



Made in 1803

M^r WESTCAR'S PRIZE OX, Christmas 1803.

Engraved from a drawing by T. G. Westcar, 1803.

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THE
AGRICULTURAL MAGAZINE.

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DESCRIPTION OF MR. WESTCAR'S PRIZE OX,
WITH A PLATE ANNEXED.

IN our Number LIII. we noticed the various animals which obtained the prizes at the Smithfield Exhibition; and we stated, that Mr. Westcar, was again the successful candidate for the premium of 25 guineas, assigned to the owner of the best ox of 160 stone or upwards.

The engraving which accompanies the present number, will, at least remind those of our Readers, who have seen that animal, of some of his admirable proportions; and will suggest to others, no very imperfect idea of the original.

Having, in our publication for December last, entered so fully into the particulars of the shew of prize cattle, and on the qualifications necessary for a breeder of this particular species, we think it unnecessary to dilate further on the subject.

The purchaser of the last prize ox, was Mr. Chapman, of Fleet Market, and it weighed 266 stone; the present only weighed 231 st. 6 lb. and was bought by Mr. Giblett, of Bond Street. We sincerely wish, that all our correspondents could have a sirloin, as we are confident that the firmness of the flesh, the even covering of the fat, and the palatableness of the entertainment, would be a stronger stimulus to improvement than all our dissertations on the animal economy.

It will be seen by the beasts of the last shew, that the prejudices of breeders and graziers are not so strong as they were formerly in favour of the ponderous and gigantic species, and we think the present opinion well founded*.

* The following are some concise deductions that have been made in favour of the present system.

1. A large animal requires proportionably more food than two smaller ones of the same weight.
2. The meat of the large animal is not so fine grained, and consequently does not afford such delicate food.
3. Large animals poach pastures more than small ones.
4. They are not so active, and consequently not so fit for working.
5. Small oxen can be fattened with grass merely, whereas the large requires to be stall-fed, the expence of which exhausts the profit of the farmer.
6. It is much easier to procure well-shaped and kindly-feeding stock of a small size than of a large one.

Ag. Mag. Vol. 10.

M

ON DRILL HUSBANDRY, HOEING, PRICE OF PROVISIONS, &c.

To the Editor of the Agricultural Magazine.

SIR,

Feb. 14, 1804.

I BEG that your correspondent, P. J. will accept my thanks for the handsome manner in which he has received my remarks on his communication on the culture of turnips. His letters in your magazine obliterate all doubts of his making any agricultural experiment otherwise than with proper implements, and with judgment and accuracy. I have tried the culture of turnips on raised drills, with intervals of 26 inches, on various descriptions of land; and from accurate *comparative* experiment, (the particulars of which I will probably communicate, through the channel of your magazine, at a future period), I am convinced that it is greatly superior, either to the broad-cast method, or to that of sowing with *narrow* intervals; and I hope P. J. will give it a fair trial, *both on the light and sandy, and stronger soils*. Any information I can give him, I shall be happy to communicate. If I am rightly informed, Mr. Coke, and some other able and public spirited friends to the important cause of agriculture, (in Norfolk,) have drill-machines for sowing turnips, of nearly the same construction as those used with such distinguished success in this part of the kingdom and the Southern district of Scotland, where, I believe, our excellent practice originated, which, together with the invention of our present valuable threshing machines, I consider as sufficient (*independent* of their other merits) to render our Northern brethren famous in the history of agriculture, to the latest posterity. The invention of the common dressing or winnowing machine, or, at least, its use in this kingdom with effectual improvements, is also due to them, and is still considered as a discovery of importance; but what is it when compared to the vast power and utility of our threshing mills! Before the practice of sowing turnips on raised drills was so well understood here, I sometimes tried the mode pursued by the farmers of Norfolk, (mentioned by P. J.) of applying, and lightly ploughing in, the dung, about a month previous to the seed-ploughing. But instead of deriving any advantage from it, I am satisfied that its effects were *prejudicial*, not only in leaving a good deal of dung on the surface of the ground (after each of the two last furrows) exposed to the injurious effects of the solar rays, &c. but in burying other parts of it at two great a depth. I have long considered it of vast importance, not only to allow the land to remain a few weeks, untouched with any implement whatever, between the last ploughing and the seed-furrow, but to have the dung applied fresh from the dunghill, with all

its moisture in it, and ploughed in *immediately afterwards*, depositing the turnip-seed as soon as possible after the seed-furrow. By such management, great quantities of the weeds are destroyed by the plough after having vegetated, and the turnip-seed applied to the soil, while its moisture (and that of the dung) *is fresh*. Attention to these matters seems necessary in the raising of many kinds of crops, but is not more so in any operations whatever than in the culture of turnips. I perfectly agree with P. J. however, that the existence of the drill-husbandry does not absolutely depend on the horse-hoe; and that the breadth of the intervals should, in some measure, depend upon the quality and condition of the land. But if the intervals are as wide on poor as on rich soils, the plants, either of corn or turnips, should not be so near each other in the latter as the former. I have experienced advantages from drilling corn, with intervals of 10 inches, (on middling land) without any hoeing whatever. These were, that the produce, both of corn and straw, was *rather* greater than that of the contiguous broad cast corn, and that I saved about three or four shillings an acre in the article of seed. It is necessary to remark, however, that the crops succeeded a turnip-crop, on land perfectly clean, and not subject to weeds of any kind. If it had, there can be no doubt but the drilled crops would have been inferior to the other; for the open and airy spaces, (the intervals) would have favoured the growth of weeds, and rendered them more luxuriant than they could have been under the closeness of the broad-cast crops; consequently, they would, in a greater degree, have robbed the corn of its food. In most situations, however, hoeing is necessary; and though complete hand-hoeing may be accomplished at an expence not exceeding the amount of the seed saved by drilling, yet there can be no doubt that horse-hoeing is much cheaper, and, (where the intervals are of sufficient width) much more fertilizing.

In Norfolk, as in many other districts, I can readily conceive, that the labourers will be awkward at, and averse to the introduction of any mode of culture or hoeing to which they have not been accustomed. In such cases, it is only by the presence and persevering zeal of the farmer himself, that such obstacles to improvement can be satisfactorily surmounted; and I would entertain but little doubt of being able, by actual experiment, speedily to convince the labourers, in any part of the kingdom, that turnips on raised drills, with broad intervals, can be much easier, and more regularly hoed, and at a much smaller expence than in the broad-cast method, or that with narrow intervals. In this quarter (where the whole of the fallow land is sown with turnips) the hand-hoeing of our tur-

nip-crops is performed by women and children. Men seldom or never perform that operation, and more regular and perfect hoeing is not to be found in any part of the world; indeed it is impossible to exceed it. Were it not for the expedition promoted by drilling *with broad intervals*, and the facility with which our women and boys and girls, can hoe the turnips under that management, the rate of population in this part of the country, would not enable us *perfectly* to hoe one half of our turnip crops, which we justly consider as the sheet anchor of our husbandry.

In hoeing, the women place one foot on each side of a ridge or drill, and apply the hoe to that adjoining it, moving that implement directly across the rows, or at right angles to the drill, by which all the plants and weeds on about 10 inches of the ground, are removed by one cut, and, together with a good deal of earth, placed in the intervals, which, after the first hand hoeing, are pretty much filled up, and the surface of the land then appears nearly *even*.—Proceeding in this manner it is surprising, to a stranger, to observe the quantities of ground hoed in the course of a day by some of our boys and girls, *when the operation is performed (as it always ought to be) ere the plants attain too great a size*. In most parts of this kingdom as well as in Norfolk, farming will this year be unprofitable, if not a losing concern. In this district the turnip crops are, happily, much greater than in most other, and those of wheat are also productive and unusually fine in quality, but unfortunately the prices of those articles have fallen considerably, and are now only 4s 9d to 5s 6d per Winchester bushell, with an exceeding dull sale. oats sell readily at 2s 3d to 2s 8d per bushell, but barley, though fine, is almost *unsaleable*; I believe nearly one half of our crops of that species of grain have been broken in the mills, and mixed with the small oats, for horses, &c. and, without adverting to the superiour weight of meal from an equal quantity of barley, it is cheaper than feeding with oats, which have, during the whole of this season, been at a higher price per quarter than the former kind of corn. Notwithstanding the moderate price of wheat and the very low price of barley, that of labour continues extremely high; which, together with the effects of our poor laws, are very unfavourable to the industry and frugality of the laborious class. These times, therefore, so very unpropitious to the cultivators of our soil, cut two ways, like a two edged sword, against the agriculture and manufactures of the kingdom.—For several years our corn-markets have been very unsteady, sometimes too high, and at others too low, and to me it appears unreasonable to expect them otherwise, till such measures be

adopted as will not only secure the British agriculturist against too great an importation of corn from countries where it can generally be afforded at about one half of the price necessary in this country, but open (by means of bounties) advantageous channels for exporting our surplus corn in plentiful seasons. Instead of this, however, what measures are now pursued? why Sir, with a most abundant quantity of corn on hand all our ports are open for importation, while exportation is prohibited, and this too at a time when a great part of our own produce cannot be converted into money. Thus is the dispirited farmer reduced to the necessity of supporting a most enormous head of expences for rents, labour, taxes, &c. and to struggle against unprecedented difficulties, with corn in general considerably too low, and much of it unsaleable!! And thus is British agriculture, the source of our population, opulence, and real strength, repressed, and that of foreign countries encouraged! I am decidedly of opinion with Lord Sheffield—that our agriculture will never be sufficiently extended, nor the country secured against the dreadful effects of dearth, 'till the prices at which foreign corn is admitted by our corn-laws, be considerably increased, and these laws enforced. So great however, is the preponderance of the commercial interest, that I am not so sanguine as P. J. and am apprehensive that effectual remedies will not be applied. For the incessant cry of our manufacturers and merchants is, that unless provisions be continued at a low price, they cannot support a competition against foreigners in foreign markets. A few facts, however, are worth ten thousand speculative opinions, and I beg leave to ask these gentlemen at what period of history the trade of this kingdom flourished so greatly as for the last 5 or 6 years, and whether, at any other period, provisions were at so high a price.—Within that period these necessary articles were raised to an enormous price, in consequence of two of the most unpropitious seasons (and not by war as has been erroneously stated) ever remembered, yet within that space of time it cannot be denied that our exports increased millions upon millions beyond their amount at any former period, and that this vast increase was not owing to colonial but to British goods.—I am no advocate for *very high* prices of corn, all I wish for is a price adequate to the increased expences of the farmer, without which, our agriculture will languish, the rents of land will decline, our industry and frugality, and consequently our trade, will diminish, money will become as scarce as in the American war, *when the price of provisions were low*, the arm of government will be weakened, and the British empire will cease to be the bulwark of the world. But Sir, I feel that I am

now approaching what my opponent on the subject of animal labour, *Agricola Meridionalis*, calls "the Aerial reign of Political Rhapsody," and therefore, however much I may be inclined, in common with P. J. to discuss a subject so interesting to many landholders and agriculturists, I must desist, lest I subject myself to a rebuke from the keen and able pen of A. M. who, perhaps, entertains opinions different from those I have advanced.

I am Sir, yours, &c.

AGRICOLA NORTHUMBRIENSIS.

CALCULATIONS ON SPANISH AND ENGLISH WOOL,

To the Editor of the Agricultural Magazine.

SIR,

I lately sent you some observations on Spanish Wool, which I shall not discontinue, although the engagements of commercial life involve much more of my time in manuscript, than in printed correspondence.

I have often thought that authentic documents, with a few pointed remarks, are much more useful than prolix and laboured discourses, founded merely on conjecture. I have, therefore, submitted to your notice, the subsequent figures, which give an accurate view of the quantity of Spanish wool introduced at different periods into this country, to which I shall add a few deductions from political arithmetic.

Spanish wool imported.			
	Pounds Weight.		Pounds Weight.
Anno 1771	1,829,772	Anno 1782	991,510
1772	1,536,685	1783	2,629,692
1773	1,477,284	1784	1,602,674
1774	2,133,496	1785	3,135,352
1775	2,031,973	1786	1,554,637
1776	2,062,628	1787	4,188,252
1777	2,853,065	1788	4,173,584
1778	489,869	1789	2,693,889
1779	519,664		
1780	323,618	Total -	38,705,876
1781	2,478,332		

It will be seen in the above accounts, that during three years of war, in 1778, 1779, and 1780, we received so small a quantity of the wool of Spain, that it could be of no material consequence to our manufactures, the average being only 444,384 lb.; and yet, I apprehend, it will be found, that no essential impediment arose in the manufacturing countries

where fine wool is employed. If this be the fact, it may afford the pleasing expectation, that we may wholly dispense with the employment of this Wool, if the influence of the French Government should occasion the prohibition of the export to these islands. On this subject, I cannot avoid taking notice of an intimation of Sir John Sinclair, on the policy of imposing a small duty on foreign wool. I think myself, considering the influence to which I have alluded at the Spanish Court, nothing could be more unseasonable than such a duty, because it would facilitate the designs of the French, to obtain the monopoly of Spanish Wool; and then we should suffer two inconveniences, the one in depriving ourselves of its use, the other in promoting the consumption of it in the state which has long been a rival market for fine cloths. This objection had not acquired the same weight, when Sir John Sinclair made the suggestion, which the war, and all the malice of hostility has since given it.

Taking the importation of the last ten years in the above account, it is, on an average, for each year, 2,377,144, which, I think, at the present prices, may be fairly estimated at 4s. per lb. which will make the total value, 475,428l. 16s. When we consider the prodigious extent of the commerce of this country, when, amidst the difficulties of war, our exports have exceeded fifty millions sterling, it will not be imagined a matter of very serious importance, should we be deprived of the raw article of Wool to this extent, which, I believe, is stated higher in my estimate, than in any previous account.

While we are adverting to the subject of the entire loss of Spanish Wool, it deserves to be particularly considered, how that loss should be supplied, without involving the ruin of our manufactories employed on this article. I think your friend, Chorographus, will grant to me, that Great Britain will be found to contain about 73,000 square miles, or 46,720,000 acres. Reckoning only 3 lbs. to each fleece, and 3 sheep to each acre, less than 250,000 acres, or a track of territory of about the extent of Norfolk and Suffolk, will be sufficient to feed the quantity of fine woolled sheep which the deficit of Spanish Wool would require. When we consider, that of the 46,720,000 acres, which in this gross calculation we suppose Britain to be composed, upwards of eleven millions of acres are in a state of waste; when we further advert to the applicability of the greater part of this waste to the maintenance of sheep, we shall see, that, in point of quantity, the loss of Spanish Wool may be made of no consequence to our manufactures.

To this position, I think all your readers will accede, but there may be those who are extremely doubtful of the possibility

of supplying the deficiency in the quality. Such persons I must, at present, refer to your intelligent correspondent, Mr. Nehemiah Bartley, and others, who have detailed their experiments and opinions on this subject. I shall content myself with concluding this letter with an extract from the communication made on this subject, to the Edinburgh Wool Society, which will shew the prodigious extent, to which the trade in British Wool has been conducted.

The Wool of England, in the reign of Edward III. is generally supposed not to have exceeded in quantity 150,000 sacks, of 360 pound weight each, which is equal to 225,000 packs of 240 pounds, according to the packages of those days. In later times, computations have greatly varied. According to Davenant, there was, in England alone, at the commencement of the present century, about 400,000 packs, worth 5l. each; which, when manufactured, produced eight millions in value. Trowel, in his plan for preventing the clandestine running of wool, printed anno 1738, supposes 800,000 in England and Ireland, and about 925,000 packs in the three kingdoms.* Others, about the same time, computed the number of packs at 1,274,000. Mr. Arthur Young calculates the number of sheep in England alone, at nearly 29,000,000; and the value of the whole growth and labour of the Wool of Great Britain and Ireland, at 17,695,529l.; furnishing employment to about a million and a half of people. We shall suppose, however, that there are only 28,800,000 sheep in the whole island of Great Britain, producing, at an average, 5lb. weight of Wool each, or 144,000,000 lb. in all, equal to 600,000 packs, and worth, at the rate of 8l. per pack, 4,800,000l. If the value of the raw material is quadrupled by the labour that is bestowed upon it, the growth and labour will amount to 19,200,000l. to which, if there be added the value of the Wool imported from Spain, and the labour employed in it, *it will make a total of about twenty millions.*

I shall send a letter on a subject to which I have before adverted, by the first convenient opportunity, and in the meantime, I remain,

Sir, your most humble servant,

MERCATOR TARRACONENSIS.

* A respectable member of this association (Mr. Wansey, of Salisbury) informs me, that in 1740, an estimate of the growth of Wool, in England, was given in to the Lords of the Treasury, when it was stated at 738,000 packs. This is probably the same with Trowel's.

ON THE RESTORATION OF THE CULTURE OF
VINEYARDS IN ENGLAND.

To the Editor of the Agricultural Magazine.

SIR,

AGRICULTURE, like other things, has been subjected to the caprice of fashion, by which the most valuable discoveries have been lost to this country. We are much indebted to those who are disposed to remind us of this neglect, and especially if it regards a species of produce which extensively affects the public expenditure, and which increases our dependence on foreign nations.

These reflections I would apply to the subject of Vineyards, which were formerly very common in England, but which are now almost wholly unknown. Those conversant in the local history of this branch of culture, are not uninformed, that there was a famous vineyard at Bath, planted with white muscadine, and black cluster grapes, which at one time yielded 60 hogsheads of wine at a vintage. From a wall of my father's, which belonged to the old palace of King James, at Theobalds, neither very long or very lofty, a hogshead of wine was annually made for the family.

Mr. Bradley mentions a small vineyard of a private person at Rotherhithe, consisting only of one hundred vines, that yielded at a vintage, 95 gallons of wine of the true Burgundy flavour, which in quality exceeded every thing produced north of Paris.

Mr. Miller apprehends, that renewed trials, conducted with judgment, might be attended with a success beyond the expectations that are now generally entertained. With this view, particular attention should be given to the soil, situation, &c. The best soil, he says, for a vineyard in England, is such whose surface is a light sandy loam, and not above a foot and a half or two feet deep above the gravel or chalk. The most desirable situation is that on the north side of a river, upon an elevation inclining to the south, with a gradual descent for draining the moisture; always open to the south, defended from the north and east by hills with a chalky surface, and surrounded by an open hilly country.

As to the method of planting vines, what is principally taken care of is the distance that is to be preserved from plant to plant, for with regard to the depth it must be regulated by the depth of the soil.

I am firmly persuaded that in planting a vineyard, the plants should be placed at least three feet distance one from the other, particularly if the ground lie on the flat. My reasons are as follow :

1st. The young vines grow thereby much larger and finer, and in cutting the vine it may be made to spread, or grow high, as the vine-dresser pleases.

2dly. There is no danger of their branches being stunted and growing bushy, which is an ugly sight when they are full leaved.

3dly. The branches of the vines are less in danger of being injured, and look handsomer: it is only necessary to behold those vineyards where the plants stand so close as almost to touch each other, so that you cannot pass through the rows without rubbing against them, when the young shoots are made, and as they are very tender, without breaking them; this occasions a very considerable loss, for when these shoots are broken off, they are entirely lost, and of course the fruit they would in all probability have borne.

4thly. If you place your plants at a smaller distance than that I have above mentioned, you will find that the culture of the vineyard will be much more difficult and troublesome; in digging between the rows the workmen tear their cloaths, scratch their arms, and in fact, work in continual torture; whereas at the distance I have recommended, all this trouble and loss is avoided.

5thly. It is very evident that the produce will be much more considerable, and particularly the wine will be better; for every day's experience confirms it to us, that in the vineyards where the plants stand too close together, the grapes almost always rot before they attain a perfect maturity. What is to be done in this extremity? The grapes must be gathered; and what are they? Either grapes not half ripe on account of the shade the plants cast, or rotten from the same cause. And what sort of wine is produced from these grapes? It is heavy, raw, and very improper for keeping; whereas in vineyards where the plants stand at the distance I have already recommended, the grapes attain a perfect maturity, grow much larger, and are not rotten before they are ripe; and the sun darting on them all his genial beams, they produce an excellent wine.

I am, Sir, Your's, &c

ARBUSTIVUS.

Dec. 22, 1803.

ON THE DANGER OF PROCRASTINATION, AND ON
THE SUCCESS OF SPRING WHEAT.

To the Editor of the Agricultural Magazine.

SIR,

IT is a familiar proverb that delays are dangerous, but by woeful experience, the farmer has been taught that to no order of men are they more dangerous than to those who cultivate the ground.

“In all labour there is profit,” is the observation of the wisest character of antiquity: but this sentiment must be understood with Selden’s grains of allowance, for procrastination will disappoint the hopes of every candidate for emolument. The same writer has said that there is a time for all things, but if that time be neglected, we are told “the fool foldeth his hands together and eateth his own flesh.”

Accustomed to the parochial duties of the sacred profession, at the regular revolutions of the vernal and autumnal seed time, I have dwelt with as much earnestness on the necessity of avoiding delay, as I have in the time of harvest, on the necessity of gratitude to the beneficent deity, for the productions of exuberant nature. Driven about from curacy to curacy in ten different counties, I have seen many a melancholy face, and poured the balm of consolation into many a melancholy heart, labouring under the destructive effects of delay. But I have rather been disposed to afford this relief by exciting to active duty, than to passive contemplation. To many a farmer who has admitted the time of winter seed to escape, I have successfully recommended the expedient of spring sowing, and as the time is approaching when this practice may be adopted, I will state the most judicious experiment of the kind that has fallen within my knowledge.

I hope, Mr. Editor, it requires no apology, to propose that useful information should be widely circulated through the medium of your work, and I will give the account with very little variation from the form in which it was submitted to a respectable public society.

The experiment was made on the large scale, and was tried expressly with a view of drawing faithful inferences on the subject: and here let the reader recollect delays; I tried a single acre on my glebe, in which the sowing was posterior to the middle of March, and the product was a bushel. “Then I returned and saw vanity under the sun.”

About the 20th of February (says the farmer) I commenced sowing, which was continued as circumstances permitted till the middle of March, and in that time one hundred and forty acres were sown, besides ten acres afterwards ploughed down. The soil of the greatest part of the land thus sown, was a deep loam incumbent upon clay, and the remainder was a lighter loam upon a gravelly bottom. Thirty acres had been summer fallowed, limed, and dunged, the preceding year. Ninety-five acres were after a crop of drilled beans, which had been completely horse-hoed. Fourteen acres had been occupied by turnips and potatoes, both drilled and horse-hoed; and six acres had borne summer tares. None of the fields had received more than one ploughing after the preceding crop was removed, except those under summer fallow, which had seven

ploughings, and were manured with fourteen double horse cart-loads of dung, and 300 bushels of shell lime per acre.

The kind of wheat sown, was principally the Essex white and Egyptian red, which in shape of head and size of grain, are nearly similar. Some of the white wheat was of the Kentish variety, which from being long sown upon the farm, was much blended with red wheat. The crop upon the heavy loams was with a few trifling exceptions uniformly good. The light loam was much hurt by the growth of yellow weeds, which last year prevailed upon such soils in an uncommon degree. The whole was ready for the sickle about the first week in September, and was cut from the 3d to the 12th of that month.

From the small quantity yet threshed the produce cannot be exactly ascertained, but from trials which have been made, it is supposed that the fields sown after the summer fallow, will yield 40 bushels per acre, those sown after beans 36 bushels, and those after tares, potatoes, and turnips, 24 bushels. The last being upon a light loam, was much injured by the draught and yellow weeds, while the deep loam was rather benefitted by the dry weather.

The weight of grain already threshed, is nearly 62lb. per Winchester bushel.

The inferences which may be drawn from the above experiment are,

1st. That wheat may be sown with advantage in the spring months, till the middle of March, if the weather be then dry, the land in good condition, and the succeeding summer moderately dry.

2dly. That under the above circumstances the period of the harvest is not retarded above ten days by the late sowing, especially in favourable seasons.

3dly. That the grain produced from spring crops of wheat is equal to that sown in the autumn and winter months.

I am, Sir, Your's, &c

Jan. 20, 1804.

SACERDOS.

