny per lb.) more than the large? This is a subject to which I have often paid great attention, and I dare venture to assert, that the generality, nay, nine-tenths, of the consumers, would give one halfpenny per pound more for the large fat mutton, than for the small; at least for any small mutton that has come within my observation; and I think Mr. Lawrence, and all the favourers of the Anglo-Merino blood, would decline to meet me in a proper part of the kingdom with a sufficient number of epicures and men of taste, to decide whether the mutton from that blood, or that from the cheviot or forest breeds, is the most delicious and agreeable to their palates; each kind having been produced on the common food of each species of sheep. I as-

sure you, Mr. Editor, I would be under no apprehensions that my cheviot, or forest mutton, would be pronounced inferior to the other, either with respect to fineness of grain, proper mixture of fat, flavour, richness, and quantity of gravy, or weight per quarter.

It has never been contended, that any kind of sheep, in this country, would lay on so great a quantity of fat as the new Leicesters. No, Sir, whatever inclination the breeders from the Spanish sheep may have felt, they have not yet been hardy enough to make an open declaration of this nature. On the contrary, they have admitted this superior tendency to pinguefactio , in puffing off their own half fat sheep, by endeavouring to raise qualms in the stomachs of their consumers, with a view of making them nauseate the "loathsome," the "odious," fat mutton; and turn from it with disgust instead of continuing to it, that decided preference it has hitherto met in all our principal markets.

But if they would condescend to pay proper attention to the subject, and carefully examine the conduct of the labouring class, in almost all our great mutton markets—they would soon discover that their attempts had been fruitless, and that the fat mutton of the new Leicesters is more readily sold, and at higher prices, than any other; and that this preference arises from the important fact, that a pound of the fat mutton, is found, from experience, to produce much more human food, than an equal weight of the small, which is not only defective in fat (the substitute for butter) but has more bone in proportion to flesh. I shall, no doubt, be told of the preference given by *Epicures*, and many genteel families, to the small, old, and half fat mutton. But what is their consumption, when compared to that of the labouring and other classes?

It seems worthy of observation, that nearly the whole of those *zealous reformers* who labour so hard (in the press,) in favour of Anglo-Merino sheep, are situated in an ill-cultivated district, where considerable *darkness*, resulting from the practice of the old school, still prevails; while the most active, enlightened, and opulent farmers in the kingdom, and the best cultivators of the ground and managers of live stock, are to be found, where the preference is given to the new Leicester sheep. Namely, in Berwickshire; Northumberland; Roxburghshire; part of the Lothians, Durham, and Yorkshire; the midland counties; part of Lincolnshire and Norfolk, &c. If I am asked for proofs, I shall endeavour to collect and send them to you for publication. One corroborating opinion, extracted from a late publication, I shall now take the liberty of stating. "Two years ago (says the author) some respectable English farmers visited this district, (Berwickshire,

Lothian, &c.) and viewed the state of husbandry with considerable attention. I put a question to one of them, namely, What he thought of our husbandry? and his answer was, "Why, my dear Sir, if you Scots farmers came to England, and got our farms, and paid our rents, you would all make estates; but if we got your farms, and paid your rents, we would all go to jail.—That is my opinion." And certainly, (adds the author) a stronger and more emphatic one could not have been given.

The Scotch farmer who asked the question, is, I believe, a most enlightened and able cultivator; who has, with great zeal and patriotism, endeavoured to diffuse a spirit of improvement in agriculture, and the management of live stock, throughout the kingdom. The English farmer who replied, is, I believe, an intelligent cultivator, and author of an excellent treatise on irrigation. If I am not mistaken, he resides at, or near, Piddletown, in Dorsetshire.

Your's, &c.

PASTORIUS.

April 18, 1805.

STATE OF AGRICULTURE IN THE NORTHERN DISTRICT.

To the Editor of the Agricultural Magazine.

SIR,

FROM about the middle of February, the weather has been very favourable in this district, for committing the seed to the ground; and as the winter did not materially retard the operations of the husbandman, the land was nearly all ploughed at an early period, and greatly benefited by the frost. These favourable circumstances have enabled the farmer to bring his soil readily into a fine state of pulverization, and his other agricultural operations unusually forward.

Before the end of last month all our seed corn was sown, except barley, and some oats, on very wet and moorish soils; and as the land was dry in the latter end of February, and the beginning of March, more than the usual quantities of spring wheat and beans have been sown. The appearance of the autumnal wheats is favourable; and, upon the whole, I think we never had more reason to expect a productive crop; the quantity of barley, however, though greater than that cultivated last year, is much below what is usually sown in this quarter.

But though our prospects are propitious, let us not be too sanguine. We should recollect, that the fair hopes of the husbandman are frequently blasted; and that a wet summer,

blights, &c. may greatly reduce the expected produce of the next harvest. In May, or June, I shall inform you, fully, as to the appearance of our crops, and our markets for grain, cattle, sheep, &c. and as I conceive, that such information is very useful, I shall be glad to see similar communications from other districts.

This account of the extensive cultivation of spring wheat, will probably be pleasing to your correspondent *Clericus et Colonus.* I am of opinion, however, that the practice he has recommended (see page 101, No. 67), in raising that species of corn, (this season) would have been injurious to the husbandman and the country. The crops on lands intended for fallow, would have been *scanty*, even on the soils he has mentioned, which are certainly of a nature the most favourable to the growth of spring wheat; and besides, it would have deteriorated the land; altered the system of cropping; and materially diminished the produce of the succeeding year.

I am also of opinion, that a Winchester bushel of seed wheat per acre, is too small a quantity, even in the drill husbandry; and that it would be unprofitable management to sow spring wheat in the latter end of April. It would, unquestionably, be so in Scotland, and much the greatest part of England; and, if I am rightly informed, wheat sown so late would not generally ripen in good time, even in the counties on the English channel.

I have never remarked that wheat sown in drills, ripens earlier than that sown in the broad-cast method; though I think the produce is often greater. There seems no occasion, however, to prefer the latter, on account of the grass seeds; which, I think, grow as well, or better, among the drilled corn, provided their sowing is not too long delayed on account of hoeing. I have no doubt but your correspondent is correct, with respect to grass crops, from seed sown after harvest, in a few of the southern counties; in the north, however, I think it would be dangerous practice.

Much has been advanced, of late, as to a variety of wheat which ripens considerably sooner than any other; and which, it is therefore contended, is peculiarly fit for sowing in the spring. I have not, however, discovered any material difference, in that respect, in the different varieties now cultivated in this part of the country, where great quantities of spring wheat are generally produced.

One of the varieties mentioned by *Clericus et Colonus,* (Siberian wheat) was introduced into this part of the country about twenty years ago, with a high character. But though it ripened early in the season, its cultivation is greatly dimi-

nished; indeed, there is now scarcely any of it in the district; the crops having proved *flinty* in quality, and also less productive than those from other varieties.

For a considerable time, some accurate farmers in the north, preferred Golden eared and Burwell red wheats, for sowing in the spring, upon most sorts of land. Almost all of them, however, have ceased to cultivate the former, because it is easily dashed out by the wind. And another variety, (woolly eared wheat), which was, for some time, cultivated with great success, (upon certain kinds of ground) both in the autumn and spring, is also nearly disused, because its ear retains moisture too long, and is therefore considered as more liable to be injured by mildew, &c.

I think the cultivators of the soil should pause—should very maturely consider the subject in all its ramifications—ere they prefer any kind of grain, on account of its ripening earlier than other sorts, even when it is recommended by proofs of its being somewhat more prolific.———Poland and Dutch oats ripen two or three weeks sooner than the common variety; on which account, they have been too extensively cultivated in several parts of the country. They are very defective in the quantity of straw, and deteriorate the land, except on very rich and productive soils; for which reasons I think they should not be sown, but where apprehensions are entertained that the common kind would be too luxuriant, or much lodged.

Potatoe oats, besides bringing a higher price than any other, are as prolific, (or more so) and nearly as early, as the Dutch and Poland, and produce, (except on very inferior soils) as much straw as the common variety. Now, if the wheat which is recommended in some parts of the southern counties, as the most profitable for spring sowing; possesses properties, similar to those of the Potatoe oat; that is, if it ripens earlier; produces as valuable grain, and as much corn and straw, as the other varieties, it should, undoubtedly, be preferred. And I should be glad, if *Clericus et Colonus*, or any other reader of your work, would be so obliging as to inform me, as to its distinguishing properties; and whether its superiority has been ascertained by accurate experiments; or whether it rests merely on observation or supposition. In *particular*, I should be glad to know whether it produces as much straw as the varieties generally cultivated; for as the farmer must principally depend upon his straw, in accumulating a sufficient quantity of that enriching and most important article—dung; a defect, in this respect, would not be counterbalanced by a small encrease of corn gained by its arriving somewhat sooner at maturity.

To the experienced agriculturist, the latter remark is perfectly unnecessary; but I observe, with much pleasure, that *novices* and *young farmers* search your magazine for information; and to these, and other inexperienced practitioners in the rural art, I think I cannot too often repeat the importance of paying great attention to the means of encreasing the quantity of dung, in their estimates of the comparative excellence of the several varieties of grain, or other vegetables, &c. *Without large supplies of dung, there can be no reasonable hopes of permanent fertility, or profitable farming.*

I am, Sir, your's, &c,
AGRICOLA NORTHUMBRIENSIS.

P. S. I am sorry that my acknowledged inability to account *satisfactorily* for the smut in wheat, should have induced your correspondent, Mr. Brightley, to have little faith in what I have prescribed for its prevention. From all the accounts I have been able to collect, however, it appears that about two-thirds of the farmers of Great Britain are satisfied, *from experience*, that the disease may be prevented, by a proper use of that prescription; and that they do not agree in tracing it to its *cause*. This, I think, shews, that his objection to the sentence he has quoted, cannot *reasonably* be urged.

Upon his *principle*, he must also object to the practice of an agriculturist, who knows, from experience, that dung, lime, the ashes of pared and burned land, &c. greatly fertilize the soil; but who cannot *satisfactorily* explain the reasons of that increased fertility, or the *modus operandi* of the manures.

A. N.

ON SEED CORN, BLIGHT, SMUT, &c.

To the Editor of the Agricultural Magazine.

Sir,

I HAVE had the pleasure, for several months past, of reading your useful magazine; which, as well as other agricultural publications, I am glad to hear, travels far and wide, even across the Irish channel, to enlighten our Hibernian brethren; and wishing to contribute my mite, in the best way I could, to promote discussion, and to increase the stock of agricultural information diffused by means of your periodical work, I lately drew up a short paper, which I was just going to direct and forward to you, when lo! your number for January came to hand, with the foul and ignorant criticism on Mr. Forsyth's late publication; and so enraged was I at the illiberal and ill-founded reflections on my countrymen, that I

immediately committed my paper, together with the leaf of your magazine which contained the offensive matter, to the flames; determined, *at that moment*, to use some endeavours to prevent your publication, from crossing the Scotish border in future.

Experience, however, has now convinced me of the impropriety of my decision, and that we should not act from the impulse of the moment, when the spirit of revenge assumes the sway. The very handsome manner in which you have introduced the spirited letters of Pastorius and Agricola Northumbriensis, into your February number, has completely satisfied me; and you may be assured, that I am not a little gratified by these letters of your northern correspondents, and the compliments you have been pleased to bestow on their brother farmers in this part of Britain. Your apology for the insertion of the above criticism, will, I sincerely hope, be equally as satisfactory to your other readers, as it is to me.

Observing some useful discussion in your late numbers, on the subject of seed corn, and in hopes of seeing still more, allow me to request the insertion, in your magazine, of the following extract from Sir Joseph Banks's publication, and the remarks upon it; both of which appeared in the Edinburgh Weekly Journal of the 13th ult.

Sir Joseph has said, "It is customary to set aside, or to purchase for seed corn the boldest and plumpest samples that can be obtained; that is, those that contain the most flour; but this is unnecessary waste of human subsistence; the smallest grains, such as are sifted out before the wheat is carried to market, and either consumed in the farmers family, or given to his poultry, will be found by experience to answer the purpose of propagating the sort from whence they sprung, as well as the largest.

"Every ear of wheat is composed of cups, placed alternately on each side of the straw; the lower ones contain, according to circumstances, three or four grains, nearly equal in size; but near the top of the ear, where the quantity of nutriment is diminished, by the more ample supply of these cups that are nearer the root; the third or fourth grain in a cup is generally defrauded of its proportion, and becomes shrivelled and small. These small grains, which are rejected by the miller, because they do not contain flour enough for his purpose, have, nevertheless, an ample abundance for all the purposes of vegetation, and as fully partake of the sap, (or blood, as we should call it in animals), of the kind which produced them, as the fairest and fullest grain that can be

obtained from the bottoms of the lower cups, by the wasteful process of beating the sheaves."

REMARKS.

(Addressed to the Editor of the Edinburgh Journal.)

"I see in your paper of Saturday last, an extract from Sir Joseph Banks's address to farmers, on the subject of the blight on wheat, so grossly erroneous, and so dangerous to the public at this season of sowing the seed, that I cannot refrain from instantly guarding your readers, and the readers of that publication of Sir Joseph's, from adopting a practice so fatal to the country, as that of sowing lean seed, either of wheat, or of other grain. The fact is, as I have found, from near forty years experience, and as I believe every practical farmer has experienced, that the blight, smut, or black in wheat, or rust in other grain, is owing chiefly, if not altogether, to the ill-judged economy, or the carelessness of sowing seed of inferior weight and quality, whereby the *plantula* of the grain is not properly fed until it has fully rooted.

"I heartily wish Sir Joseph Banks would content himself with his amusements in the chair of Newton, and not assume that of the board of Agriculture."

In this district we are particularly nice in the choice of seed corn, both as to the quality of the grain with respect to cleanness and plumpness, and as to its being quite pure—that is, not mixed with other sorts. We also conceive, that we derive advantage from sowing seed, obtained from distant farms, and from lands, of a quality different from those upon which we sow it. But though this may be some kind of answer to one of the enquiries of your correspondent, *A Novice*, yet I fear it will not be altogether satisfactory, as I cannot state more than *opinions*, which have been long entertained amongst our best farmers. Very accurate trials have not, perhaps, been made and sufficiently repeated.

An excellent cultivator in this county, Mr. Church, has been long in the habit of employing proper people to pick out the most perfect grains from threshed oats, to the extent, I understand, of some quarters in a year. These he sows where they cannot be blended with other kinds, and in the succeeding year sells the produce to nice farmers, at an enormous price, for seed. The oats he thus picks are of the Polish kind; some have asserted, that he originally got the seed from some distant part of Britain, Ireland, or the continent; others say, he rendered the Poland oats formerly cultivated of a superior quality, merely by hand picking; be this as it may, he certainly has the merit of diffusing a valuable variety throughout most parts of the kingdom. This variety is known

by the name of *Church's Oat*. His example has been followed by some farmers in Northumberland; and the same practice is pursued with Potatoe oats, which are now considered as the best kind.

But though our practice is at variance with that recommended by Sir Joseph Banks, and though I am an advocate for the practice pursued in this quarter, yet it is but fair to state, that I am informed by a farmer of unquestionable veracity, that he has, once or twice, sown, (in the spring) small wheat dressed out of the best, but not the *thirds*, or smallest of all, and that his crops, on equal soil, were as good as those from his best grain!—Notwithstanding this, however, I think it would be improper to be influenced, in our practice, by Sir Joseph's advice, until *accurate* experiments, for a series of years, have proved it good. I hope some of your correspondents will throw some additional light on this subject.

The opinion of the author of the above remarks, (on Sir Joseph Banks's paper) with respect to blight and smut, are liable, I think, to objection; and will, perhaps, be controverted, by some of your friends. For it appears to me, that the former disease arises from the weather in summer; and that if the small shrivelled grain seed corn be properly clean, and clear from smut, the produce will be as free from black, as that of the best large grain, proper pickling being practised with each.

As the cause and prevention of these diseases are in a course of investigation, in the Agricultural Magazine, I hope you will permit me to state the opinions and observations of the late ingenious Mr. Robert Somerville, of Haddington.

BLIGHT.

In the paper just mentioned, which contains much valuable observation respecting the nature of the blight, an insect that produced much injury to the ears of the grain is thus described. It bears, says the writer, a striking resemblance to a *louse*, and when it is first distinguishable by the eye, is of a red colour, nearly resembling that of a boiled lobster, and so soft and tender as to be killed by the slightest pressure; as it increases in size, the colour gradually changes from red to a dirty black, when it becomes stationary, and continues so till it dies. During its growth, it also loses this soft tender texture, and in its black state feels hard, and as if it were covered with a crust or shell upon the back. It does not appear that this is a new insect, for most of the farmers with whom the writer has conversed seem well acquainted with it, and all

of them assert, that, if they are carefully looked for, some of them may be met with, even in the best fields of wheat every year. It appears, however, that they are infinitely more numerous and destructive in late wet seasons, than in such as are earlier and more favourable. In the year 1782, for instance, when the crop was uncommonly late, and the season very wet and cold throughout, the wheat crop, he says, almost entirely failed from the depredations of this insect; and every other instance that can be recollected of their mischievous effects, has always taken place in the latest and coldest seasons. The observations which he made a few summers ago confirm him in that belief: for he uniformly found that, in proportion as a field of wheat was early, the injury done was not only much less, but the number of vermin smaller; while, on the contrary, as the crop was later the mischief was in the same proportion greater, and continued so throughout the season. The inference he draws from thence is, that wet seasons are more favourable to the generation of these insects than dry ones, and that though they are bred in considerable numbers even in the best years, yet they come into existence at a period of the season when the crop is too far advanced to be injured by them. This last idea was considerably strengthened by trials which he lately made, of placing the insects upon healthy plants at different periods of their growth: when put upon plants in the flower, and while the stalks and blades were green and tender, they adhered firmly, and completely effected the destruction of the ear; but when put upon such as had made some progress towards filling the blades, and the stalks of which were beginning to harden and become tough, they not only entered upon them with more difficulty, but if the growth and filling had advanced beyond a certain period, and the blades, &c. had lost their saccharine taste, they would not remain upon them; or if they did, they died, seemingly of hunger. He tried them upon several hundreds of healthy ears in this way, and with the same result; from which he thinks it is at least presumable, that a certain degree of hardness in the stalks and husks of the wheat is a sufficient protection against this insect; and that after the grain has past the milky state, it is beyond the reach of being injured by them.

SMUT.

Some years ago, he says, he collected a quantity of smutted ears from one field of wheat, in which they were very numerous, and a number of healthy well-filled ears from another field, in which there was no smut. The grains were rubbed out of both, intimately mixed, and kept in a box for

two months, at the end of which they were rubbed between the hands in such a manner as to break the whole of the smut ball. The parcel was then divided into two equal parts, one of which was three or four times washed with pure water, and well rubbed between the hands at each washing, and afterwards sown in a drill in his garden; the other half was sown in another drill without any washing or preparation whatever; the soil and every other circumstance was equal. Both parcels vegetated at the same time, and for about two months thereafter there was no visible difference in their appearance; about that period he, however, observed that many of the plants in the drill, that had been sown without being washed, were of a darker colour than the others; these, when narrowly examined, were of a dirty green. The plants in the drill that had been washed were all of one colour, and seemingly healthy; as the season advanced, the difference in colour became more striking, and continued to increase till the grain was fairly out of the blade; about which time many of the dirty green ears began to exhibit symptoms of decay. As soon as the ear was fairly shot out, the whole of those in the unwashed drill, that had the dirty green appearance above described, were found to contain nothing but smut; and these smutted ears were in the proportion of more than six to one of the healthy ones: while, on the contrary, the drill in which the washed grains had been sown, and which consisted of several hundred grains, had hardly a smutted or unhealthy ear in it. The same experiment was repeated the following season, and with nearly the same result. Satisfied with knowing that complete washing would be found a remedy for the disease, he made no farther enquiry upon the subject till last autumn, when he was employed in making observations upon the blight, in the course of which he met with a good deal of smut in many fields; and being at this time posssessed of some excellent glasses, he carefully examined some of the smutty plants. This at first was done more as a matter of amusement, than from an expectation of discovering any thing that might contribute to throw light upon the subject. Upon a near inspection with the glass, he found that the dirty green colour of the blades of the smutted ears was owing to a number of spots infinitely small, and bearing a near resemblance to those upon blighted ears: his observations were continued throughout the whole period of the ripening, in the course of which he made no additional discovery, except observing, that the leaves and stalks of the smutted ears decayed sooner than such as were healthy.

About the end of autumn, however, having one day brought home some smutted ears of rather an unusual appearance, he

examined them very narrowly, and observed that the balls were perforated in many places with small round holes, a thing he had not before observed in any that he had met with: this he ascribed to vermin; and upon sticking one of the grains upon a pin, and placing it under the glass in a very bright sun, he could distinctly observe several small transparent specks upon the beard, or downy part of it. He examined several more, and met with exactly the same appearance; but being called hastily away upon business, he was under the necessity of leaving them upon the table, without being able to ascertain whether the objects he had seen were eggs or insects. In the evening when he came home, he resumed the investigation by candle-light; in the course of which, as he was under the necessity of holding them very near the candle, the heat soon relieved him from his embarrassment, by putting them in motion, and he then discovered that the specks above-mentioned were real insects, resembling wood-lice in shape. Next day he repeated the same trials by sun-light, with new smut-balls, and discovered the same appearances, but without being able to make any of the insects stir. Disappointed and vexed at not being able to see them in motion with sun-light, and recollecting the heat of the candle, he threw the concentrated rays of the sun upon them with a burning glass, which completely answered his purpose of putting them in motion, and shewing them in every different point of view. To describe minutely an insect so small as not to be distinguishable by the naked eye, would, says he, be no easy matter; it is sufficient to say, that its general appearance is very similar to the wood-louse, though infinitely smaller.

As soon as he was clearly ascertained of the existence of this insect, his mind was, he says, perfectly at ease with regard to the cause of the distemper; but though he could very readily conceive that vermin, in the early stages of the growth of a plant, might so injure the stamina as to render it unfit to produce any thing but smut, he could not so well understand how it was possible for the mere touch of the black earth contained in the smut-balls to produce the same effect.

After some reasoning he, however, gives it as his opinion that smut is occasioned by the small insect above described, as seen by the glass in the downy part of the grain; and that when the balls are either broken in the operation of thrashing, or come in contact with clean healthy grains, the insects leave the smutted grains, and, adhering to such as are healthy, are sown with them, and wound the tender stem in such a manner as to render the plant incapable of producing any

thing but smut. It is not an easy matter to account for the manner in which this takes place; but a little attention to the circumstances he is now to mention will perhaps throw some light upon it. It is known that plants of very opposite *natures* and *qualities* will grow and produce abundantly upon the same soil, where the nourishment is seemingly the same. This effect is also known to be owing to the structure of their vessels, by the action of which the juices that circulate through them are differently prepared in every different plant. From this striking difference, owing confessedly to organisation, is it not, says he, presumable that the smut in wheat is produced by the insects wounding the vessels of the plant in such a manner as to render them incapable of taking up any other principle from the soil, but the smut contained in the balls, which upon examination seems to have no quality different from the finest vegetable earth? This opinion he thinks is strongly supported from the circumstance of certain *pickles* being found a cure for the malady. The effect of these pickles is, however, completely misunderstood; for in place of supposing, as is erroneously done, that they operate by strengthening the grain, and thereby removing that debility which has been long considered as the cause of smut, their benefit depends upon the powers they possess of destroying the insects above described; but to shew the absurdity of the commonly received opinion in a more striking point of view, it is only necessary, he adds, to state, that many of these preparations, which are supposed to be so friendly to vegetation, are in fact highly inimical to it, unless they are used with the utmost caution; even stale urine, which has long been considered as a safe and innocent remedy, is, under certain circumstances, highly pernicious. After he had discovered the insect, he made trial of all the substances commonly used, and found all of them, when properly applied, destructive to it. Is it not therefore, continues he, more agreeable to plain common sense to suppose, that the virtue of these preparations consists more in the power they have of destroying vermin, than in any strengthening quality they possess?

The patriotic efforts of many of our landed proprietors, both in Britain and Ireland, to introduce the best modes of management into their respective districts, is highly meritorious; and will, doubtless, be followed by important advantages to themselves, their tenants, and the public.

A warm friend to improvements, Mr. Curwen, has, I observe, in your last number, been laudably employed in exciting emulation amongst his tenantry, by the offer of premiums. May the greatest success attend his exertions in so good a cause!—And may a similar spirit actuate the proprie-

tors of the soil in every part of the kingdom!—In no part, however, are such exertions more necessary than in Cumberland—a county we consider as the disgrace of the north.

Having been concerned, to a considerable extent, in breeding and fattening both large and small sheep, as well as in the management of tillage lands, I cannot refrain from offering some advice to Mr. Curwen on the subject of introducing South-down sheep upon the wet, bleak, or healthy pastures of Cumberland; and to request him to advert to the difference between the climate of Sussex and that of the north of England.

The South-down blood has been tried in this county, and in Northumberland, both by intelligent individuals, and the Society for the improvement of the Cheviot sheep, and I am persuaded that if he will take the trouble of enquiring, particularly among the members of this society, he will not receive much encouragement to push the South-downs into the north.

No doubt, if they were as hardy as the native breeds, a cross with them would be advantageous in improving the quality of the wool, but it would not be so in any other respect;—at least, the cheviot breed could not be otherwise amended by it; for in point of form, weight, and perhaps, in aptitude to fatten, the best flocks of them are already equal, if not superior, to the South-downs; and though the wool, by such a cross, would be worth more money per pound, it would not, I believe, be more valuable per fleece.

But the great objection I have to the South-downs, upon our northern hill pastures, is their tenderness; especially from the scantiness of their wool for some time after being lambed, when they die in much greater numbers than those of the cheviot, forest, or Cumberland breeds.

If I am not mistaken, there is a breed of mountain sheep in Cumberland, called *Herdwicks*, which are considered by some eminent breeders, as a valuable kind in wet, cold, and exposed situations. Now it would probably be more advantageous to Mr. Curwen and the country, if he would promote a cross between these sheep and the cheviot breed, which are generally allowed to be the best for highland pastures, in the kingdom. At any rate it would be prudent to try the South-downs *sparingly* in Cumberland, till the advantages of such a cross be clearly ascertained.

If you insert this letter in your useful magazine, you will occasionally hear from, Sir, &c.

Roxburghshire, April 14, 1805. FARMER SANDY.

ON GROWING TIMBER ON WASTE LANDS.

To the Editor of the Agricultural Magazine.

SIR,

AS my motive is intentionally to promote the cultivation of waste land throughout the kingdom, and particularly to encourage the growth of timber, I beg leave to submit the following plan for public consideration, which seems to have been too generally neglected, or not properly understood:

I. To plant the waste or uncultivated land in different parts of estates, which is of little use for any other purposes, such as moss, moory or common lands, river, brook or water-banks, hedge-rows, old pits, &c. &c. with plants of all sorts and sizes, best adapted to the various soils and situations.

II. Upon moss or light bog—Larch, Scotch and Spruce Firs; and where the earth is of more solid nature, Ash, Beech, Horse-Chesnuts, Elms, Limes, Oaks, Poplars, Sycamoors, &c. intermixed with the other kinds above-mentioned; and where the ground is more wet and swampy, Alder, Huntingdon and Red Willows; which, being ranged in proper places will, not only be very ornamental but of great service, as a screen to shelter and preserve farming-land and Cattle, and likewise an harbour for succouring all sorts of game.

III. The Trees ought to be planted at the distance of a yard, and regularly interspersed with Firs and Pines, Evergreens being a protection to the others from high winds and severe winterly weather. They may be kept as a nursery, and will admit of thinning out for several years, to prevent their being drawn weak, and will then be suitable to make immediate covers, such as Screens, Clumps, Blinds, Hedgerows and other Plantations, where they may be removed, when of larger size, with balls of earth, in great safety, and in twelve or fourteen years, thinned again annually, which, without any expence but the labour of falling, will answer the necessary uses for making rails to inclose or divide lands, also for Bleachers', Dyers', and for Scaffold poles; Ladders; Spars for thatching, Piles for river-banking and foundations of buildings, Props for collieries, and numbers of other purposes used as a substitute instead of Foreign Timber, which of late has been selling at the exorbitant price of three shillings per foot.

IV. One Lancashire acre planted at the distance of a yard, will contain 7840 trees, which number will annually advance in value 3d each, which makes the sum of 98l. per acre: As a proof, many thousands of Firs *only* have been planted upon Chat-Moss, on his Grace the Duke of Bridgewater's premises at Worsley, about thirty years since, in the manner above described, which together have accumulated 4d each, which

makes the sum of 130l. 13s. 4d. per acre annually. Mr. Sothern, the Duke's Agent, viewed and estimated their value with me, in November, 1799. I have likewise planted many acres at different times, in similar form, for John Pole, Esq. of Holcroft Hall, near Hollins-Green, in this County; likewise at various other places, and not any of them has failed to answer according to the above calculation, on land letting as low as five shillings per acre.

V. The best and cheapest method of fencing them from cattle *especially in wet situations,* is by making deep ditches, which not only secures them from injury, but also serves as a drain or channel, which is absolutely necessary to carry off the dead lying-water; it will also enrich the land and greatly promote the growth of trees.

VI. A statute acre contains 4,840 square yards, and at 2l. per 1000 will cost 9l. 14s. per acre, and will accumulate at 3d each 60l. 10s. and at 4d. 80l. 13s. 4d. per annum. A Lancashire acre contains 7,840 square yards, and at 2l. per 1000 will cost 15l. 14s. per acre, and will accumulate at 3d. each, 98l. and at 4d. each, the sum of 130l. 13s. 4d. per annum. A Cheshire acre contains 10,240 square yards, and at 2l. 1000 will cost 20l. 10s. per acre, and will accumulate at 3d. each, 128l. at 4d. each, the sum of 170l. 13s. 4d. per annum.

VII. One Lancashire acre of waste or bog-land,

at five shillings per acre for thirty years, will cost	7	10	0
7840 Trees, in sorts, with planting and insuring their lives one year, will cost	15	14	0
Amounting together to	23	4	0

VIII. The yearly advance in value at 3d

each is	98	0	0
Which, in twenty years, will be worth the sum of	1963	0	0
And in thirty years, will be worth the sum of	2940	0	0
Which, without any additional expence from the time of planting, will clear the value of	2916	16	0

IX. 100l. laid out in planting Trees, advancing 3d each, in twenty years will be worth

	12500	0	0
In thirty years will be worth	18750	0	0
100l. laid out in planting Trees, advancing 4d. each, in twenty years will be worth	16666	0	0
In thirty years will be worth	25000	0	0

I am, Sir, Your very humble Servant,
GILES BOARDMAN, Manchester.

The low prices of land herein-mentioned, and the annual advance in value of Trees growing on Chat-moss, I believe to be a true estimate.

D. SOTHERN, Worsley.

A STATEMENT OF THE BROADCAST AND DRILL HUSBANDRY.

To the Editor of the Agricultural Magazine.

SIR,

THERE are but few farmers who have any idea of the profit of successive crops of wheat, or the produce.—From the comparisons between the *Broad-cast* and the *Horse-hoed,* (which last method was Mr. Tull's, and which he recommends as the best, after near forty years experience), I have stated and annexed an Abstract, of four years of each, by which it appears that the *horse-hoed* is greatly superior in profit to the *broad-cast,* even with a small quantity of *wheat.* And from some experiments, I had a produce after the rate of more than is stated, in the following abstract.

Abstract of Comparisons.

BROADCAST.	l.	s.	d.	DRILLED.	l.	s.	d.
				2 qrs. wheat produced			
4 years course : .				Expence.			
Sir D. Legard's exp. prod.	12	10	0	8l. 15s. 0d. 4 yrs. prod.	19	6	8
4 years 9l. 7s. 6d. deduct	9	7	6	Expence .	8	15	0
per year 2 6 9½ .				or			
Four years profit .	3	2	6	2 3 9 4 yrs. profit	10	11	8
per year . .	0	15	7½	per yr. per year do.	2	12	11
Dr. Hunter with manure	4	10	0	9 1 0 twenty bushels .	23	10	0
					9	1	0
Ex. 9 9 0	19	10					
4 10 0 manure	13	19		4 years profit .	14	9	0
4yr 13 19 0 4 years profit	5	11	4	2 5 3 per year ditto .	3	12	3
p.y. 3 9 9 per year ditto	1	7	9				
Mr. Arthur Young (man.)	1	10	0	9 7 0 . . 3 quarters	27	12	0
Expence.					9	7	0
8 15 11 four	18	10					
1 10 0				4 yrs. profit	18	5	0
4 yr. 10 5 11				2 6 9 per year ditto	4	11	2
p. yr. 2 11 5¾ .	10	5	11				
Four years profit	8	4	1				
per year ditto .	2	1	0				

By this statement the produce of two quarters per acre, drilled, is more profit than any of these *Norfolk courses*—28 bushels have been produced per acre, *horse-hoed.* But even with the highest expence for manure, two quarters drilled is more profit than

Dr. Hunter's					
Drilling	8 15 0	2 qrs.	19	6	8
Manure	4 10 0	. .	13	5	0
	13 5 0		6	1	8
But ſuppoſing with manure the produce 28 buſhels.					
Exp.	13 19 0	28 buſhels	31	14	8
	3 9 9	. .	13	19	0
			17	15	8
		Profit per year	4	14	5
And it has produced on good ground, without manure, 28 buſhels . .			31	15	4
			9	7	0
			22	8	4
		Per year .	5	12	9

18 Crops are mentioned by different authors, without manure . .	B. 25	2 0
And Mr. Tull had on good ground from 32 to	40	0 0
And Mr. Crach had on good land half an acre, at the rate of . .	35	0 0

But as Mr. Tull's may be expected to be better executed, and better pulverized, it may be adviſable, at firſt, for a beginner to uſe a little manure, to put it into good heart.

These statements shew the *broad-cast* is more expensive, and less profitable to the farmer. It is also less advantageous for the public, as there is less grain produced.

In a course of four years the broad-cast produces only one quarter of wheat and one of barley, or seven or eight quarters of wheat and barley. But in the *horse-hoed,* twelve quarters, or upwards, may be expected of wheat.

	Q. B.	BROADCAST.			
Wheat	3 0	a 48s. .	7	4	0
Barley	4 0	a 24s. .	4	16	0
	7 0	Grain	12	0	0
Clover . . .			4	10	0
Turnips . . .			2	0	0
			18	10	0
		Expence	10	5	11
			8	4	1

4 Years drilled wheat.	Grain. Q. B.	Value. l. s. d.
4 crops of wheat, at 3 and 48	12 0	28 16 0
Straw, at 14s.		2 16 0
		31 12 0
Expence		9 7 0
Profit		22 3 0

This culture is for raising most grain, as well as profit to the farmer. Other places may be more proper for food for beasts.

Although this is the most profitable, yet to have a whole farm in one kind of grain cannot be supposed, only a certain part is allotted for grain; and to have even the whole of what is allotted for tillage, in wheat, would be improper. In a large farm, (although it was all in this method of culture) that would throw too much of the labour at a season, when they may be interrupted, by bad weather, and would divide the labour better by drilling different crops.

Many farmers very improperly suppose, that the *horse hoeing* is more expensive than the *broad-cast*, from the hoeing, as in that season they have the least to do: But these statements shew it not to be so, notwithstanding there is no fallow in the broad-cast statement.

By this method a greater quantity of winter crops can be sown, as, after a preceding horse-hoed crop, it requires only two bouts, or two-thirds of a ploughing, and four in the ridges, and the drilling is quickly done, at least two drilled crops can be ploughed and drilled in less time than one broad-cast.

Some suppose, that as the equal distant drill rows produce more grain than the broad-cast, and as there are more rows than in the horse, it must therefore be superior. But this could be only for one year, as equi-distant rows cannot be expected to produce successive crops of wheat, and the difference is not in proportion to the number of rows, for in the horse-hoed, although there are only two rows in three feet, and as there is double the quantity of seed to double the space of the other, and as the roots extend, there is not so much waste ground as there appears to be. And from the superior culture of horse-hoeing, in place of shallow, the encrease is greater, and produces successive crops of wheat.

AMICUS.

April 15, 1805.

ON THE PRICE OF BARLEY, &c.

To the Editor of the Agricultural Magazine.

SIR,

IN common with your correspondent, *A Friend to Agriculture*, and many other farmers, I have this season been considerably disappointed with regard to the demand for, and price of barley.

That species of grain was not cultivated to much, if any thing, more than one half of the usual extent last year; from which, and the circumstance of its not having proved a good crop in general, there was abundant reason to suppose that the demand for it would have been brisk, and the price very

high. In most parts of the country, however, its sale has been dull, or at least not so brisk as that for other grain, and the prices have certainly not supported the proportion they usually bear to those of wheat, rye, and oats.

I agree with Agricola Norfolciensis, that the prices of barley have been high; but why have they been so? Because the crops of grain in general, not only in this kingdom, but in several parts of the continent, have been greatly deficient. But this high price is no proof that the consumption of barley, and consequently the demand for it, has not materially diminished,

The criteria by which we are to judge of this, are the proportion of the crop, to the produce of other species of grain, and the proportion of its price, to the prices usually obtained for wheat, &c. Now if when the quantity of barley produced is in the usual proportion to that of wheat, &c. its *price* is below the annual proportion it usually bears to other grain, it seems fair to conclude either that the consumption of barley has diminished, or that that of wheat &c. has increased. But if we conclude, as there is great reason to do, that the consumption of wheat, &c. has not, within the last two years, increased; then, as the proportionate price, and produce of barley are evidently less than usual, it is clear that its consumption has greatly diminished.

A Friend to Agriculture has advanced some good reasons why this diminution in the consumption of barley will be materially detrimental to our agriculture; and on this score I think almost every practical farmer will agree with him. It seems a matter of no small moment, therefore, to enquire as to the cause of this decrease in the consumption of so important an article, not only as it affects the farmer, but also the public revenue.

I cannot see any good reason for supposing a diminution in the consumption of ale, beer, porter, or British spirits. Indeed it seems the general opinion that in all these articles it has rather increased, especially in the latter, owing to the encreasing price of brandy, rum, gin, and wine from abroad. What, then, is the fair inference? Is it not reasonable to believe that our brewers, &c. have found substitutes for barley, by which they are enabled to reap an increase of profit?—Even if these substitutes are sugar, molasses, and other wholesome articles, the policy of preventing their use in the brewery, appears to me very clear. For it is certainly more advantageous to encourage British and Irish, than foreign cultivation.