ON THE AGRICULTURE OF THE COUNTY OF
NORFOLK.

To the Editor of the Agricultural Magazine.

SIR,

YOU have so many old established correspondents in the county which is the subject of this paper, that it is with much diffidence I submit my observations to their criticisms: my object however has uniformly been to invite the attention of those whose local knowledge of the subject

I discuss enables them to detect my errors, and on the present occasion I would not admit the affectation or even the reality of modesty and reserve to supersede this desire.

In a preceding paper, addressing myself to *Agricola Norfolciensis*, I have asserted, that when in the course of my review of the agriculture of the several counties, I came to consider the districts where his happy lot had placed him, I should expose a view of the highest improvements in rustic occupation. How far I was justifiable in this remark will appear in the following pages.

I have always objected to the customary forms of discussion on provincial agriculture, from the pen of Mr. Young, and of many other intelligent men, because they have blended the enquiries of the politician and the biographer, with the hardy business of the field. My object in these communications, is neither to dictate systems of legislation, or to swell the pride of manorial lords; but simply to represent the state in which nature appears, and the expedients that have been employed to accelerate her benevolent purposes.

Within the period of much less than a hundred years, Norfolk was a wild, bleak, and unproductive country. The greater portion of it consisted of a succession of rabbit warrens and sheep walks, and the flocks were composed of a race as hardy and active, and as natural to the soil, as the little inmates of the covert. The improvement began with folding, proceeded to marling, and has been conducted to its highest state, by the turnip and clover culture. We now find it so essentially to contribute to the public subsistence, that the sea ports of Norfolk export as much corn as all the rest of the island, and deducting the quantity sent through that medium grown in the neighbouring counties, the produce exported from the soil of the province, is estimated at 900,000*l*. The animal produce is equally astonishing, twenty thousand head of fat bullocks, and thirty thousand head of sheep, from these districts are annually sent for the London markets.

The length of the county is about 59 miles, the breadth 38, but the content in square miles is only 1,710, or 1,094,400 statute acres, which are thus applied

	ACRES.
The scite of the towns - - - -	1,500
Public and private roads - - - -	16,416
Lakes and rivers - - - -	2,000
Swamps - - - -	1,500
Neglected commons - - - -	80,000
Wood and plantations - - - -	10,000
Arable land estimated at two thirds of the county	729,600

841,016

	Brought over	841,016
Meadows, parks, and upland pasture	-	126,692
Marsh lands - - - -	-	63,846
Warrens and sheep walks	-	63,846
		<hr/>
	ACRES.	1,094,400
		<hr/>

The population of the county is stated to be 220,000.

The surface of the whole country is level, excepting near Norwich, and on the coast approaching Sherringham and Cromer.

Good roads are here among the natural advantages, although in other counties to be placed with the artificial, where their condition depends upon constant and laborious exertion. Another natural advantage is the excellent manure with which it abounds in its extensive strata of marle. Of this Mr. Marshall distinguishes two kinds. Of the white 12 cart loads to the acre will convert the unfriendly soil into a productive state, and will improve it for thirty years. After that period, half the quantity may be applied again, mixed with maiden earth, with surprising effect. I must not omit to notice the prodigious benefit from the marine and internal navigation. The county has eighty miles of sea coast, or nearly half its circumference. The great Ouse is navigable for twenty miles in a south direction through the eastern part, and then preserves the communication with seven of the midland counties. Besides this river, it has the Little Ouse, the Wavenny, the Yare, the Bure, &c. so that a water connection is established resembling that in many parts of the Netherlands. To the north, and north-east of Norwich, are the most abundant districts which are of a sandy loam. To the south and south-east is clay with springs. To the west and north-west of the city, the land is light, and is inferior to the two former, but is adapted to the fold, and here are situated the vast estates of Holcham, Houghton, and Rainham. To the south-west, the county is composed of a blowing sand, on which Rabbit warrens are most advantageous. In marsh land the soil is a rich ouse, supplied from the bed of the adjacent sea. The north of this district is very productive, and the south would be so, if the draining system were adopted extensively, and we hope the contests in the neighbourhoods of Lynn on this subject, will happily terminate in such an improvement.

Norfolk has little or no wood-land. Sheep hurdles, and materials for thatching are the utmost the farmer expects or requires. There is an extensive marsh expanding over the country between Norwich and Yarmouth, which in winter is in a state of inundation.

In a country like this, so celebrated for its cultivation, I am ashamed to speak of the commons. Those in the neighbourhood of Wymondham and Attleburg, have some of the finest land in the whole county, and are suited to any purpose. Of the 80,000 acres assigned to this division, three-fourths is capable of being applied very valuably, and would give Mr. Young and many other legislative farmers, a fair opportunity on which to display their political erudition: as however I have neither studied ethics or jurisprudence, I cannot enter into such disquisitions.

The course of cropping in this department of the kingdom deserves peculiar attention, because whether it respects the condition of the leases, or the election of the farmers, it is governed by some of those sound principles which the naturalist must always approve. The leases generally require the following rotation,

- | | | |
|-------------------------|--|----------------------------------------------|
| 1. Wheat | | 4. Barley or Oats with seeds, |
| 2. Barley without seeds | | 5. Clover mowed |
| 3. Turnips | | 6. Clover grazed and broken up at Midsummer. |

When you apply the botanic maxims, founded on chemical analysis in some of your papers, the succession of barley after wheat will not be without objection. The tenant is not perfectly satisfied with this course, but what he complains of has no connection with the principles I just adverted to; he wishes entirely to get rid of the continuation of the clover a second year, and to return to wheat after a fifth variation. Your readers will immediately perceive, that this course of crops thus legally enjoined will exclude vetches, saintfoin, and a variety of means of incidental accommodation both to the farmer and his land, which the circumstances of the season would frequently justify. In some of the most fertile parts of the county they are capable of supporting the rotation of

- | | | |
|------------|--|------------|
| 1. Wheat | | 3. Barley |
| 2. Turnips | | 4. Clover. |

This is adopted from the practice of the Flemish farmers, who have the happiness to cultivate some of the most luxuriant districts of Europe, and who deem it a sort of justice to the animal creation, to assign alternate crops to man and beast. But these natural rights I must leave to Mr. A. Young and his coadjutors, and conclude this division, not with discussions *de jure animalium*, but simply with recommending to the Norfolk farmers, the introduction of buck wheat on their soil.

The mode of ploughing here deserves particular attention, but the merit attributed to that here adopted, is somewhat too extravagant, because the nature of the soil enables the

farmer to conduct the operation with great correctness and facility. Two horses with the swing plough perform in a day's work a statute acre, and in seed time, perhaps half as much more. It is usual in many counties for the horses to work seven hours in summer, and eight in winter, without returning to the stable. The practice here will give the ploughman a shorter time at the publichouse, but will be more beneficial to his cattle. He works eight hours in winter, and ten in summer, but his horses are brought home to receive the refreshment nature requires under the long and painful exertion to which they are exposed. I confess myself not to be a mere traveller, I have, it is true, visited many of the southern, and some of the northern states of Europe, I have also spent no small portion of my time in the provinces of my own country, and I wish to know in the character of a professed farmer which I have a right to assume, whether P. J. or Agricola or *Norfolciensis*, whose judgment I respect, approve of the shallow ploughing so generally prevalent in the county in which they reside. If they contend that by deeper ploughings they lose their manure, and that fewer seeds of noxious plants undergo the process of vegetation by this method, it will be my endeavour to shew that the expedient is a shallow one in more respects than one, and cannot be vindicated on the principles of scientific agriculture.

The method of sowing in this county is by the drill, by dibbling, and in the broad cast way. From the frequent practice, dibbling is performed at a cheaper rate here than elsewhere, the expence not being more than half a guinea an acre: and I believe the farmers are so sensible here of the inconvenience of delay, that in their wheat sowing they attend to the great maxim suggested by nature herself, to deposit the seed in the earth as nearly as possible at the time it falls from the receptacle assigned to it.

In this county, and in this county only, fallowing is entirely abandoned. The absurdity of fallowing is borrowed from the weakness of human powers which require the alternation of activity and sleep. Nature is omnipotent, she never requires rest, and if she be not permitted to produce corn from her prolific habit, she will be constantly ingendering weeds, so that fallowing correctly considered, is nothing but a painful and laborious conflict between the farmer and this vegetable poison.

I have already alluded to the Turnip culture, as one of the great sources of the improvement of this county. It will be new to some of your readers, that this branch of farming to which we are so much indebted, was imported from one of the most barren inhospitable, and melancholy districts in Europe, I mean Hanover, the political revolutions of which

will not escape the attention of Mr. Young, but on which I shall not presume to make a single observation. Turnips previously to the reign of George I. were a mere article of particular produce; but some courtiers in the suite of that Prince, had the good sense to discover its advantage, and cultivate it on a more extensive scale; and the first attempts were made by their recommendation in the county of Norfolk. It is now generally adopted, and an acre of good ground will produce 30 or 40 three-horse loads, which we are told are competent to fatten a Scotch bullock, or eight sheep.

In these dissertations on county agriculture, I shall in my way have occasion to remark on the practice of some individuals, fond of experiments whom we are to consider throughout the kingdom as the great patrons of Agriculture. It is true I shall not be fond of introducing his Grace, or my Lord Marquis, with whom I partook of a John Dory, or cracked a bottle of excellent champagne; but Johnny Noakes, or Tommy Styles shall not forfeit my respects if they be intelligent farmers, even though they be distinguished by no titles of honour. Mr. *Styleman*, of Snettisham, has a peculiar mode in the cultivation of turnips that at present will receive the attention of the curious, and hereafter will probably deserve the regard of the public. He employs rape-cake reduced to powder by women with hand-mills, in the quantity of 5 Cwt. to an acre, which hitherto has never cost more than 25s. This pulverized manure, he introduces with the assistance of Cooke's Drill, into the channels where he had before deposited the seed.

The great excellence of the management of turnips in this county, is in the hoeing: this never is performed less than twice; it is done with great skill and care, even by the boys of the county, and the price is 6s. per acre. The black canker to which this vegetable is subject, is obstructed in its progress two ways. either by ducks, or by employing two persons to draw a rope over the ridges. Besides these, the usual means by hand are sometimes employed. Where the land is poor, they draw and feed the ridges alternately, and the barley after turnips, is generally upon the second ploughing.

After what I have said of the husbandry of this county, if I assert, that the average crops in the most exuberant part of it, such as Marshland and the Flegg hundreds, ascend to 6 quarters of wheat, and 10 of oats, I shall not astonish your correspondents. In the light lands they are contented with 2 and 3 quarters.

In Marshland we see rape, and in Outwell and Upwell, hemp and flax. The crops of the former are frequently 45 stone, of the latter, 40 stone.

In a preceding part of this review, I have alluded to four different kinds of soil, besides the Marshland hundred, which rents from 20s. to 30s. The first of those divisions may be estimated from 15s. to 20s. per acre, the second from 14s. to 18s. the third from 8s. to 14s. and the fourth from 4s. to 12s. The average of the whole county, has, I think, been estimated under its real rental, at 14s. per acre.

While I am mentioning the perfections in the management of this province, my partiality must not induce me to pass over the defects.

Instead of stacking according to the excellent method of Staddles, by which the corn is preserved sweeter and better than by any other expedient, it is too much the custom to erect large and expensive barns, so that a farm house and its tenements, resemble a manufacturing town, and the continual action and reaction of a multiplicity of flails, seem to confirm the conjecture in the mind of the traveller. They have, however, a valuable expedient for roofing their edifices, by the sea or marsh reed, which is executed at 21s. the square, and is twice as durable as tiling.

With respect to the cattle, and some other interesting particulars, I must postpone my observations, however reluctantly, to another opportunity, having already extended this article beyond the limit you usually prescribe to your correspondents. In the mean time, that your readers may not be grievously disappointed, I take the liberty of anticipating that I shall give them no details in imitation of modern Annalists, from the opinions of Right Reverend Bishops, on the qualities of tithe pigs, or from learned Judges, on the pinguefaction of green geese.

I am, Sir, your's, &c.
CHOROGRAPHUS.

Feb. 4, 1804.

ON THE CULTURE OF WELD.

To the Editor of the *Agricultural Magazine*.

SIR,

IN a late number of your work, I have seen some account of Kentish farming, on which, at present, I shall make no observation, excepting that the writer has excluded Weld, or Wold, the *Roseda Luteosa* of *Linnaeus*, which has been more abundantly cultivated in that county than in any other, and should not have escaped the attention of your correspondent.

It deserves peculiarly to be recommended to general regard, because, like some other valuable plants, it will succeed tolerably on barren ground, and because it may be sown at a very

small expence, a gallon of seed being sufficient for an acre. We boast of England as of a garden, where nature is displayed in all her luxuriance, dressed by the hands of art and industry. But do we recollect, that nearly one third of the British Island is in a state of waste, or, as our neighbours term it, *en friche*, merely because we do not avail ourselves of the discoveries of the naturalist, for it is an acknowledged truth, that there is no species of soil which is not adapted to some kind of produce, and that will not repay the labours of the cultivator in our favoured climate.

Cultivation of the rudest character supplies the soil for future growth, so that the inhospitable sands become by skill and attention, a rich bed from which the wants of mankind may be supplied.

From these views, I have noticed this plant of Kentish growth.

M. D'Ambourney has favoured us with a particular account of the way in which it is managed in the neighbourhood of Rouen, but by looking a little back into the history of Agriculture, I have found it well understood by our own writers. I do hope that some of you, men of Kent, who have been in old times so famous in the field of battle, will shew that they can equally acquit themselves in the field of industry, and give us some recent experiments on this kind of produce.

The ground should be ploughed and harrowed fine, and in the month of August the seed should be sown in the proportion of a gallon to an acre. In about two months the plants will come up so as to be distinguished from weeds; and should be hoed like turnips, leaving them at about six inches distance. If this hoeing be performed in dry weather, the plants will be free from weeds till the Spring: in March they should be hoed again; and if weeds appear, a third time, about the beginning of May. The best time to pull the Weld for use is when it begins to flower, though most people stay till the seeds are ripe, being unwilling to lose the seeds; but Mr Miller advises to sow a small piece of land to remain for the produce of new seeds. By drawing off the crop early, as towards the latter end of June the ground may be sown with wheat the same season; and the plants at this time will be in the greatest vigour, and afford a greater quantity of the dye.

When the plants are pulled, they may be set up in small hand-fulls to dry in the field, and when dry enough, tied up in bundles and housed; care must be taken to house them loosely, that the air may pass between them to prevent their fermenting. That which is left for seed should be pulled as

soon as the seeds are ripe, and set up to dry, and then beat out for use; for if the plants are left too long, the seeds will scatter.

It is a particular recommendation, that the Weld which grows in sandy soils and other poor ground, is not apt to be greasy and too full of stalk, but is of a much better quality, although less in quantity, than that which is produced on rich ground.

As soon as the plant has been pulled, sheep may be advantageously turned upon the land to eat up the grass which may have grown with it. If the land be light, and destined for Spring corn, turnips may be sown upon the first ploughing after the Weld, which will have time to grow large enough to be drawn before the ploughing for oats, &c.

I just alluded to the object for which this plant is cultivated, viz. its utility in dying. Its connection with the trade and manufactures of this country, among other pressing motives, makes me seriously lament the neglect into which it has fallen, and as my acquaintance with this plant arose from the concerns I have of a commercial nature, in my next paper I shall take the liberty of giving some account of its application in the modern practice of dying.*

Dyer's Lane End, Near Halifax, Jan. 5, 1804.

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

J. K.

* We feel ourselves much obliged to J. K. for his communication on the culture of Weld, and we sincerely hope with him, that it will induce our Kentish correspondents to detail some actual experiments recently made on the plant. We find ourselves, however, reluctantly under the necessity of reminding J. K. that the nature of our undertaking will not admit the insertion of the letter with which he proposes to favour us, explanatory of the uses of Weld in the arts. While we admit the importance of the subject, and while we acknowledge his competence to do justice to it, we must adhere to the rule we have prescribed to ourselves, of excluding from our papers every thing unconnected with the immediate design of the publication.

E.

WOOD FOR BUILDING, AND OTHER PURPOSES.

To the Editor of the Agricultural Magazine.

SIR,

I Saw in your last Vol. page 271, under the signature of Senex, a minute account of a species of plaster in imitation of Portland stone, composed of expensive ingredients; and page 325 of the same volume, you, Mr. Editor, have favoured us in a long note, with an ingenious chemical disquisition on litharge of gold, which is one of the articles of this commixture. It is true, Sir, you have done this with some

apology at the particular request of one of your correspondents, but perhaps it would have been better to have excluded such a learned analysis from your work, and to have gratified your enquiring friend by a private communication.*

Whatever specimens of ornamental architecture Senex may find in the country to amuse his imagination, the convenience and stability of by far the greater part of rustic edifices, depends upon the soundness and quality of the timber with which they are constructed; and I trust two or three observations on the comparative durability of the different species of wood, will at least be as consistent with the nature of your work, as the scientific examination of Litharge of gold, and fanciful descriptions from the school of Vignola.

A celebrated architect of Edinburg, discovered that green fir timber may be rendered fit for immediate use, by soaking the planks a few days in lime water, and he was led to this important fact, by observing, that Scotch fir timber in ancient buildings where it was connected with lime and kept dry, was sound and untouched by the worm, and was in a much better state than when first employed.

It is, Mr. Editor, much the fashion of our time to form extensive plantations, and I wish it were as much à-la-mode to attend to the future interest of the country, by planting principally that species of growth which is most adapted to the purposes of public and private utility. We are, Sir, in a hurry with the laws of nature, and because we cannot extend the spear of Ithuriel to make her submit to our designs, we sacrifice every thing valuable, to quickness of growth. To those whose patience is exhausted by a few years delay, it may be useful to remark, that the best of the quick growers are the chesnut, and the cedar of Lebanon; but some satisfactory information is obtained on twelve different kinds of wood when exposed to the injuries of the weather, by the following experiment of a patriotic nobleman.

Three posts forming two sides of a quadrangle in his park, were fixed in the earth upon a rising ground. Into these posts were morticed the planks of twelve different kinds of trees, six of which had the south and north aspect, the others the east and west. The planks were cut out $1\frac{1}{2}$ inch thick, from trees of thirty years growth.

They were exposed to all the inclemencies of the atmosphere for a period of ten years, they were then examined, and the following report was made of their condition. The Abele

* The writer of these observations, is not perhaps, aware that the private correspondence he refers to, would be extremely inconvenient in an undertaking of this public nature, and would require the sacrifice of a portion of time incompatible with the prosecution of the work. E.

was sound, and also the beech, the cedar, and the chesnut; the two latter without the smallest appearance of decay. The birch and the pineaster were quite rotten; the Scotch fir and the sycamore were much decayed; the silver fir and the walnut were in decay, yet the spruce fir was sound. Of the larch, the heart was sound, but the sap quite decayed.

Those only are able to estimate the value of such experiments, who know the vague and idle observations directed to this subject, and who are acquainted with some of the serious misfortunes which have resulted from its neglect.

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

London, Jan. 3, 1804.

ARBUSTIVUS.

CHEAP IMPLEMENTS.

To the Editor of the Agricultural Magazine.

SIR,

IN one of your late communications, it is noticed that the expence of the modern implements in agriculture is a great impediment to their introduction for the use of the ordinary farmer. It might have been added, that the weight of iron and timber with which they are loaded, renders it impossible under the common establishment, that they should be extensively applied to the business of the field.

A witty correspondent in one of your last numbers, has spoken with a mixture of contempt and pleasantry of an agricultural spectacle in France, where the plough is forced along the furrow with a lean cow, an ass, and a goat.*

Agricola Northumbriensis, who has amused us with the remark, resides, I believe, in the neighbourhood of Alnwick Castle, among the opulent farmers, tenants of the Duke of that county; he seems likewise acquainted with the systems adopted in Norfolk, Suffolk, Hertfordshire, and other provinces, where the yeomanry of England are lost in a sort of baronial dignity and importance. He probably, therefore, forgets the little peasantry of Ireland, Wales, and Scotland, and in many of the poorer counties of England, where their whole subsistence depends upon the rigid economy with which they conduct their affairs, in the narrow circuit to which they are confined: even while the crazy cart that conveys their produce to market is engaged in that duty, the labours of the farm are suspended, and the favourable season is sometimes irretrievably lost.

What I have to intimate, will not appear to these large engrossers of English territory to deserve the smallest attention;

* See the letter of Agricola Northumbriensis, Vol. 9, page 244.

but if your correspondent who calls himself "A Little Farmer," and a number of others, who perhaps, more legitimately devolve under that class, think my occasional letters to you, Sir, worthy their notice, I shall be abundantly repaid for the application of my time, and of my humble talents.

The purpose of this communication, is to impart to your readers the account of an implement which I had an opportunity of seeing in a late visit to our capital of Scotland. It is extremely cheap, whether you consider the materials of which it is composed, the manner in which they are connected, or the little strength required in its employment. It is a cart used in the neighbourhood of that city, and it is thus described.

It consists of a pair of shafts made of fir, joined together by five bars of ash or elm, with two deals laid upon them; and a small piece of wood below the cross bars, resting upon the axle, for strengthening the bars. The whole of this is so light that a man might take it upon his shoulder, and so strong as to last several years in constant employment. The first cost is from 12s. to 15s. independently of the axle and wheels.

This simple carriage is so contrived as to be yoked with the greatest ease; for that purpose, a pair of round rings are fixed by short chains to the collar of the horse, which slip over the end of the shafts with the utmost facility; and are there fixed by a pin put into a hole. Breeching, because troublesome for yoking and unyoking, is seldom used.

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

Lanerk, Jan. 5, 1804.

A CALEDONIAN.

DISORDERS OF SHEEP.

To the Editor of the Agricultural Magazine.

SIR,

IT appears to me that the following observations on the diseases to which sheep are subject will be acceptable to some of your readers, who in many parts of the kingdom must be largely concerned in that animal.

The disorders to which sheep are exposed, are, the gall, the red-water, and being paterish. The gall is a kind of purging, which generally continues till they die, and is occasioned by feeding on land lately folded in wet weather, such as rape, turnips, &c. The red-water is a dropsy, and proceeds from the sheep being let out of the fold when the land is covered with hoar frost. A paterish sheep appears totally deprived of its senses, and is continually turning round, instead of moving forward. This disorder is occasioned by a bladder of water that surrounds the brain, for which there is no remedy; and may serve as some sort of reply, however unsatisfactory, to your

correspondent, Mr. Dowlen, of Falmer, near Lewis. Indeed, the very nature and seat of the complaint, must suggest to every juvenile student in the animal œconomy, that it is beyond the reach of the healing art to provide a cure for this disorder.

The rot is common to the South Down sheep, but it is never caught upon the hills; it is by the sheep being put out in the winter to the Weald, or by being turned out into marshes to fat. Indeed, it appears, that the cause of almost every disorder is to be attributed to feeding the sheep on wet lands, and in moist seasons; for they break chiefly in the winter and spring months, which is an additional reason, as they are exposed to it in the wettest seasons of the year. Hampshire and South Down sheep are equally subject to the *scab*, caused by their being overheated. In its effects it is similar to the itch: the remedy for which is, wild vine root, tobacco, and brimstone, boiled in brine, for the space of fifteen minutes, strained off and kept for use; then it is poured on the part affected, the wool having been first separated. Or boil half a pound of tobacco in two gallons of brine, till it is half wasted, then stir in a quarter of a drachm of sublimate, and the same quantity of precipitate; half an ounce of verdigrease powder; two ounces of sulphur, and one ounce of allum. Another disorder these sheep are subject to (in common with various breeds) is the foot rot. In this last, the limb must be dressed with hot oils (oil of vitriol and spirit of turpentine) having first cut away the root of the disorder; or one ounce of sugar of lead, one ounce of Roman vitriol, one ounce of verdigrease, half a pint of turpentine, all mixed together. Let the hoof be cut away to the bottom of the complaint, and having well shook together the contents, apply the medicine.

These observations appear to me to be the general result of the opinions of the most intelligent men on this subject, where the flock is a material part of the farming system; as such, I submit them to the attention of Mr. Dowlen and others, whose interests are largely concerned in this department of agriculture.

I am, yours, &c.

Brightelmstone, Feb. 10, 1804.

R. S.

ON A GOTHIC RUIN, AND ON THE AGRICULTURE
OF SOUTH WALES.

SIR,

HAVING lately had occasion to pass from Bristol, through Monmouthshire and a part of South Wales, in my way I visited Llanthony Abby, which one of your correspondents has mentioned in a former number of your useful and enter-

taining publication, and which he regrets being now in the hands of a gentleman who seems inclined to restore it to its pristine state. Surely, Sir, your correspondent must have a strange taste, for if he is fond of Gothick beauties, I should imagine, a building of this kind is more to be admired in a perfect, than in a delapidated state; and, that it is possible to restore such antiques in a great measure to their original beauty, I shall instance Hereford Cathedral, renovated by the ingenious Mr. Wyatt. But these antiquarians are an enthusiastic race, and even a world in order would have no chance to please them, like a world in ruins; like children, they feel themselves pleased with what they cannot describe, and like the fabricators of our modern novels and Ottoranto Castle builders, nothing can be too wild, ruinous, or, as they stile it, romantic, for them. For my part, I like to see order restored, and have often regretted, when I have seen buildings of this kind suffered to decay, and sincerely wish the honourable owner success in his repair.

As a real lover of Agriculture, I am much pleased to find a spirit of emulation and enterprise extend itself into parts so remote from the capital, and was surprised to find, even in Radnorshire, the most hilly, mountainous, and barren part, I think, of all South Wales, a small farm, cultivated in rather a scientific way, and with articles uncommon in that country; particularly two large fields of the *Lecteola* or Weld, of which I believe but little is grown in any part of England, except Kent; and though an article of essential use to the dyer, we are, I believe, generally obliged to import considerable quantities from France annually. The cultivator, to whom I sincerely wish every success, seems to be a sensible, intelligent man, and worthy of a more comfortable situation, told me he had met with great difficulties, and had many obstacles to encounter, owing to the strong prejudices of the country people around him, who had reported him as almost a madman, and a grower of weeds; and that he had absolutely been applied to, to know whether he would purchase nettle and thistle seeds, &c. Such is the stupidity of some people, even in this enlightened age!! I apprehend the neighbouring clothing counties of Gloster, &c. may soon find the benefit of being able to procure the above article at a cheaper rate than sending to London for it, as I am informed they are now obliged to do. The same person had also canary, which he informed me ripens well there, carraways, turnips of every kind, the papaver alb, and is about attempting to procure tounsol. Hops seem tolerably well cultivated in many places, and I am told, pay well; also the drum-head cabbages for cattle, but I have no where seen any that are very large; either they have not the true sort, except the person above

mentioned, or else they know not yet how to manage them. If these remarks are thought worthy your notice, you may occasionally receive others from your constant customer,

VIRGILIUS.

EMBANKMENTS.

To the Editor of the Agricultural Magazine.

SIR,

I Have in my nature more of the tortoise than of the Swallow, and am inclined to address your correspondent, Chorographus, in the language of the latter.

“ Lord! What a deal of needless changing;”

“ For ever hurrying, bustling, changing,

“ As if it were your life to save.

“ Why need you visit foreign nations?

“ Rather like me, and some of your relations.

“ Take out a pleasant half year’s nap,

“ Secure from trouble and mishap.”

If, Sir, you can condescend to listen to a sedentary correspondent, who has rather devoted his attention to insulated than to general subjects, I am willing to enrol myself in the list of contributors to your work, and whenever the fugitive friend I have mentioned shall happen to skim over me, and make observations on my inclosures, I shall not fail to criticize on the remarks he shall make in his rapid progress.

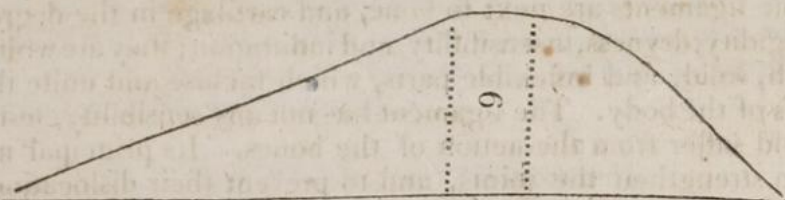
He has told you, that a great proportion of the coast of England is flat, and subject to frequent inundation. I do not fly over the ground as he does, and cannot, therefore, report on the evidence of my own senses; his description, however, seems to be tolerably accurate, and I ascribe to him no small merit for his birds-eye view of the superficies of these Islands, as far as I have been able to compare it with other accounts on the same subject.

The most productive pastures in England are protected by embankments; the intention of this paper is to give an account of a defence of this kind, constructed in a part of the country peculiarly liable to marine devastation; and if you should insert this communication, I will send you another on the management of wood land, in Kent, where the restless swallow, to which I alluded, did not make his perch, for he has not favoured us with the account of a single spray from those districts.

The embankment to which I allude, has gained a very valuable tract of 100 acres, at the expence only of 27s. per rod

on the side liable to inundation, and as the increasing produce of the country may, for ought I know, depend as much upon judicious management in this respect, as in any other. I will subjoin an account of this strong wall near Ebbs-Fleet in the county of Kent, which may likewise not have received the regard of Chorographus.

	FEET.
Perpendicular height of the wall	9
Width at bottom	36
Top	3
The face of the wall to the sea, forms an angle whose base is	22
Perpendicular height	9
Back side forms an angle of which the base is	11
Perpendicular height of the back side	9



That now described is against the sea, in the deeper water. A lesser wall is made nearer the shore, the perpendicular height of which is only seven feet, and the other parts in proportion to this diminution in the height. The form is precisely the same as that of the former.

Your intelligent correspondent, who has given you an account of the agriculture of the Isle of Thanet, cannot be unacquainted with this contrivance, in the immediate district of his survey.

I am, &c.
TOPOGRAPHUS.

VETERINARY ART. LETTER IV.

ON THE APPENDAGES OF BONE, AND ON THE
MUSCLES OF THE HORSE.

To the Editor of the Agricultural Magazine.

SIR,

THE present paper respects the appendages of bone in general, with the means of cure in the diseases to which they are subject. These appendages are the periostium, the medulla, the cartilages, ligaments, and the synovia.

CARTILAGES.

These are the mean between the hardness of bone and the softness of the muscular parts. They have no cavities for marrow, nor any membranes or nerves for sensation. Their use is to prevent the bones from being wounded by friction, to join

them together, and to contribute to the formation of the nose, ears, windpipe, eye-lids, &c. The cartilages which belong to the bones, differ from each other in size, figure, situation, and use, and may be divided into two general heads; those which are immediately, and those which are intermediately connected with the bones.

It is commonly supposed, that all bones, in their original, are only cartilages, and arrive at the consistence of bone, by gradual induration. In many cases, the cartilages become ossified; so near is the relation between these two substances. Some years ago, at Milan, a malefactor was saved from the rope of the hangman by the ossification of the windpipe.

LIGAMENTS.

The ligaments are next to bone, and cartilage in the degree of rigidity, dryness, insensibility, and induration; they are white, tough, solid, and inflexible parts, which inclose and unite the joints of the body. The ligament has not any sensibility, lest it should suffer from the action of the bones. Its principal use is, to strengthen the joints, and to prevent their dislocation; and they are especially important to the constitution of the frame, where to assist the effect no articulation is provided. The ligament also serves as a covering for the tendons, to separate them from the muscles, and to suspend the entrails, lest they should be too much depressed.

SYNOVIA.

This is a term used for what is vulgarly called the joint oil; it is of a mucilaginous nature, and is secreted by the inner surface of the capsular or hollow ligaments, which, to perform that office, are full of vessels. Without its assistance, the friction of the bones would be considerable, but by this unctuous provision they slide easily over each other. The Synovia is likewise distributed in various parts by the *bursæ mucosæ*.

There are no wounds which deserve more care, and which have received less attention, than those of the joints, and with these our present subject is principally concerned. Whenever a wound penetrates the cavity of a joint, it must be immediately closed; this is most successfully effected by firing the orifice with a budding iron, which will occasion the aperture to close, and the wound to heal; but the utmost care must be taken, that the external surface be only cauterized, for if the inner be touched, the consequence would be a violent inflammation, and a disease, probably more fatal than what the instrument was designed to remove.

BREAKING DOWN.

This is the vulgar distinction assigned to the rupture of the suspensory ligaments. The limb, in such cases, is extremely weak, and the fetlock is almost upon the ground. Farriers suppose, in this case, that a rupture of the flexor tendon has taken place; this, however, is rarely the situation, and if the horse can bend his foot when he lifts it, no such rupture can have been occasioned. It is one of the most desperate cases, and a perfect cure is perhaps impossible. Fomentations should be employed to lessen the inflammation, and if the heel be raised, to relax the parts, nature will throw out a substance to connect the divided ends of the ligament, and the powers of the limb will be partially restored. If the flexor tendon be broken, it will be expedient to sling the animal, and to bend the whole limb, from the elbow, downwards, to facilitate the connection of the ruptured parts; and during the process, the means we have noticed should be employed to moderate the inflammation.

STRAIN IN THE WHIRLBONE.

This is the extention of the articulations of the femur with the pelvis, and occurs when the thigh bone is pushed beyond its proper place by a blow, or some other violent action. All means must be taken, by patiently fomenting, to lessen inflammation, and the animal must be permitted to remain in a state of repose, until the unfavourable symptoms disappear. External applications are of very little use in these cases; the seat of the disease is beyond the reach of art, and time, or rather nature alone, can effect a cure.

STRAIN OF THE STIFLE.

This is the case of the extention of the femur with the tibia. Either the muscles of the thigh or the ligaments of the patella and stifle, may, in this disorder be affected in a similar manner. The treatment so nearly resembles what we have just described, that no further explanation is necessary.

WIND-GALLS, BOG, SPAVIN, THOROUGH-PIN, AND CAPULET.

All these are the cases of diseased enlargement of the *bursæ mucosæ*, or mucus bags, which are distributed about all the joints. The first is this enlargement at the pasterns; the second, third, and fourth, at the inside of the posterior part or point of the hock. These *bursæ mucosæ*, in some places, are very conspicuous, and especially those placed in the flexor tendons near the pasterns. Increased exertion, produces a more abundant secretion of this mucus, and hence wind-galls are almost always the consequence of oppressive

labour. While they are small, they are of no great moment, but when they become large, they produce bad effects from the unequal pressure they occasion.

The treatment in all these cases is much the same. A sweating blister is a very proper application, and pressure to promote absorption of the contents of the tumour may be occasioned by a bandage round the part, including a bolster to bear on the immediate seat of the disease. The cauterly, applied with discretion, is the best means of preventing the return of these several maladies.

THE MYOLOGY OR MUSCULAR SYSTEM OF THE HORSE.

If the muscular fibres be divided by any act of violence, the pain is very considerable, because the sound part of the muscle is extended by the contraction of the divided part, and by the action of the corresponding muscles, which, in its diseased state it is less fitted to sustain. In consequence of such a wound, an aperture appears, and the use of the muscle is greatly impeded. If the muscle be wholly divided, its parts retreat very considerably, and the use is likely to be entirely lost.

In all muscular wounds, under the circumstances explained, an inflammation, more or less violent, is the consequence; therefore bleeding, cool diet, purging, and fomentation with warm water, should be resorted to. By these means, the inflammatory symptoms will abate, and then the tone of the part will frequently be restored by stimulants; and beer, vinegar, or verjuse, may be applied by a patient hand, to bathe them, or more effectually in the form of a poultice. If these expedients should be ineffectual, a blister may be employed; and if ultimately needful, the cauterly.

TUMOURS OR SWELLINGS.

In the muscular parts, tumours or swellings are so frequent from blows and accidents, by the violence and indiscretion of the rider or driver, that I think it necessary to be a little more particular, not only in describing the nature and progress of the diseases which occasion them, but in giving some of the most simple, yet beneficial prescriptions admitted to the practice of the Veterinary School.

In the first place, those swellings which frequently take place after fevers, should not be hastily dispersed, lest the remains of the disorder, which is working itself off externally, should again strike internally, and be attended with fatal consequences. In such a case, the following fomentation may be applied every three hours in the day time; and a flannel dipped in the same preparation, should be bound on during

the night. The intention of this prescription is to keep the pores open, in order that the complaint may have a free egress.

R. Best vinegar a pint, spirit of vitriol and camphorated spirit of wine, of each four ounces.

Swellings are sometimes capable of being dissipated by the mere application of restringents, but if they proceed to maturation, it is in vain to attempt disappointing the means nature assigns to obtain a cure. We cannot too often remind our readers, that the only mode of effecting a cure, either in the human species or in brutes, is by assisting, not opposing, her operations. In the case we are now supporting of the formation of matter, suppurating poultices must be applied, and the following will frequently be successful, but it must be repeated night and morning.

R. Coarse bread, barley meal, and cammomile or elder flowers, each a handful; boil over the fire in a sufficient quantity of milk, into which stir about a third (of the whole quantity) of white-lily root, washed clean, and pounded to a paste; adding linseed and fenugreek (in powder) of each an ounce; stirring in, while hot, of turpentine, two ounces, and of lard four, laying it on moderately warm, and bandaging firm. To serve for two poultices.

After this has been used, the matter within the tumour will be discovered freely to move by imposing the finger; at this period the tumour must be opened so widely with a lancet, as to give the matter free discharge, and in order to admit the wound to be dressed to the bottom. It must now be dressed once or twice a day, with lint, spread with yellow basilican, melted down with a fifth part of the oil of turpentine. This should be carefully introduced to the bottom of the sore, which should then be filled up with the same ingredient. There will probably be a considerable discharge until a digestion is effected, which is the design of this preparation. After this has been successfully employed, the cure may be completed by lint, thickly spread with red precipitate ointment, introduced into the wound in the same way.

Sometimes the digestion very slowly takes effect, a thin hot watery liquid is emitted from the wound, which indicates a state that must be immediately counteracted. Over the dressing a strong-beer poultice must be applied, and continued until the matter become thick, and the wound florid.

Very frequently, by endeavouring to accelerate too precipitately the designs of nature, we occasion a luxuriance, vulgarly called proud flesh. All unctuous ointments are conducive to this, as they keep the fibres in a lax and supple condition; I will, therefore, subjoin to this paper a prescription,

which will countervail the pernicious consequences common to all digestives.

R. Yellow basilican eight ounces; red precipitate finely powdered, one ounce: mix them together cold with a knile or spatula.

I observe your intimation to me in your notice to your correspondents, and if you think the present paper too long, you may exclude any portion you please.

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

Westminster, Feb. 8, 1804.

VETERINARIUS.

ON A SPECIES OF WHEAT NOT LIABLE TO THE SMUT.

To the Editor of the Agricultural Magazine.

SIR,

IN a work, professedly on foreign agriculture, I have met with the subsequent account of a peculiar species of wheat, but no reference is made where it may be obtained, and no series of experiments is given to ascertain, on the only satisfactory test, the beneficial property it is stated to possess.

Knowing the extensive circulation of your work amongst men of practical knowledge, I wish to be informed from any of them, if they have ever cultivated the peculiar grain alluded to; for if it be a fact, that such a species of wheat exists, it is idle and absurd to hunt through all the elaboratories of the chemical art for lixivium, which shall contain the poisonous principle capable of extirpating the disease called Smut. In this disorder, the grains, instead of being supplied with their farinaceous and nutritious aliment, are full of a black and offensive powder.

It is said, that in Silesia the wheat may be procured; and the name Dumesnil Costé is subscribed to the assertion. Silesia is a country of nearly three thousand square miles extent, in some part of which, I am to suppose, this gentleman may have resided: so very vague is the account. The particulars are given in the following terms.

“Of all the fruits of the earth, wheat is certainly of the most consequence, I therefore think myself obliged to inform the public of a discovery I have made of a sort of wheat, the culture of which, it should seem, is proper to be recommended and encouraged.

“We know by experience, that wheats, like fruits, differ one from the other.

“The particular advantage of the sort I would now recommend, is, that it is **not** subject to the Smut; and this I am convinced of, from the experience I have had of its culture.

" This wheat is less subject to lodge ; the straw being full of pith, it yields to the blasts of wind, and rises again, elastic, like a reed.

" The Germans derive great advantage from this wheat ; they chop the straw, and feed their cattle with it in the winter.

" The benefit to be derived from this wheat, is still more considerable, in that it yields larger returns than the common wheat, it contains more flour, and makes very good bread ; though, I must confess, it eats a little dry and husky.

" This corn must be separated from the ear by striking handfuls of the sheaves against the belly of an empty cask, it being too tender to bear the strokes of the flail ; but as it parts easily from the straw, a great deal may in this manner be separated in a day.

" The method of cultivating it is as easy as can be wished : it must be sown early, in a rich soil well prepared ; and rather more seed should be allowed than when common wheat is sown."

Hoping that some of your Correspondents may be able to answer this enquiry,

I am, &c.

Lincoln, Jan. 13th, 1804.

P. Y.

FALL OF RAIN IN A PART OF THE COUNTY OF LANCASTER, IN THE TWELVE PRECEDING MONTHS.

To the Editor of the Agricultural Magazine.

SIR,

SEVERAL of your papers have noticed the importance of ascertaining the quantity of rain which falls in the different seasons of the year, for the purposes of Agriculture, in this wet climate. Perhaps it is not of much less moment to determine the proportion of evaporation, that by deducting the one from the other, we may know pretty correctly the proportion that remains to assist, or to obstruct the purposes of vegetation.

From this view, I have inclosed, for the inspection of your correspondents, the following account of the depth of rain fallen in the vicinity of Liverpool, during the whole of the last year ; and I have likewise added the quantity of evaporation, from a vessel four inches in diameter, to which the solar beam had no access.

Wishing every success to your instructive publication,

I am, Sir, yours, &c.

Lancaster, Jan. 20th, 1804.

B. A.

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Q.

FALL OF RAIN, IN 1803, NEAR LIVERPOOL.

Time.	Depth of Rain. Inches.	Evaporation. Inches.
January.....	1,95.....	1,25
February.....	1,8.....	1,4
March.....	1,25.....	1,6
April.....	1,75.....	2,4
May.....	1,7.....	2,7
June.....	3,28.....	2,56
July.....	1,54.....	3,
August.....	1,88.....	2,88
September.....	1,60.....	2,55
October.....	,82.....	1,55
November.....	3,25.....	1,10
December.....	4,60.....	1,
Total Inches... ..	25,42	25,69

It may be useful to remark, for the sake of some of your readers, that the figures to the right of the commas, are decimals, and denote parts of an inch.

ON THE MILDEW IN WHEAT, ATTRIBUTED TO A SINGULAR CAUSE, AND OTHER MATTERS.

To the Editor of the *Agricultural Magazine*.

SIR,

ON a further perusal of the *New Farmer's Calendar*, I acknowledge I felt somewhat displeas'd at the severity with which the author treats the petty prejudices and notions of our plain, honest fore-fathers, and their no less plain, honest descendants, on a variety of subjects connected with husbandry. Some of them, most assuredly, are nothing but the conceits of ignorance and superstition. Many are founded on observation and long experience. These latter, therefore, with all due submission to the triumphant superiority of Mr. Lawrence's discernment, I conceive to be entitled to a little more respect, and, in justice, to a little stricter investigation. At page 44, the author observes, "Mr. Marshall's grave account of the miraculous barberry-bush, of Norfolk," &c.; and follows up his observation with an hearty laugh at the idea of wheat being affected by such an innocent adversary.

I am not about to defend the idea, but merely request permission to relate the following fact, to which I myself was an eye-witness. Nor do I mention it as a rare instance, but as one of the very many cases which I hear related every day.

In the parish of Snoring-parva, in this county, a small field of wheat suffered last year very material injury, in common

with almost all the wheat in this angle of Norfolk, from a Blight or Mildew. As the inclosure lay inclining downwards to the road, every passenger noticed, very shortly before the commencement of harvest, amidst the general bad hue which the Mildew had dispersed over the whole field, one particular part, much more highly discoloured than the rest. This part resembled the tail of a comet, or radii, branching out from a center; and, as is usually observed, the deepest shade was at the nucleus, or center, of the radii, which proceeded from the hedge-row most distant from, and parallel to the road. Struck with this appearance, I entered the field, and examined the hedge-row; and at the point where the shade was blackest, and the straw most mildewed, even to rottenness, the owner pointed out to me a *Barberry Bush*.

Fearing a critique from Mr. Lawrence, I here close my narrative, without daring to attempt a comment on the fact, which I vouch to be truth; I shall only add, that there is not another Bush of the same species in or near the field; and that, contrary to Mr. Marshall's case, the direction of the blast appeared to be *from*, not *to*, the South-west.

I am happy, Mr. Editor, to see your Magazine so well supported by a respectable list of correspondents; but, as your readers wish to collect a little *information* for their eighteen pence, do pray Sir, just hint to my brothers of the plough, Northumbriensis and Meridionalis, that their oxen and horses are worked to the bone in the dreadful contest for superiority, and that it is high time to unyoke. Seriously, both parties have wasted their time and paper on much irrelevant matter, and, as might have been predicted at first, have left the subject where they found it. I do not censure the discussion of the question, for it is important: I would only restrain the disputants from wandering, and taking up too much of that room in your collection, which might be filled with more valuable matter.

I thank both A. C. p. 826, and Chorographus, for their *intention* of explaining what a *Shim* is; but the merely describing the hoe as a *broad share*, is to no purpose. Is the share a regular parallelogram, or triangular, like a turf-cutter? When Mr. Lester has completed and published his engravings of every useful implement, I hope to obtain much information. I hope such satyrists as Democritus will never deter Dr. Hunter, or any gentleman whose occupation is not professedly agricultural, from communicating to the world the results of useful experiments, the rational employment of their leisure hours; and I trust that the Doctor has the interest of agriculture too much at heart, to entertain the least displeasure at any of his productions on that subject being made more gene-

rally known, through the medium of your, or any other periodical publication.

Fakenham,
Feb. 13, 1804.

I am, Sir, yours, &c.
AGRICOLA NORFOLCIENSIS.

ON THE FOOD OF PLANTS, IN ANSWER TO TYRO.

To the Editor of the Agricultural Magazine.

SIR,

IN your last volume, page 256, you have a short letter signed Tyro, in which he makes enquiry on what you, Mr. Editor, have called, the pabulum vegetativum, but to which I shall give the more intelligible name of, the Food of Plants. "I shall," says this writer, "be happy to see in your work, the elucidation of this difficult question, that while the chymist is analyzing every pebble he can procure from the summits of the Alps and Andes, we may learn that the most important uses to which his art can be applied are not neglected."

In order to ascertain this food, it will be right to attend both to the plant, and to the element by which it is surrounded. If vegetables be analyzed, they are found to contain much water and charcoal, some fat and essential oils, resins, gums, and vegetable acids: all which are reducible to water, pure air, inflammable air, and charcoal. A small proportion of fixed alkali is also found, some neutral salts, most commonly gypsum, tartar vitriolate, common salt, and salt of sylvius. In corn, and particularly wheat, phosphorated selenite is also discovered.

All terrene plants grow in a mixed earth moistened with rain and dew, and exposed to the atmosphere. If this earth be chemically examined, it will be found to consist of silicious, calcareous, and argillaceous particles; also of magnesia, in various proportions, a very considerable quantity of water, and some fixed air. The most fertile, also, contain a small proportion of oil, roots of decayed vegetables, a coally substance arising from putrefaction, some traces of marine acid, and gypsum.

From this view it appears, that the only substances common to the growing vegetables and the soil, are water, coal, salts, and different species of earth. To these perhaps should be added fixed air.