But if it be true, as some have asserted, that these substitutes are not only unwholesome, but even deleterious; then,

Sir, there cannot be a dispute about the propriety of *very severe* legiſlative regulations against ſo wicked and deſtructive a practice.—The crime of mixing any thing of a poiſonous nature, in the common beverage of the people, ſhould be made felony, and its puniſhment, hanging in chains.——— On this point there cannot be two opinions.

Agricola Norfolciensis has asked if 40 to 50 ſhillings per quarter for barley, can be conſidered as *ruinous* prices to the farmer. Undoubtedly, Mr. Editor, even the lowest price he has mentioned, is greatly higher than thoſe we almoſt always receive. I am convinced, however, that in many parts of Britain, 40 ſhillings per quarter, (when we advert to the vaſt increaſe of rent, labour, taxes, &c. &c.) would not leave much profit to the cultivator; and that, (notwithſtanding the diſcontent manifeſted by manufacturers and commercial men in moſt parts of the kingdom, on the introduction of any regulations which have a tendency to increaſe the price of grain) that price is not more than ſufficient to enable the farmer to pay his increaſed expences.

But your Norfolk correſpondent ſhould conſider that in many parts of the North thirty ſix ſhillings per quarter has been about the price of barley during the greateſt part of laſt winter; and to ſhow that this price is not a profitable one to the farmer, I beg leave to refer to the following calculations on the mode of raiſing moſt of our barley. Namely, that of ſowing it after a crop of turnips.

Dr.	l.	s.	d.		Cr. l.	s.	d.
To 2 years rent of one Engliſh acre of land .	4	0	0	By 1 acre of turnips .	5	0	0
3 loads of lime per acre, including carriages 9s. per load . .	1	7	0	1 acre of barley, 42 buſhels, at 4s. 6d. per buſhel . . .	9	9	0
15 loads of dung to one acre, including carriage, 4s. per load	3	0	0				
6 ploughings, 7s. 6d. an acre . .	2	5	0				
4 harrowings, 2s. .	0	8	0				
cleaning, picking, &c.	0	7	0				
turnip ſeed, hand and horſe-hoeing turnips	0	16	6				
ſeed barley . .	0	13	0				
weeding and reaping barley . .	0	14	0				
ſpreading lime . .	0	3	0				
threſhing, ſelling, cleaning, and delivering barley . .	0	15	0				
farmer's profit on 1 acre of land, for two yrs.	0	0	6				
	14	9	0		14	9	0

In this account nothing is entered for straw. On the Dr. side, however, several items are omitted; as carrying corn from the field, stacking, thatching stacks, &c. &c. It is impossible that an estimate of this nature, can be made to suit the circumstances of all situations; in some places three or four loads of lime may be obtained, by one cart, in a day; while in others, two or three days are required, with the like force, to bring one load. In some places, in many parts of Scotland for instance, the rent of the land should be stated at from fifty shillings to three pounds an acre; and I believe many of your readers know very well, that in many parts of the north of England, it should be reckoned at forty shillings an acre, *subject to tithe*. Now, if we deduct the tenth part of the produce from the above 9l. 9s. (the estimated value of the crop) the balance will be greatly against the cultivator, without taking off the tithe of turnip, which I hear is now claimed and taken in England. The produce of the crop will, I conceive, be considered sufficiently high for *good lands*, on an average of years; and much too high for such inferior soils as are rented at twenty-five to thirty shillings an acre.

It is clear to me, that the increased expences of cultivating our lands, are greater than the increased prices we are likely to receive, in consequence of the Corn-bill of last session.—I shall be glad to see the opinion of Agricola Norfolciensis on this subject, together with his remarks on "A statement of expence attending the culture of corn in Norfolk, in 1790, and 1804, presented (last year) to a committee of the house of commons;" and I think it is perfectly unnecessary to request him to divest them of every spark of that *party spirit* which we are informed has been prevalent in that county, since the late necessary revision and alteration of our corn laws; for his own good sense will naturally direct him to do so.

Below you have statements of expence in the culture of corn in the principal corn county in Scotland, (East Lothian) in 1790 and 1804, presented to the committee of the house of commons.

No. I.

1790 Average rent of good land 30s. per Scotch acre.
1804 Do. ..... do. ..... 60 ..... do.
1790 Commutation money for road work, 20s. per plough.
1804 Do. ..... do. ..... 30 do.
1790 Labourers' wagers ..... 10d. to 1s. per day.
1804 Do. ..... 1s. 6d. to 20d. do.

1790 Lime, per boll of 6 bushels ..... 11d. to 12d.
1804 Do. ..... do. ..... 1s. 8d. to 1s. 10d.
1790 Dung, per cart load ..... 2s. to 2s. 6d.
1804 Do. ..... do. ..... 4s. to 5s.
1790 Labour in harvest ..... 9d. to 14d. per day.
1804 Do. .... 18d. to 2s. do.
1790 Boys and girls for hoeing turnips, &c. 5d. do.
1804 Do. ..... do. ..... 7d. to 8d. do.
1790 Ale for harvest work, per cask ..... 5s.
1804 Do. ..... do. ..... do. ..... 8s. to 9s.
1790 Smith's work, per plough ..... 1l. 10s.
1804 Do. ..... 2l. 10s. to 3l.
1790 Wright's work, per plough ..... 1l. 5s.
1804 Do. ..... do. ..... 2l.
1790 Sadlery work, do. ..... 15s.
1804 Do. ..... do. ..... 1l. 10s.
1790 Price of cart horses ..... 18l. to 22l.
1804 Do. ..... do. ..... 30l. to 35l.
1804 Window lights doubled, owing to the mode of assessing.
1790 Horse tax ..... None.
1804 Do. ..... 12s. 6d. each.
1790 Property tax ..... None.
1804 Do. ..... 6d. on the pound rent.

No. II.

Expences of a ploughgate of land for one year, supposing 50 *Scotch* acres to be the quantity therein contained.

In 1790.

	£.	s.	d.
Rent, 30s. per acre	75	0	0
Interest on capital stock, (150l.)	7	10	0
Allowance for tear and wear, on horses, 12 1-half per cent.	5	0	0
Smith, wright, and sadler	3	10	0
Ploughman	18	0	0
Labourers, per plough	4	0	0
Incidental work, per do.	5	0	0
Harvest work and board, per do.	15	0	0
Road tax, per do.	1	0	0
Window lights, per do.	0	5	0
	134	5	0

In 1804.

Rent, 60s. per acre	150	0	0
Interest on capital stock, (200l.)	10	0	0
Allowance for tear and wear on horses, 12 1-half per cent. on 60l.	7	10	0
Smith, wright, and sadler	6	0	0
Ploughman	25	0	0
Labourers, per plough	6	0	0
Incidental work, per do.	7	10	0
Harvest work and board, per do.	25	0	0
Road tax, per do.	1	10	0
Window lights	0	10	0
Horse tax, per plough	1	5	0
Property tax, per do.	3	15	0
	244	0	0
Expence in 1790	134	15	0
Additional expence in 1804	109	5	0
Expence in 1804, exclusive of rent	94	0	0
Do. in 1790, exclusive of rent	59	5	0
Additional expence in 1804, exclusive of rent	34	15	0

Nearly the whole of this increased expence upon a plough-gate of land, (except rent) falls upon the farmer's disposable produce; viz. the corn he sells after supplying his servants, horses, &c. and his farm with seed. This disposable produce will vary according to the system of husbandry and other circumstances; upon an average of the kingdom, however, it will, probably, be raised on about thirty acres of land; and after we allow for the increased rent of the ground under grass, the increased expences on each acre under corn, will amount to upwards of three pounds. So that when we include the additional expences for lime, dung, and those for supporting the farmer and his family; we may conclude, that each Winchester bushel, now costs him from about three to three shillings and six pence more than in 1790.

Under the late corn act, foreign wheat (which is almost constantly bought very low indeed, compared to the prices in Britain (could not be imported till our own sold at 53s. 4d. per quarter. By the present bill it cannot be brought in on the low duty, till British wheat reaches 64s. per quarter. An increase of no more than one and four pence per Winchester bushel. Yet the consumers are generally murmuring, com-

plaining and petitioning parliament against it, unjustly imputing to that bill the present high prices of grain; which are, undoubtedly, owing to the failure of the crops in England, Spain, and several other parts of Europe!?

In some parts of the country it has been loudly asserted, that in the legislative regulations respecting the corn trade, it is unreasonable to calculate on the great increase of rents which have lately taken place. Those who have raised such a clamour, however, on this account, would do well to consider, that even if rent were excluded; the above sum of 34l. 15s. 0d. the augmentation in the price of labour, and public burdens, will, with the additional expences of lime, dung, &c. be nearly equivalent to the increase of price which is now to open our ports for foreign grain.

That increase of rent took place under the late corn bill, and is, perhaps, imputable to the introduction of more advantageous modes of management, and the erroneous calculations which most farmers have made with respect to the permanent value of corn, &c. occasioned by the high prices in 1796, 1799, 1800, and the present year.

It seems a duty incumbent upon the occupiers of land to petition against the property act; which, during a fifteen years lease of a farm of 800l. per annum, will absorb 300l. of the farmer's profits, exclusive of interest.* But in times of public danger, we should not petition against a law, because it takes out of our pockets a great proportion of our profits. The ground on which we should apply for the repeal of that law, as it affects farmers, is, that it is partial, and places them upon a footing different from their fellow subjects, whose burdens are much lighter.

I observe, with pleasure, that your northern correspondents have so severely lashed the author of the review of Mr. Forsyth's book on husbandry, that but little remains for me to state upon his illiberal criticism. I cannot refrain from remarking, however, that when that, or any other author, makes a comparison between the agriculture of the northern, and that of the southern part of Britain, it would be right to make allowances for the soil, and other physical disadvantages of the north. When this is done, and when proper stress is laid upon the *superior rent* of land in Scotland, and the north of England, I am persuaded the cultivators of the latter parts of the kingdom will not lose by the comparison.

But if our rents were lower than those of England, why should we be censured? Why compare us with English far-

* In England it will be much more.

mers, who practice on a better soil, and in a more favourable climate? I shall not, however, dwell upon this subject. I have seen many parts of England as well as Scotland, and in both have observed much to praise, and much to condemn. In both there is ample room for improvement; and that they may rise together, hand in hand, with their sister island, to the summit of power, prosperity and happiness, is the sincere wish of, your's, &c.

A SCOTCH FARMER.

ON HARVESTING HAY.

To the Editor of the Agricultural Magazine.

Sir,

As the season for Hay-making is approaching, and as we frequently see much hay injured in making, and afterwards damaged by improper methods of stacking, and housing, a few observations on those subjects may be of use to some, at least, of your numerous readers.

I am, Sir, your very humble servant,

No. 99, High Holborn, CHARLES WAISTELL.
24th April, 1805.

OF HAY-MAKING.

The grass intended for hay for cows, should be cut before the seed stems are grown too hard. No hay should be spread abroad all night exposed to the dew, for when that is evaporated by the sun and air the following day, it carries off with it much of the nutritious juices of the hay. Hay is in the best state for cows when it comes out of the rick, soft, and green. If it is very brown, or black, it has then lost its nutritious qualities, and is unfit for them. Hard hay is better than soft hay for horses, and it should likewise come out of the rick of a bright or green colour. If it be at all mow-burnt it is very injurious to horses.

OF MAKING HAY-RICKS.

Having frequently had about a ton of hay, nearly, if not wholly spoiled at the bottom of hay-ricks, that were five yards wide by fifteen long, notwithstanding there was much large wood and faggots under them, I determined to elevate the ricks, in order that the air might have a free passage under them. For this purpose, three stone walls were built parallel to each other, six feet apart, one foot thick, one foot high, and fifteen yards long. Upon these walls were laid small timbers, taken out of old buildings that were pulled

down, and which would otherwise have been burnt, so that the whole expence did not amount to more than the value of the hay annually spoiled, when the ricks were placed on the ground.

In the middle of the breadth of every rick of five yards long by fifteen wide, and at equal distances from each other, and from the ends of the rick, were carried up two funnels from the bottom to the ridge of the roof, through which the air had a free passage. The funnels were made by means of three wooden hoops, twelve, fourteen, and sixteen inches diameter, with laths six feet long nailed to them, two inches apart. The widest hoop at top, the narrowest at bottom, and the other in the middle. Across the top should be a net, or cords woven, to prevent the hay from falling down the funnel.

These slight conical frames were placed upon the bearers before the rick was begun, and drawn up as the rick advanced in height, and at last taken out at the top of the roof. By means of the free current of air underneath the ricks, and up through the open funnels or pipes, I never had for twelve successive years any hay injured by being over-heated, and in one of those years I put together three hundred waggon loads in thirteen days. When hay is ricked in this method, it may be carried and ricked a day earlier than when it is ricked in the common method, and the saving of a day is often the saving of a field of hay in a wet season. Care should be taken to have the ricks well pulled after they are made; for if any loose hay be left, it will be spoiled as deep as the air can penetrate.

In wet seasons, or wet climates, a Dutch hay barn may be useful. This consists of a light roof, supported by four poles, by which means the roof may be either elevated or depressed. Close hay-barns I always considered as bad things, never chusing to buy hay that had been mowed in them, always finding such hay deficient in smell and flavour, and never so sweet as out of a rick. I should also avoid placing hay-mows in lofts, over stables or cow-houses, for the same reason; nor indeed is it proper to put much hay into them from the rick at one time, as the effluvia from the cattle must, in a short time, deprive it of much of its flavour, and render it less pleasant to their palates. Hay might, however, come out of hay-barns nearly, if not quite as sweet as out of a rick, provided, that by means of poles the mows are kept from touching the walls, and a free passage left for the air to circulate all around the mow, and carry off the sweat.

When hay-ricks are placed upon the ground, it is so common to have much of it injured by mustiness, and being mow-

burnt, that the loss is little attended to, being idly considered as unavoidable. And yet a little enquiry into this matter will convince any one that the annual waste of hay by these means must be immense, and that it may easily be avoided. After we have manured our meadows richly, mowed the grass, and made the hay, and carried it home, we ought certainly to preserve with care what has been obtained at so much expence.

ON CULTIVATING WORN-OUT SOILS.

To the Editor of the Agricultural Magazine.

SIR,

I TOOK the first opportunity of keeping my promise, in occasionally sending you some remarks I have made at different times, on the successful cultivation of various descriptions of soils; and begin with what is acknowledged of great importance, both to public and private interest;—the speediest, cheapest, and best methods of *bringing worn-out soils into a proper state of cultivation.* And here I must confess, it is far from being desirable to find fault with bad farming; what is wished by me, is to establish an improved system in agriculture, where it is wanted, and afterwards to continue the same in progressive improvements.

On considering this subject I shall give some extracts of a correspondence I have for many years carried on, after proving, by repeated practice, the best methods I have found in bringing worn-out light soils into a fruitful state; which, till that is effected, the land is of little value, *either to the landlord, tenant, or the public.*

On the improvement of worn-out farms, consisting of light soils, there are three principal circumstances to be attended to.

First, the more expeditious you are in bringing the land into a proper state of cultivation the better, in order to make a quick and profitable return.

Secondly, To bring the farm about, to answer the purpose, on plans the least expensive.

And last of all, when the work is completed, it is necessary to be careful to keep the land in such a state as will ensure a continual and additional improvement in future. But, instead of preserving the land in this good state of culture, and farther enriching it by proper cultivation, I have often observed it has been brought into its former condition from bad management and ignorance Exhausted by hard tillage, the soil has once more become foul, the live stock has gradually decreased, the grain been amazingly reduced in quantity, and

the little land laid down with seeds in no better condition, and all parts spoiled, except some old pasture and meadows, under covenants not to be broken up.

The too common method of impoverishing land is allowed by every one to produce a multiplicity of weeds and scanty crops, and here it may not appear amiss to relate some conversation I lately had with some worthy farmers, respecting the best way of destroying couch grass.

One was for burning it on the land it grows on.

A second for carrying it off, and causing the same to rot, by heaping or stacking.

A third for bottoming a fold yard.

And a fourth to spread it on the surface, if the weather permits, in a dry state. My opinion went with the last; but at the same time I observed a much better way than either was, never to be troubled with any;‡ which by such culture as I shall humbly lay down, will always prove to be the case; and those who chuse to attend to it will experience in future, what I have always found in times past, to answer the end, by entirely destroying such pernicious weeds, so as never to appear again, nor in future to be known on the said lands, except by their names alone.

I shall now relate the method I have hitherto taken to improve these worn out lands, and give a sketch, on first, second, and third or inferior quality; the first sort consisting of a dry rich deep loam; is exceeding valuable, and excellent for all kinds of crops, and particularly for the growth of turnips; and when exhausted by hard tillage, by the bad management of former occupiers, I have succeeded in rearing fine and fruitful crops of turnips, by only making clean fallows, without the assistance of any kind of manure whatever. But it is to be lamented that land of this description should be so often abused; that land of inferior quality, by a second or even a third degree, with proper cultivation, produces twice, or three times the quantity of grain, or grass.—The occupier in excuse for such bad culture, will sometimes remark, that the land to be sure is good, but very much subject to weeds, not considering himself to be the cause of their accumulated growth.

After the turnips were eaten off by sheep on the land they

‡ By this I mean where paring and burning is practised on this exhausted foul land, which way I have experienced, of all others, the best to destroy couch grass, and other injurious weeds, with the further very great advantage in preventing a deal of trouble in succeeding plowings and harrowings, but above all the advantages derived by such large quantities of ashes produced by this process, to fertilize such barren soils, whereas burning the weeds alone is so trifling as to be scarcely worth notice.

grew, a good crop of barley succeeded, the clover and rye grass was likewise well set after the barley, and grazed with sheep the three following years, and since with proper management has answered well in every respect without any manure, except what is produced by the pasturing of sheep.

What is a further advantage, in this kind of land, is the hedges; of which thorn grow much faster than on other soils, except willows, alders, &c. upon peat or cool meadow land: timber trees also flourish well, particularly the oak, elm, beech, chesnut, walnut, larch, &c.

I am, Sir, with due respect, your obedient servant,

Chadwick Manor, Worcestershire, J. CARPENTER,
April 23, 1805.

ON THE CONSIDERATION OF POLITICAL IMPEDIMENTS TO AGRICULTURAL IMPROVEMENT.

To the Editor of the Agricultural Magazine.

SIR,

I WROTE to you on the 13th instant, since which I have received your Magazine for last Month; and as I am concerned by some remarks in your address to your correspondents, I beg leave to offer a few observations on those which follow,—namely—"We trust, however, he will not again so compel us, nor any other correspondent in consequence desire us, to deviate from a rule which must be inviolably observed in the Agricultural Magazine; *that no political subjects, although connected with agrarian interests,* can ever be discussed. It is to the silent operations of nature in the bosom of the earth, and not to the distractions of human policy upon its surface, that we wish to direct the peaceful attention of our readers, &c".

I am satisfied, Mr. Editor, that the discussion of certain political subjects, would be foreign to the nature and design of your Magazine; and I have therefore, carefully avoided these subjects in my letters to you.—I have examined the paper you have reluctantly published, (in your last Number) on the property and corn acts as they affect our agriculture, and can discover none of the objectionable political matter; nor any thing at all allied to it, unless it be in a very few lines expressive of my principles and loyalty—a kind of caution which unfortunately the times have of late rendered in some degree necessary, when we venture to express opinions different from those entertained by the Legislature.