Having attended to such points, we are prepared to enter on the main question: and here your correspondent is perfectly correct in attributing to Mr. Hassenfraz the discovery, that coal is an essential ingredient in the food of all vegetables. The importance of this invention is not that it amuses the imagination, and gratifies the curiosity of the profound

chemist: but that it enables us to ascertain the true fertilizing principle of manures, for hereby it is discovered whence the great utility of vegetable and animal manures that have undergone putrefaction. If the liquid that ouses from a dung-hill be examined, it is found to be of a blackish colour, and if subjected to evaporation, the greater part of the residuum consists of coal, and this is the true basis of its ameliorating powers. It is sufficiently known, that the greater the quantity of coal produced under this experiment, the more abundant the fertilizing principle; or in other words, the more is contained of that food which conduces to the health and vigour of vegetable existence.

Formerly, this fertilizing principle was supposed to reside principally in the saline and mucilaginous particles; but chemistry has discovered, that the quantity of these in fertile land is so small, that they could not contribute the thousandth part of the weight of any vegetables.

This discovery of coal as constituting vegetable nourishment, if new amongst theorists, is far from being so in practice. True it is, that practical farmers have not at all understood the rationale of the matter, but they have seen the astonishing effects of manures that have undergone the putrefactive process, and they have availed themselves of every means that occurred to them to accelerate it, and whether they attributed the advantageous result to the oleaginous, or to the carbonic product, is not very material.

It does not seem at all important so that coal is produced, what may be the substance exposed to putrefaction for that purpose. Even shavings of wood which certainly contain very little salt or mucilage, will answer the design. If left in a damp place for about a year, they begin to undergo the fermentative action, and when spread on the land become putrid, and are an excellent manure*. In paring and burning which I have seen so warmly recommended in your papers, the oleagenous matter loses its characteristics, and is reduced to a mere coal, and hence the prodigious utility of this operation.

We have another proof of the great advantage of coal as a fertilizing principle on the examination of earth itself. Let a quantity of the soil be steeped in water; let this earth be taken from fields of different degrees of fertility, and it will be found, that the darker the colour of the water after this process, the better the quality of the land. Let the farmer have the patience to advance a little further, and to evaporate in a common pipkin the water so impregnated with the colouring matter, he will then find that the residuum is a coaly sub-

* 14 Ann. Chy. 561

stance, and that the quantity produced is in proportion to the fecundity of the soil.

It is perhaps material to prevent a misunderstanding on the subject, to remind your readers, that however wholesome this food of plants may be discovered to be, it must be administered to them in a form which though correctly understood by nature, has been hitherto unknown to man. Coal cannot impart its beneficial effects but in proportion as it is capable of being dissolved. We know that it is dissolved in the putrefactive process, and that in this state, it is introduced into the absorbent vessels of plants, but the means of rendering it soluble by other expedients more rapidly is not ascertained.

I hope your correspondent Tyro will be satisfied with this explanation, at least I have endeavoured to make myself as intelligible as the nature of the subject would admit.

Warwick Lane,
Feb. 12, 1804.

I am Sir, yours, &c.
LUCAS MEDICUS.

ON A COURSE OF CROPS.

To the Editor of the Agricultural Magazine.

SIR,

Feb. 15, 1804.

HAVING long understood that the Rev. Mr. H. J. Close, either with the plough or the pen, was a labourer of deserved celebrity in the great cause of Agriculture, it is with some degree of diffidence that I now venture to assail the opinions he has advanced *on the course of crops best suited to the various species of soils*. Conceiving, however, that the table inserted at page 50 of your last Number, and its accompanying letter, signed T. T. are not thoroughly calculated to promote the best system of Husbandry, but on the contrary, that they will have some tendency to promote injurious practice, I beg leave to offer a few remarks on them for publication in your next Number. If your correspondent T. T. is correct, Mr. Close has recommended to the Board of Agriculture a course of crops, beginning with turnips or cabbage *on clay*.—That the latter may be raised in great quantities on this species of soil has, *according to the accounts of agriculturists in various parts of the country*, been pretty satisfactorily proved, and that by the application, or rather *misapplication* of great quantities of rich dung, good crops of turnips may be obtained on such land *in very favourable seasons*, I am not inclined to dispute; but that productive crops of corn can be raised *above one year in three or four*, after such management, is totally inconsistent with the observations I have been enabled to make in a pretty long course of minute attention to practical husbandry. In this part of the country, to fold sheep on such turnips, would be considered as a proof of

The derangement of the intellectual faculties; for instead of improving, they would be much worse; and in carrying the turnips from such grounds, even in the most advantageous modes, the soil is generally so cut up and poached, so saturated with, and retentive of moisture during autumn and winter, and so hard and cloddy in the spring, as to be rendered almost as unfit to produce a valuable crop of grain, as a barren moor. Upon clayey loams similar objections cannot be urged against the cultivation of turnips, but instead of the succeeding crops being

Oats,
Clover,
Wheat,
Turnips,

as proposed by Mr. Close, I must contend that

Wheat,
Clover and Rye Grass,
Clover and Rye Grass, pastured,
Oats,
Turnips,

would be a much more judicious and profitable course. That good crops of wheat may in some seasons be obtained after clover or clover and rye-grass, on dry lightish soils, or dry loams, without material injury to the land, has been sufficiently proved, but that as a general system, it is the most advantageous, will be denied by a vast number of distinguished husbandmen, and upon lands where clay predominates, or corn where the portion is considerable, wheat after clover is, I conceive, ruinous management. For no system can be otherwise, which destroys fertility by the growth of root weeds; and it is well known, that in almost every season it is impossible to prevent the growth of much couch grass, (a species of the *Triticum* of Linnæus), and other destructive root weeds among wheat sown upon clover lays. Upon lightish soils, a fallow crop obtained after a proper preparation and judicious drilling and horse-hoeing, may enable the farmer to destroy these weeds. But every experienced and attentive agriculturist well knows, that unless the season be uncommonly propitious, even a bare fallow will not enable him to eradicate them on clay or strong loams. Perhaps the advocates of Mr. Close's system will contend that hoeing the wheat will, in a great degree, prevent the growth of root-weeds. I attach all the importance to drilling and horse-hoeing, which so excellent a mode of cultivation deserves; still, however, I must maintain, that even under that system, the growth of root-weeds cannot be effectually checked among wheat after clover. Besides, if we advert to the difficulties attendant upon the drilling of wheat upon clover lays, or after clover and rye-

grass, even on the light soils of Norfolk, as stated in the intelligent letters in your Magazine, signed P. J. and Agricola Norfolkensis—we cannot but believe such management on clays or strong loams still more difficult. As a preparation for drilling, however, the clover lays in some parts of the country, receive two or three ploughings before the seed be committed to the ground; but in many seasons such cultivation cannot be pursued, and in others it would greatly increase those enemies to fertility, (root-weeds). In situations where the soil has not been deteriorated by having been too long in a state of aration*, great crops of oats are obtained after clover or clover and ryegrass, which, besides yielding straw of greater value than the wheat crop, whether we advert to quantity or quality, leave the land perfectly clean, and free from pernicious root-weeds. These are advantages which every practical farmer ought to estimate highly, as the succeeding fallow crops either of turnips, beans, or pease, will not only be more productive, but obtained at a smaller expence. Besides, as the oat crops produce the greatest quantity of straw, and as that straw is of a quality much superior to that from wheat, a greater number of cattle can be supported, and this, though frequently deemed of little consequence, is, in my mind, of vast importance, for it augments the quantity of manure which, as I have remarked in a former paper to you, increases, in some measure, like money at compound interest. Thus is a better foundation laid for *permanent* and *increasing* fertility. All these advantages, however, are stated by the advocates for wheat after clover, to be overbalanced by the superior value of the crops of that species of grain. But from the result of my own practice, and all the information I have been able to collect, I have reason to conclude that, *on an average of years*, the oat will be fully equal in the value of the grain to the wheat crops.

It will appear by the table I have mentioned, that wheat after clover, should be the invariable practice, and that on one description of land, potatoes should succeed the wheat. Now, Sir, I conceive this is making bad worse, for potatoes should be planted in April, and it rarely happens that land can be perfectly cultivated and cleaned, and *root-weeds* effectually destroyed, so early in the season. The same or greater objections may be urged against sowing beans after wheat obtained by such management, upon “rich or sandy loams,” which would unquestionably be more compleatly cleaned, and rendered more profitable, by being cultivated for turnips in such a mode as to admit of horse-hoeing †. Another course recommended for the last species of soils is,

* Why should not soils be injured in this way?

† A corn in the broad cast method.

Beans,
Barley,
Pease,
Wheat, *Ad infinitum.*

This course, *Drilling and Horse-hoeing being judiciously practised*, would certainly enable the agriculturist to keep it perfectly clean, and (if manure was not withheld) in a productive state for a considerable length of time. I am, satisfied, however, that none but lands of the first quality, or those where great quantities of *foreign* manure can be obtained, can be continued in the greatest possible state of fertility for 20 years in succession, without being laid to grass *once at least* in six to eight years, and continued one or two years in that state, ere the plough be again introduced, and I prefer two years in clover and ray-grass, to one year in clover, pasturing the second year.

If the lands are light or gravelly, three years in tillage, and as many in grass, I consider as the most advantageous system, and therefore approve of the course in Mr. Close's table, viz.

Turnips,
Barley,
Clover and Ray Grass,
Clover and Ray Grass,
Clover and Ray Grass.

I cannot however approve of those which follow, namely,
Pease,
Wheat or Rye.

Those which universally succeed in this part of the kingdom, and which are incontrovertibly more profitable and ameliorating, are,

Oats,
Turnips,
Barley, (on the best parts, wheat; and on patches of the worst, rye),
Clover and Ray Grass.

Experience having clearly proved that "old Mother Terra delights in variety," that fallow crops should succeed those of grain, and that crops of some species of grass, particularly clover and ray-grass, should be included in the course of crops best calculated to promote and continue the *utmost* fertility, the number of years in which deep and productive lands should be kept in grass previous to their being again converted into tillage, viz. *whether for one or two years*, is a point to be determined by calculations, in which the demands for, and comparative prices of corn and butcher's meat, will undoubtedly require the attention of the farmer. On the score of fertility, however, I have no doubt but two years in grass, (one at least

in pasture), will, in general, be the most proper management in the course of a pretty long lease. The mode recommended in cultivating the turnip and leguminous crops, is to drill two rows, or the top of each ridge, and to have these ridges with three feet intervals. This mode I have now pursued. But, Sir, if horse-hoeing deserves the praise which has been bestowed upon it, (and I am satisfied it does) as an operation highly conducive to compleat pulverization and destruction of weeds, and consequently to a great increase of fertility *at a cheap rate*; it seems reasonable to conclude, that *one* row with intervals of 24 to 28 inches, is a more advantageous mode of culture. For under that recommended in T. T's. letter, the intervals of the double rows must either be hand, or imperfectly horse-hoed, whereas under the latter, they are all sufficiently wide for *perfect and efficacious horse-hoeing*; and I am persuaded that either in the turnip or leguminous crops, or those which succeed them, the paucity of the rows will be compensated by a more abundant produce. In this part of the country it has been ascertained by accurate experiment, that turnips drilled in single rows, (or small ridges) with intervals of 26 inches, are more productive (and enable the husbandman to pulverize his land more completely and much cheaper), than those sown on a flat surface, with intervals of 13 inches.

I intended to have pursued the discussion relative to the best course of crops, and to have subjoined some calculations and facts in support of the opinions I have advanced, apprehending, however, that I have already trespassed on your time, I must embrace a more favourable opportunity.

I am, Sir, yours, &c.

AGRICOLA NORTHUMBRIENSIS.

P. S. I am unwilling to encroach on the province of your correspondent Chorographus, by treating at large on the agriculture of this county. Any information, however that I can communicate, is at his service, and I hereby authorise you to furnish him with directions for writing to me, *if he apply for them.*

A. N.

EASY METHOD OF MEASURING TIMBER &c. IN
THE WOODLANDS OF SUSSEX.

To the Editor of the Agricultural Magazine.

SIR,

I OBSERVE with pleasure your disposition to introduce into your work, every thing that can conduce to the advantage of the farmer; I have therefore concluded it would be acceptable to you, to receive some account of the easy mode of

measuring timber, universally adopted in a county famous for the production of the English Oak. I am the more inclined to circulate this article of information, because our factors and surveyors are so fond of bewildering the unlettered peasant in mathematical mysteries, in order to take advantage of his simplicity.

In the districts to which I have referred, the seller and buyer make their separate valuations, by measuring and estimating the trees as they stand, in a ready and accurate manner.

It is done by means of a long rod, or slender pole about a statute rod in length; generally a slim ashen sapling, that has been drawn up to that length among tall coppice wood, and its mean thickness is about that of the handle of a hay-rake; together with a measuring strap on the most simple principle, the invention of long and extensive practice, being common to the woodlands of Sussex, and is perhaps peculiar to them: I have observed it no where else in use. It is a long thin strap of leather, graduated and figured agreeably to what is called timber girt, (allowance being made for the bark) so that the figures and intermediate gradations shew, at sight, what the naked timber will square, and the rod gives the length of the main stem at least: thus by the help of the sliding rule, the admeasurement of the principal part is set down in this summary way, with a sufficient degree of exactness. The upper length, if the tree be very tall, also the main bough or spire, together with one other bough, are estimated by the eye, it being the practice of Sussex to measure two principal boughs or branches of the top of a timber tree, up to six inches girt.

Two men accustomed to this mode of estimation, will view an extent of timber with very little deviation as to quantity. Hence the matter of bargain lies with the specific qualities of the wood and bark, the situation in which they grow, and the fair market prices at the time of sale.

Another simple invention, probably the result of the same long continued practice, has been hit upon for marking the trees thus measured, and set out for sale. This is a light hatchet, with a broad hammer end, and with a letter or other character rising with a sharp relief out of the face of it. The roughness of the bark being struck off with the edge of the hatchet, the required mark is imprinted by one stroke of the hammer.

The method of taking down timber trees here, is invariably that of sawing them off horizontally close to the ground, by means of a long saw, with one or both handles fixed on the upper side, in a manner somewhat similar to that by which the lower handle of the pit saw is fixed at the back, the trees being first dipped in on the falling side with an axe.

I have been indebted to an intelligent traveller for these particulars, and trust they will be useful to many of your correspondents.

I am, Sir, yours, &c.

Horsham, Feb. 10, 1804.

C. B.

OBSERVATIONS ON THE WEST AND SOUTH
DOWNS.

To the Editor of the Agricultural Magazine.

SIR,

ONE of your Correspondents, who will always attract attention from the command with which he employs his pencil, has given a sort of general survey of English ground, and he lightly touched on that singular tract of country, extending from the Hampshire downs to the marsh lands in the vicinity of Pevensey. The reach, from East to West, is nearly sixty miles, and it consists of a succession of bold elevations, the width of which is sometimes reduced to three miles, and rarely exceeds six.

As you advance towards them from the Northern side, they rise like an artificial rampart, formed by the labours of some British Titans. These hills are separated by profound vallies into five distinct ranges, through which are emptied the abundant waters which precipitate themselves from a parallel chain of hills to the Northward of a yet bolder character.

The four vallies which separate the Sussex downs are those of Arundel, Shoreham, Lewes, and Seaford. The division West of Arundel, has been called the West downs; those to the East, are the South downs.

These districts being rarely more than a single range of hills, chiefly appertain to the townships on either side of them. The vallies contain meadows and marsh lands, provincially called brook lands; the slopes and lower stages of the hills bear corn. The tops of the hills are sheep-walks, which yield fine turf, with a mixture of furze and heath; and some of the steeper surfaces, especially of the West downs, are hung with wood.

As lime has become so important in Agriculture, information on the method adopted in these districts in its preparation will not be unacceptable.

When chalk is intended to be burnt into lime, especially with wood, the blocks and large pieces only are used. The rubble and smaller pieces, which break off in quarrying are unsaleable, and are thrown aside as rubbish; hence the immense mounds noticed in the district of Petworth, as a proper subject for experiment.

The quarries of Duncton, in the more immediate face of the Northern cliff, and from which the Western extremity of the Weald of Sussex is supplied with chalk for lime, disclose, a variety of strata. The upper parts of the steep, are composed of "white chalk," which is burnt for manure, and answers to the white chalk of the Houghton quarries, (the hill here being much higher than at Houghton) beneath this is a deep stratum of "grey chalk," which is burnt for cement, and is of a superior quality for this purpose; and below this, is a bed of "marl," a still fouler chalk; the more immediate base of the hill being the "maum" soil, which so much prevails in the district of Petworth.

This species of strong calcareous soil* is not peculiar to the West downs of Sussex, but is to be found perhaps, in a greater or less quantity, at the foot of every high chalk cliff of the Island. I have observed it at the foot of the Betchworth hills in Sarrey, Maamscof, and Wrotham hills in Kent, at the foot of the Hampshire hills near Petersfield, and of the Wiltshire hills by Warminster. Whenever the height is greater than the depth of the mass of chalk which forms it, this species of soil which appears to be its natural adjunct, is probably to be found at its base.

It may be observed, that in one of the quarries of white chalk in the upper part of the face of the steep above Duncton, a thin stratum, or list of three or four inches in thickness, runs nearly horizontally, but taking a somewhat wavy line across the middle of the quarry. It has something of the appearance of fuller's earth, but is calcareous. The quarrymen call it, "marl flour." It is a species of calcareous fossil, I have not noticed elsewhere, at least not in a similar situation†.

Arundel,
Feb. 9, 1804.

I am Sir, yours, &c.

K. B.

* By analysis, the "maum" soil (or black wheatland) of Duncton (at the immediate foot of the hill) yielded only seven and a half, while that of Graffham (of a browner colour and interspersed with granules of chalk,) afforded forty-five and a half, per cent. of calcareous matter. The residue of both, brown silt; that of the latter being the finest and most tenacious.

† By analysis with the marine acid, an hundred grains of this fossil yielded forty-one grains of calcareous earth, leaving fifty-nine grains of impalpable matter, resembling fuller's earth, but somewhat darker in colour.

CHARRING HOP-POLES, SUGGESTED AS THE MEANS OF PRESERVING THEM.

To the Editor of the Agricultural Magazine.

SIR,

THE diminution of wood in every part of the kingdom, and the extensive demand there is for that species which

is required for hop-poles in the counties of Kent and Sussex, will render every expedient acceptable that can conduce to make its utility more permanent. It is therefore suggested to the ingenuity of your correspondents, to discover some method by which hop-poles can be rendered more capable of resisting decay in that part which penetrates the ground. We are to consider, that 3000 of these poles are required for a single acre, and therefore, that it is an object of great consequence. I wish to know particularly, from some of your friends in the hop districts, if they have ever tried the scheme of charring the bottoms of the poles, and the hint is taken from the method of charring posts, adopted with so much success in Norfolk and some of the midland counties.

Hoping for some information through the channel of your useful Miscellany,

Henley,
Jan. 25, 1804.

I am Sir, yours, &c.

JUVENIS.

MOWING CORN.

To the Editor of the Agricultural Magazine.

SIR,

Maidstone, Feb. 11, 1804.

IN a preceding Number, your correspondent made Kentish Agriculture the immediate subject of his enquiry. I know it was impossible in the compressed view he took of that curious and interesting matter, to give an account of one hundredth part of the peculiarities and improvements in that county: indeed it was the less necessary to enter much at large on the subject, because on the husbandry of the Isle of Thanet, and on some other eccentricities and excellencies of the farming of that district, you have examined in your previous volumes.

The operations of rustic business have, Mr, Editor, been favoured with your peculiar attention, because you are aware how much detriment arises to the national produce from inattention in this particular. The object of this paper is, to impart a method of mowing corn, in which the people of Kent so much excel, that has been explained by a person of extensive knowledge, who has devoted his life to subjects of agricultural improvement.

In the practice of every department of the kingdom, the scythe is swung horizontally or nearly level, leaving the stubble of almost an even height; or if it rise on either side, forming what are called swath balks, the butts of the swaths are suffered to rest upon them, the heads or ears of the corn falling into the hollow or close mown part of the preceding swath width. They are of course liable in a wet season, not

only to receive an undue portion of rain water, but to be fouled with the splashings of heavy showers.

In the Kentish practice, the position of the swaths is different. Here, the heads of the corn rest on the top of the swath-balk, provincially the "beever," which is left of extraordinary height, as ten to fifteen inches; so that the wind has a free circulation beneath the swaths.

The workman, in performing this judicious operation, proceeds with his right foot forward, entering the point of his scythe with a downward stroke, and raising it as abruptly out, bringing the handle round to the left until it forms nearly a right angle with the line of the swath, carrying the corn in the cradle three or four feet behind the place where it grew, lifting it high, and letting it fall on the beever behind his left foot, and in the position above described.

The disadvantages of this method are, the loss of some straw, the incumbrance arising from the length of stubble, and a little additional labour; but in a district where cattle are not numerous, the loss of straw is not felt, and in any country, the principle of laying the heads, instead of the butts of the corn upon the swath-balk, whether left high or low, might be well adopted.

D. D.

CORRECTION OF AN ERROR.—KOHLRABE.

To the Editor of the Agricultural Magazine.

SIR,

I WILL thank you to correct the following error in my last communication.

In line 44, page 8, of Number 54, by your insertion of one little word you have totally perverted my meaning. As you have published my letter, you make me say, "It is *not* to those premiums we owe the first knowledge, and first introduction of the turnip-rooted cabbage;" but in my letter, I avowedly and unequivocally assert, that it *is* to those premiums we must attribute that introduction. To their indirect operation indeed, as I proceeded to point out in the following period. I trust you will insert this correction in your next.

Since my last, I have had an opportunity of viewing the Kohlrabe in its growing state, which has perfectly satisfied me that my conjectures were well founded.

I have the honour to be,

Sir, your obedient servant,

CASTOR.

Norwich,

Feb. 12th, 1804.

ENUMERATION OF PATENTS LATELY ENROLLED.

Nov. 8. **B**OOOTH HODGETTS, of Dudley, in the county 1803. of Worcester, Nail Ironmonger; for machinery for rolling iron for shanks, and for forming the same into shanks for nails.

— 12. Richard Younger, of Pittman's-buildings, Old-street, in the county of Middlesex, Gentleman; for an improved method of extracting worts from malt, barley, and other grains and substances.

— 17. William Freemantle, of Bunhill-row, in the parish of St. Luke, Old-street, in the county of Middlesex, Watchmaker; for improvements in the construction of steam engines.

— 19. James Bevan's, of Castle-street, City-road, in the county of Middlesex, Carpenter, being one of the society of the people called Quakers; for methods of applying machinery for the purposes of more expeditiously striking, or sticking mouldings, and for rabbetting, ploughing or grooving, fluting, and excavating wood, in every manner, now usually performed by any kind of plane.

— George Penton, of New-street-square, in the city of London, Brass-founder; for an improvement on lamps, commonly called Argan's lamps.

Dec. 3. James Sturman Searles, of Little Alie-street, Goodman's-fields, in the parish of St. Mary, Whitechapel, in the county of Middlesex, Gun-maker; for an improvement or improvements to be applied to any kind of fire-arms or defensive instruments.

— 21. Charles Wyatt, of New Bridge-street, in the city of London, Merchant; for a new-invented process of purifying ardent spirits.

— 31. Robert Cross, of Quakers Brook within Houghton, in the county of Lancaster, Tanner; and Thomas Southworth, of Houghton, aforesaid, Cotton-manufacturer; for their new-invented mode of heating such pans, vats, cisterns, and other vessels as are required to be heated by fire, and used for working steam engines, and in the businesses of calico-printer, dyer, brewer, paper-maker, bleacher, salt-maker, tanner, and other such-like trades; by which invention much expence will be saved, not only in the fuel to be used in the heating of such vessels, but also in constructing the vessels themselves.

CRITICAL CATALOGUE.

An Inquiry into the Structure and Animal Economy of the Horse; comprehending the Diseases to which his Limbs and Feet are subject, with proper Directions for shoeing; and pointing out a Method for ascertaining his Age until his twelfth Year. To which is added, an Attempt to explain the Laws of his Progressive Motion on Mechanical and Anatomical Principles. The whole illustrated with seventeen Copper-plates. By Richard Lawrence, Veterinary Surgeon, Birmingham, Royal 8vo. 11. 1s. Nicol and Seeley.

The multiplicity of Treatises on the Veterinary Art, which have within these few Years been submitted to the public, furnishes ample demonstration of the advantages that have been derived from the establishment of a College, exclusively devoted to researches on the subject of such importance to the interests of Agriculture in particular. Were it even to be objected that none of these works, individually, contains much new information, yet the united labours of so many practitioners, educated under the auspices of that institution, must tend to elucidate the principles of an art, so long enveloped in the impenetrable gloom of prejudice and ignorance.

The present volume is the second edition of a work which originally appeared in quarto, in the year 1801. It is announced by the author as the first fruits of his literary labours, and we observe with pleasure, that he combines the more useful qualities of clearness and perspicuity, with the more agreeable accompaniments of elegance and classic taste.

“ With respect to the plan of the present work, says Mr. Lawrence, I have not entered very extensively into a description of internal diseases, from a conviction that such a treatise would be attended with more danger than utility. The internal diseases of horses, except some few which are well marked, are so obscure, as even to baffle the skill of an experienced practitioner in his endeavours to ascertain them. Hence it cannot be expected, that proprietors of horses, from the casual and confined observation furnished by their own stables, can acquire the faculty of discrimination in this respect, and the mischief arising from an improper administration of medicine, must be sufficiently obvious, both from candid reflection and fatal experience.

“ But farther, to obviate any disappointment which might accrue to my readers, in not meeting in the following pages with what has been generally termed, a complete System of Farriery, I have only to add, that I have directed my endeavours to point out the means of preventing diseases, and thereby to save the animal the pain and danger of undergoing medical discipline from the hands of those who are unqualified for that purpose.

“ For this reason, I have treated principally on the structure and diseases of the limbs, shoeing, management of the stable, &c. than which I conceive nothing can be more important. How far I have succeeded, I must submit to the candour of the public to deter-

mine; I shall at least, possess the satisfaction of having endeavoured to promote the science, by promulgating that theory which I have found to be true in practice.

“The source of peculiar properties in the structure and motion of the animal is, in general, but little understood. This branch I have attempted to elucidate upon mechanical and anatomical principles, and the explanatory plates being designed by myself, will, I trust, be more accurate than they would have been from the hands of a second person.”

The volume is divided into eleven chapters. The first treats of the external conformation of the horse; the second relates to the eye, and the third is devoted to shoeing. For shoeing a perfect foot, the author recommends the following plan:

“To pare the wall just sufficient to make it level; to pare the sole as much as will be necessary to remove the dead surface which endeavours to detach itself by scaling off spontaneously; the frog to be cleared of its ragged edges; the heels not to be scooped out, nor notched in any way whatever. The shoe for a sound foot to be about three quarters of an inch broad in the web, and of an equal thickness from toe to heel; the surface next the hoof to be half flat and half bevilled, except at the heels, which should be entirely flat, so as to press on the bars as well as on the heels. The nails should be eight in number, four on each side, and inserted principally near the front of the hoof, so as to leave the heels as much at liberty as possible.

“The shoe should never be made of a smaller diameter than the foot, particularly at the quarters. This plan, however, is generally pursued, from the apprehension of the horse's cutting his fetlock joints from the feet being too broad. But a horse seldom cuts whilst his feet are sound and free from pain, except from a natural malposition of his legs. The nails should be as small as possible, and in a wedge-like form at the head, by which means they will retain their hold with greater effect.”

The fourth chapter treats of the greafe, the fifth of lameness in general, and the sixth of wounds. Respiration natural and diseased is the subject of the seventh. On the internal appearances arising from broken wind, and its general symptoms, Mr. Lawrence differs considerably from the writer of a modern popular Treatise on Horses;* but as this is more intimately connected with the study of the practitioner, we shall content ourselves with referring the reader to the Strictures of the latter on this part of our author's work.

Among the observations on the Structure and Economy of the Stable, which occupy the eighth chapter, after insisting on the necessity of the introduction of a sufficiency of fresh air and light, the author directs the reader's attention to the danger and inconveniences arising from narrow stalls, and to the manner in which the stall is usually paved, which he says is equally productive of bad effects. The surface is generally formed with a descent from the head of the stall backwards, with a view to let the urine run off

* Compendium of the Veterinary Art, by James White, p. 67.

from the litter.* Thus the horse stands constantly up hill, by which position he naturally becomes so much fatigued, that he may be said to have performed half his work before he is led out of the stable, for the ligaments of his joints and the flexor muscles of his legs, are thereby perpetually extended. But the greatest mischiefs which arise from this mode of constructing the pavement, consist in obliging the horse to stand with his forelegs farther under him and out of a perpendicular direction, by which position he not only acquires a bad habit of leaning forwards, but also becomes liable to a contraction in the heels of his feet, by the weight being thrown principally on the toes. It moreover promotes an inclination to swelling in the hind legs, as well as being frequently the cause of his body slipping backwards in the stall when he lies down, so that being at the utmost extent of his halter, he has not the power of rising again on his legs, for want of the free use of his head and neck.

“ The ground surface of the stall therefore, should be perfectly level and paved with hard bricks. A conductor for the urine may be obtained by means of a drain passing from the center backwards under the pavement. For this purpose, the center of the stall should sink somewhat lower than the other parts of it, and the entrance to the drain should be covered with an iron grate six inches square.”

In another part of his work, the author ascribes to this faulty construction of the pavement of the stable, a tendency to produce grease, or at least to aggravate the ill effects of the other causes of that disorder. “ The pavement of the stall being on an ascent, will throw three fourths of the weight of the body on the hind legs, and will also distress them by the toe being placed upon higher ground than the heel, whereby the ligaments and membranes are kept constantly distended. Under these unfavourable circumstances the legs swell, a rupture of the skin eventually takes place, and a serious discharge ensues, which by exposure to the atmosphere acquires a fetid and acrimonious quality.”

These considerations certainly appear worthy of serious attention, and we doubt not but experience will be found to demonstrate the truth of the author's statements.

In the ninth chapter Mr. Lawrence treats of the age, and in the tenth of the Education of Horses.

In the eleventh and last chapter, entitled, “ On Progression,” the different paces of the horse are successively described. The plates are well calculated to convey a clearer idea of the subjects to which they refer.

The chapter on progression is very ingenious, but is principally derived from Bourgelat and other French writers. Mr. Fearon and

“ * This is done with a view to save straw, which in some situations is probably an object of importance; but with farmers it would be an advantage to have level pavements without drains, in which case the urine would be absorbed by the straw, and from the quantity of salts that it contains, would produce better manure, whereas upon the old construction of the pavement it is wasted.”

Mr. Lawrence differ on the mode of shewing the proportions of the horse; and here the former, we think, has the advantage. It would be impossible without a plate to convey our meaning.

Among the few prescriptions which the author has thought proper to introduce, there are several which certainly require revision, for instance, that recommended for the grease, (p. 81,) where he directs nine drachms Barbadoes aloes, to be administered in one ball. Mr. White, to whose opinion much deference is due, as well as other writers, in the same case, recommend an alterative, containing about one sixth of that quantity, with the admixture of a small proportion of Castile soap. The uninstructed reader would be at a loss how to mix the aloes as prescribed by our author.

Upon the whole, this elegant and well written book appears to be more shewy than useful, a circumstance that we can never neglect to notice in works of this kind, which by large type and loose printing, are carried beyond the reach of persons of moderate income, as is the case with most of those who direct their studies to the present subject.

Although we profess ourselves averse to that species of quackery which puts prepared medicines into the hands of ignorance, to be applied upon the appearance of any supposed disorder, yet we must differ from Mr. Lawrence, who thinks (preface, p. 14.) that chests of medicines accompanied by books of directions are to be deprecated—for this, among other reasons, that some disorders are so rapid in their progress, the fret for instance, that gentlemen who reside at a distance from large towns would be prevented, in most cases, from applying that immediate relief which is so absolutely necessary.

While we are upon this subject, we cannot forbear observing, that the author should have extended his enquiry to those other disorders which he says are so little understood by practitioners in general, but which he leads us to suppose he himself does understand. We lament also that the professors of the Veterinary Art too often appear to keep to themselves some latent information, which if brought forth to discussion, would be attended with the most beneficial effects. What advantages might not be derived from a liberal communication to the public of difficult cases in practice, in the form of a Veterinary Journal!

HISTORY.

National Transactions.

GREAT BRITAIN.

AMONG the domestic occurrences of the past month, the circumstance by which the public mind has been principally agitated, was the alarming indisposition of our beloved Sovereign. His progressive convalescence, however, must afford sincere pleasure to every loyal subject.

The same doubt and uncertainty continues to prevail respecting the time when the so long threatened Invasion will be attempted, but report states that it is deferred till the end of March.

Notwithstanding the war in which we are engaged, and the utmost exertions of an implacable rival, either by force or artifice, to ruin our commerce with the continent of Europe, the total produce of the taxes for 1803 amounts to little short of thirty one millions sterling; a sum far exceeding that of former years, and which sufficiently demonstrates that our trade, manufactures, and general produce cannot have been much diminished.

GERMANY. The Emperor, with a vigilance and precaution which the critical situation of the continent so fully justifies, has ordered the formation of three armies on the frontiers of Bavaria. The first is collecting in Bohemia; the second, which is to consist of 20,000 men, is assembled near Linz; and the third, which will be the most numerous, is collecting in Upper Suabia and the Tyrol. These measures, which are stated to be purely defensive, have occasioned the warlike preparations of the French in Italy, and the augmentation of their troops along the Rhine. Austria, however, will, we are assured, preserve her neutrality, unless a closer connection take place with Russia, or France, Prussia or Bavaria give greater cause of provocation than they have yet offered. The rumour of an offensive and defensive alliance with Russia is very general in the Imperial capital.

The Austrian government has likewise dispatched a force towards the Turkish frontier, to cause the Eastern provinces to be respected by the rebels under Paswan Oglou and the revolted Janissaries at Belgrade, who make daily excursions upon their borders to collect plunder.

FRANCE. The threatened Invasion still continues to be a fruitful topic. Bonaparte is now stated to have discovered that his gun-boats are but ill calculated to contend with British ships of war, and in consequence, to have turned his attention to the squadrons in Brest, l'Orient, Rochfort, Ferrol, and the Texel, for more efficient opposition than could be expected from his flotillas at Boulogne and Flushing. The construction of additional gun-boats is not, however, neglected. With these and the squadrons in various stations, it is conjectured that one vast effort will speedily be made to cover at once the whole extent of the channel with his fleets and flotillas from l'Orient to the Texel. In the confusion that it is supposed must take place, he flatters himself that a great portion of his armaments may escape the British fleets, and effect a landing. The infatuated French soldiery are kept in such profound ignorance as to flatter themselves, that when the Channel is once crossed, their labours are at an end.

Intelligence has been received, that an embargo has been laid on all vessels at Bourdeaux, and that all the merchantmen at that place, to the number of about fifty, had been taken into the service of the Republic. It is likewise stated, that there are about 250 flat-bottomed boats at Bourdeaux, and that much activity was employed in fitting them out.

RUSSIA. The Emperor is reported to have ordered another levy of 80,000 men. The Cabinet of Petersburg appears daily more adverse to the politics of France. An army of 40,000 men are, it is said, ordered to march for the purpose of protecting the neutrality of Denmark. On this interesting subject we are still, however, without the necessary information on which a reasonable conjecture can be formed; but yet there appears good reason to believe, that even if the Emperor of Russia takes no decisive part against France, he views with jealousy the enormous influence of France, and the use which is made of it by the First Consul. There exists a hope, likewise, that the two Imperial Courts are approaching that state of confidence and good understanding, which without producing active hostility against France, must impose a powerful check upon her wild ambition.

EAST-INDIES. Dispatches received from the Governor of Ceylon, give an account of a melancholy disaster which has befallen the British troops com-

posing the garrison of Candi in that island. On the 24th of June last, during the period of a truce with the natives, the latter rose in great numbers and attacked the fort occupied by the British. The Commandant, Major Davie, unfortunately capitulated on the following day, and marched out of the fort with all his force; soon after which, the European soldiers, forty in number, were murdered in cold blood. The Malays and native troops were spared. Major Davie, a Captain of artillery, and four Malay officers were carried off, and their fate is unknown. Governor North seems to impute blame to the conduct of Major Davie, who probably may never appear either to vindicate or explain it. We hope this misfortune will not endanger the safety of our establishment in Ceylon, though private letters speak of its situation in the most desponding terms. The contest with the King of Candi, into which the government plunged itself, has hitherto been productive only of disastrous consequences; and the British force is so much reduced, that serious apprehensions are entertained for the safety of the settlement.

It is reported, that a desperate action has been fought between the British and Mahratta forces in the neighbourhood of Surat, which place was saved from falling into the hands of the enemy only by the timely arrival of the 65th regiment to its aid.

WEST-INDIES. An occurrence, of which it is impossible to foresee the consequences, has taken place in the Western hemisphere: we allude to the total evacuation of St. Domingo by the French, and the establishment of an independent negro power in that extensive island.

After an obstinate and sanguinary conflict with the blacks under the command of Dessalines, in which the French suffered very severely, the General in chief Rochambeau, on the 20th of November, after having proposed to surrender to the English on terms that were inadmissible, he formed a capitulation with Dessalines, the black Chief, by which his army were to embark on board his ships and transports, in the hope of making their escape to France. This scheme, however, was rendered abortive by the vigilance and perseverance with which our squadron maintained the blockade in the midst of tempestuous weather, and it is owing to the critical interference of British humanity, that the whole of the French were preserved from being sunk at their anchors by the red hot shot of the much injured and indignant Blacks.

With the precise number of the French ships which have thus fallen into our possession, we are yet unacquainted; but among them are La Clarinde, Le Ventue, and La Surveillante, of 44 guns each; Le Cerf and Le Don Cherville corvettes, besides several merchantmen, richly laden with valuable articles and colonial produce. The whole amount of the persons embarked on board the French shipping, including the soldiers, planters, merchants, women, and children, is little short of 5,000.

Agriculture.

BATH AND WEST OF ENGLAND SOCIETY.

Society's Rooms, Bath, Dec. 13th, 1803.

THE Bath and West of England Society, for the Encouragement of Agriculture, Arts, Manufactures, and Commerce, propose, in pursuance of their plan, to bestow the following premiums:—

CLASS I. *Agricultural Operations.*

1. *Ploughing.*—As in the whole circle of Agricultural practice, there is nothing more interesting to the farmer than *ploughing well and cheap*, the fol-

lowing premiums are offered, that a fair and general comparative trial may take place, in the year 1805, of the various ploughs of different constructions :

For the plough that performs best ; *Six guineas.*

For the second best ; *Four guineas.*

For the third best, if it has any real merit ; *Two guineas.*

And that rewards be also given to the ploughmen, viz.

To the ploughman of the first best, a Pair of Buckskin Breeches, or *a guinea.*

To the second best, a Pair of strong Sheepskin Breeches, or *half-a-guinea.*

To the third best, a Smock Frock, or *a crown.*

Particulars of the day and place to be agreed on at the February Meeting, and advertised in the Resolutions.

2. *Double-furrow plough.*—The cost of the said plough will be given as a Premium to the farmer who shall introduce, and plough therewith the greatest number of acres, in the year 1804, in any parish in the Western counties, wherein this plough has not before been used.

Claims to be made, accompanied with affidavits, at or before the meeting in February.

N. B. This plough turns two acres in a day with three horses, or four oxen.

A Premium of *five Guineas* will also be given for a Double-Furrow Plough on a new and improved construction.

3. *Ploughing with two Horses or a pair of Oxen.*—To the Farmer who, in proportion to the quantity of his arable land, shall plough the greatest number of acres, not less than twenty, with any Plough, drawn by two horses, or a pair of oxen only, and without a driver ; *Five guineas.*

Claims and attested certificates to be delivered in, at or before the November meeting, 1804.

4. *Use of the Drill-Plough and Horse-Hoe.*—A premium of *two guineas* will be given to the servant or labourer in husbandry, who, in the year 1804, shall sow with a Drill-plough the greatest number of acres, not less than fifty, with any kind of grain, or with turnips, rape, lucern, sainfoin, or other seeds.

A premium of *one guinea* for the next greatest number of acres so drilled, not less than thirty.

Also, a premium of *two guineas* to the labourer who shall in the best manner horse-hoe the intervals or alleys between the rows of the greatest number of acres so drilled.

Certificates of the number of acres drilled or horse-hoed, and that the work is well done, signed by the master, to be produced at or before the Society's meeting in Sept. 1804.

The said premiums are extended to the year 1805, for crops which require it ; and, in that case, certificates to be sent in prior to the September meeting in that year.

5. *Drilled Wheat or Barley.*—To the farmer who shall, in the years 1804 and 1805, raise the greatest crop of Drilled Wheat or Barley in a fair comparative experiment with broadcast on the same land, and render an accurate account of the expences ; each crop to be not less than two acres ; *Five guineas.*

Claims to be made on or before the first of November 1805, with affidavits of the quantity per acre, &c. Crops to be inspected.

6. *Drilling and Hand-hoeing Wheat.*—To the person who, in the years 1804 or 1805, shall ascertain by full and fair experiment, on similar soil, and under similar preparation, the comparative produce in the Drill-husbandry between *drilling and hand-hoeing* at least one acre of Wheat, on which not less than six pecks of seed had been drilled ; and drilling, and twice or thrice scarifying, the same quantity of land, with half the quantity of the same seed ; *Five guineas.*

7. *Drilling and hoeing turnips.*—To the person in the Western counties, who in the year 1804, shall drill, and afterwards twice effectually hoe, the greatest number of acres of Turnips, in proportion to the size of his arable farm;—Notice to be given immediately after drilling; *Five Guineas.*

8. *Dibbling Wheat.*—To any person who, in the year 1804, shall set by Dibble, in a skilful manner, the greatest number of acres, not less than ten; and produce to the Society an accurate account of the expence, quantity of seed dibbled per acre, and the produce; also an account of the quality and value of the land; *Five guineas.*

9. *Hoeing Turnips.*—To the labouring man or woman in any part of the West of England, (where turnip-hoeing has not been common) who shall hand-hoe the greatest quantity of Turnips in one season, not less than five acres, in the best manner; *Three guineas.*

N. B. All claimants must deliver in their claims, with their names and places of abode, the number of acres hoed, and the sort of hoe used, certified by the masters for whom they worked, and the ministers and churchwardens of the parishes where the work was done, to the Secretary, on or before the first of November 1804.

10. *Women Reaping.*—To the woman who, in the harvest of 1804, shall, where the practice is not common, reap the greatest number of acres of wheat, (not less than five) and perform the same in a skilful manner; *Two guineas.*

To the woman who shall reap the next greatest number of acres, not less than four, in a like manner; *One guinea.*

Certificates of the work done, signed by the master, to be sent with claims on or before the first of October 1804.

11. *Threshing and Winnowing Machine.*—To the person, in either of the four Western counties, Somerset, Wilts, Gloucester, or Dorset, who on or before the first of October 1804, shall give notice to this Society of his having invented and erected, in the said current year, any Machine for Threshing and Winnowing Corn, not to exceed 50*l.* cost, which, taking all circumstances into consideration, shall be found by a Committee of this Society, to be the most valuable for the clean and expeditious performance of both operations; *Ten guineas.*

N. B. If more than one shall have been so erected, and notified, the premium, shall be given for the most valuable for general use.

12. *Working with Neat Cattle.*—To the person in the Western counties, who, in the year 1804, shall, in proportion to the quantity of his arable land, do the greatest quantity of work on such farm with neat cattle; *Five guineas.*

13. *Comparative Experiments between Broadcast and Drill Husbandry.*—To the person who, from actual experiments, made by himself during a course of seven years, shall prepare and lay before the Society the best comparative estimate of the success attending the Broadcast and Drill Husbandry, on the four grand divisions of soil, to wit, sand, loam, chalk, and clay, or either of them; fairly stating the expence of each through the usual course of crops, together with the nett produce, and profit or loss, each year, will be given such a reward as the said account may, by able and proper judges, be thought to merit, not exceeding *twenty guineas.* The said estimate to be given in at the Society's meeting in November 1804.

14. *New Experiments in Husbandry.*—An honorary premium, proportioned to merit, will be given to the person who, on or before the 1st of Nov. 1804, shall send to the Society a clear and explicit account of any new experiment in husbandry, which he has himself made, and which the Society shall deem of an interesting nature.

N. B. This Premium is extended to accounts of Planting; and breeding or rearing Cattle.

15. *Small Garden Farms.*—To the Clergyman, Overseers of the Poor, or other principal inhabitants of a country parish, who, in the course of three

years, shall procure to be annexed to any parish workhouse, or house of industry, the greatest quantity, not less than six acres of ground, to be cultivated by the inhabitants of such house, of different ages and sexes, in any district where manufactures are not established, or where manufactures are at a stand, or declining; such Garden Farm to be conducted on the dibbling, setting, and hand-hoeing system, with a view to affording a healthy and useful exercise to those who are capable of it, and the early training of poor youth to useful field labour; the success of the experiments to be accurately reported to this Society by the principal agent in such undertaking; *Ten guineas.*

CLASS II.—Soils and Manures.

1. *Best mode, time, and state of applying Manures and Compost.*—To the person who, from his own experiments, actually made, or which he may make during the years 1804 and 1805, shall ascertain and point out the best mode, time, and state of applying lime, soaper's or other ashes, or any other manure, on pasture or other land, and give an explicit account of its operation and success, specifying the nature of the soil; *Five guineas.*

The number of acres, the quantity of manure laid on each acre, the value of the land before and after such manuring, and a fair estimate of the expence, to be sent in, attested, at or before the Society's meeting in Sept. 1805.

2. *Use of Gypsum, or Plaster of Paris.*—To the person who, in the year 1804, or 1805, shall send to this Society the most full and satisfactory account of his success in the use of Gypsum, or Plaster of Paris, as a manure, either on pasture or arable land, and on the greatest number of acres, not less than five; the kind of soil, and its previous state, to be exactly described, and the account to be sent to the Secretary on or before the first of November in either year; *Ten guineas.*

3. *New Manure or Compost.*—To the person who, from his own experience fully attested, shall discover to this Society, on or before the 1st of November 1804, any cheap and valuable manure or compost not heretofore known to be generally found or made, and which shall be adapted for the improvement either of arable or pasture land; *Five guineas.*

CLASS III. Crops and Plantations.

1. *Cultivation of Froment Tremés, or Spring-Wheat.*—To the person who in the spring of 1804, shall sow the greatest quantity of land, not less than two acres, and produce the best crop in proportion to the quality of the land, with a sort of spring-wheat long tried and approved as bread-corn, and at this time more generally cultivated in the island of Jersey than English wheat, called *Froment Tremés*, from the circumstance of its ripening in three months from the time of sowing, and shall afterwards sow the same land with turnips or winter vetches; *five guineas.*

The growing crop, if a promising one, to be viewed by the Society's Inspectors; and all claimants to produce certificates of the quantity and value of the land sown, and the nature of the soil, on or before the first of December 1804, and a loaf of the bread, and a sample of the grain, at the annual meeting following.

2. *French, or Buck-Wheat.*—To the person who in the spring of 1804, shall sow the greatest quantity, not less than ten acres with French or Buck-Wheat, and the following autumn sow or plant the same land with wheat: the produce of wheat not to be less than 30 bushels per acre; *five guineas.*

All claimants to produce certificates of the quantity of land sown, the nature of the soil, and the produce of both crops per acre, on or before the first of November 1804.

3. *Feeding Sheep with Wheat.*—To the person who in the year 1804, shall sow or plant a quantity of land, not less than one acre, with wheat, and shall feed the same with sheep the summer following; and in the second year shall let the same stand for a crop, giving an account to the Society of the

nature of the land, and the produce of this experiment, compared with the usual produce of the same land; *five guineas*.

4. *Smut in Wheat*.—To the person who shall discover, and in the year 1804, satisfactorily point out to the Society an effectual method of preventing the smut in wheat, to be verified by experiments; *ten guineas*.

Claims to be made on or before the first of September 1804.