But, though, it is clear that the discussion of such political subjects, as those to which I have alluded, would be highly improper in your *Agricultural* work; I cannot for a single

moment, believe that such acts of the legislature as are detrimental to, or "connected with agrarian interests", are, in the smallest degree, improper subjects of discussion in that publication, or any other of a similar nature.—In this, I am supported by the contents of *all* our periodical publications on agriculture, as well as those of most of the voluminous communications which have been made in consequence of the exertions of him who first called the attention of the country to her best and most important interest—who laboured so meritoriously for the county surveys, and the establishment of the board of agriculture.

In the publication of your Magazine you, undoubtedly, have two objects in view; first, to promote the most important interests of your country; and secondly, to receive an emolument commensurate to your trouble and risk. Now it is certain that both these objects will be best promoted by inserting such matter as will meet the approbation of the public, and consequently extend its circulation.

Unquestionably, you suppose that discussions relative to tithes; the property act; corn laws; &c. &c. will not promote your laudable views; but that they will, on the contrary, be hostile to the great cause in which you have so meritoriously embarked.—My opinion, Sir, is directly opposite to yours.—Permit me, therefore, to enquire what is the *design* of agricultural periodical publications?—When we combine the professions of their Editors, with their contents, it appears that *that design* is to promote the diffusion of agricultural knowledge and the *utmost* extension of rural ameliorations—to excite such a spirit of *enquiry*, improvement, and emulation, as would not only bring those lands we have already subjected to the Plough, to the greatest possible state of productiveness, but clothe our extensive and neglected wastes with rich crops of corn, stately timber, and numerous flocks and herds of the most valuable kinds.

These comprehensive views being admitted, (and they cannot be denied) it clearly follows, that all obstacles to improvement—all obstacles to the investiture of capital in agriculture—and all regulations, of every kind, which operate against the ameliorations so ardently wished for—are proper subjects of investigation in agricultural publications; and as the corn and tithe laws, those which now impose a heavy and partial burden on the occupiers of land, as well as those for the maintenance of the poor and the government of servants in husbandry, &c. &c. materially affect our agriculture; I conceive that my conduct, with regard to the discussions I have humbly endeavoured to promote in your Magazine, is

easily defended; and by no means inconsistent with the scope of such publications.

I am thoroughly convinced of the importance of communications on the *practice* of husbandry; and so far from neglecting it in my letter to you, I am conscious of having done it all the justice my slender abilities would allow; but, however much I wish to direct my attention, and that of your readers, to the "silent operations" you mention, I assure you, Sir, I am *yet* very unwilling to be *confined* to "the bosom of the earth".——Far be it from me, however, to *dictate* to you in your laudable and useful employment of conducting your Magazine! But as I conceive that your correspondents are well qualified to judge as to matter which will prove advantageous, and best support its character, and extend its scale;‡ I ardently wish they would communicate their sentiments on the question between you, and Sir,

Your sincere Friend,

AGRICOLA NORTHUMBRIENSIS.

April 20, 1805.

ON BLIGHT AND SMUT IN WHEAT, IN ANSWER TO MR. MAYNARD.

To the Editor of the Agricultural Magazine.

Sir,

IN your 67th Number, I took the liberty to propose certain queries on this important subject, and am yet not without hopes, that I shall, with your other farming readers have the benefit of answers from a number of your correspondents, whose long practice and experimental observation may enable them to contribute towards a solution of those difficulties, under which we all confessedly labour. Our thanks are no doubt due to Mr. Maynard, for his good intentions, although he has by no means been successful in his attempt at affording us the information required. He tells us what we already knew to be true, and repeats the fond prejudices of former days, which if fact and experience are of any worth, the experience of more than six score years have proved to be groundless. That rye is less able to resist the insalubrious changes of the weather than wheat, is most certain, and that all grain and most vegetables are affected, in various degrees, by the same cause, is equally so. As to the difference between blight and mildew, and the possibility of providing a preventive remedy for Smut, Mr. M. only produces his own *ipse dixit*, according to old custom, in place of illustration or

‡ No man in the kingdom could obtain an adequate supply of materials, on rural practice, for a monthly publication.

proof. Had he said that blight and mildew were different *effects* only, I could easily have joined with him, since such idea is the result of my constant experience.

Again if Mr. M. means that smut is only an anomalous effect, I can so far agree with him; but as to its remedy, it seems strange to me, that he should satisfy himself, and expect to satisfy others, by a base assertion. His pretension that Mr. Treffery's pamphlet had "put an end to the matter" is equally unguarded. Mr. T—— did not throw one single ray of new light on the matter, but to speak in the most favourable terms of him, as indeed it is an act of complacence and of justice, even to do by every man, his publication shewed him profoundly ignorant of the subject, on which he had undertaken to write? No doubt but his intention was good. Ellis more than seventy years since, published his plan of washing seed wheat to prevent smut, but lived long enough afterwards to acknowledge the total inutility of the practice, in such intent, and even to adduce experimental proofs, that *washed, brined and limed seed had produced smutty wheat, and that smutty seed had produced pure wheat.* But the same results had occurred long before Ellis was born, and myself have been an eye witness of such repeatedly. Yet miraculous to relate, this laughable prejudice about curing smut still subsists, in full force among thousands, although even nine-tenths of the smutty wheat of the preceding year, were the product of seed, well washed, steeped, brinedand limed!

With respect to the observation of Arator, another correspondent, on the comparative importance of *cause;* in this, or any other enquiry, without denying the frequent occurrence of fortuitous success in cures, where effects only are known, I must still adhere to my first principle of the superiority necessarily attached to the fundamental knowledge of causation; more particularly in the case before us, where all reasoning and practice from effects, has invariably failed, and we are blundering on still in a blindfolded ignorance and error, merely for want of knowing the cause of that which troubles us; which once known, might lead either to a real remedy, or to a certainty that the case was without remedy, in which circumstance contentment and resignation would be our duty. I am speaking of the majority, not the minority, who entertain no doubt whatever as to the cause of smut, and as little nearly, of the total impossibility of remedy.

Sir Joseph Banks has lately sent into the world, a very elegant and well-written tract on this subject, and what is remarkable, makes no kind of distinction, but attributes blight, mildew and every affection of this kind in wheat, to the agency of a creeping, or parasitical plant, analogous to the misletoe

on trees. This is also an old story, and it appears most wonderful to me that the Right Honourable and learned Baronet has not discovered the powerful objections which may be brought to bear against his hypothesis; in truth, they are so near the surface, as to be almost unworthy of detail. I yet hope for some practical answers to my queries (No. 67, page 104.) in the order in which I have stated them, for I must still adhere to my original opinion, that our chief business is with *causes*, were it only to prevent the farmering public eternally gulling themselves with pretended remedies, many of them too ridiculous, one would suppose, for the capacities of children; most of them the *crambe recocta* of obsolete and futile speculation.

Heddon Place, 20th April. JAMES BRIGHTLEY.

ON THE SUBSTITUTE FOR LEGHORN PLAIT, IN THE MANUFACTURE OF LADIES' HATS.

To the Editor of the Agricultural Magazine.

SIR,

THE gold medal of the Society instituted for the encouragement of arts, manufactures, and commerce, having been lately adjudged to me for the introduction of a substitute, the growth of this kingdom, viz. rye straw of peculiar quality, in place of the article heretofore imported from Leghorn, under the names of Leghorn plait, for Ladies' hats. I think it my duty to further the views of that useful institution, by pointing out a means by which the poor children in different parts of the kingdom may be usefully employed, and considerable sums saved, which are now sent abroad for this article. Very poor, sandy, and barren land, such as is not fit for the growth of corn or grass, produces the article in the greatest perfection.

I have no doubt in predicting, that this manufactory will, (if the cultivation of the article is encouraged) in a few years give employment to many thousands of children. The result of my experiment is, that one acre of land has produced materials for forty hats, consequently it would require an annual cultivation of 2,000 acres, to produce 80,000 hats: one acre affords employment to one hundred children for one week, and averaging their earnings at 3s. per week each, amounts to fifteen pounds per acre, and the manufacturer can afford to pay this price. Therefore, the cultivation of 2,000 acres of (now) barren waste, multiplied by fifteen, gives 30,000l. of productive industry: the barren, therefore, may be made to blossom and bear. By these means the Italians cannot cope with us in price; consequently, the advantages

will be in proportion to the consumption. I have had upwards of thirty children platting it for the last twelvemonth. With a view to its encouragement, I will proceed to notice the advantages I conceive the country will reap from its introduction; and will therefore first consider the expence the nobleman or gentleman would be liable to, who gives his steward or tenant, orders to plow and sow with the rye, as many acres of barren waste as would employ the poor children in his village or parish. Suppose we take two or three adjoining parishes, and allow one hundred children in want of employment for forty weeks in the year, forty acres would be required, and each child shall receive three shillings per week, the expence would be nearly as follows:

		£.	s.	d.
Forty acres of waste, at present unproductive.				
Forty acres, plowing, sowing, &c.	per acre 14s.	28	0	0
Four bushels of rye, -	per acre 25s.	50	0	0
Pulling up the crop -	per acre 7s.	14	0	0
Expences of carting home -	ditto 4s.	8	0	0
	50s £.	100	0	0
One hundred children's industry for forty weeks at per week - -		600	0	0
And first expence - - -		100	0	0
	Profit	£. 500	0	0

How many poor children for want of employment, are obliged to receive relief from the parish to the amount of three shillings per week; surely there will be no neglecting these advantages, when the present consumption will extend to the employment of five thousand children from seven to fifteen years of age, and the benefit upon every child thus taken and employed, must amount in the forty weeks to twelve pounds. The rye when pulled up, should be tied in small bundles, and the grain must be beat out against a table or stool, as part of the top joint next the ear, is only required in the manufacture; the seed should be the children's property; this will teach them to be careful and saving, which will prove of more real advantage than the value of the grain. Wishing it may meet with every encouragement,

I am Sir, your obedient servant,

Ludgate Hill, April, 20, WILLIAM CORSTON.

CRITICAL CATALOGUE.

I. *A ſhort Account of the Cauſe of the Diſeaſe in Corn, called by Farmers the Blight, the Mildew, and the Ruſt, by* SIR JOSEPH BANKS, Bart. with a plate, pp. 31. 2s. Harding.

THIS elegant literary *Morceau* upon an art on which writers are generally and neceſſarily voluminous, cannot fail to attract the notice of the Britiſh public in a very peculiar manner. Preſiding over the Science of the Britiſh Empire, after a long and active life of general uſefulneſs, the name of Sir Joſeph Banks implies every thing erudite, and an unwearied attention to its objects, and its intereſts. But in the preſent inſtance we behold him ſtepping from the Academic porch to mingle with the rural train, and obſerve, the minute calamities of the harveſt. Whether or not the enquiries to which he has condeſcended with ſo much complacency, or the deductions he has thus been enabled to draw, ſhall be in every inſtance correct, or produce their intended ſervice, a queſtion undetermined, the learned writer will deſerve the thanks of ſociety for his intentions, and claim the praiſe of a very elegant eſſay.

Attracted to the ſubject by the alarming ſtate of the Harveſt in Auguſt laſt, the Preſident of the Royal Society, with a mind well ſtored on every thing connected with ſcience, undertook to explain the cauſe of this important malady, as the beſt means of arriving at its prevention. He left at the ſame time, with a modeſty the characteriſtic of great minds, the exerciſe of actual obſervations, to "thoſe intelligent agriculturiſts, whoſe reſidence in the country enables them daily to examine, not only the progreſs of their crops, but the origin and advances alſo of all thoſe obſtacles which nature has oppoſed to the ſucceſs of agricultural labours; as if to awaken the energies of reaſon, and to reward the farmer for the exertions of his intellectual faculties, by the ſatisfaction of ſurmounting them."

The "Account" commences with an exhibition of authorities in ſupport of the hypotheſis on which it is founded.

"Botaniſts, ſays Sir Joſeph Banks, "have long known that the Blight in corn is occaſioned by the growth of a minute parasitic fungus or muſhroom, on the leaves, ſtems, and glumes of the living plant. Felice Fontana published in the year 1767, an elaborate account of this miſchievous weed*, with microſcopic figures, which give a tolerable idea of its form; more modern botaniſts,‡ have given figures both of corn and of graſs affected by it, but have not used high magnifying powers in their reſearches.

"Agriculturiſts do not appear to have paid, on this head, ſufficient attention to the diſcoveries of their fellow-labourers in the field of

* Oſſervazioni ſopra la Ruggine del Grano. Lucca, 1767, 8vo.

‡ Sowerby's Engliſh Fungi, Vol. II. Tab. 140, Wheat, Tab. 139. Poa aquatica.

nature; for though ſcarce any Engliſh writer of note on the ſubject of rural economy has failed to ſtate his opinion of the origin of this evil, no one of them has yet attributed it to the real cauſe, unleſs Mr. Kirby's excellent papers on ſome diſeaſes of corn, publiſhed in the Tranſactions of the Linnæan Society, are conſidered as agricultural eſſays.

"On this account it has been deemed expedient to offer to the conſideration of farmers, engravings of this deſtructive plant, made from the drawings of the accurate and ingenious Mr. Bauer, Botanical Painter to his Majeſty, accompanied with his explanation, from whence it is preſumed an attentive reader will be able to form a correct idea of the facts intended to be repreſented, and a juſt opinion whether or not they are, as is preſumed to be the caſe, correct and ſatisfactory.

"In order, however, to render Mr. Bauer's explanation more eaſy to be underſtood, it is neceſſary to premiſe, that the ſtriped appearance of the ſurface of a ſtraw which may be ſeen with a common magnifying glaſs, is cauſed by alternate longitudinal partitions of the bark, the one imperforate, and the other furniſhed with one or two rows of pores or mouths, ſhut in dry, open in wet weather, and well calculated to imbibe fluid whenever the ſtraw is damp.*

"By theſe pores, which exiſt alſo on the leaves and glumes, it is preſumed that the ſeeds of the fungus gain admiſſion, and at the bottom of the hollows to which they lead, they germinate and puſh their minute roots, no doubt (though theſe have not yet been traced) into the cellular texture beyond the bark, where they draw their nouriſhment, by intercepting the ſap that was intended by nature for the nutriment of the grain; the corn of courſe becomes ſhrivelled in proportion as the fungi are more or leſs numerous on the plant; and as the kernel only is abſtracted from the grain, while the cortical part remains undiminiſhed, the proportion of *flour to bran* in blighted corn, is always reduced in the ſame degree as the corn is made light. Some corn of this year's crop will not yield a ſtone of flour from a ſack of wheat; and it is not impoſſible that in ſome caſes the corn has been ſo completely robbed of its flour by the fungus, that if the proprietor ſhould chooſe to incur the expence of thraſhing and grinding it, bran would be the produce, with ſcarce an atom of flour for each grain."

To this account a reference to the plate of Mr. Bauer's repreſentations is neceſſary, which conſists of nine figures, receiving from him the following explanations, inſerted at the end of the work.

* Pores or mouths ſimilar to theſe, are placed by nature on the ſurface of the leaves, branches, and ſtems, of all perfect plants; a proviſion intended no doubt to compenſate, in ſome meaſure, the want of loco-motion in vegetables. A plant cannot when thirſty go to the brook and drink, but it can open innumerable orifices for the reception of every degree of moiſture, which either falls in the ſhape of rain and of dew, or is ſeparated from the maſs of water always held in ſolution by the atmoſphere; it ſeldom happens in the drieſt ſeaſon, that the night does not afford ſome refreſhment of this kind, to reſtore the moiſture that has been exhauſted by the heats of the preceding day.

"1. A piece of the infected wheat ſtraw, natural ſize—the leaf-ſheath broken and removed, to ſhew the ſtraw which is not infected under it.

2. A highly magnified repreſentation of the paraſitic plant which infects the wheat, in a young ſtate and full grown; two plants burſting and ſhedding their ſeeds when under water in the microſcope, and two burſting in a dry ſtate; one ſeems to be abortive; and one ſeeds in a dry ſtate. A ſmall part of the bottom of a pore is alſo repreſented, with ſome of the paraſitic fungi growing upon it.

3. A part of the ſtraw of fig. 1, magnified.

4. Part of fig. 3, more magnified.

5. Part of a ſtraw ſimilar to fig. 3, but in its green ſtate, and before the paraſitic plant is quite ripe.

6. A ſmall part of the ſame, more magnified.

7. A highly magnified tranſverſe cutting of the ſtraw, ſhewing the inſertion of the paraſite in its bark.

8. A longitudinal cutting of the ſame, magnified to the ſame degree.

9. A ſmall piece of the epidermis of a ſtraw, ſhewing the large pores which receive the ſeed of the paraſite; ſmaller ſpots obſervable on the epidermis, are the baſes of hairs that grow on the plant of the wheat whilſt young, but which fall off when it ripens; magnified to the ſame degree as the preceding figures".

Having ſtated that every ſpecies of corn is ſubject to blight; but that ſpring corn is leſs damaged by it than winter, and rye leſs than wheat, "probably becauſe it is ripe and cut down before the fungus has had time to increaſe in any great degree;"—that "the ſpring wheat of Lincolnſhire was not in the leaſt ſhrivelled this year, though the ſtraw was in ſome degree affected;" and ſome other particulars; Sir Joſeph Banks conceives his hypotheſis eſtabliſhed, and expects that ſome progreſs will be made either to prevention or cure. Blight is not, he alſo obſerves, as is ſuppoſed by ſome farmers, more general at preſent than formerly.

After ſome inſtances of local affection to blight, the reſpectable writer continues to deſcribe his conjectures of its origin and progress; and offers, on the ground he has taken, ſome uſeful hints, for future obſervations, to the farmer. But the poſitions which will be leaſt obvious to the agricultural reader, are thoſe which deſcribe blighted corn as *ſuperior* to any other for the purpoſes of ſeed, p. 25.

"It cannot be improper in this place to remark, that although the ſeeds of wheat are rendered, by the exhauſting power of the fungus, ſo lean and ſhrivelled that ſcarce any flour fit for the manufacture of bread can be obtained by grinding them, theſe very ſeeds will, except, perhaps, in the very worſt caſes‡, anſwer the purpoſe of ſeed corn as well as the faireſt and plumpeſt

‡ 80 grains of the moſt blighted wheat of the laſt year, that could be obtained, were ſown in pots in the hothouſe; of theſe, ſeventy-two produced healthy plants, a loſs of 10 per cent. only.

ſample that can be obtained, and, in ſome reſpects better; for as a buſhel of much blighted corn will contain one third at leaſt more grains in number than a buſhel of plump corn, three buſhels of ſuch corn will go as far in ſowing land, as four buſhels of large grain.

"The uſe of the flour of corn in furthering the proceſs of vegetation, is to nouriſh the minute plant from the time of its developement till its roots are able to attract food from the manured earth; for this purpoſe, one tenth of the contents of a grain of good wheat is more than ſufficient. The quantity of flour in wheat has been increaſed by culture and management calculated to improve its qualities for the benefit of mankind, in the ſame proportion as the pulp of apples and pears has been increaſed, by the ſame means, above what is found on the wildings and crabs in the hedges.

"It is cuſtomary to ſet aſide or to purchaſe for ſeed corn, the boldeſt and plumpeſt ſamples that can be obtained; that is, thoſe that contain the moſt flour; but this is unneceſſary waſte of human ſubſiſtence: the ſmalleſt grains, ſuch as are ſifted out before the wheat is carried to market, and either conſumed in the farmer's family, or given to his poultry, will be found by experience to anſwer the purpoſe of propagating the ſort from whence they ſprung, as effectually as the largeſt.