5. *Best and cleanest Crops of Corn*.—To the farmer who in proportion to the quantity and quality of his land, shall in the year 1804, in a general point of view, exhibit the best crops of corn, pulse, roots, grasses, &c. and whose farm in respect to fertility, cleanness, fences, &c. shall be found in the most complete order, and the occupier of which shall have had it in possession at least three years prior to the claim; *ten guineas*.

Claims to be made on or before the first of April, and the crops to be viewed between May and August.

6. *Cultivation of Rye*.—To the person who shall in the year 1804, harvest the greatest number of acres of rye, not less than six (raised on land not proper for the culture of wheat) in proportion to the size of his farm, and produce the greatest crop per acre, the nature of the soil and the mode of culture to be described; *five guineas*.

7. *Planting Potatoes*.—To the person who, from experiments actually made, shall discover whether the planting of whole potatoes, cuttings, shoots, eyes, or what other mode is to be preferred, and if whole, of what size; *five guineas*.

The quantity or weight planted per acre in each method must be specified, and claims made at or before the meeting in November 1804.

8. *Curled Disease in Potatoes*.—To the person who shall discover the cause of, and point out an effectual remedy for, the curled disease in potatoes, and communicate the same to the Society, with satisfactory proofs annexed, on or before the first of November 1804; *five guineas*.

9. *Cultivation of Potatoes*.—To any person who shall be found to have the most merit in renewing and continuing that most valuable root the potatoe, by obtaining new varieties from the seed, excellent both for bearing and eating, to supply the place of the once famous sorts that are now curled, dying, and no longer worth cultivating; *five guineas*.

10. *Turnips for Autumn Feeding*.—To the person who shall raise for fall feeding the greatest weight of turnips per acre, (not less than twenty-five tons) on the greatest number of acres (not less than five) in proportion to the quantity and quality of his arable land; the said crop to be twice hoed; *five guineas*. Claims to be made, and the crops viewed, before the meeting in November 1804.

11. *Turnips for Spring Feeding*.—To the person who shall raise, in proportion to the quantity and quality of his arable land, the greatest weight per acre, (not less than eighteen tons) on the greatest number of acres, (not less than five) of turnips twice hoed for spring feeding; *five guineas*.

For the next greatest quantity on farms of not more than 50l. a year; *three guineas*.

Claims to be made, the crops viewed, and certificates of the weight per acre and number of acres to be produced, on or before the 10th of March 1805.

N. B. These two premiums are restricted to parishes where the turnip husbandry has not been in general use.

12. *Scotch, Anjou, and other Cabbages*.—To the person who, in proportion to the quantity and quality of his land, in the year 1804, shall raise the best crop or crops of Scotch or other cabbages, as autumn or winter food for cattle or sheep; *five guineas*.

To the person who, in the year 1805, shall raise the greatest crop for spring feeding; Premium of equal value.

The quantity of land planted not to be less than three acres, on farms above 50l. per annum; or two acres on farms of smaller value. Claims to be made, and the autumn crops viewed on or before the first of November 1804; the weight not to be less than twenty-five tons per acre. Claims to be made, and the spring crops to be viewed, on or before the first of March 1805, the weight not to be less than fifteen tons per acre.

13. *Preserving Turnips or Cabbages in Winter.*—To the person who, on or before the first of September 1804, shall discover and communicate to the Society, a cheaper and more effectual method than any now generally known, of preserving turnips and cabbages from frost and rotting through the winter, as spring feed for cattle in March and April; *five guineas*.

N. B. Specimens of the turnips and cabbages so preserved, to be viewed by persons appointed, or to be produced at the Society's meeting in April 1805.

14. *Turnip Cabbage Plants.*—To the farmer who shall plant the greatest quantity of land, not less than two acres, in the year 1804 or 1805, with turnip cabbage plants, at the distance of not less than two feet asunder, hoe the same twice, and feed them off with sheep in the following spring; the weight per acre as nearly as may be, to be ascertained; and a particular account of the culture, and the quantity of stock sustained by them, sent to the Society previously to the meeting in June or September 1805, respectively following; *five guineas*. Notice to be given that the crop may be surveyed previously to the time of feeding it off.

15. *Turnip-rooted Cabbage.*—To the person who, in the year 1804, shall, in proportion to the quantity and quality of his arable land, raise on the greatest quantity, not less than three acres, the best and heaviest crop of turnip-rooted cabbage for spring feed; *five guineas*.

Timely notice to be given for the crop to be viewed; and claims to be made in February or March 1805.

16. *Parsnips as food for Cattle.*—To the farmer who, in the year 1804, shall raise on the greatest quantity, not less than two acres of land, the greatest weight of parsnips per acre, as food for neat cattle, sheep or swine, and ascertain by his own experiments their real and comparative value with carrots, turnips, or potatoes, and report fully and explicitly on the subject, at or before the meeting in June 1805; *eight guineas*. Claims to be then made.

17. *For an autumnal Crop of Turnips by the Northumberland Culture.*—To the person who shall raise for autumn feeding the greatest weight of turnips per acre, cultivated according to the method set forth in the Agricultural Report of the county of Northumberland, not less than 28 tons per acre, on any number of acres, not less than five; *five guineas*.

To the person who shall raise the greatest weight per acre, not less than 20 tons for spring feeding, on any number of acres, not less than five, cultivated in the above method; *five guineas*.

The crops to be viewed before the November meeting.

18. *Improving the Species of Wheat.*—To the person who in the year 1804 or 1805, shall import, or cause to be imported, the greatest number of specimens of foreign wheat, and shall sow not less than one peck of each, (Winchester measure), keeping each specimen entirely separate and remote from any other wheat, to prevent a spurious impregnation, selecting carefully samples of such grain as shall ripen *most early*, or discover any other *superior quality*, preserving it for seed to be sown in September or October following, and the result to be communicated to the Society, with specimens of the grain, and the mode of culture, &c.; *ten guineas*.

19. *The Yellow-blossomed Vetch, &c.*—To the person who shall make and report the most satisfactory experiments on the *Lathyrus Pratensis*, commonly called the yellow-blossomed perennial vetch, the bush vetch, or any other

vetch not generally used in agriculture, sown or planted upon not less than two acre of ground, tending to its introduction as an article of common husbandry; *five guineas.*

N. B. This is not intended to preclude the continued cultivation of the blue vetch; for any new and valuable experiments in the growth and use of which, the same premium is hereby offered.

The crops to be viewed, and claims to be made, at or before the Society's meeting in September, 1804.

20. *Lucerne*.—To the person who, in the year 1804, shall sow and drill with lucerne an entire field or inclosure, not less than ten acres, of soil as nearly equal as may be, one-fourth to be sown broadcast, three-fourths to be drilled at different distances. The whole to be kept equally clean and free from weeds, or as nearly so as may be, and equally manured. An exact account to be kept during three years, of the respective cuttings and weight of produce from the different varieties through the whole of the experiment. The said field to be annually viewed by a standing Committee of this Society, and a written statement to be brought to the November meeting, or sent in on or before the first of November 1807; *ten guineas.*

21. *Natural Grasses*.—To the person who, from actual experiments, by separate sowings on measured quantities of land, and by distinct feeding or cutting, shall satisfactorily ascertain, and communicate in writing to this Society, the comparative value of the different natural grasses now in use; the comparison to be both against each other in feeding the different kinds of cattle, and against those usually termed artificial grasses, and green foddering crops, for the same purpose. The best method of culture to be pointed out, together with the soil best adapted to each species; *ten guineas.*

Timely notice to be given to the Secretary of an intention to claim for such experiments, that the Society's inspectors may have an opportunity of observation in the current year.

22. *Succory or Wild Endive*.—To the person who, in the year 1804, shall produce the greatest weight per acre, in proportion to the goodness of the land, of succory or wild endive, on the greatest quantity of land, not less than one acre; and shall report to the Society the nature and culture of the soil, and the effects of that vegetable as a food for neat or other cattle; *five guineas.*

Notice to be given of intention to claim, that a Committee of Inspectors may be appointed at or before the general meeting in June.

23. *Substitute for Broad Clover*.—To the person who, in the years 1804 and 1805, shall introduce and make known to the Society, the best substitute for broad clover, (sainfoin excepted;) or who shall, by actual experiments, discover in what manner lands on which broad clover has of late years generally failed, may be managed so as to admit of that plant being again cultivated thereon with success; *five guineas.*

Claims to be made on or before November the 1st, 1805.

24. *Madder*.—To the person who (not having cultivated that plant) shall, in the autumn 1804, plant the largest quantity of land, not less than two acres, with madder, and in the year 1808, shall produce the largest quantity of the root cured as well, and which shall be as good for the purpose of *dying*, as that imported from Holland; *twenty guineas.*

A specimen of not less than twenty pounds of the said root to be produced at the Society's meeting in November 1808, with certificates testifying that the rest is of equal quality.

25. *Apple-Trees for Cyder*.—To the person who shall, in the years 1804 or 1805, plant upon his arable land the greatest number of apple-trees for cyder fruit, in direct rows forty yards distant, so as not to prevent the land from being easily ploughed, and shall fence and protect such trees from the bite of cattle; *five guineas.*

No claim to be admitted for a less number than two hundred trees; and any claim for such or a larger number to be made in or before the month of June 1806.

26. *Cyder.*—To the person who, from the growth of 1804, shall make the greatest number, not less than three hogheads of cyder, from as many different sorts of apples, keeping all the sorts perfectly unmixed; all such different sorts of cyder to be superior in strength, richness and flavour, to any cyder generally made in any part of this kingdom; the whole process to be described to the Society's satisfaction, and the cyder to be tasted and judged by a Committee to be appointed for that purpose, in August following; *twenty guineas.*

27. *Apple Trees from the Seed.*—To the person in either of the Western counties, who shall produce at any general meeting in the autumn of the current year, or of any of the four succeeding years, the best or most valuable samples, not less than five in number, of new varieties of apples raised by himself from the seed, or from trees planted by himself, either for cyder or table fruit; and who shall, if required, favour the Society with a few grafts of each variety; *five guineas.*

Certificates of the facts to be produced, if required.

N. B. The same premium will be given for a similar production of as many new varieties of valuable pears, either for table use or making perry.

28. *Orchard Plantation.*—To the person who, in the year 1804, shall have planted the largest inclosure of pasture ground, not less than two acres, with apple and pear trees, grafted on crab or other stocks of approved use, which shall include the greatest variety of new and valuable sorts of fruit for cyder, perry, and other uses, whether of his own or other person's selecting or improvement. The qualities of the sorts of fruit to be described. One-half or one-third of such land to be kept in pasture for cutting hay and feeding sheep; and the other part or parts to be dug or ploughed, or both, and kept in a state of cultivation for raising potatoes, cabbage, beans, or other field or garden crops, with a view to turning the soil to the greatest profit. The planter to prepare from accurate minutes kept of his progress, and present to the Society, at or before the November meeting in 1807, a satisfactory account of the comparative annual success of his experiments, inclusive of manuring, comparative growth, and the then more or less promising condition of the trees, consequent upon the different modes of managing the soil. The whole to be annually inspected by a Committee of this Society; *ten guineas.*

29. *Fruit-Trees in the Fringes of Pleasure-Grounds.*—To the gentleman resident in any part of the Western counties who shall, in the years 1804 and 1805, have planted at convenient and ornamental distances, in such fringes of trees and shrubs, the greatest number, not less than two hundred, of the best and most approved kinds of young apple and pear trees, on grafted stocks; the names of the fruit to be accurately given, and the plantation to be viewed by a Committee of this Society in the summer of 1805; *five guineas.*

30. *Raising White-Thorn for Quick-Hedges.*—To the person who, in the years 1804 and 1805, shall raise from the haws, or by any other method, the greatest number, not less than one hundred thousand, of white-thorn plants for quick hedges, and shall keep the same clean from weeds till they are fit for transplanting; *five guineas.*

A certificate to be produced of the method of raising, and the number of plants, and the claims to be made, at or before the Society's meeting in October 1807. The plantation to be viewed by the Society's Inspectors.

31. *Planting Bogs with Ash or Abele.*—To the person who shall at his own charge, raise or plant the largest quantity of boggy land with ash or abele, or both, either for timber or underwood; the land planted to be not less than one acre, and the number of plants per acre to be not less than three thousand if planted, or six thousand if sown: *five guineas.*

32. *English Opium.*—To the person who, on or before the November meeting 1804, shall produce the greatest quantity of opium, not less than eight ounces avoirdupoise, from the English poppy, raised by him for that purpose; *five guineas.*

Half an ounce of the opium to be delivered to the Society as a specimen for further examination.

N. B. The culture of the plant, and the mode of obtaining the opium by simply scarifying the poppy-head, are fully described in a late volume of the London Society of Arts, &c.

33. *Raising Potatoes by Cottagers.*—To each of four cottagers in the Western counties, not renting more than five pounds per annum, who, in the year 1804, shall raise in his own garden-plot, or ground furnished by his master, the greatest quantity not less than thirty bushels, nor less than three bushels per perch, of good potatoes; *one guinea.*

Claims, with an account of the quantity raised signed by the claimant, and attested by his master and the overseer of the parish, to be sent on or before the 1st Tuesday in November 1804.

34. *Recovering Sheep Downs, worn out by Burn-beaking.*—To the farmer who shall, from actual experiment on not less than twenty acres, at or before the meeting in June 1807, point out the best and least expensive method of recovering sheep-downs that are worn out by the practice of burn-beaking or denshiring; *twenty guineas.*

Certificates to be produced of the state of the land previous to the beginning of the process, and again on the premium being claimed. The soil also to be described.

35. *Extinction of Summer-Fallows.*—To the person who, in the course of seven years, shall determine how far the total extinction of summer fallows on light lands may be practised with success; *five guineas.*

The same premium for the same experiments on heavy lands. Claims to be made at or before September meeting 1809.

CLASS IV.—*Live Stock.*

1. *Bulls for Stock.*—To the person who, residing in one of the western counties, shall breed and exhibit the best bull for the purpose of improving stock; *five guineas.*

The bull to be viewed at two or three years old, by the Society's Inspectors, and notice of an intention of claiming the premium to be given to the Secretary before midsummer 1804.

2. *Dairy Cows.*—To the person who, from his own experience in the years 1804 and 1805, shall most clearly shew to the Society, which kind of cows are most profitable as dairy stock on the pasture and arable farms of the western counties; also by what kind and manner of winter feeding, the greatest quantity of the richest and finest flavoured milk may be produced at the least expence; *ten guineas.*

3. *Best Cow for Stock.*—To the person who shall exhibit to the Society the best cow with her offspring for stock, with an account of their respective ages, and the breeder's name; *five guineas.*

4. *Rearing Calves with the least quantity of Milk.*—To the farmer who, from January 1804 to January 1805, shall rear the greatest number of calves, not less than five, with the least quantity of milk, and who shall discover to the Society the best and cheapest method of so rearing them; *six guineas.*

The calves which have been so reared, to be viewed by the Society's Inspectors, previously to the November meeting 1805, and as nearly as may be under similar circumstances.

5. *Breed of Neat Cattle.*—Twenty Guineas will be given to the breeder in either of the Western counties, who, in the years 1804, 1805, or 1806, shall exhibit to the Society, the two year old bull with its fire (which may or may not have been cut) and its dam, all of his own stock, which shall appear to be the best breed, as to the three points of useful strength and activity, disposition to take fat in the most valuable parts, and capacity of giving the largest quantity of the richest milk.

6. *Feeding neat Cattle.*—To the person who, in the years 1804 and 1805, shall set forth in writing, founded on his own experience, by what kind and manner of feeding neat cattle the greatest increase of beef may be produced at the least expence; *five guineas.*

7. *Comparative Feeding Cattle and Sheep.*—To the person who, in the year 1804, by an experimental process shall discover to the satisfaction of the Society, whether neat cattle or sheep increase most in flesh from an equal quantity of the same kind of food, of at least three different sorts; *ten guineas.*

Notice to be given of an intention to commence such experiments, in order that proper inspectors may be appointed by the Society.

8. *Best Fat Beast.*—To the person who, in the year 1804, shall exhibit to the Society the best fat ox, steer, cow, or heifer, in respect of the age, form and quality of flesh, fatted by himself, with a correct account of the expence of fattening as nearly as may be, to have been fatted on grass, hay, roots, or green vegetables, some or one of them; the owner, if not the breeder, to give in the name of the breeder, if known, also the age of the beast; *five guineas.*

Notice to be given to the Secretary before the meeting.

9. *Working Neat Cattle.*—To the person in the Western counties who, in the year 1804, shall produce to the Society the best pair or team of oxen, or any neat cattle, in their usual working order; (from four to five years old) which shall have been worked twelve months together on the farm of the present owner; *five guineas.*

10. *Most valuable Breed of Sheep.*—To the person or persons, who, in the years 1804 or 1805, shall, by any experimental method which he or they shall devise, ascertain to the satisfaction of this Society, which of the under-mentioned breeds of sheep is in the present state of commerce and agriculture, most valuable for the carcase and wool taken together; that is, which, for carcase and wool united, shall pay most for a given quantity of keep; *twenty guineas.*

1. Ryland.
2. The native Mendip.
3. The South-Down.
4. The Dorsetshire.
5. The Leicestershire.
6. Any produce of English ewes with Spanish rams.

In order to give a claim to the whole premium, all these sorts must be brought into comparison; and the premium shall be diminished in proportion as the number of sorts shall be smaller. If more than one experimental farmer shall engage in the trial, the premium, if awarded at all, shall be divided according to the merit of the parties; and if no satisfactory conclusion shall be drawn from such experimental trial, the amount of half the premium shall be given, as a token of the Society's approbation of the great merit of the attempt.

The sheep shall all be two tooth'd, when put to the experiment; which shall be conducted on a scale of at least three sheep of each sort, and shall begin immediately after they are shorn in June 1804, and continue till their next shearing, before the general meeting of the Society in June 1805; at which meeting their fleeces of the same year shall be exhibited to the Society.

The maker of the experiment shall not be the owner of any of the sheep; and in order to excite competition, *five guineas* will be given by the Society to the person whose lot of sheep shall prove most valuable. Should more parcels of any sort of sheep be entered, the right to competition shall be decided by the Secretary by lot: except in the case of the sort No. 6, which shall be selected merely in respect to the superiority of fineness of the fleeces; such selection to be made at the meeting in June 1804, by a Committee of experienced persons then to be appointed for that purpose.

Notice of an intention to claim shall be given at least one month before the Society's meeting in June 1804, in order that a Committee of Inquiry may be appointed, who shall consist of two experimental farmers, one butcher, and two woollen manufacturers; which five persons shall have two guineas each for their trouble of repeated inspection, while the animals are living, and for examination and judgment after they are killed. One month's previous notice of the day of killing shall also be given to the Secretary, in order that the said Committee may be properly apprized thereof.

11. *Best Nott and Horned Ram.*—To the person who, in the year 1804, shall exhibit to this Society the best yearling nott ram, bred by himself, and which shall be found to unite the most of those qualities usually considered as requisites in a good sheep; *five guineas*.

N. B. The same for the best horned ram under similar circumstances. The fleece last shorn to be exhibited at the same time with the ram, in both instances.

12. *Ram Lambs.*—To the person who, in proportion to the number of his stock, shall breed and rear from sound stock, and exhibit to this Society in the year 1804, the largest number of the finest ram lambs for the purpose of improving the breed of sheep in the western counties; *ten guineas*.

Notice to be given to the Secretary of an intention to claim the premium on or before midsummer day 1804, that the lambs may be viewed as the Society shall direct.

13. *Best Sheep from a Spanish Ram.*—To the person who, in 1804, shall exhibit the best lot (wool and carcase taken together) of shearling sheep, consisting of not less than four wethers, and as many ewes, the produce of a Spanish ram with English ewes, or any cross of them, and not less than four dips from the Spaniard; *five guineas*.

The fleece of each lot to be exhibited to the examining Committee at the same time with the sheep, and each candidate to specify the quality of the English ewes from which the breed is formed.

14. *Best Fat Sheep.*—To the person who, in the year 1804, shall exhibit to the Society one or more fat sheep bred and fattened by himself, the best for shape and quality of flesh; and the dead profitable weight of which (tallow included) shall bear the greatest proportion to the weight when alive, and be deemed worth most money per pound; with an account of the mode and expence of fattening; to have been fed with grass, hay, roots, or green vegetables some or one of them: the owner to state the age of the sheep; *five guineas*.

15. *For the greatest number and most profitable sort of Sheep.*—To the stock farmer who shall have bred and kept, in the usual mode of husbandry in the neighbourhood, the greatest number and most profitable sort of sheep in proportion to the size of his farm, in consequence of his having changed his sort of sheep from what had been usually kept on the farm, or on similar farms in the neighbourhood, a premium of *twenty guineas*.

A competition required, or the merits of a single claimant to be of a positive nature.

Notice to be given to the Secretary by each claimant, if there be a competition, at or before the meeting of the Society in April, and the view to be made by a Committee between the 1st and 20th of June.

16. *Medical Treatment of Sheep.*—To the person who, on or before the first of November 1804, shall send to this Society an account of the most accurate experiments, to prove how far regimen contributes to the fattening of sheep where the diet is similar. It is proposed that the sheep should be home-fed, that the observations may be more correct. The object is to ascertain how far frequent bleeding in small quantities each time, or the use of salt, tar, or other substances acting as stimulants, affects the general health, alters the wool, or promotes fattening of the sheep; *five guineas.*

17. *Improvement in Swine.*—To the person who, in the year 1804, shall exhibit to the Society the best boar, or sow with her offspring of indefinite number, with an account of the general keep on which they have subsisted: the main object in view being to ascertain the sort which will produce the greatest quantity of valuable weight at the least expence; for either *five guineas.*

18. *Rearing Pigs.* To the farmers who shall, in the years 1804 and 1805, ascertain by experiment, and in proportion to the size and nature of his farm, breed the greatest number of the best sort of pigs, and keep the same till four months old, in either of the western counties; *five guineas.*

Satisfactory proofs of the number so raised to be produced to the Society at or before the November meeting in 1804.

19. *Store Pigs and Hogs.* To the person who, in the years 1804 or 1805, shall write and send to this Society the best account, founded on his own experience, of the most beneficial mode of breeding and rearing store pigs, and of fattening hogs; *three guineas.*

20. *Best mode of using Potatoes in fattening Hogs.* To the person who, by repeated comparative experiments in 1804 and 1805, shall ascertain, and fully impart in writing to the Society, the comparative advantages of fattening hogs by the four following methods:

1. On potatoes boiled in steam alone.
2. On baked potatoes alone.
3. On potatoes boiled in steam, given with grain or flour of grain.
4. On baked potatoes given with such grain or flour.

The hogs to be as nearly alike in previous size and condition as may be; to be weighed when put to feeding in each case, as well as when killed. The quantity of each kind of feed to be particularised in each case; the calculation to be made at fair prices, and plan of proceeding to be alike in both years; not less than three hogs to each experiment; *five guineas.*

Claims to be made on or before the first of November 1805, and affidavits if required, to be made of the accuracy of the accounts.

21. *Cart Horses.* To the person who shall breed and rear for covering, within either of the western counties, the best cart horse; *five guineas.*

22. *Subsisting Working Cattle.* To the person who, by experimental process through one complete year, shall accurately ascertain, to the satisfaction of this society, the cheapest means of subsisting in good working condition a team of not less than four horses in husbandry. Report to be made in writing previous to the November meeting 1804; *five guineas.*

N. B. The same premium will be given for a team of oxen, not less than eight, under similar conditions.

23. *Mules.* To the person who, during twelve months in the years 1804 and 1805, shall use for the common purposes of husbandry, a number not less than three, of mules not under thirteen hands high; and who shall give in writing to this Society a satisfactory account of the advantages or disadvantages attending the use of those animals, on a comparison with horses or oxen, taking into the estimate an accurate account of the expence of keeping; *five guineas.*

24. *Stocking Pools with the Common Leech.* To the person who, in the year 1806, shall prove to the satisfaction of the Society, that he has stocked

in the western counties with the common leech the greatest number of pools, not less than ten, in which that animal was not before found, and that it has thriven and multiplied therein; *five guineas.*

25. *Comparison between the small and the larger sorts of Animals.* To the person who, by a series of comparative experiments during three years at least, shall prove to the satisfaction of the Society, which are the most profitable to the farmer, and of course to the community, large or small animals, taking in all the different uses of each, the kinds of soil on which they are kept, and the most important characteristic of the animals which determine the preference; *twenty guineas.*

CLASS V.—Wool.