"Every ear of wheat is compoſed of a number of cups placed alternately on each ſide of the ſtraw; the lower ones contain, according to circumſtances, three or four grains, nearly equal in ſize, but towards the top of the ear, where the quantity of nutriment is diminiſhed by the more ample ſupply of thoſe cups that are nearer the root, the third or fourth grain in a cup is frequently defrauded of its proportion, and becomes ſhrivelled and ſmall. Theſe ſmall grains, which are rejected by the miller, becauſe they do not contain flour enough for his purpoſe, have nevertheleſs an ample abundance for all purpoſes of vegetation, and as fully partake of the ſap (or blood, as we ſhould call it in animals) of the kind which produced them, as the fairest and fullest grain that can be obtained from the bottoms of the lower cups, by the waſteful proceſs of beating the ſheaves."

We ſhould be ſorry that the ſanction of a name ſhould ever be ſuppoſed to induce us, to countenance the propagation of error on a ſubject of ſuch importance; yet, while we are aware that every part of the preſent production will be controverted by no mean number of practical agriculturiſts, we confeſs we are ſomething loath to reſign this little treatiſe without a hope that its contents will be well conſidered; and that we ſhould regret that any thing coming from ſuch a hand ſhould be determined as inutile, much leſs falſe. At the leaſt it is an elegant and ingenious work, and furniſhes, excluſive of its principal ſubject, ſome information which has not been before collected.

A very intelligent outline of this pamphlet, adapted to the capacity of every deſcription of perſons concerned in agriculture, has been publiſhed by a gentleman well converſant with the ſubject,

and who appears alſo favorable to the hypotheſis it contains It will be found in another department of this work.

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

THESE Volumes contain a great number of uſeful facts, detailed under the following heads, in the form of letters. As they arrived too late for our particular remarks upon them in the preſent month, we ſhall only give a general idea of their Contents, and enter into a more minute account of them in our next month's Magazine.

CONTENTS OF FIRST VOLUME.

On Light Soils.

The cheapeſt and moſt expeditious manner of bringing worn out lands, of this deſcription, into a proper ſtate of cultivation.

On Turnips, and the time and manner of their firſt introduction into this kingdom.

On Potatoes, with their firſt being expoſed to ſale in London.

On Premiums.

Granting Leaſes.

Benefit of incloſing; particularly Waſte Lands, with the moſt ſpeedy and cheapeſt way of bringing ſuch lands into a ſtate of melioration.

On the advantages of ſmall farms.

Some uſeful hints to the wives and daughters of ſmall farmers, to augment, with propriety, the contents of the Market-baſket.

The Remembrancer, or ſome items to thoſe farmers, who have the misfortune to be troubled with ſhort memories.

On Saintfoin, or Holy Hay.

On Lucern.

Reply to ſome Queſtions propoſed to be anſwered by Sir John Sinclair, on Longevity.

Receipt for producing Six or Seven Thouſand of good white Thorn Quick, from one thouſand.

To prevent the Fly from injuring Sheep and Lambs.

To prepare Seed-Barley.

CONTENTS OF SECOND VOLUME.

On ſtrong Clay Soils; on Fencing and Planting; on Tithes.

On the ſeveral kinds of live Stock adapted for each ſort of land.

On the Choice and Management of Male and Female Servants: Method to procure thoſe who will prove honeſt and vigilant: to prevent petty thieving, and to mend bad neighbours.

On Horſes, Oxen, and Mules, uſed in Huſbandry.

On Manures, and the method to prepare common Fold-yard Dung, to make it equal in quality to the beſt ſtable muck, uſually purchaſed at inns, &c.

Directions how to prevent Cattle, Sheep, Deer, and Fawns, from the fatal Effects of different noxious Herbs and Plants, caused by their eating them, which produces diseases hitherto but little known, and consequently not accounted for: accurate Engravings of those Herbs are subjoined on a copper-plate.

Method to prevent the Fly from destroying Turnips.

There have been various Inventions to stop the Ravages of the Fly on young Turnips, such as rolling in the Night, steeping the Seed previous to sowing: and Peters, *in his* Winter Riches, *published in* 1772, *advises to sow (as many other Writers have since done,) about One Fifth Radish Seed with that of the Turnips, but there is no dependance to be placed on Remedies.*

On Vermin.

On Tea, and its debilitating consequences.

RECEIPTS.

To prevent the Rot in Sheep becoming fatal.

To prevent the Smut in Wheat.

To prepare Seed-Barley, warranted to produce a good effect.

To which are added some valuable Receipts in the chief Disorders incident to horned cattle.

HISTORY,

Agriculture.

PROCEEDINGS OF AGRICULTURAL SOCIETIES.

Kent Society, for the Encouragement of Agriculture and Industry.

AT a General Meeting of this Society, holden at the Fountain Tavern, in the City of Canterbury, on Saturday 13th April instant.

Resolved, that the following premiums be offered to be given at the ensuing anniversary.

Class I. Servants.

To two married and two single servants in Husbandry, who have lived with good characters, the greatest number of years (not less than five) and still continue with the same master or mistress, and shall produce satisfactory certificates—two guineas each.

To two female servants in Husbandry, who have lived in the same service, the greatest number of years, (not less then five) and still continue in the same, and shall produce satisfactory certificates—two guineas each.

To one boy in Husbandry, who has lived in one service (being his first) the greatest number of years (not less than five) and still continues the same, and shall produce a satisfactory certificate—one guinea.

Class II. Labourers.

To three labourers in Husbandry, who have worked for the same master

or miſtreſs, the greateſt number of years, (not leſs than five,) and ſtill continue to do the ſame, and ſhall produce ſatisfactory certificates--two guineas each.

Claſs III. Cottagers.

To three labourers in huſbandry, who have brought up the greateſt number of their own legitimate children, (not leſs than ſix,) to the age of ſix years, in the habits of honeſt induſtry, with the leaſt aſſiſtance from their reſpective pariſhes—two guineas each.

Bee Premium.

To the labourer in Huſbandry, who ſhall produce a ſatisfactory certificate, ſigned by the miniſter and churchwarden, or two reſpectable inhabitants of the pariſh, of his having in his own poſſeſſion, on the 1ſt of May 1805, the greateſt number of living ſtocks of bees (not leſs than five,) the ſame having been his own property, for five months previous to the above time—two guineas.

That five guineas be given to the owner of the beſt cart ſtallion kept in Kent, and produced at the Anniverſary.

That five guineas be given to the owner of the beſt bull, kept for ſervice in Kent, and produced at the Anniverſary.

N. B. Theſe premiums will not be given without more than two of each ſort be produced, unleſs thoſe ſhewn, appear to the judges appointed, to be highly deſerving them; and the owners will be required to engage to keep them for public ſervice, during one year from the time of their receiving the premium.

Claimants for the above premiums, are to ſend notice in writing to the Secretary, at leaſt ten days prior to the day of ſhew, which will be on the 7th June next.

Certificates for the three firſt claſſes, to be ſent to the Secretary alſo ten days prior to that day, (blank forms of which may be had on application to the Secretary) accompanied by a recommendatory letter from a member.

ALLEN GREBELL, Secretary, K. A. S.

N. B. The limits of this Society, extend to all parts of the county of Kent.

Farming Society of Ireland.

The late ſpring ſhew of the Society was the fifth ſince its inſtitution, in March, 1800, yet it was acknowledged by thoſe who have attended other exhibitions, that they never witneſſed a more gratifying diſplay of zeal and attention than in the members of this ſociety. The premiums conferred at this ſhew were for cattle and ſwine, for fat ſheep of different breeds, for ſeed corn and for ploughing.

For the exhibitions of cattle and ſwine, which it ſeems are laudably great objects of the ſociety, being the baſis of the proviſion trade, there appeared evidently greater exertions in making improvement, and much actual advancement. Some of the cattle were certainly not inferior to thoſe produced laſt year at the Chriſtmas and ſpring ſhews in London. The long horned heifer, which obtained the medal, was under four years old, and though ſmall, ſhe was conſidered ſuperior to all the reſt, from the lightneſs of offal, and carrying meat of the beſt quality on the moſt profitable parts. The improvement of ſwine was fully equal to any thing in London, which in this animal is more ſpeedily extended by its more prolific tendency and early maturity.

Among the cattle we obſerved that the long-horned, the native breed of Ireland, were moſt numerous, but there were ſome excellent Herefords, two of which gained prizes. It was obſerved, with regret, that there were no

Devons nor Highland Scots, which are ſo much eſteemed in the London markets.

On Tueſday, the firſt day of the ſhew, the different animals exhibited were diſtinguiſhed by ſingle letters, painted on labels, without the owners' names. On the laſt day of the ſhew they were arranged in their reſpective claſſes, and numbered according to the order of the gradation of their merit, with labels expreſſive of the deciſions of the judges, which made this a day of inſtruction.

One circumſtance on this occaſion afforded additional pleaſure, that, although, in other places, diſcontent in the loſing candidates ſome times occurs, at this period a ſingle murmur againſt the deciſion of the judges was not obſerved.

It is underſtood that ſome of the fattest animals exhibited had been brought to that ſtate without the very expenſive proceſſes alledged to be made uſe of in other places, and ſome of them chiefly by potatoes. This is of more importance than can be well imagined, as every inducement to raiſe great quantities of that uſeful root, will occaſion it to be in greater plenty, and at a lower price, and from ſome late improvements made in increaſing its produce, with a ſmall quantity of manure, there is no ſaying to what an extent this may be carried.

There were two pens of Southdown ſheep; the hoggets were very much approved of. The five hogget wethers of the new Leiceſter breed, ſhewn by Mr. Garnett, of Somerſet, which had always been fed on graſs, without hay, or any other food, in winter, were ſold to a butcher at four pounds each.

The Ploughing Match was conducted with equal ſpirit and order, at Mr. Garnett's, of Huntstown, about four miles from Dublin. This is the ſecond ſeaſon that Mr. Garnett has accommodated the ſociety with land for that purpoſe, and has given the gentlemen attending an elegant cold collation. This ſituation was particularly intereſting, exhibiting all around the ploughing ground, the great benefit Mr. Garnett has experienced, from converting into tillage old moſſy graſs lands, ſome of which had by conſtant mowing without manure, become unproductive of graſs; and ſince being tilled and laid down with clover and hay graſs, afforded laſt year two very luxuriant crops of hay.

It was pleaſing to hear it remarked that at former exhibitions ſeveral ploughs with four horſes and drivers, were entered, but ſo general was the advantage felt of uſing two horſes without a leader, that not one with four horſes or four oxen was brought forward on this occaſion. The ploughs were all of them except three, the Scots ſwing plough, and the execution was in general good, though there is ſtill room for improvement. Some were made in Ireland; that of the Rev. James Lymes, of Bally-Arthur, who gained the firſt premium and prize cup, was drawn by two very ſmall ſpayed heifers, and held by a lad of nineteen years of age, a native of the county of Wicklow.

To remedy the inconvenience of importing theſe ploughs and other Agricultural implements, ſeveral members of the ſociety have joined, in order to raiſe the ſum of 3000l. for the eſtabliſhment of a manufactory in Dublin, which is expected to commence immediately. From the ſteadineſs of draft of the ſpayed heifers, as well as the eaſe with which they are trained, it appears deſirable that they ſhould be more frequently tried.

The Suffolk punch mares exhibited by Mr. Grinſon, were noble draught animals, and were highly approved of by all the ſpectators. This breed when not too large, combine ſtrength and activity, and ſeem well adapted to this country.

York Agricultural Society.

SIR W. M. MILNER, Preſident.
BENJ. AGAR, Eſq.
COL. VAVASOUR Vice-preſidents.

At a half year's meeting, held at the RobinHood, Caſtlegate, April 4, 1804.
Benj. Agar, Eſq. Vice preſident, in the Chair.

Mr. Peter Legat, Mr. Mark Stubbs, and Mr. Thomas Rooke were appointed Judges, who awarded the premiums as follow:

To Mr. W. Hall, of Linton upon Ouſe, for the beſt year old bull, 5 guineas
To Mr. W. Hall, &c. for the ſecond beſt year old bull, three guineas
To Mr. J. Nicholſon, of Gipton, for the beſt two years old bull, 5 guineas.
To Mr. T. Nicholſon, for the ſecond beſt two years old bull, three guineas.
To Mr. T. Gypſon for the beſt three years, or aged bull, five guineas.
To Mr W. Hornſey for the ſecond beſt 3 years old, or aged bull, 3 guineas
To Mr. George Walkington for the beſt ſtallion for getting coach-horſes, five guineas.
To Mr. John Shaw, of Malton, for the beſt ſtallion for getting coach-horſes, five guineas.
To Mr. Adam Gifton, af North Allerton, for the ſtallion for getting ſaddle horſes or hunters, five guineas.

The following gentlemen were appointed officers, and a committee for the year enſuing.

Richard Thompſon, Eſq. Preſident
Benj. Agar, Eſq. and Gilbert Crompton, Eſq. Vice-preſidents.
Thomas Hartley, Eſq. Treaſurer, Daniel Tuke, Eſq. Secretary.

Committee.

Mr. G. Addinall, Tadcaſter	G. Crompton, Eſq. Nun Monkton
Hall Plumer, Eſq. Billon	Mr. John Nicholſon, Gipton
Mr. Robert Triffet, Stillingfleet	Mr. G. Hardwicke, Burton-houſe
Thos. Hartley, Eſq. York	Mr. John Hartley, Tadcaſter
Mr. Haſſel Catton	H. J. Baines, Eſq. Bell-Hall
Mr. Thomas Kendal, Fulford	Rev. Mr. Read, Sand-Hutton
Mr. T. L. Rocliffe, Eaſingwould	Mr. Thomas Rooke
Mr. John Tuke, York	Thos. Kendall, Eſq. Neſs.
Stephen Croft, Eſq. Stillington	Mr. Dowker, Salton
Mr. Mark Stubbs.	Mr. Hall, Linter. Mr. Gypſon.

Howden Agricultural Society.

The committee of this ſociety have directed the following premiums to be adjudged for the year 1805.

To the beſt coach-horſe ſtallion which ſhall be ſhewn at Howden on Saturday the 20th April, with reſtriction to attend one day in the week at Howden during the ſeaſon.
To the beſt aged bull, five guineas.
To the beſt two years old bull, three guineas.
To the beſt one year old bull, two guineas.
To the beſt two years old heifer, two guineas.
To the beſt one year old heifer, one guinea.
To the beſt aged ram, five guineas.
To the beſt ſhearling ram, two guineas.
To the beſt boar, two guineas.

Certificates of the ages will be required. The bulls, rams, &c. to be ſhewn at Howden, on the laſt Saturday in July.

The premiums for 1804 were adjudged to

Mr. Balding's ſtallion, Prince.	Mr. Walworth's aged bull.
Mr. Blanſhard's one year old bull	Mr Sealon's two years old heifer
Mr. Waterworth's one year old heifer	Mr. Triffit's aged ram
Mr. Waterworth's ſhearling ram	Mr Wm. Scholefield's ram

By Order of the Committee, SPOFFORTH AND PIERSON

Cleveland Agricultural Society.

The next general meeting of this ſociety will be held at the Cock inn, Guiſborough on the 30th inſt. when the following premiums will be awarded.

Five guineas for the beſt bull, the owner giving ſecurity that he ſhall remain in Cleveland for one year, and open for the public uſe, and the price not to exceed one guinea for each cow.

Three guineas for the beſt blood ſtallion for getting hunters or hacks; to attend the markets of Stokeſley and Guiſborough during the current ſeaſon.

Three guineas for the beſt bay or brown ſtallion for getting coach-horſes with the ſame reſtrictions.

Two guineas for the beſt boar, to remain in Cleveland for public uſe for one year, the price not more than five ſhillings, each ſow.

Two guineas for the beſt ſow in pig bred in Cleveland.

BY ORDER,

LORD DUNDAS, Preſident
HON. H. L. DUNDAS, THO. HUSTLER, ESQ. Vice-Preſidents.
W. POWELL, Secretary and Treaſurer.

Whitby Strand, Pickering Lythe, and the East Division of Long Barugh Agricultural Society

SIR R. B. JOHNSTONE, Bart., Preſident.
RICH. H. LISTER, Eſq. JOHN BEILBY, Eſq. Vice-Preſident.

The annual ſhew of cattle will be held at Hackneſs on Whit-Tueſday on the 4th proximo, when the following premiums will be given.

For the beſt two year old bull, three guineas.
For the beſt yearling bull, three guineas.
For the beſt two years old heifer, three guineas.
For the beſt yearling heifer, two guineas.
For the beſt boar, two guineas.

The above ſtock to have been bred and remain in the diſtricts, the bulls ſix months and the heifers twelve.

For the beſt cow with calf, or which has had a calf ſince Chriſtmas laſt, three guineas.

For the beſt bull, not reſtricted to have been bred in the diſtrict, four guineas If no competition from any other diſtricts, the premium not to be given for any bull bred in theſe.

For the beſt pair of oxen bred in the diſtrict by the perſon who ſhews them, three guineas.

For the beſt blood ſtallion, three guineas. For the beſt coach-horſe ſtallion, three guineas. To have covered this ſeaſon.

All the above ſtock to be bona fide the property of the candidates.

For the beſt crop of turnips, not leſs than five acres, to be grown in the diſtricts; to be viewed on the firſt Monday in October, by three perſons choſen by the committee, the quality of the land to have every candid conſideration, four guineas.

The candidates for each premium to give ten days notice to the ſecretary before the ſhew.

To the labourer in huſbandry who ſhall have brought up and maintained the greateſt number of legitimate children, not leſs than ſix, within the ſaid diſtrict, with the leaſt aſſiſtance from the pariſh.

The committee reſerve to themſelves the right of withholding any of the premiums until they are convinced that the claimants are in every reſpect fairly and fully entitled to them.

The ſhew of rams will be held at Hackneſs, the firſt Tueſday in October.

JOHN COOKE, Secretary.

Norfolk Agricultural Society.

At the General Meeting of this Society held at Lynn, Feb. 21, 1805.

T. W. Coke, Eſq. Preſident.

The following Premiums were offered to be adjudged at the next General Meeting at Swaffham on the day preceding the Wool Fair at Thetford, no claim for any of which can be allowed unleſs it ſhall have been made in writing and delivered to the Secretary on or before the meeting of the committee at Fakenham, on Friday the 7th of June, 1805.

For the improvement of Breeding Stock in Norfolk.

1. To thoſe perſons who ſhall produce the beſt pair of ſhearling rams of the Leiceſter, Southdown, or Norfolk breeds, for each of the reſpective breeds, being the beſt in competition, a piece of plate of four guineas value, or being the ſecond beſt, or without competition, of two guineas value.

To thoſe perſons who ſhall produce the beſt pen of ſhearling ewes, conſiſting of ten each, of the Leiceſter, Southdown, or Norfolk breeds, for each pen of the reſpective breeds in competition, a piece of plate of four guineas value or being the ſecond beſt, or without competition of two guineas value.

N. B. Theſe ewes muſt not have been ſeparated from their flocks more than ten days previous to the time of ſhewing them.

The fleeces of the rams and ewes muſt be ſhewn at the ſame time.

3. To thoſe perſons who ſhall produce the beſt cow not five years old, or the beſt bull not four years old, for each a piece of plate of five guineas value.

N. B. The claimants of theſe premiums muſt take care that their beaſts are properly ſecured by the head for ſhew.

4. To thoſe perſons who ſhall produce the beſt boar or ſow, for each, not exceeding two years old, a piece of plate of two guineas value.

5. To that perſon who ſhall produce the beſt ſtallion of the the laſt breed, being his own property, and having been uſed this ſeaſon in Norfolk only, a piece of plate of five guineas value.

For the Encouragement of Shepherds in Norfolk.

To thoſe ſhepherds who ſhall be found to have, upon any day between the 1ſt day of May and the 1ſt day of June, the greateſt number of lambs in proportion to the number of ewes, certified according to the form of a certificate to be had by applying to the Secretary, and to be returned to him on or before the 7th June, 1805, a premium of

2 guineas if the number of ewes put to tup was at least		200	and not 300
3	———	300	400
4	———	400	500
5	———	500	600
6	———	600	700

N. B. Five ſcore make a hundred.

‡‖‡ The Society gives no premiums to claims which are judged to be not meritorious. ST. JOHN PRIEST, Secretary.

At Banbury fair laſt month a ſheep of the New Leiceſter kind was exhibited, the moſt complete in all points ever ſeen, and which although only two ſhear weighed upwards of 51lb. per quarter.

The laſt General Meeting of the Norfolk Agricultural Society at Lynn, was very fully attended. The premium of a piece of plate of ten guineas value was voted to Mr. Brown of Kiddleſworth, for a crop of Lucerne. The premium for preſerving the greateſt number of acres of turnips, was given to Mr. Repton of Oxnead, ſubject to the inſpection and report of three judges appointed. Two pens only of ſhearling wethers were ſhewn for the prizes, one of the Leiceſter breed, belonging to Mr. Johnſton of Kimpſton, the other of the Southdown breed, to Mr. Hill of Waterden; being without competition and meritorious, they received the ſecond prizes of five guineas value.

Mr. Money of Rainham ſhewed a three-ſhear Leiceſter wether, which was ſlaughtered; its weight was 12ſt. 10lb. and the tallow 22½lb.

Mr. Becher ſhewed a two-ſhear wether, the ſame which he exhibited laſt year, a croſs between a Wiltſhire ewe and a Leiceſter tup; when ſlaughtered its weight was 8ſt. 10lb. and the tallow 13lbs.

Sir Joſeph Banks's treatiſe upon the Mildew in Wheat was received by the ſociety and conſidered as one that ought to be circulated as much as poſſible among agriculturiſts, who can make ſuch obſervations upon the origin and progreſs and effect of this evil as may tend to produce a prevention or cure for it.

The following members were elected—Mr. M. Rackham of Intwood, Mr. Williams of Thanage, Mr. J. Sewell of Bracon, Mr. T. Leppings of Siderſtone, Mr. S. Reeve of Heveringland, Mr. John Creary of Fordham, Mr. T. Bean of Walton, Mr. Gregory Wright of St. John's; Mr. Weſtcar was elected an honorary member, and the Rev. St. J. Prieſt, Secretary, a Vice-Preſident of the ſociety.

Sir Joseph Banks on Blight, Mildew, or Rust in Wheat.

The highly reſpectable Secretary of the Norfolk Agricultural Society having communicated through the medium of the Norwich prints, an excellent outline of a work on which the public curioſity is yet alive, the Editor of the Agricultural Magazine thinks its inſertion will not be unacceptable to many of his readers who may not have ſeen the production of ſuch an high authority.

To the Editor of the Norwich Mercury.

SIR,

THE attention of the public having been called to the account given by Sir Joſeph Banks, of the cauſe of the diſeaſe in corn, called by farmers the blight, the mildew, and the ruſt, and much enquiry having been made by that claſs of people about it, I hope you will allow me a ſmall part of your paper, to communicate the outlines of that publication, particularly as the ſubject is very intereſting to the public; and many of thoſe who may wiſh to uſe their endeavours to ſtop the progreſs of this malady, may have no other means of gaining a knowledge of it, but by the medium of weekly newſpapers. At any rate, a great many who read your paper, will receive pleaſure from hearing what Sir Joſeph Banks thinks on the blight in corn.

Botaniſts have long known that the blight in corn is occaſioned by the growth of a minute paraſitic fungus or muſhroom on the leaves, ſtems, and glumes of the living plants; in other words, botaniſts have found that in thoſe inſtances, where a blight in corn has taken place, there is found growing in the ſtraw of the corn, a plant ſomewhat like moſs on trees, or muſhrooms on land, and therefore Sir Joſeph Banks has offered to the conſideration of farmers,* engravings of the plant itſelf, made from the drawings of the accurate and ingenious Mr. Bauer, Botanical Painter to his Majeſty. By a common magnifying glaſs, you may ſee a ſtriped appearance on the ſurface of a ſtraw; this is cauſed by alternate longitudinal partitions of the bark—the one imperforate, and the other furniſhed with one or two rows of pores or mouths, ſhut in dry and open in wet weather. By theſe pores, which exiſt only on the leaves and glumes, it is preſumed that the ſeeds of the fungus gain admiſſion, and at the bottom of the hollows to which they lead,† they germinate and puſh their minute roots ‡ into the cellular texture beyond the

* NOTE.—They may be ſeen next month in the room where the Norfolk Agricultural Society holds its anniverſary, at Swaffham, in this county.

† It is here neceſſary to ſee the plate 11. fig. 1, 2.

‡ So it is preſumed.

bark, where they draw their nouriſhment by intercepting the ſap, that was intended by nature for the nutriment of the grain; the corn of courſe becomes ſhrivelled, in proportion as the fungi (the plants growing on the ſtraw) are more or leſs numerous. Hence the lighter the corn the leſs is the proportion of flour to bran. Some corn of laſt year's growth, would not yield a ſtone of flour from a ſack of wheat, and no doubt, in ſome caſes, the corn was ſo completely robbed of its flour by the fungus, that, had it been thraſhed and carried to mill, the proprietor would have found the produce bran only, with ſcarce an atom of flour for each grain.

The next obſervation is, that every ſpecies of corn is ſubject to the blight; that ſpring corn is leſs damaged by it than winter, and rye leſs than wheat. The ſpring wheat of Lincolnſhire was not ſhrivelled laſt year, though the ſtraw was in ſome degree infected. Barley was in ſome places conſiderably ſpotted; but the whole of that grain being enveloped in the baſis of the leaf, the fungus can in no caſe gain admittance to the ſtraw. Barley, however, has riſen lighter from the flail this year than was expected.

Moſt probably the leaf of the corn is firſt infected before it ſhoots up into ſtraw, and the fungus is then of an orange colour; after the ſtraw has become yellow, the fungus aſſumes a deep chocolate brown: each individual is ſo ſmall, that every pore on a ſtraw will produce from twenty to forty fungi, and every one of theſe will produce at leaſt one hundred ſeeds: hence a few diſeaſed plants muſt very ſoon infect a whole field of corn.

Farmers have long admitted that wheat in the neighbourhood of a barberry buſh, ſeldom eſcapes the blight. Botaniſts obſerve, that the leaves of the barberry are very ſubject to the attack of a yellow parahtic fungus, larger but otherwiſe much reſembling the ruſt in corn. Moſt probably the fungus of the barberry and that of wheat, are the ſame ſpecies, and the ſeed is tranſferred from the barberry to the corn; thus miſſetoe delights to grow on the apple of hawthorn, but it flouriſhes occaſionally on trees widely differing in their nature from both of theſe.

Sir Joſeph then offers a few conjectures reſpecting the malady. He obſerves, that early in the ſpring the fungus will require as many weeks to bring it to maturity, as it does days in the heats of autumn; but a very few plants of wheat infected are ſufficient, if the fungus ripens its ſeed, to ſpread the malady over a whole § pariſh.

The chocolate-coloured blight is little obſerved, till the corn is approaching very nearly to ripeneſs; it appears then in the field in ſpots, which increaſe very rapidly in ſize, and are in calm weather ſomewhat circular, as if the diſeaſe took its origin from a ‖ central poſition.

May it not happen then that the fungus is brought into the field in a few ſtalks of infected ſtraw, uncorrupted among the maſs of dung laid in the ground at the time of ſowing?¶ Againſt which Sir Joſeph urges, that the clover lays, on which no dung from the yard was uſed, were as much infected laſt autumn-twelve month, as the manured graſs.

An obſervation then is offered for farmers, whether cattle in the ſtraw yard thrive better or worſe, on blighted than on healthy ſtraw?

Next comes an important fact, that the ſeeds of wheat rendered ſo lean and ſhrivelled, that ſcarce any flour fit for bread can be obtained by grinding them will, except in the very worſt caſes, anſwer the purpoſe of ſeed corn as well as the faireſt and plumpeſt ſample, and in ſome reſpects better, for three

§ Would it not anſwer the purpoſe of a pariſh to employ perſons to eradicate diſeaſed plants? S. P.

‖ A proper hint for thoſe employed to eradicate it.

¶ An argument this for thoſe farmers who carry their muck out of their yards, and ſuffer it to rot and be turned over before they manure their land with it. S. P.

buſhels of ſuch corn will go as far in ſowing land, as four buſhels of large grain. The ſmall grains towards the top of an ear of wheat, have an ample abundance for all purpoſes of vegetation.

The above, Sir, contains the ſubſtance of the Treatiſe, which all farmers ought to peruſe. Obſervations upon it, tending to produce a preventative or a cure, are of infinite importance (as every houſeholder at preſent feels) to the welfare of the public.

I am, Sir, your obedient ſervant,
ST. JOHN PRIEST.

P. S. If you will admit of a few queries upon the above doctrine, perhaps in the courſe of a few weeks I may ſend them.

SCARNING, MARCH 18, 1805.

BOARD OF AGRICULTURE.

The following noblemen and gentlemen have been elected ordinary members by ballot in the room of five others, whoſe ſeats were declared to be vacated purſuant to the charter of the Board: The Duke of Mancheſter, Earl of Albemarle, Hon. G. Viliers, Sir H. St. John Mildmay, Bart., and Charles Weſtern, Eſq.

Among the proofs of that attention which is paid at preſent to agriculture in Europe, there has lately occurred a remarkable one in Ruſſia. The Emperor Alexander, it is ſaid, has determined to have every government in his empire ſurveyed by a practical Agriculturiſt, for the purpoſe of making reports ſimilar to those which our Board of Agriculture has publiſhed of the Engliſh counties. The Ruſſian Miniſter, M. Novoſſilſoff, while in England, engaged the Rev. Arthur Young to go to Ruſſia to draw up the firſt of theſe reports, for the Government of Moſcow.

Scotland has this year actually contributed to ſupply her ſouthern neighbours with wheat, having ſent no leſs than 10,000 quarters to London in one week. That country has alſo exported large quantities of oats this year to Portugal; Scotland eſcaped the blight laſt year, and has been making rapid ſtrides in improved culture.

The growing wheats have improved much from the cold dry weather which prevailed through the greater part of the month, the plants in the eaſtern diſtrict having been generally well rolled and hoed, never appeared more promiſing. The additional ſupplies of fine dry bread corn from Scotland, continue to arrive ſo freely at Mark-lane, that there remains but little danger now of any ſcarcity between this and harveſt. The Lent ſowing ſeaſon has proved remarkably favorable; the lands in all parts are working kindly for the barleys, oats, &c. now getting in. Early ſown peas and beans plant well. Potatoe planting has commenced generally round the metropolis, for which the various ſoils work kindly. The plants of rape and muſtard ſeeds are puſhing for bloom with conſiderable promiſe. Turnips have continued the moſt productive crop of the kind ever remembered. The young tares &c. promiſe early ſpring feed; and in the warm graſs counties the graziers, from the late genial ſhowers, have been enabled to lay out their beaſts. Hay remains in great abundance, of laſt year's growth, and is conſequently lower in price. The produce of lambs has been large in the weſt of England, and alſo in the eaſtern diſtrict; but the flock-maſters on the South-downs complain of conſiderable loſſes from many of their forwardeſt ewes ſlinking. Smithfield continues to maintain a good ſupply of all articles of meat, with only a ſmall advance on prime beef. Several lots of graſs lamb have already come to market in high condition. Lean ſtock are proportionably much higher in price than fat cattle. Several droves of Galloway and Weſt Highland Scots have already been brought on Epping foreſt, at an advance on the prices of the laſt year. Good ſtock

ſheep are likewiſe in great demand. Store pigs abundant, and cheaper. Draught horſes are ſomewhat lower. The prices of wool remain nearly the ſame.

DERBY, April 18. The uncommon fineneſs of the weather, and the ſeaſonable rains which have fallen lately, have been exceedingly favorable to the operations of huſbandry, and have enabled the farmer to ſow his ſpring corn with facility, making excellent work. The barley tilths on ſtrong lands were never mellower, nor in better condition for graſs ſeeds; many thouſand acres have been ſown, and in well-managed diſtricts the ſeeding buſineſs is in great forwardneſs. The young wheats every where look well and promiſing. Winter tares and clover have improved lately very much, and in warm ſituations a bite may be ſoon expected. The turnips have not ſuffered by the late froſts, and with the aſſiſtance of the Swediſh which are now generally ſown, will enable the farmer to ſupport his flocks well, till the new graſſes are ready to be turned in. The ewes are beginning to lamb. The ſales are in general good. Fodder is in general plenty, and moderate in price, which occaſioned lean cattle to obtain good prices at the late fairs, where ſtock ſheep have been ſomewhat cheaper, and ſtore hogs are very low. Milch cows are dear, and good freſh horſes of the draught kind ſtill obtain good prices, and are much in demand.

The Cheſter and Mancheſter Chronicles of this month, have ſeveral times noticed a ſerious loſs of wheat in the ſtraw, from not being properly thraſhed. A few days ago, (ſay they) a wager was determined on the ſubject in London, in conſequence of which three quarts of wheat of the beſt quality, were produced from two truſſes of ſtraw. It is obſerved, that in this proportion, the loſs on the London weekly conſumption would amount to 174 quarters. Applying this to the whole country, it appears to be an evil of ſuch magnitude, as to require the notice of the legiſlature.

The Agricultural Society for the county of Durham, at their late meeting, held at Darlington, adjudged and paid the following rewards, viz. To Wm. Hutchinſon, Eſq. of Eggleſtone, five guineas for the beſt bull, and three guineas to Mr. Baker Greenwell, of Copelaw, near Ruſhyford, for the beſt ſtallion for harneſs horſes.

AT a Meeting of Farmers, held at Hertford, on Saturday, the 16th inſtant, JAMES WHITTINGSTALL, Eſq. in the Chair,

Reſolved, That the thanks of this Meeting be given to Wm. Plumer, Eſq. for his ſteady and continued care of the intereſts of his conſtituents, and particularly for his oppoſition to the propoſed tax on Agricultural Horſes.

Reſolved, That the thanks of this meeting be given to Wm. Baker, Eſq. and all the other members of parliament reſident in this county, who voted againſt the ſaid Bill.

Reſolved, That it is the opinion of this meeting, that the great increaſe of county rates, poor rates, militia aſſeſſments, and fines impoſed by the Additional Force Bill, are very oppreſſive burdens; and it is with difficulty that the farmer can carry on the purſuits of agriculture, with profit to himſelf, or advantage to his country; they therefore look to the ſame patriotic exertions for redreſs.

Reſolved, That the thanks of this meeting be given to the Chairman for his impartial conduct in the chair.

JAMES WHITTINGSTALL.

SIR—On my arrival in town yeſterday, I was favoured with your letter, incloſing the Reſolutions of a Meeting of Farmers, at Hertford, on the 16th inſtant, in which the part I had taken in the Bill, for increaſing the Duty on Horſes uſed in Huſbandry, is noticed in very flattering terms. I am happy

to learn, that the conduct which I had thought it incumbent on me to purſue in this inſtance, has met with the approbation of my neighbours and conſtituents; and am no leſs obliged to you, Sir, for the polite and ready manner in which you have conveyed to me their ſentiments on the occaſion.

The other matters touched upon in the ſubſequent Reſolution, are to be conſidered with a view to many important points of our internal and national economy, and have one point only in common with the other, as they may tend to increaſe the burdens of individuals in various claſſes of ſociety; but if examined in detail, will be found to ſtand on very different grounds, and therefore can never be taken together upon any general principle of relief, as applied to all. The county rates, it is well known, are under the direction of the Magiſtrates acting in Quarter Seſſions, reſident in the county, and partaking in the ſame burdens whenever they are impoſed; and the rates themſelves are applied to many objects of public local utility, beſides that part of them which is deſigned to the relief of the families of perſons ſerving in the militia. That inaſmuch as the county rates are burdened by this laſt-mentioned appropriation, the poor rates are relieved from that to which they would otherwiſe be liable, in providing for the ſame objects in another way; and thus, as far as theſe two funds are concerned, the accounts are in a great meaſure balanced; as the charge would neceſſarily fall on the one or the other, for the relief of the families of militia men. In reſpect to the poor rates, it is to be obſerved, that they are raiſed and managed by the inhabitants of the pariſhes themſelves, of whom the farmers make a conſiderable and moſt reſpectable part; and it is natural to ſuppoſe, that theſe will not, for their own ſakes, impoſe a greater burden of this ſort than is found abſolutely neceſſary; and that, for the ſame reaſon, the rates will be applied with a proper economy. In regard to the fines impoſed by the Additional Force Bill, it ſhould be recollected, that, however apparently heavy, they may be conſidered as in ſome degree balanced by the advantages to be derived from the propoſed reduction of the militia, which, it is to be hoped, will tend to a proportional relief of the county and poor rates. When all theſe circumſtances are maturely and diſpaſſionately weighed, making at the ſame time all due allowance for the neceſſity of providing for the defence of the country in the beſt poſſible manner, as well as for thoſe other objects of a more local intereſt, and that Parliament, except as the authority inveſted with a general control, where their interference is required, has nothing to do with the greater part of theſe matters; in the firſt inſtance, it may fairly be conceived, that more credit is given to those patriotic exertions of members of parliament, from which ſo much ſeems to be expected, than they really deſerve. I am, with much reſpect, Sir, your obedient humble ſervant,

W. BAKER.

Hill-ſtreet, March 20, 1805.

To James Whittingſtall, Eſq. Hitchin.

At Saliſbury Lady fair, on Monday ſe'nnight a large quantity of cheeſe was pitched for ſale, and a great deal ſold; the very prime went as high as four guineas the cwt. one perſon purchaſed four tons at that price; good middling went at from 50s. to 56s. inferior at 48s.; of old cheeſe there was but little, and for the very ordinary ſort there was no demand.

At Glouceſter fair on the 12th, cattle ſold high, particularly of the lean kind, which were in great requeſt.

At the Guildford cattle market, on Tueſday laſt, there was the largeſt ſhow of cattle that has been ſeen ſince the recommencement of the market, being 3000 ſheep and lambs, and a great number of capital prime fat oxen, fat calves, cows and calves, and hogs, ſuppoſed in the whole about two hundred; nearly the whole of which was purchaſed with avidity by the

numerous buyers that attended. The market ſucceeds far beyond the moſt ſanguine expectation, it extending over the greater part of the High-ſtreet.

At Beverley fair, on the 5th inſtant, was a conſiderable ſhew of fat cattle, which went off in general at high prices. Lean cattle, eſpecially thoſe beſt in condition, alſo ſold very well.

At Tombland fair in Norfolk, on Thurſday the 11th there was a tolerable ſhew of home-bred and foreign ſheep, and ſome few Scots; but there was little buſineſs done. The few good horſes that appeared were bought up early in the morning. One dealer purchaſed to the amount of 700l.