No. 1. *Sheep most valuable for Wool.* To the person who, in the years 1804 or 1805, shall fully and clearly ascertain, by fair experimental practice, what race of sheep now known in Britain, either by the present common, or by any other improved method of managing a flock of sheep, will produce, in any or all of the western counties, the largest quantity of the finest and most valuable wool, for the finer woollen manufactures of this kingdom; together with a statement of the comparative value of such wool to the farmer, in respect of the coarser and more common sorts; and who shall state those particulars in writing to the satisfaction of this Society; *ten guineas.*

N. B. The nature of the soil is to be taken into the account.

2. *Greatest number of fine woolled Shearling Rams.* To the person who, in the year 1804, shall exhibit to the Society the greatest number of two tooth'd rams, not less than eight, bred by himself, of any kind, (the unmixed Spanish breed excepted;) which taken together, shall have the most valuable fleeces of clothing wool, in proportion to the weight of the living animals producing them at the time of shearing; *ten guineas.*

3. For the next greatest number, not less than four; *five guineas.*

The rams to be exhibited unhorn, at the general meeting of the Society in June; and their fleeces shorn before the 1st of July, to be produced, with the weight of the rams properly attested, on the day before the annual meeting in December.

When the fleeces are of equal value, in proportion to the weight of the same number of rams producing them, the preference shall be given to that lot, which has the superiority as to the form of the carcase.

4. *Competition between Manufacturers of Navy Blue British Cloth, and Uniform White Kerseymere.* To the manufacturer of the finest piece of navy blue cloth, dyed in the wool, not less than 25 yards, made from the R. wool of any breed of sheep, but the unmixed Spanish, and sorted from the fleece in the Spanish method of R. F. and T., with the name of the grower, and the weight of the three sorts respectively, after they shall have been separately scoured and picked, to be produced on or before the November meeting 1804; *ten guineas.* The fleeces to be sorted at the manufacturers.

Five Guineas to the manufacturer of the finest piece of uniform white kerseymere, under the same conditions.

5. *Competition between Growers of British Clothing Wool.* To the person from the smallest weight of whose entire fleeces of scoured wool, shorn from his own flock of any sheep bred by himself, except the unmixed Spanish breed, and thrown into three sorts only, after the Spanish method of R. F. and T. shall be made a piece, not less than 25 yards, nor inferior in proportionable quantity to that of other competitors, of the finest and best navy blue broad cloth, dyed in the wool; to be shewn at the first meeting of the Society in November 1804; *eight guineas.*

All the wool to be scoured after sorting; but the R. wool only of the English fleeces to be employed in the fabrick; and all the clothes to be made,
in

in comparison with a similar piece from R. Spanish wool, by one manufacturer, to be chosen by ballot by a Committee appointed for that purpose at the general meeting of the Society in June; which manufacturer shall be rewarded with *ten guineas*, for his care in superintending the fabrick, exclusive of his expences in manufacturing the cloths. The said Committee to meet on the second Tuesday in July following, and no manufacturer to be admitted as a competitor who does not, on or before that day, notifying to the Society his intention to become a candidate. All the wool which is intended for the competition to be exhibited in the entire fleeces unwashed, either on the sheep's back, or afterwards, and without any name annexed, at the said meeting in July; when, if the number of specimens exceed *three*, the Committee shall select the three sorts which appear to them to be the finest, and these three sorts only shall be admitted into competition for the premium.

The fleeces to be afterwards sorted in any place, or by any person, at the option of the grower, who must produce satisfactory proofs that the wool which he sends makes up the whole of the fleeces, (dog locks excepted) and no more. The R. F. and T. wool of each candidate must be separately scoured by the manufacturer, and the weight of each sort, when scoured and picked, given into the examining Committee, in order that the proportions of each sort in the fleeces of the respective candidates may be exactly ascertained. The successful candidates are also required to produce to the Society as particular an account as possible of the wool and manufacture.

Premiums of *five* and *eight guineas* respectively, under the same conditions, will be given for the wool, and to the manufacturer of uniform white kerseymere.

In order to extend as widely as possible the views of the Society, it is directed that these two premiums for broad cloth and kerseymere shall be offered in annual rotation to manufacturers in the counties of Dorset, Devon, Somerset, Wilts, and Gloucester, viz. for the county of Dorset, in the year 1804, and so on.

N. B. It is expected that all the broad cloths and kerseymeres shall be manufactured as nearly as possible in the same manner; and that the comparative pieces of Spanish broad cloth and kerseymere shall be exhibited at the same time with them.

6. *The most valuable fleece of Wool from a British Ram.* To the person who shall exhibit to the Society, in the year 1804, shorn the same year from any ram bred in Great Britain, and being his own property, an entire fleece of clothing wool, which shall be of the greatest value in proportion to its weight; *five guineas*.

For a fleece of ewe's wool, under the same conditions; *three guineas*.

7. *Best piece of Navy Blue Broad Cloth from Lamb's Wool of British growth.* To the person, from the wool of whose lambs, bred in Great Britain, and being his own property, shall be manufactured, and exhibited to the Society in the year 1804, the finest and best piece of navy blue broad-cloth, dyed in the wool, and not less than twenty-five yards in length; *eight guineas*.

The proportion of the fleece used in the manufacture, as well as the actual weight of the whole wool, before and after scouring and picking, together with as many particulars as possible of the race of sheep and manufacture, to be produced to the Society properly attested.

CLASS VI.—Mechanics.

1. *Invention and Improvement of Ploughs.* To the person who, in the year 1804 shall invent or materially improve any plough, so as to render it superior to any yet known for the common use of husbandry; *five guineas*.

The merit of such plough to be determined by the Committee of farmers, from its performance at the next public trial of ploughs.

2. *Drill*

2. *Drill Machine.* To the person who shall invent and exhibit to this Society, on or before the first of November 1804, a drill machine for general use, more simple and cheap in its construction, and more perfect in its operation than any yet known; *ten guineas.*

3. *Plough for Potatoe Crops.* To the inventor of the best new constructed plough for ploughing up potatoe crops, by which the work may be done with the least loss or damage to the crop; *five guineas.*

The said plough to be sent to the Society on or before the first of September 1804, that trials may be made previously to the meeting in November.

4. *Implement for Draining Arable Land.* To the person who shall invent and produce at or before the next September meeting, any newly constructed plough or implement, better adapted than any yet known in these western counties, for the purpose of striking trenches across ploughed lands having a favourable declivity, in order to their most expeditious draining, prior to sowing after wet seasons: *five guineas.*

5. *Implement for Draining Pasture Land.* To the person who shall invent, and produce at or before the next September meeting, any plough or implement better adapted than any yet known in the western counties, for under-draining pasture lands, and which in suitable soils shall be found to perform that operation well; *five guineas.*

6. *Improved Scarificator.* To the person, being the inventor, who shall produce at the annual meeting 1804, a cheaper and more useful scarificator than any now in use; its merits for that operation to be fully attested; *five guineas.*

7. *Improved Instrument for cutting Grass.* To the person who shall make the greatest improvement in the instruments now used for cutting grass, or who shall make the best instrument for those purposes, on a new and simple construction; *five guineas.* One of the said instruments to be sent to the Society on or before the first of July 1804.

8. *Machine for conveying Green Winter Crops off wet Arable Land.* To the person who shall invent and construct the simplest and most useful machine for conveying green winter crops off wet arable land, by means of which the work may be done cheaper, and with less poaching or other injury to the land, than by any other method now practised; *ten guineas.* The machine, or a complete model of it, to be produced to the Society at or before the meeting in September 1804, and proper time for trial allowed.

9. *New Tumbrell or Cart.* To the person being the inventor, who shall produce at the annual meeting in 1804, any new constructed and valuable tumbrell or cart for carrying manure, or other purposes of husbandry, which shall unite the essential properties of strength, lightness, and cheapness, beyond what have been hitherto discovered; *five guineas.*

10. *Descent of Wheel Carriages.* To the person who shall invent and communicate to this Society on or before the first of November 1804, an easy and effectual mode of retarding and regulating the motion of wheel-carriages in their passage down hill, without fastening up either wheel, so as to prevent the tearing up of the roads, consequent on the present mode, and evident danger from the breaking of the chain; *seven guineas.*

11. *New and improved Chaff-cutter.* To the person who, in the year 1804, shall produce to this Society, at or before the November meeting, a chaff-cutter of his own invention or improvement, which shall be worked with less labour and more dispatch than any cheap chaff-cutter now known, the price not to exceed three guineas; *five guineas.*

12. *Improved Churn.* To the inventor of a better churn than any yet known for general use; *five guineas.*

13. *Any New Tool or Implement.* To the person who, in the year 1804, shall construct, and exhibit to this Society at or before the November meeting,

any tool or tools, implement or implements, entirely new, found to be more useful in any branch of agriculture than any before known for similar purposes; a premium in proportion to the merit.

CLASS VII.—*Chemistry.*

1. *Starch.* To the person who, at or before the Meeting in September 1804, shall discover to this Society a mode of making good starch in such quantities as to become generally useful, and at a reasonable price, from any substance or substances not generally used for the sustenance of man, and not hitherto discovered, *ten guineas.* To produce a sample of not less than fifty-six pound.

2. *Marking Sheep.* To the person who shall discover and make known to this Society, any composition which shall be equally lasting with pitch and tar, for marking sheep without injuring the wool; *ten guineas.*

A trial of one year upon not less than twenty sheep, and certificates of its fully answering the purpose to be given in the first of July following the experiment.

3. *Composition for preserving Wood.* To the person who, in the year 1804, shall describe to the satisfaction of this Society, a more cheap and durable composition than any now in common use, for covering and preserving from decay barn and other outside doors, weather-boarding, gates, stiles, and other implements in husbandry; *three guineas.*

4. *Producing light in Mines.* To the person who shall construct an apparatus or machine better than any now in use, for producing sufficient light for working coal or other mines without burning candles or lamps; *ten guineas.*

A model or models of the said apparatus to be produced, and claims made, at or before the meeting of the Society in November 1804.

CLASS VIII.—*Useful Arts.*

1. *Substitute for Wheaten Bread.* To the person who, at or before the meeting in April, shall ascertain, by experimental process, to be fully stated, the most wholesome and profitable mixture of flour of other sorts of grain, or other vegetable substances, to be used with that of wheat for making bread for general consumption in times of scarcity; *five guineas.*

2. *Preservation of Wheat.* To the person who shall on or before the second Tuesday in November 1804, discover and make known to the Society the cheapest and most effectual method, not hitherto known or practised, of preventing wheat in ships and store-houses from contracting must, or being damaged by the weevil or otherwise; or for restoring damaged wheat to a wholesome state; to be verified by actual experiments; *ten guineas.*

3. *Italian Method of killing Cattle.* *Five Guineas* will be given to the butcher who, in the year 1804, shall kill the greatest number of horned cattle, sheep and hogs, in the method, and with the instrument used for that purpose at Naples, and recommended by Sir William Hamilton in his letter to this Society. The number of horned cattle so killed to be not less than fifty, and of hogs and sheep not less than one hundred each. The instrument may be seen at the Society's rooms, with directions how to use it.

4. *Rats and Mice.* To the person who shall discover and impart to the Society, on or before the first of November 1804, a more speedy and certain method than any yet known of destroying rats and mice by some mechanical contrivance, or by some substance not detrimental to useful animals or to the human race; *five guineas.*

5. *Destroying Grubs in Land.* To the person who shall discover and communicate to the Society, a method of destroying those large grey grubs in pasture and arable land, from which proceeds the cock-chaffer beetle, or any other grubs injurious to crops, that shall on experiment be found the easiest, most effectual, and least prejudicial to the grass, or other produce of such lands; *ten guineas.*

A certificate proving that the means used have been successful to be produced, and claims to be made, at or before the Society's meeting in November 1804.

6. *Designs for Farm-Houses.* To the person who, on or before the first of November 1804, shall give six original designs and elevations, (better than any hitherto known) of farm-houses), and conveniently attached and detached offices and buildings, proper for farms of different dimensions, both arable and pasture, and mixed; together with the most accurate estimates of the cost, and the most judicious descriptions and remarks on the general defects and excellencies of farm-houses and offices; *ten guineas.*

7. *Extinguishing Fire.* To the person who, at or before the meeting in Sept. 1804, shall discover, and afterwards demonstrate to this Society, a better method of extinguishing fire than any yet known, and applicable to private as well as public situations; *ten guineas.*

8. *Improved method of Sweeping Chimnies.* To the person who, on or before the November meeting 1804, shall invent, and fully describe, a simple and efficacious method of sweeping or cleaning chimnies that shall prove satisfactory to the Society, without having recourse to the barbarous means now in use, of forcing young boys to ascend, and carry on that dangerous and disgusting business so productive of distortion of the limbs, and other irremediable diseases; *six guineas.*

9. *Improved Lamp.* To the person who shall invent and communicate to this Society on or before the first of November 1804, any material improvement in the article of lamps for lighting streets, so that a much stronger light may be cast on the pavement of the streets, and diffused to a greater distance, at less expence than by the present mode of lighting; *three guineas.*

10. *Comparison of the Bath small Waggon, and Wiltshire narrow-wheeled Waggon.* To the farmer who from his own experience shall, on or before the first of November 1804, send to this Society a comparative account of the advantage or disadvantage attending the use of the small, compact narrow-wheeled waggon, commonly called the Bath small waggon, not exceeding sixteen hundred weight, used through one whole year, against the narrow-wheeled waggon commonly used in Wiltshire, weighing upwards of twenty-two hundred weight, together with the original costs and wear and tear of each waggon; *five guineas.*

11. *Weights and Measures.* For a standard for adjusting British weights and measures, on a more easy and practicable plan than has yet been proposed, and sufficiently accurate for all the purposes of arts and commerce; *ten guineas.*

12. *Writing Paper and Package Paper.* To the person who, in the year 1804, shall make the greatest quantity, not less than ten reams, or five bundles of writing, or any kinds of the most useful package paper, from vegetable substances, not previously manufactured into thread-cloth or cordage; and which shall be cheaper than similar kinds of paper now in use; *ten guineas.*

Specimens of not less than one ream or bundle of each kind made to be sent to the Society at the meeting in September, when claims are to be made with affidavits of the quantity, and that it is all of the claimant's own manufacture.

CLASS IX.—Industry and good Behaviour.

1. *Good Behaviour in Men Servants.* To four men servants in husbandry in the western counties, who, having lived with good characters the greatest numbers of years, not less than seven, shall continue to live three years longer in the same service*, and produce at the end of that term satisfactory certificates of such good behaviour; *three guineas each.*

* In case of any servant's being obliged to remove by breaking up of house-keeping, or death of master or mistress, during such three years, if he or she shall bring an unexceptionable certificate from a new master or mistress, the same premium will be given.

2. The same premium, under similar conditions, will be given to each of four women servants in husbandry in the western counties.

3. *Industry.* To four labourers in husbandry in the western counties, not renting more than six pounds per annum each, by whom the greatest number (not less than seven) of their own respective legitimate children have been brought up to at least seven years of age in habits of honest industry; and who have not at any time received relief or assistance from any parish or township; *three guineas each.*

N.B. Certificates and notices, adapted to claimants of the three foregoing premiums, must be sent in before the first of November in each year, according to the respective forms inserted next after the list of premiums.

4. *Industry in Cottagers.* To the cottager, being a day labourer in husbandry, with a family of not less than four children, (the eldest of whom shall not be more than twelve years old) who shall bring proof of their earnings from March 1804 to March 1805, with the age of each child so employed, and a certificate of their good characters from the minister or churchwardens where they reside; *three guineas.*

Claims to be sent in before the tenth of March 1805. The said earnings not to be less than one penny per day under nine years, and two-pence per day above that age.

5. *Friendly Societies.* A premium of *ten guineas* will be given to the most numerous friendly society, consisting chiefly of handicraftmen and labourers, which shall before the first day of January 1805, have been established in any town or parish, within either of the western counties, where no such society now subsists.

In order to be entitled to this premium, it is required,

1st. That its rules shall be conformable to the direction of certain Acts of Parliament passed for the encouragement of such societies.

2^{dly}. That the society shall have been established one year, and consist of not fewer than forty members when the claim is made.

3^{dly}. That none of the said members shall have belonged to any other club of this kind since the first of January 1800.

4^{thly}. That every society intending to claim this premium shall, at the time of its institution, send a fair copy of their articles to this society for inspection before printing them.

5^{thly}. That each claim shall be accompanied with a certificate, signed by the minister and churchwardens of the parish; containing a printed copy of their articles, the amount of their stock, and the number of actual members, with their names and occupations.

Claims to be made at the meeting in September 1805.

6. *Cottages for Labourers.* To the land owner in either of the western counties, who shall build in any future year, the greatest number of cheap, desirable, and comfortable cottages, in proportion to the extent of his estate, for poor industrious labourers in husbandry to inhabit, and who shall annex a portion of land, not less than a quarter of an acre to each cottage; *ten guineas.*

N. B. In case of the death of labourers and servants in husbandry, the bounties awarded to them will be granted to their families.

CLASS X.—Essays.

1. *Essay to preserve the Health and Morals of Manufacturers.* To the person who shall write and send to this society on or before the first of November 1804, the best essay on the supposed ill effects of large manufactures in towns on the health and morals of the people, with the most obvious means of correcting them; *five guineas.*

2. *Essay on the best manner of employing the Poor in Work-houses.* To the person who, on or before the second Tuesday in November 1804, shall write, and send to the Society, the best account for publication of the most

practicable and profitable manner of employing the poor in parish work-houses; *five guineas.*

3. *Essay on Marl.* To the person who shall write, and send to this Society on or before the first of November 1804, the best practical treatise or essay, founded on his own experience, on marl and marling land; the same to contain a clear account of the various sorts of marl, their properties, and the best mode of applying them respectively to the various kinds of land capable of being so improved; *five guineas.*

4. *Treatise on Watering Meadows.* To the person who, at or before the meeting in September 1804, shall write, and send to the Society, the best practical treatise on the formation, management, and application of water meadow; *ten guineas.*

5. *Essay on underwood for different Soils.* To the person who shall, at or before the November meeting in 1804, 1805, or 1806, produce to the Society the best essay, pointing out from actual experiments the kinds of underwood most proper for different soils and situations, and which shall answer the best purpose for the different uses in the several counties in which the same shall be planted; and also the age or period of growth at which such underwood may be cut to the greatest advantage; *five guineas.*

6. *Apple Trees.* To the person who shall write, and send to the Society (under the usual regulations) before the meeting in June 1804, the best practical essay, founded on his own experience, on rising apple stocks; and on raising apple trees for the orchard, by grafting or otherwise; *five guineas.*

7. *Making Cyder.* To the person who shall write and send to the Society the best practical essay, founded on his own experience, on gathering in apple, making them into cyder, and managing that cyder until it shall become fit for use; *five guineas.*

8. *Wool.* To the person who in the years 1804 or 1805, shall write and send to this Society the most particular and satisfactory account, founded on his own observation, of the effects of different kinds of management, situation, soil, and food, including artificial crops, on the wool of sheep; and shewing how far any improvement or degeneracy in the quality of that important article may be effected by all or either of those causes; *five guineas.*

9. *Improvement in Agriculture.* An honorary reward, proportioned to merit, will be given to the person who, in any of the five years following, shall write the best essay on the improvements in agriculture, that have been successfully introduced into this kingdom within these fifty years past. The said essay to be produced at or before the Society's meeting in September 1808.

10. *Essay on Iron Rail-Ways, compared with Navigable Canals.* For the best essay on the comparative utility of iron rail-ways with navigable canals, for conveying coals and other heavy goods; with an accurate estimate of the expence, and of the advantages and disadvantages of each, and how far the former may with propriety be adopted, in this and the adjacent counties, as a collateral aid, or even sometimes wholly to supersede the latter; *ten guineas.*

N. B. The result of the repeated trials of iron rail-way roads in Derbyshire, Nottinghamshire, Northumberland, &c. may assist the enquiry, if compared with the numerous inland canals.

BANKRUPTCIES AND DIVIDENDS,

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Announced between the 20th of January, and the 20th of February, 1804.

BANKRUPTCIES.

The Solicitor's Names are between Parentheses.