The ſame day a ſheep of the true Norfolk breed, fed by Mr. Wm. Redgrave of Catton, was ſlaughtered by Mr. Lamb of Norwich, and in that ſtate weighed 40lbs per quarter, looſe fat 26lbs., and ſkin 24lbs.

Mr. Lechmere's capital fat breeding and ſloe-black, at Leverneed, Worceſterſhire, is advertiſed for ſale.

On the 14th inſtant, a pig was killed at Providence, near York, the weight and dimenſions of which were, heigh 25 inches, length from the noſe end to the tail root 67 inches, extreme girth 80 inches, girth round the neck 57 inches, girth of the bone of the leg taken juſt below the hock 6 inches, weight 36 ſtone. He was allowed to be one of the ſmalleſt boned and handſomeſt pigs ever ſeen. This remarkable animal was fed upon potatoes and turnips boiled together.

A caſe was argued in the court of chancery a few days ſince, in which the truſtees of the Birmingham blue coat charity, ſought to ſet aſide a leaſe granted in 1748, to a Mr. Owen, for 99 years. It was contended on the part of the applicants, that a huſbandry leaſe for ſo long a term as 99 years, was not binding, and it was ſhewn that the tenant's farm, was worth 137l. although the rent is no more than 32l. the Attorney General for the truſtees cited ſeveral caſes, to ſhew that under ſimilar circumſtances the court had interpoſed its authority, and ſet aſide the leaſe. After counſel had been heard for the defendant, the Chancellor delivered his opinion at ſome length, and concluded with ſtating that he was clearly and decidedly of opinion, that an alienation for 99 years of a charity eſtate, on a mere huſbandry leaſe, and without conſiderably ſhown by thoſe who take the leaſe, pointing out that it is a proper bargain with reference to a huſband-like manner of acting, is a leaſe this court will not permit to ſtand. The leaſe was of courſe ſet aſide.

Laſt week as a ſervant of Mr. Rob. Barnard of Great Ellingham Hall, was very incautiouſly ploughing too near a deep clay pit, the two horſes fell in and were both drowned.

The extenſive and valuable farm of Mr. Grant of Snettinghan in Norfolk, is about to be ſold.

Laſt week a ſingular inſtance of fecundity occurred at Keir in Scotland, in a ewe of the Dorſetſhire breed, which produced five lambs, neither of them uncommonly ſmall. One only is yet alive, and very hearty.

The South-down wool appears in great repute at preſent in Ireland, and ſeveral large quantities of it are advertiſed for ſale at preſent, in the Iriſh capital.

RULES AND REGULATIONS
FOR THE
KENT AGRICULTURAL SOCIETY.

SECT. I.

Officers, Election, and Duty.

I. THAT a Preſident (who is to appoint his Deputy), two Stewards, a Treaſurer and Secretaty be annually choſen at the anniverſary.

II. That a Committee be annually nominated at the ſame time, conſiſting of the Patrons, Preſident, Deputy Preſident, Stewards, Treaſurer, and 24 members, not leſs than ſeven of whom ſhall be competent to act, and who in the abſence of the Preſident or Deputy, ſhall appoint their own Chairman, and be empowered to adjourn from time to time, as occaſion ſhall require; and that on any vacancy by death, removal, or reſignation being declared to the Secretary, he ſhall make report thereof to the next quarterly meeting, which ſhall fill up ſuch vacancy or vacancies, by appointing any other member or members.

III. That the Stewards ſhall have the whole management and conduct of ſuch matters, as ſhall from time to time be referred to them by the Society; they ſhall regulate the buſineſs of the anniverſary, and provide an ordinary on that day; and that the money neceſſary for the premiums to be given on the anniverſary, ſhall be depoſited by the Treaſurer in their hands, on the ſame day.

IV. That the Secretary ſhall provide all ſuch books and ſtationary as are needful for the Society's uſe, and keep fair accounts of all monies received and diſburſed by him; the ſaid accounts to be ſettled and balanced at each quarterly meeting in the Society's caſh-book: he ſhall attend all meetings and committees of the Society, make minutes of all reſolutions, enter them, and produce them fairly written at the next meeting; he ſhall read all letters and other papers ſent to the Society, and prepare ſuch anſwers thereto as the Society ſhall direct, and regiſter in the book of correſpondence, ſuch as are worthy of preſervation. He ſhall alſo prepare all liſts of premiums, liſts of members, advertiſements, and other publications ordered by the Society, and take care that the ſame be properly and correctly printed, and his name ſhall be ſigned to all publications.

V. All the books, papers, and correſpondence of the Society, ſhall remain under the care of the Secretary for the uſe of the members only.

SECT. II.

Rules for Members and Subſcriptions.

I. That no annual ſubſcription of not leſs than one guinea, ſhall entitle a perſon to be a member; and that the names of all perſons who give annual benefactions, of not leſs than five ſhillings, ſhall be publiſhed with the liſt of members, and they ſhall be entitled to recommend a candidate for the prizes to the ploughmen; that a benefaction of not leſs than ten guineas, ſhall entitle any perſon to be a member for life, and that every perſon, who has given, or may give in his name, as a member, is, and ſhall be deemed ſuch, and his ſubſcription be conſidered as juſtly due to the Society, until he give notice in writing to the Secretary of his intention to withdraw it.

II. That notwithſtanding the above rule, any perſon deſirous of encouraging the Society, but not willing to give in his, or her name, may become a Benefactor under any ſignature.

III. That all money that ſhall be received from perſons becoming perpetual members, or by caſual benefactions, ſhall be veſted in government ſecurity, and that whenever the Treaſurer ſhall have received by perpetual members and benefactions ſufficient to purchaſe fifty pound ſtock, he purchaſe the ſame in the name of the Preſident, himſelf, and two other members.

IV. That the names of ſuch perſons, as have not paid their firſt ſubſcription money, be omitted in all printed liſts of members, and that every member ſhall pay his ſubſcription money in arrear, at or before the next quarterly meeting, after he has been applied to by letter from the Treaſurer, or Secretary; and that all the ſubſcriptions of members for the year enſuing, ſhall be deemed due to the ſaid Society, on the firſt day of January in each year.

V. That to all perſons whoſe ſubſcription ſhall be in arrear, on the firſt

day of March, a letter shall be sent by the Secretary, requesting the payment.

VI. That foreigners or persons who do not reside in this county, may be elected by ballot, honorary members of this Society without being subject to any annual payments, and shall be admitted to all meetings of this Society during their residence here, provided such residence does not exceed three months at one time, but shall not be permitted to vote.

VII. That on the election of any person to be an honorary member of this Society, a letter shall be written by the Secretary acquainting him therewith, and the Secretary in such letter shall inform him that the Society request such honorary member, as often as it shall be convenient, to favour them with accounts of such useful discoveries or improvements in Agriculture, as may come to his knowledge.

SECT. III.

Rules and orders of Meetings.

I. That there shall be four general meetings of this Society in every year, one of which shall be considered as an anniversary, and the meetings of the said Society shall always be held at the Fountain Inn, or at some other convenient place, in or near the City of Canterbury, and the business begin precisely at eleven o'clock in the forenoon, on each day.

II. That the anniversary of this Society shall be held on the Friday in Whitsun week. That the three other general meetings, shall be holden on the Friday ‡ next after the full moon, previous to the fifth day of January, fifth day of April, and tenth day of October. And that no laws or rules shall be made or altered, except by the annual meeting, which shall not consist of less than fifteen members.

III. That the business to be transacted at the annual meeting, shall be the appointing of officers, and a committee, the revising and confirming or amending the rules of the Society, the determining the claims of premiums, and offering some new premiums for the year ensuing. That no alteration in the rules shall take place, unless a proposal for such alteration be made at, and approved of, by the general meeting, previous to the anniversary, and that no debate, on such alteration, or on the premiums so offered, shall take place, but on the question being put, at the annual meeting, they shall be agreed to, or negatived by vote.

IV. That on any emergency, the Secretary, with the concurrence of the President and five Members, signified in writing, and signed with their names, may either alter the general meetings, or call an extraordinary general meeting, which meetings shall be advertised once in the Canterbury newspapers, and if seven members are present, they may proceed to business.

V. As the proper and regular dispatch of business at the general meetings, will very much depend on the diligence and attention of the Committee, it is respectfully requested, that the gentlemen, who shall be appointed thereon, will give as general attendance as possible, and meet as nearly as they can at the hours appointed; and the attendance of any other member, at the committee meetings, will be esteemed a favour, though not be permitted to vote.

VI. In order to expedite the business at the general meetings, the members are requested to deliver such propositions as they may wish to offer to the Society, at least one week before the said meetings, to the Secretary in writing, that the same may be properly arranged; and such propositions will be considered, according to the order in which they shall be delivered; and no new matter respecting the government of the Society shall be received, unless it be laid before the committee, or one of the general meetings, not being the anniversary.

‡ At a general meeting held 21st of March, 1794, Resolved, that the alteration of Friday, to Saturday, for the three general meetings, as recommended by the committee, was approved of.

VII. At every meeting of the Society, all the reſolutions of ſuch meeting ſhall be taken down at large, and read aloud by the Secretary, immediately after they have been reſpectively agreed to; and no meeting ſhall be adjourned till the majority of the members preſent, upon the queſtion being put and ſeconded, ſhall agree thereto.

VIII. No new propoſition ſhall be entered upon after two o'clock in the afternoon, and no member on any pretence whatever, ſhall be at liberty to make a motion after that time; and the preſiding member ſhall quit the chair at ſix o'clock preciſely.

IX. All matters which ſhall remain undetermined at any general or other meeting, and ſhall be agreed to be left for the determination of a future meeting, ſhall be entered in the minute book, and no new matter ſhall be brought forward, till that is determined.

X. In all meetings and committees, the Preſident, or preſiding member, ſhall have a ſecond or caſting vote.

XI. That all bills ſhall be paid by the Treaſurer, and ſigned by at leaſt five of the committee, or at a general meeting, or anniverſary, by the preſiding and two other members.

SECT. IV.

Order of Proceedings at Meetings.

I. That the books of rules and orders of minutes and correſpondence, ſhall be laid on the table before the preſiding member, the Secretary ſitting at his right hand.

II. None but members to be admitted at the meetings of the Society, without leave firſt obtained.

III. When any member ſpeaks, he ſhall addreſs himſelf to the chair; and if two members ſpeak together, the preſiding member ſhall call them to order, and decide which ſhall ſpeak firſt.

IV. When any matter is in debate, if a member ſhall ſpeak to new buſineſs, the preſiding member ſhall call him to order.

V. No debate ſhall be entered into, or queſtion put on any motion, unleſs that motion be ſeconded.

VI. No motion that has been rejected, ſhall be made again in the ſame meeting.

VII. At all meetings of the Society, buſineſs ſhall be tranſacted in the following order:

1ſt. To enter in the minute book the names of the members preſent.

2d. Minutes of the preceding meeting to be read, and reports of the committee to be received.

3d. Accounts ſince the preceding meeting to be audited, balanced, and ſigned by the chairman, &c.

4th. Correſpondence to be read and referred to the Committee.

5th. New matters to be offered on the ſeveral ſubjects in ſucceſſion.

6th. That in the meetings of the committee, the ſame orders to be obſerved as far as it concerns them.

SECT. V.

Rules and Regulations concerning Premiums.

That the limits of this Society, ſhall extend to all places within the county of Kent.

II. That no premium ſhall be offered to the public, until it has been firſt propoſed to, and approved of by the committee, and agreed to by a general meeting; and no premium, or bounty, ſhall be given to any candidate, unleſs the ſociety, at the annual meeting, ſhall be ſatisfied that ſuch candidate deſerves it.

III. That premiums ſhall be both honorary and pecuniary; but that no premium or bounty, ſhall be given by this Society, to any perſon who ſhall have obtained a premium or bounty, for the ſame invention, crop, or im-

provement, from any other Society, or from this more than once in seven years.‡

IV. That as the principal design of this institution, is by exciting a spirit of industry and ingenuity, to promote the public good, the premiums anually offered, shall be more immediately for the encouragement of industry and good behaviour among servants and labourers in husbandry, and for all improvements in agriculture and planting, as well as the breeding and management of stock and the cure of their diseases.

V. That in order to excite emulation, and increase the number of competitors among ploughmen, no ploughman, who has gained the first premium, shall be ever again admitted as a candidate, but may be admitted as an umpire, the next year.

VI. That when any proposal is made for premium or reward, and the motion made and seconded, it shall be delivered to the chair in writing, and the same shall be read twice.

VII. No member of the Society, who is a candidate for any premium or bounty, shall sit in any meeting of the society or in any committee, to which such matter shall be referred, during the time the matter is before them, whether in debate or determination, unless when called in to answer such questions as may be put to him.

VIII. In order that all rewards may be distributed with the utmost impartiality and justice, the society shall, when they think it necessary, desire the assistance of such persons (though not members), as shall be deemed best able to judge and discover the merit of any invention or improvement, for which a premium is claimed.

IX. That in order to encourage the study as well as the practice of agriculture, honorary premiums shall be offered for the best written and most useful original essay on any of the subjects, to which the views of this society may be extended; the society to give out the subjects in their annual lists of premiums, and that such essays as shall be approved of at the annual meeting, be printed and published at the expence of the society; every member to have one copy, the rest of the impression to be sold, and the profits applied to the society's use, unless the author shall think proper to print the same at his own expence, or as the annual meeting shall otherwise direct.

X. That the authors of such essays shall send them, sealed, to the secretary without a name, but with some mark corresponding with another mark, on the outside of an enclosed sealed up paper, in which their names are written, that such essays as are rejected, shall be left in the secretary's hands, and if they are not called for, shall, with such enclosed, sealed up paper, be destroyed at the succeeding annual meeting.

XI. A candidate for a premium, being detected in any attempt to impose on the society, shall not only forfeit such premium, but be declared incapable of obtaining any for the future.

XII. That no premium shall be proposed after the meeting nearest the 5th of January,‖ nor any report from the committee for continuing an old or establishing a new premium be read in the society after the said meeting.

XIII. That no condition on which a premium is offered in an advertisement, shall be dispensed with, on any pretence whatever.

XIV. That the society may reserve to themselves in all cases where a premium may be adjudged to a labourer, widow, or children, the power of altering the quality of the prize, and determine whether the same shall be given in money or cloaths, notwithstanding any particular stipulation in the list of premiums, to the contrary.

XV. That if a claim for a premium be rejected by the society, no motion

‡ At a general meeting the 20th of March, 1804, resolved, that the term seven years, be altered to four years.

‖ At a general meeting the 7th of March, 1795, resolved, that the word April be substituted for January.

ſhall be made for giving to the candidate any bounty or reward whatever in lieu of ſuch premium, or for his trouble or attendance on any meeting or committee to whom ſuch matter ſhall be referred.

XVI. That each member, whoſe ſubſcription is not in arrear, be allowed to recommend a candidate for the premiums (though they are not their own ploughmen, ſervants, or labourers) if reſident within the limits of this ſociety.

XVII. That any perſon though not a member, giving an annual benefaction of not leſs than five ſhillings, ſhall be allowed to recommend a candidate for the ploughmen's prizes only, ſuch candidate having lived with him, one year and a half, and being his ſervant at that time.

XVIII. That all perſons recommending a ſervant, or labourer, as a candidate for a premium, ſhall ſpecify the name, place of obode, and employer of ſuch candidate, and ſhall ſend a certificate of good character to the ſecretary in writing, on or before the quarterly meeting the fifth day of April.

XIX. That each candidate having gained a prize, ſhall be entitled on application to the ſecretary, to a certificate to that effect.

A. G. Secretary.

The following Premiums have been given by this Society, to the undermentioned Perſons, from the commencement to the 1ſt. June 1804.

Appleton James, Preſton, next Wingham, large family, two guineas
Andrews Thomas, of Aſh, large family, two guineas
Attaway James, ſhepherd to the Rev. Ralph Price, Lyminge, two guineas
Andrews Mr. Thomas, Stouton. beſt ſtallion, four guineas
Anſley William, allworks boy with Mr. V. Terry, of Hardres, one guinea
Anſley Thomas, ditto, one guinea
Aſhley William, labourer to John Tokely, Eſq. Oſpringe, two guiueas
Browning Mr. Waltham, beſt ſtallion, three guineas
Buſs Mr. Pluckley, reward for a double plough, ſeven guineas
Bailey Mary, Elham, large family, two guineas
Bailey Mary, Jun. Elham, ditto, two guineas
Bourne Thomas, labourer to John Lade, Eſq. of Boſton, two guineas
Barker Mr. Thos. Willeſborough, beſt ram, four guineas
Ditto ſecond ditto, five guineas
Blunden Thomas, Barham, twenty-one ſtocks of bees, two guineas
Borton William, Norton, thirty-three ſtocks of bees, two guineas
Bridge Sarah, dairy-maid to Mr. J. Adams, Betherſden, two guineas
Bean John, Eaſtry, large family, two guineas
Browning John, Chilham, ditto, two guineas
Bridger John, labourer to Mrs. Bexhill, of Tenterden, two guineas
Beck William, waggoner to Mr. Tappenden, of Hothfield, two guineas
Cook Peter, waggoner to Mr. John Tilmanſtone, two guineas
Cox Ann, allworks maid to Richard Fox, of Chartham, two guineas
Chambers Edward, waggoner to Mr. John Luckhurſt of Hathfield, 2 guineas
Cook William, waggoner to Mr. John Boys, of Betſhanger, two guineas
Curtis William, Chiſlet, large family, two guineas
Chapman William, Aſh, ditto
Caſtle William, Waltham, ditto, two guineas
Care Sam. waggoner to Mr. Wm. Chapman, Weſtwell, two guineas
Coppen Joſeph, bailiff to Mrs. Mary Winder, of Lenham, two guineas
Clark Mr. Thomas, Challock, beſt bull, four guineas
Cleveland Mary, allworks maid to Mr. B. Andrews, Stouting, two guineas
Caſtle William, labourer to Mr John Crafts, Waltham, two guineas
Coleman Richard, lobourer to Mr. Richard Coleman, Godmerſham, 2 guineas
Cobb Robert, labourer to Mr. T. Sutton, of Boughton, Aluph, 2 guineas
Chandler Stephen, labourer to R. Peckham, Eſq. Beakeſbourne, two guineas

Dale Edward, waggoner to Mr. Robert Le Geyt of Canterbury, two guineas
Dodd David, Wye, large family, two guineas
Down Robert, waggoner to Meſs. Ruſſel & Wightwick, Romney, two guineas
Dowle Thomas, allworks to Mr. Ruſſel, Romney, two guineas
Dowle Suſannah, dairy-maid to Mrs. White, Old Romney, two guineas
Dodd Thomas, waggoner's-mate to Mr. J. Tritton, Ickham, two guineas
Divers Henry, bailiff to Mr. R. Coleman, Godmerſham Court, two guineas
Elgar Henry, waggoner to the late Michael Hatton, Eſq. two guineas
Elliote William, bailiff to Mr. Richard Gibbs, of Ickham, two guineas
Epps, Wm. labourer to Mr. R. Coleman, Godmerſham Court, two guineas
Furmiger Ann, dairy-maid to Mr. Wm. Maylam, of Weſtwell, two guineas
Fox John, labourer to Mr. Daniel Swinford, of Sarr, two guineas
Furmiger Margaret, dairy-maid to Mrs. Homewood, of Willeſborough, 2 gs.
Fever Roſe, dairy-maid to Mr. James Bourne, of Romney, two guineas
Fittie Richard, of Tilmanſtone, large family, two guineas
Foad William, labourer to Mr Henry Denne, of Chiſlett, two guineas
Farley William, Boughton Blean, large family, two guineas
Foreman Geo. labourer to Mr. Thos. Curling, St. Nicholas, two guineas
Fuller Samuel, a reward for the model of a churn, two guineas
Farley Edward, bailiff to Geo. Morland, Eſq. of Preſton, two guineas
Finn Henry, ſervant to Mr. Thomas Neame, of Selling, two guineas
Finn Henry, of Nonnington, large family, two guineas
Friend Thomas, allworks boy to Mr. Allen Grebell, of Stuppington, 2 gs.
Friend John, Norbourne, large family, two guineas
Forreſt Charles, labourer to Geo. Morgan, Eſq. of Preſton, two guineas
Friend Thomas, bailiff to Mr. Nicholls, Barham, two guineas
Fearall Daniel, waggoner to Mr. Coleman, of Burmarſh, two guineas
File Thomas, labourer to Mr. Thomas Finnis, of Coldrep, two guineas
Fox Richard, labourer to Thos. Gibbs Hilton, Eſq. of Sellings, two guineas
Fryer John, allworks boy to Mr. Thos. Simmonds, Petham, two guineas
Griggs Mr. Hardres Court, beſt bull, two guineas
Gambrill Mr Stelling, beſt boar, two guineas
Gowland Mr. Stephen, Canterbury, reward for double plough, three guineas
Goddard Mr. John, Weſtenhanger, ſecond bull, two guineas
Gammon William, of Stanford, large family, two guineas
Gilbert William, labourer to Mr. Mark Marſhall, of Brabourne, two guineas
Gooding John, labourer to Mr. Kennett Packman, of Selling, two guineas
Goldup William, waggoner's mate to Mr Thos. Payne of Crundal, 1 guinea
Gibſon Stephen, Chartham, large family, two guineas
Gill William, labourer to Mr. Richard Cook, Hearne, two guineas
Goord Mr. Richard, Iwade, ſecond ram, two guineas
Ditto ditto, beſt ram, ten guineas
Godden Anthony, labourer to H. Darrell, Eſq. Cale-hill, two guineas
Gillet John, ſervant to Mr. Thomas Harriſon, Lenham, two guineas
Haywood William, labourer to the Rev. Edmund Filmer, Crundal, 2 guineas
Haywood Stephen, labourer to Mr. Wilm. Wyborn, Smeeth, two guineas
Hall John, allworks boy to Mr. George Downe, Elham, one guinea
Haywood Arthur, labourer to Mr. Richd. Sankey Haſtingleigh, 2 guineas
Honywood William, Eſq. Sibton, beſt ram, two guineas
Hilton Thomas Gibbs, Eſq. Selling, beſt bull, five guineas
Harriſon Mr., Stelling lodge, beſt ſtallion, five guineas
Hambrook John, bailiff to Mr. Taylor, Buckland, two guineas
Holneſs Thomas, waggoner to Mr. Henry Collard, Canterbury, two guineas
Holliday Thomas, labourer to Mr. Wm. Slodden, Ahiſham, two guineas
Head James, allworks boy to Thomas Breti Eſq. Spring Grove, one guinea
Hucſtep Edward, labourer to Mrs. Knight, of Eggerton, two guineas

To be concluded in our next.

LONDON PRICES OF GRAIN for *April*, 1805.

MARK LANE, *Monday, April* 1, 1805.

Our ſupply of Wheat to-day was not very conſiderable. We had many buyers, but they purchaſed with no avidity, hence prices improved in a very ſmall degree upon laſt week's currency; ſome ſamples of fine Old Dantzic, however, reached 105s. and 107s. but in the other ſorts the advance could hardly be deemed as ſuch. Barley, from a ſhort ſupply, ſold rather freely, and at better prices; but neither Malt, nor the different kinds of Peaſe, acquired any additional value. On the other hand, Beans of both ſorts ſuffered no diminution; and Oats, owing to there not being many up, and the notice for tenders from the Commiſſary-General's Office, fully keep their prices.—Flour remains a good ſupply—prices various.

Price of Grain, on board Ship, as under.

Wheat	75s 90s 96s	Malt	76s to 80s od	Fine old	48s
Fine	100s to 103s	White Peas	35s to 42s od	Tick Beans	38s to 44s
Superfine	104s	Boilers	42s to 47s	Fine old	48s
Fine Old	107s	Suffolks	—s to 48s od	Oats	24s 26s to 28s
Rye	54s to 60s	Grey Pease	38s to 40s od	Polands	29s to 30s od
Barley	43s to 48s od	Beans, new	40s to 45s od	Rape ſeed	44l to 47l pr laſt

Monday, April 8.

Our Market preſents an evident progreſſive decline in the value of moſt Grain, and to-day we had a general heavineſs in the ſales; a few fine ſamples of Old Wheat, it is true, fetched full as much money at firſt of the morning as on the two or three preceding market days, but the ordinary ſorts were cheaper; to this we may add, that Barley is likewiſe lower. Malt but little in demand, and nearly as laſt. White and Grey Peaſe, with both ſorts of Beans, are all on the decline. Oats, though in no great abundance, are alſo cheaper. We have Flour in plenty, and the prices rather giving way. No Rape-ſeed here.

Wheat	78s 90s to 106s	Malt	76s to 82s od	Fine old	51s
Fine	110s to 113s	White Peas	38s to 43s od	Tick Beans new	40s to 45s
Superfine	114	Boilers	44s. to 49s	Fine old	48s
Dantzic	116s	Suffolks	—s to 50s od	Oats	27s to 29s
Rye	58s to 63s	Grey Pease	38s to 43s o	Polands	32s to 33s 6d
Barley	44s to 49s od	Beans, new	43s to 48s od	Rape ſeed	43l to 47l pr laſt

Monday, April 15.

The ſupply of Wheat to-day was but a moderate one, yet a falling Market enſued, and the prices were lower by 2s. and 3s. per quarter upon fine ſamples, and rather more upon thoſe of inferior quality. Barley likewiſe, of which we have plenty, neither obtained purchaſers nor prices equal to laſt week. Malt, and almoſt every other article of Grain, has, in ſome degree, given way—if any thing. Boiling Peaſe are the moſt ſteady. We have large arrivals of Foreign Oats, which are rather cheaper. Fine Flour keeps its price, the town not being quite ſo full as for ſome time paſt.

Wheat	72s 90s to 104s	Malt	76s to 82s od	Fine old	50s
Fine	105s to 108s	White Peas	36s to 42s od	Tick Beans new	40s to 45s
Superfine	—s to 109s	Boilers	44s to 48s	Fine old	47s 6d
Dantzic	111s	Suffolks	—s to 50s od	Oats	26s 28s to 30
Rye	56s to 62s	Grey Peas	40s to 43s od	Polands	31s to 32s op
Barley	42s to 48s od	Beans, new	42s to 47s od	Rape ſeed	43l to 47l pr laſt

Monday, April 22.

Our arrivals of Wheat, added to the quantity left over laſt week, forming together an ample ſupply, a further reduction in prices took place to-day; ſay, in fine ſamples, about 10s. per quarter, and more in thoſe of ordinary quality; barley is likewiſe in plenty, cheaper, and with ſcarce any ſales. Malt is alſo down 3s. and 4s. per quarter. Grey Peaſe keep up, being rather a ſhort ſupply, the other ſorts are dull and lower; beans the ſame.

Oats are a good ſupply, having many remaining from laſt week; prices not ſo good as then.—Flour cannot be named higher than 80s. though ſome quote 85s.

Wheat	66s 78 to 94s	Malt	74s to 80s od	Fine old	45s
Fine	95s to 98s	White Peas	34s to 40s od	Tick beans	33s to 38
Superfine	100s	Boilers	42s to 47s	Fine	40s od
Dantzic	102s	Suffolks	—s to 48s	Oats	20s 22s to 26s
Rye	55s to 60s	Grey Peas	35s to 40s	Polands	27s to 28s
Barley	41s to 46s od	Beans,	38s to 32s		

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

From the Returns received in the Week, ended April 20, 1805.

INLAND COUNTIES.

COUNTIES.	Wheat.		Rye.		Barley.		Oats.		Beans.		Peas.		Oatmeal.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Middlesex	93	11	58	4	47	2	29	8	45	7	47	9	21	5
Surrey	107	4	52	0	45	4	30	10	46	0	48	0		
Hertford	88	0	40	6	47	0	27	0	41	6	41	0		
Bedford	91	2	76	9	47	4	29	4	41	7	48	9		
Huntingdon	89	0			45	4	24	8	37	7	41	7		
Northampton	89	4	68	0	48	0	25	0	43	0	47	0		
Rutland	88	3			51	0	25	0	45	6			62	•
Leicester	89	2			50	10	25	8	45	2			41	8
Nottingham	99	0	72	0	3	6	29	6	45	6	47	0		
Derby	92	9			58	3	31	9	60	7			42	1
Stafford	97	0			54	4	29	9	52	9			48	11
Salop	91	10	70	8	54	8	28	1			50	4	65	8
Hereford	87	4	51	2	48	0	27	0	50	1	47	10	62	7
Worcester	92	9			52	1	29	3	50	3	49	6		
Warwick	98	8			56	0	28	8	57	4	60	0	50	10
Wilts	86	8			44	2	29	6	54	0	51	0		
Berks	88	9			46	6	28	2	48	11	54	0		
Oxford	90	10			46	7	27	9	45	3	48	0		
Bucks	93	10			47	6	27	9	44	5	45	6		
Brecon	83	2	51	2	48	9	25	8			48	0	43	2
Montgomery	93	7			43	2	22	1			50	4	50	10
Radnor	85	3			48	11	26	8			44	9		

Maritime Counties.

Essex	98	8	52	0	43	2	30	3	43	3	46	6		
Kent	107	6			47	2	33	6	46	6	48	6		
Sussex	105	0					36	0	46					
Suffolk	92	5			44	2	29	4	40	9	46	3	54	1
Cambridge	84	6			43	10	20	3	39	6	40	4		
Norfolk	93	2			40	9	23	0	39	11	41	4		
Lincoln	87	3	64	9	48	2	23	7	41	2				
York	81	1	68	5	43	8	24	10	40	9	71	2	55	1
Durham	89	5					25	0						
Northumberland	88	11	64	0	42	6	24	2			36	0	18	0
Cumberland	89	0	58	6	41	11	27	4					20	8
Westmoreland	100	2	62	0	38	8	28	0					21	0
Lancaster	89	10			58	8	28	5	48	1		0	22	10
Chester	86	9					30	3					23	7
Flint	96	9			53	0								
Denbigh	96	10			52	10	27	2	57	8	54	3	45	10
Angiesea	80	0			48	0	20	0						
Carnarvon	86	8			43	4	22	0	60	0	60	0	45	8
Merioneth	91	4			49	4	24	10			94	0	40	9
Cardigan	84	0			38	0	20	0						
Pembroke	81	8			49	3	20	0						
Carmarthen	94	8			52	9	20	10						
Glamorgan	80	8			56	0	25	4						
Gloucester	91	9			50	11	28	7	54	6	41	6		
Somerset	92	8			47	6	24	5	52	0				
Monmouth	91	10			50	4								
Devon	101	3			46	10	29	6						
Cornwall	96	7			46	11	25	6						
Dorset	92	1			47	0	35	11	60	0				
Hants	99	4			46	1	32	3	54	9				

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

Price of Hops.	1st Week	2d Week	3d Week	4th Week
Bags.	s. s.	s. s.	s. s.	s. s
Kent — —	80 to 100	88 to 105	90 to 108	84 to 116
Suſſex — —	80 to 95	84 to 95	84 to 100	84 to 105
Eſſex — —	80 to 95	84 to 100	120 to 190	140 to 190
Pockets.				
Kent — —	50 to 120	94 to 103	100 to 113	80 to 104
Suſſex — —	90 to 110	88 to 100	94 to 110	80 to 98
Farnham — —	140 to 166	100 to 147	94 to 105	80 to 90
Seeds.				
Broad Beans, (per quarter)				
Long Pods				
Tares — —	38 to 44	34 to 46	34 to 44	34 to 42
Rye-Graſs — —	14 to 36	14 to 36	14 to 32	12 to 28
Carraway, (pr cwt.) —	122 to 130	122 to 130	122 to 130	122 to 130
Coriander —	10 to 13	10 to 13 6d	10 to 13	10 to 13
Trefoil —	14 to 36	14 to 32	14 to 32	7 6d to 27
Red Clover — —	48 to 96	48 to 9[illegible]	42 to 90	46 to 88
White, ditto —	52 to 120	52 to 11[illegible]	50 to 105	52 to 98
White Muſtard Seed, pr bu.	6 to 11	6 to 11	6 to 11	6 to 11
Brown ditto — —	10 to 18	10 to 18	10 to 18	10 to 18
Canary Seed	7 to 8	7 to 8	7 to 8	7 to 8
Turnip, —	18 to 24	18 to 24	18 to 24	18 to 24
Rape Seed, (per laſt) —				
Meat at Smithfield,				
To ſink the offal, p. ſt. 8lb.	s. d. s. d.	s. d s. d.	s. s.	s. s.
Beef — —	4 0 to 5 4	4 4 to 5 6	3 8 to 5 4	4 8 to 5 8
Mutton — —	4 4 to 5 4	4 0 to 5 4	4 4 to 5 0	4 4 to 5 4
Veal — —	5 0 to 6 4	5 0 to 6 6	5 0 to 6	5 0 to 6 4
Pork — —	4 0 to 5 0	4 4 to 5 4	4 0 to 5 0	4 0 to 5 4
Lamb — —				
Head of Cattle—Beaſts about	2,000	2,000	1,800	2,000
——— Sheep	11,00	10,500	7,000	8,000
Price of Leather.	d. d.	d. d.	d. d.	d. d.
Butts, 50lb. to 56lb. each	23 to 23½	23 to 24	22 to 24	23 to 24
Ditto, 60lb. to 65lb each	25 to 26	25 to 26	25 to 26	25 to 26
Merchants Backs —	— to 23	— to 23	23 to 23½	22 to 23½
Dreſſing Hides —	22½ to 23½	23 to 24	22 to 23	22 to 23
Fine Coach Hides —	24 to 25½	24 to 25½	23 to 26	23 to 26
Crop Hides for cutting	22 to 23	22½ to 23½	22½ to 23½	22½ to 23½
Flat Ordinary —	21½ to 22	22 to 22½	21½ to 22½	21½ to 22½
Calf Skins, 30 to 40lb. *p.doz.*	35 to 39	35 to 39	35 to 39	35 to 39
Ditto, 50lb. to 70lb. do.	35 to 39	35 to 39	35 to 39	35 to 39
Ditto, 70lb. to 80lb. do.	34 to 38	34 to 38	34 to 38	34 to 38
Sm. Seals (Greenland)	42 to 48	42 to 48	42 to 48	42 to 48
Large do. (per dozen)	51 10s to 81	61 to 91	61 to 91	61 to 91
Goat Skins *per doz.*				
Tanned Horſe Hides pr hide	25s to 42s	25s to 42s	25s to 42s.	25s to 42s.
Price of Tallow.	s. d.	s. d.	s. d.	s. d.
St. James's Market —	4 0½	3 10	3 8	3 6
Clare Market — —	4	0 0	3 7	3 6
Whitechapel Market —	4 11	3 8	3 5	3 4
Per ſtone of 8lb. Average	4 0	3 9	3 7	3 5½
Town Tallow — —	67 6	64 3	62 0	59 6
Ruſſia (Candles) —	66 0	65 0	64 0	65 0
Ruſſia ditto (Soap) —	65 0	64 0	63 0	63 0
Melting Stuff — —	56 0	57 0	54 0	52 0
Ditto rough — —	38 0	3[illegible] 0	38 0	36 0
Graves — — —	2 0	12 0	12 0	11 0
Good Dregs — —	11 0	11 0	11 0	11 0
Yellow Soap — —	78 0	78 0	76 0	71 0
Mottled ditto — —	88 0	88 0	86 0	86 0
Curd ditto — —	92 0	92 0	90 0	90 0
Candles, per dozen, —	11 6	11 6	11 6	11 6
Mouldſ — — —	12 6	12 6	12 6	12 6

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

	First Week	2d Week	3d Week.	4th Week.
Raw Hides.	*s.d. s.d.*	*s.d. s.d.*	*s.d. s.d.*	*s.d. s.d.*
Beſt Heifers & Steers, pr ſt.	3 8 to 3 10	3 6 to 3 8	3 6 to 3 8	3 6 to 3 8
Middling — —	3 4 to 3 6	3 2 to 3 4	3 2 to 3 4	3 2 to 3 4
Ordinary — —	3 0 to 3 2	2 10 to 3 0	2 10 to 3 0	2 10 to 3 0
Market Calf — —	12 6	12	12	12
Eng. Horſe — —	18s to 21s	18s to 21s	18s to 21s	17s to 20s
Lamb Skins — —			2 6 to 3 9	3 0 to 4 0
Sheep Skins — —	4 0 to 7 0	3 6 to 7 0	3 6 to 7 6	4 0 to 7 0
Prices of Hay and Straw.	*l. s. d.*	*l. s. d.*	*l. s. d.*	*l. s. d.*
St. James's—Hay —	3 16 3	3 15 0	3 18 9	3 15 0
Straw —	2 10 3	2 11 9	2 13 3	2 12 6
Whitech.—Hay —	4 6 0	4 3 0	4 3 0	4 3 0
New —	0 — 0	0 — 0	0 — 0	0 — 0
Clover —	4 16 0	4 14 6	4 15 6	4 4 6
Straw —	2 12 0	2 10 0	2 11 0	2 11 0
Newbury.				
Wheat — — —	60s to 117s	68sto 117s	66s to 110s	66sto 110s
Barley — — —	44s to 48s	44sto49s6d	46sto50sod	42sodto46s
Oats — — —	24s to 28s	20s to 30s	23s to 30s	21s to 30s
Beans — — —	—s to —s	—s to —s	—s to —s	—s to —s
New ditto — — —	—s to —s	—s to —s	—s to —s	—s to —s
Peas — — — —	—s to —s	—s to —s	—s to —s	—s to —s
Saliſbury.				
Wheat — — —	88s to 100s	80s to 100s	80s to 100s	80s to 100s
New ditto — — —	—s to —s	—s to —a	—s to —s	—s to —s
Barley — — —	44s to 50s	40s to 46s	40s to 45s	40sto44sod
Beans — — —	—s to —s	—s to —s	—s to —s	—s to —s
Oats — — — —	28s to 32s	28s to 32s	27s to 32s	28s to 32s
Peas — — — —	—s to —s	—s to —s	—s to —s	—s to —s

TO OUR READERS AND CORRESPONDENTS.

IT did not require even our wonted inclination to the *Audi alteram partem,* to induce us to insert in the present publication, the favor of our valuable Friend in controversion of some sentiments, which occupied this place in our last. Nor could he, though always acceptable, have chosen a mode more agreeable than that of inquiring the opinions of those whom it is our principal study to please:

> " The author's laws the author's patrons give,
> " And those who live to please, must please to live."

It is on this ground alone, and not from the smallest apprehension, of impropriety in our respectable Correspondent, that we oppose the introduction of political allusions. The abstractions of party-spirit have been too painful and too obvious not to make us careful of admitting the smallest matter in our sheets, which should convey discord in the guise of instruction into the mild recesses of rural tranquillity.