- ALEXANDER, John, South Lambeth, coal-merchant. (Waltou, Girdler's-hall)
- Bate, Fortescue, Vigo-lane, Swallow-freet, printfller. (Dixon, Nailau-freet)
- Beits, Benjamin, and Anne Smith, Bafughall-freet, factors. (Dann, Threadneedle freet)
- Bainell, Thomas, Westminster-road, Surry, wheelwright. (Anthony, Earl-freet, Blackfriars)
- Bofina, William, Christopher, Finlbury-square, infurer. (Crowder, Lavie, and Gaith, Frederick-place, Old Jewry)
- Beales, William, Bermondsey, four-factor. (Ripon, Bermondsey-freet)
- Barker, Samuel, Lane-delph, Stafford, potter. (Robin's, Gray's-inn-place)
- Bowerbank, Joseph, Iflington, coal-merchant. (Harvey and Robinson, Lincoln's-inn, New-square)
- Buckles, John, jun. Warminster, clothier. (Davies, Warminster)
- Baxter, Matthew, Barnard Castle, innkeeper. (Roffler, Kerby freet, Hatton garden)
- Bishop, John, Epfom, linen-draper. (Gale and Son, Bedford-freet, Bedford-row)
- Bennett, William, Ivy-lane, carpenter. (Pearce and Dixon, Paternoster-row)
- Bain, George, Bristol, merchant. (Jenkin, James, and Co. New-inn)
- Boyle, Patrick, Vine-freet, Piccadilly, printer. (Brewer, Clement's-lane)
- Bloore, Whitfield, Sun-freet, Bishopgate-freet, timber-merchant. (Ruffell, Aldergate freet)
- Crabb, John, Crabb, James, Crabb, William, and Nicholas Larkham, Witton, clothiers. (Lowten, Temple)
- Chivers, William, Stepney-caufeway, mariner. (Nind, Great Precott-freet)
- Champion, James, Henry, Gravesend, grocer. (Rigby, New City-chambers)
- Chapman, John, Nottingham, hofier. (Windus and Holtaway)
- Colls, Robert, Woodford, corn-dealer. (Wright and Bovill, Chancery-lane)
- Clarke, John, Tealby, paper-maker. (Grey, Gray's-inn)
- Crofsley, Thomas, Manchester, dimity manufacturer. (Higginbotham, Ashton-under-line)
- Christian, William, Liverpool, money-ferivener. (Windle, Bartlett's-buildings)
- Cummins, George, Villier's-freet, Strand, victualler. (Dawfon, Warwick-freet, Golden square)
- Crofs, James, Tisbury, carpenter. (Davies, Warminster)
- Crank, William Charles, Kensington, brewer and merchant. (Kearley, Temple)
- Crickhauks, James, Gerrard-freet, metal fath, and fan-light manufacturer. (Wedel and Day, Gerrard-freet)
- Douel, Henry, Golden-leg-court, Cheapfide, hofier. (Harrifon, Northumberland-freet, Strand)
- Davies, Samuel, Manchester, dealer in cotton twift. (Cooper and Lowe, Southampton-buildings)
- Dalhwood, Francis Bateman, Gain's-hill, Huntingdon, worsted manufacturer. (Parker, Palmer, and Cuppage, Elix-freet)
- Denham, Nathaniel, Lime-freet, merchant. (Bourfield, Bouverie-freet)
- Danney, William, Windfor, apothecary. (Smart and Thomas, Staple's-inn)
- Denton, Edward, Dyer's-buildings, Holborn. (Burdon, St. Andrew's-court, Holborn)
- Day, Thomas, Grove-hill, Beverly, fhip carpenter. (Wills, Warford-court)
- Emdin, Abram Compert, Portsmouth, fhopkeeper. (Berry, Walbrook)
- Emerton, Thomas, Stony Stratford, grocer. (Hinderley, Long, and Ince, Symond's-inn)
- Evans, Philip, Hungerford-market, oyster-merchant. (Loxley, Cheapfide)
- Eames, John, Leicester, cheefe-factor. (Taylor, Southampton-buildings)
- Ettill, John, Scarborough, fhip-owner (Sanfum, Ely-place)
- Finden, James, jun. Clifton-freet, Middlefex, carpenter. (Joyes and Turner, Charlotte-freet, Fitzroy-square)
- Fern, Richard Spencer, Suffolk-lane, dry-falter. (Williams and Sherwood, Bank-freet)
- Folter, Joseph, Stoke Newington, carpenter. (Jones, Mayor's Court-office)
- Ford, James, Chilwell-freet, shoemaker. (Ruffell, Lent-freet, Borough)
- Gregory, Thomas, Tabernacle-walk, St. Luke's, plumber. (Crawford, Craven-buildings)
- Gameau, Jof. Aug. Victor, Abemarle-freet, bookfeller. (Owen and Ricks, Bartlett's-buildings)
- Hewitt, Henry, Henry Ruch, and Thomas Pofflethwayte, Sheffield, river-platers. (Bigg, Hatton-garden)
- Hives, John, Ilkeston, baker. (Maddougal and Hunter, Lincoln's inn)
- Hill, William, Bristol, jeweller. (Edmund's, Lincoln's-inn)
- Hoffman, Andrew, Burgef's, Charles-freet, Covent Garden, taylor. (Senior, Charles-freet)
- Harrifon, George, Manchester, merchant. (Ellis, Curfitor-freet)
- Howell, James, Stratfieldfaye, farmer. (Johnfon and Galkell, Gray's-inn)
- Hayes, John, late of Bath, butcher, now of St. Thomas's freet, Southwark. (Clark, St. Paul's college, St. Paul's church yard)
- Hindley, Richard, and William Wakefield, Manchester, manufacturers. (Foulkes, Bury place, Bloomsbury)
- Hughes, James, Fletcher, Wigmore freet, ftationer. (Shepherd, Bartlett's buildings)
- Jarrett, Thomas, Evesham, innholder. (Bousfield, Bouverie freet)
- Jones, Richard, Lanvapley, wool dealer. (Price and Williams, Lincoln's-inn)
- Johnfon, William, Vauxhall, coal merchant. (Lamb, Bedford freet, Bedford square)
- Law, James, Hepdonhall, cotton manufacturer. (Edge, Inner Temple)
- Leeming, Thomas, Preston, John Myers, of Clockheaton, and William Chapman, Preston, worked manufacturers. (Evans, Thavies inn)
- Lythgoe, Nathan, Liverpool, merchant. (Windle, Bartlett's buildings)
- Levy, Jacob Ifrael, Brighton, merchant. (HowarJ, Jewry freet)
- Merfon, Edward, Ilminster, mercer. (Adams, Old Jewry)
- Mart, Thomas, Tempsford mills, miller. (Baxter and Martin, Furzval's inn)
- Moffatt, David, Fleet market, grocer. (Rivers, Bafing lane)
- Marsh, Abfalom, Aldgate, jeweller. (Kibblewhite, Gray's inn place)
- Meeffe, Henry, Edward freet, Titchfield freet, tailor. (Coren, Cliftord's inn)
- Mills, James, and John Mills, Wood in Saddle worth, merchants. (Batty, Chancery lane)
- Mereton, Thomas, Homerton, victualler. (Walter and Unwin, Shadwell)
- Mackenzie, John, City chambers, Bishopgate freet, merchant. (Swann and Wallington, Fore freet)
- Petrie, John, and John Ward, Hanworth, dealers. (Jackson, Fenchurch freet buildings)
- Polley, John, St. Giles, Oxford, facking manufacturer. (Bousfield, Bouverie freet)
- Price, John, Finsbury square, merchant. (Williams and Sherwood, Bank freet, Cornhill)
- Parrot, William, Jackfon, Leighton Buzzard, wine and brandy merchant. (Druce, Billiter square)
- Parker, John, Sheffield, money ferivener. (Williams, Cattle freet, Holborn)
- Porteous, William, Chippenham, coal merchant. (Houghton, Clement's inn)
- Pearce, Samuel, late of Crown freet, Westminster, now of Exeter, jeweller. (Williams and Brooks, Lincoln's inn)
- Pinch, John, Bathwick, carpenter and builder. (Conftable, Symond's inn)
- Ringrofe, John, York, vintner. (Allen and Exley, Furnival's inn)
- Reddih, Thomas, Bucklersbury, warehoufe-man. (Foulkes, Bury place, Bloomsbury)
- Robbins, Mary and Catherine Robbins, Birmingham, fhopkeepers. (Richardfon, Monument yard)
- Rogers, Peter, Warrington, fhopkeeper. (Hexley, Temple)
- Ranfome, John, Little Walfingham, fhopkeeper. (Wilmington and Small, Inner Temple)
- Riding, Robert, jun. Colne, cotton manufacturer. (Ellis, Curfitor freet)
- Roe, John, Omberfley, horfe dealer. (Hore, Garlick hill)
- Roe, Robert, and Christopher Moore, Bristol, merchants. (Frazer, Gray's inn)
- Smith, Thomas, Gould's hill, Middlefex, linendraper. (Burroughs, Cattle freet, Falcon square)
- Smith, Thomas, Deptford, victualler. (Ifaacs, George-freet, Minories)
- Shelley, Thomas, Stoke, potter. (Baddeley, Searle freet, Lincoln's inn)
- Swindells, John, and John Dale, jun. Mottram in Longden-dale, cotton manufacturers. (Cooper and Lowe, Southampton buildings)
- Sellers, Bezer, Leonard, Upper Tooting, money ferivener. (Diggles, Madox freet)
- Sexton, John, Greenwich, potter. (Bousfield, Bouverie-freet)
- Sainsbury, Richard, Bath, coach mafter. (Shephard and Adington, Gray's inn square)
- Sanforth, Samuel, jun. and John Cartledge, Newbold, Chertfield, potters. (Maddock and Stevenfon, Lincoln's inn)
- Skill, John-Strand, oilman. (Hodgton, Charles freet, St. James's square)
- Tomlins, William, Lambeth, coachmaker. (Burgoyne and Feilder, Duke freet, Grosvenor square)
- Thomas, Charlotte, New Bond freet, milliner. (Eves, Chapel freet, Bedford tow)
- Townfnd, John, Stones end, Southwark, wine merchant. (Teafdale, Bishopgate freet)
- Taylor, Edward, Blackburn, linen draper. (Dewhurst, Blackburn)
- Tyler, John, Mountfrel, miller. (Bleaftale and Alexander, New inn)
- Tree, Samuel, Portsmouth, victualler. (Wilhen, Gray's inn)
- Towelland, Samuel, Paradise row, Chelfea, victualler. (Worftworth, Staple's inn)
- Thacker, Charles, jun. Caifter, feedfman. (Lane, Goldsmith's hall)
- Truifon, Margaret, Trifton, farmer. (Rabbit, Carleton, Suffolk)
- Upcott, John, Ridge, Beaminfter, grocer. (Tarrant and Moule, Chancery lane)
- Vince, Eifoon Anthony, Grinftead, merchant. (Evans, Thavies inn)
- Winterburn, Thomas, Whixley, fhopkeeper. (Cardale, Hallward, and Spear, Gray's inn)
- Wild, Christopher, Manchester, victualler. (Shephard and Adington, Gray's inn)
- Wood, Robert, and George Payne, Liverpool, wholefale grocers. (Atkinfon, Chancery lane)
- Wright,

- Wright, John, Gosport, grocer. (Tarrant and Moule, Chancery lane)
- Weedon, Joseph, Oxford street, oilman. (Teeddale, Bishopsgate street)
- Wallis, John, Great Queen street, druggist and surgeon. (Ayrtton, Field's court, Gray's inn)
- Walker Samuel, Manchester, cotton manufacturer. (Hurd, King's bench walk, Temple)
- Williams, James, Haverfordwest, shopkeeper. (James, Gray's inn square)
- Wheeler, John, Wednesbury, iron master. (Roffer, Kirby street, Hatton garden)
- Ward, Daniel, and Robert Daniel Ward, Bishopsgate street, tailors. (Willett and Annesley, Finsbury square)
- Willmott, William, High street, Southwark, Stationer. (Swaine and Stevens, Old Jewry)
- Wood, Thomas, Dorchester, ironmonger. (Blandford and Sweet, Inner Temple)
- Willis, Thomas, Bath, carpenter. (Pearsons, Pump court, Temple)
- Wright, William, Broadway, Westminster, victualler
- Walton, William, Wribbenhall, lunkeeper and liquor merchant. (Biggs, Hatton garden)
- Wheeler, John, Wheeligh, Essex, dealer. (Wharton and Dyke, Temple)
- Waller, Thomas, St. Paul's, Shadwell, buisfuit baker. (Waller and Unwin, Shadwell)
- Wilkinson, John, jun. Lower Grove floor place, dealer. (Watkins and Cowper, Lincoln's inn)
- Williamson, John, Liverpool, cheesemonger. (Royle, Liverpool)
- Young, John, Long Acre, coachmaker. (Dennetts and Greaves, Henrietta street, Covent garden)
- Young, James, Southampton, linen draper. (Nicholls and Nettleship, Queen street, Cheap side)
- DIVIDENDS ANNOUNCED.**
- Anderfon, Charles, Grosvenor mews, hackney man, March 13
- Allen, James, Bartlett's buildings, Holborn, tailor, May 15
- Aynsley, Jacob, Newcastle upon Tyne, wooldraper, February 21
- Browne, George, and Henry Browne, Liverpool, March 16, final
- Bird, Henry Mertins, and Benjamin Savage, Jeffries square, January 30
- Barker, John, Fieldhead, woodmonger, February 16
- Barfoot, William, and Thomas Barfoot, Coleman street, grocers, March 1, separate estate of William Barfoot
- Bourne, Herbert, St. James's street, silk mercer, March 3
- Bull, James, Edward Bowyer, City road, baker, March 3, final
- Burnett, Edward, and Robert Oliver, Manchester, drapers, March 15, final
- Bennett, John, Norton, shipwright, March 5
- Blaxwell, Arthur, Kelsale, farmer, March 10
- Becks, Andrew Berkeley, Green street, upholster, March 3
- Boorman, John, Headcorn, timber merchant, March 20
- Beckley, John, Southampton, grocer, April 9
- Baylis Joseph, Upton on Severn, carpenter, March 8, final
- Bavid, John, Tottenham court, stone mason, March 10
- Budd, William, Uxbridge, innholder, March 24, final
- Burkitt, Miles, Gray's Thurrock, Essex, and Three Cranes Wharf, London, soap manufacturer, February 25, final
- Benedicts, Martin, Liverpool, shopkeeper, February 22, final
- Bevington, Samuel, Gracechurch street, merchant, February 17, final
- Bis, William, Hozmarket, grocer, February 18, final
- Besley, Richard, sen. Chelsea, schoolmaster, February 28, final
- Banton, Edmund, Lancaster, merchant, (surviving partner of John Clapham, island of Martinique) February 28, final
- Browne, Zachariah, and Samuel Fiden, Coleman street, merchants, April 25, final
- Cooper Henry, Sandwick, linendraper, February 25, final
- Cullingworth, Sarah, Daventry, bookfeller, February 27 final
- Clayton, John, Sedgeberrow, mealman, March 17, final
- Clarke, Robert, King street, Covent garden, linendraper, April 9
- Comber, Richard, Lewes, watchmaker, March 10, final
- Carver, Thomas, Bedford, baker, March 11, final
- Collen, Michael, and Thomas Lewis, Hatton garden, navy agents, March 3, final
- Curtis, John, and John Stephens, Penryn, shopkeepers, February 25
- Dyer, Jonah, Wotton under Edge, spinning machine maker, February 29, final
- Davies, William, Liverpool, plaiter, March 5
- Dunamel, sons, Liverpool, umbrella maker, March 6
- Debrett, John, Piccadilly, bookfeller, March 24
- Dinham, William, Bristol, merchants, March 9, final
- Dorset, George, John Johnsons, John Wilkinson, William Berners, and James Telfon, New Bond street, bankers, February 23
- Deacon, John Eden, New Bond street, linendraper, February 25
- Entwistle, William, Entwistle, cotton manufacturer, February 24, final
- Fearhead, Elizabeth, Tunbal, grocer, February 20
- Favence, Peter, Beauford row, insurance broker, February 28
- Fox, Jonathan, and William Fox, Pavement, Finsbury, merchants, March 6
- Fox, Solomon, Wardour street, cabinet maker, March 3
- Fether, Isaac, Bartlett's buildings passage, goldsmith, March 13
- Fenwick, Thomas James, Penzance, linendraper, February 23
- Farmer, Edmund, jun. Stratford, butcher, February 25
- Farquhar, John, Cavendish court, Devonshire square, merchant April 18, final
- Gibbs, John, Wrotham, corn chandler, February 28
- Gifford, Samuel, Exeter, dyer, February 14
- Gilbertson, Robert, Manchester, manufacturer, February 28, final
- Geaves, Richard, Dartmouth, merchant, March 1
- Green, John, Harborne, nail ironmonger, March 7, final
- Gough, Peter, Birmingham, butcher, March 6
- Grayson, John, Eastcheap, insurance broker, March 20
- Gardiner, Henry Samuel, Wardrobe place, Doctor's commons, weaver, February 15, final
- Gilbert, William, Chiswell street, grocer, March 3
- Hughes, Morgan, Mourning lane, milkman, February 14
- Huddleston, William, Manchester, draper, February 18
- Harper, James, of Bordesley, malt mill and bayonet maker, March 3
- Herinshaw, Richard, Palace wharf, Lambeth, corn dealer, March 17
- Harris, James, Exeter, coachmaker, March 13
- Heuchan, John, Liverpool, dealer in muslins, March 13
- Hacker, William, of the Precinct of the Palace of the Archbishop of Canterbury, carpenter, February 21
- James, John, sen. Nottingham, cotton spinner, February 27
- Jones, Joseph, Wood street, Leghorn hat warehousfeman, February 25
- Lloyd, Richard, Thavies inn, scrivener, February 15
- Low, Charles, jun. Botton, miller, February 16, final
- Leigh, Robert, Bampton, cooper, February 27, final
- Lewis Richard, Godford St. Peter, shopkeeper, March 3
- Lane, John, Thomas Frazer, and Thomas Boylton, Nicholas lane, merchants, March 10
- Lambe, George, Chatham, tailor, March 24, final
- Lewis, Henry, and William Chambers, Rathbone place, shopkeepers, March 10
- Langton, George, Liverpool, merchant, March 24, final
- Lansdale, Thomas, Lower Brooke street, linendraper, March 20
- Larkin, Charles, Rochester, coachmaster, February 25
- Mills, Philip, Hereford, butcher, March 3
- Mason Isaac, Deptford bridge, upholster, April 9
- Murray John, Sherborne lane, merchant, February 25
- Morley Samuel, Ficot street, tailor, February 25, final
- Nesbitt John, Edward Stewart, and John Nesbitt jun. Aldermanbury, merchants, separate estate of Nesbitt sen. February 4 and 28
- Noble Nicholas Berrier, Greyfoke, butter factor, February 15
- Nash Mark, Wotton under Edge, currier, February 29, final
- Neale John, and Peter Tanner, Cock hill, Ratacliffe, coal dealers, March 3
- Noble Isaac, Penrith, ironmonger and grocer, February 10
- Paffman John, Doncaster, machine maker, February 13
- Powell Thomas, Warwick street, Golden square, tailor, March 10
- Perrins William, Bedworth, maltster, March 8, final
- Packer Nathan, West Auckland, brandy merchant, March 31
- Parfonage Samuel, Manchester, plumber, February 21
- Pourtales, Andrew Paul, and Andrew George Pourtales, Broad street buildings, merchants, February 18
- Robins, James, and James Anderfon, Water lane, glass sellers, February 25, final
- Reynolds, John, Cheshunt, Herts, brewer, February 25
- Robson, John, Piccadilly, perfumer, March 10, final
- Richardson, John, Chesterfield, liquor merchant, March 26, final
- Sykes, Richard, Cheap side, linendraper, March 7, final
- Smith Roger, Bradford, Wilts, victualler, February 13, final
- Snappe Joseph, Shelton, baker, February 20
- Smart James Preston, Hanover street, Hanover square, tailor, February 21
- Scaley, Richard, Bruntcliffe, Batley, spirit merchant, March 5
- Suart, Hugh, Knuzden Brook, Blackburn, Whitster, February 27
- Staples, Luke, Wapping, Staffordshire, warehousfeman, April 9
- Smith William, and John Ashton, Newgate street, linendraper, April 17
- Sidebotham William, Ashton under Line, shopkeeper, March 13, final
- Symons Roel, Dover, shipbroker, March 20, final
- Sherriff, James, Hatton garden, merchant, February 18
- Thomson Andrew, and Barth, White, Bow lane, wholesale hosiers, February 18
- Tatlock James, Finch lane, broker, February 1
- Toy Thomas, Penryn, linendraper, February 25, final
- Torrane George, Jermyn street, merchant, April 17
- Tremlet William, Totness, shopkeeper, March 7, final
- Thomas, Thomas (partner with John Hunter and Peter Lathams) Camomile street, March 10
- Thurton Hugh, Winchcomb, April 2
- Trepais W. St. Martin's le Grand, bookfeller, March 6
- Taylor W. Bers, Wolverhampton, jappaner, Feb. 23, final
- Van Dyck, P. Dubblemunte, Arnold John Geevers Leuven and Wynand Adriaen de Gruiter Vink, Circus, Minories, merchants, separate estates of Leuven and de Gruiter Vink, March 27; separate estate of Leuven, March 22 and 28; separate estate of de Gruiter Vink, March 23 and 29
- Wigfield James, jun. Northallerton, mercer and grocer, February 18, final
- Worboys Arthur and Thomas Sydes, Birmingham, sword cutlers, Feb. 17
- West John, Long Acre coachmaker, Feb. 15, final
- Wehler W. Fore street, linendraper, March 1
- Wilde James, John Watts, and John Body, Upper Thames street, sugar refiners, separate estate of Watts, Feb. 15
- Wood Richard, Slaithwaite, cornfactor, Feb. 15
- Willson S. Birmingham, grocer, April 14
- West John, Somer's place, East, plaiter, March 10
- Wright Thomas, Horsley, clothier, March 10
- Warren George, Coventry street, upholster, May 24
- Wrighton Daniel, Little Alne, Flax dresser, Feb. 25

LONDON PRICES OF GRAIN for February, 1804.

MARK-LANE, Monday, February 6.

Price of Grain, on board Ship, as under.

OUR Market to-day has not an over-abundant supply of Grain; Wheat of good quality is full as dear as on Monday last, with a few samples of fine Old and Dantzic selling at better prices than quoted below: the Ordinary still remains heavy, though at no reduction. The same may be remarked of Barley and Malt, both flat, and the latter difficult of sale. White Peas continue at last week's prices; but Grey Peas and Beans of both sorts are dearer. Oats come rather sparingly to hand, and keep their price. Flour is at 45s. per sack.

Wheat	40s to 54s	Malt	52s to 57s od	Grey Peas	36s to 40s od
Fine	56s to 57s 6d	Oats	18s to 23s	Small Beans	33s to 38s od
Rye	28s to 31s od	Polands ditto	24s to 25s od	Ticks	30s to 34s od
Barley	20s to 25s od	White Peas	40s to 46s od		

Monday, February 13.

Our arrivals of Wheat to-day have been very considerable, and prices since last Monday have again declined; Fine, 2s. and the Ordinary, 3s. per quarter, on the average. We have likewise a very great supply of Barley, which, with Malt, is cheaper. White and Grey Pease are rather lower; as are Horse and Tick Beans. In short, Oats, Flour, and every article in the Market, have fallen since this day fortnight.

Wheat	28s to 51s	Malt	47s to 54s od	Pearls	45s od
Fine	52s to 53s od	Oats	17s to 21s	Grey Peas	27s to 30s od
Rye	28s to 31s	Polands	22s to 23s od	Small Beans	33s to 37s od
Barley	17s to 22s 6d	White Peas	26s to 32s	Ticks,	21s to 26s od

Monday, February 20.

The proportion of fine Wheat continuing small, in comparison with the coarse and ordinary samples, compels a repetition of nearly the same language as used for several weeks past, and which in effect is, that the fine sells freely at last week's prices, but the ordinary, of which we have large supplies, is dull of sale; we, however, have no reduction of price to notice in this article, nor in Barley nor Malt. Pease, of the different sorts, are rather dearer. A slackness prevails in New Beans, but the Old remain steady. Good Oats, of which there is no scarcity, sell nearly at last Monday's prices: the inferior dull.

Wheat	36s to 54s	Malt	51s to 57s od	Pearls	44s od
Fine	55s to 56s od	Oats	19s to 23s	Grey Peas	33s to 36s od
Rye	28s to 31s od	Polands ditto	24s to 25s od	Sm. Beans,	33s to 38s od
Barley	20s to 25s od	White Peas	37s to 42s od	Ticks,	32s to 35s od

Monday, February 27.

We have had a pretty good supply of Wheat at Market to-day: the disproportion between the fine and coarse still continues, hence the former fetch better prices, and the ordinary sells, as of late, but heavily. The fine may be stated at 1s. per quarter dearer, but we have no advance on the other sorts. Barley and Malt do not sell so well, and hardly maintain last week's prices.

In Pease, except for fine Pearls, prices are lower. Horse Beans have a better sale than last week. Oats sell freely, and are something dearer. The nominal price of Fine Flour, is held at 40s. and 45s.; but the actual sales are at no more than 43s.

Wheat	28s to 45s	Malt	47s to 54s od	White Peas	28s to 34s od
Fine	50s to 55s od	Oats	17s to 22s	Grey Peas	27s to 30s od
Rye	28s to 31s	Polands	23s to 24s od	Sm. Beans,	30s to 35s od
Barley	18s to 23s 6d			Ticks	26s to 30s od

Prices of Hops, Meat, Seeds, Leather, Tallow, &c. for February, 1804.

Price of Hops.		First Week		2d Week		3d Week		4th Week	
Bags.		s.	s.	s.	s.	s.	s.	s.	s.
Kent	—	90 to	110	95 to	110	96 to	110	98 to	110
Suffex	—	90 to	105	90 to	100	92 to	100	96 to	102
Effex	—	90 to	105	90 to	110	96 to	110	96 to	118
Pockets.		First Week		2d Week		3d Week		4th Week	
Kent	—	108 to	126	110 to	126	110 to	126	108 to	126
Suffex	—	105 to	129	105 to	114	105 to	112	105 to	114
Farnham	—	140 to	200	140 to	189	— to	—	120 to	189
Seeds.									
Red Clover per cwt.	—	40 to	100	60 to	100	60 to	98	60 to	94
White Clover, ditto	—	70 to	126	60 to	126	70 to	120	70 to	126
Trefoil, ditto	—	20 to	66	40 to	68	40 to	66	40 to	65
Carraway ditto	—	60 to	70	60 to	70	60 to	70	60 to	70
Coriander ditto	—	16 to	20	16 to	20	16 to	20	16 to	20
Turnip, (per bushel)	—	20 to	28	20 to	28	20 to	28	20 to	28
Canary Seed	—	8 to	9	8 to	9	8 to	9	8 to	9
White Mustard Seed	—	12 to	14	12 to	14	12 to	14	12 to	14
Brown ditto	—	12 to	16	12 to	16	12 to	16	12 to	16
Rape Seed, (per last)	—	—	—	—	—	—	—	—	—
Meat at Smithfield.									
To sink the offal, p. ft. 8lb.	—	s.d.	s.d.	s.d.	s.d.	s.d.	s.d.	s.d.	s.d.
Beef	—	4 4 to	5 6	4 4 to	5 8	4 4 to	5 8	4 4 to	5 8
Mutton	—	4 8 to	5 1	4 4 to	5 8	4 8 to	5 6	4 8 to	5 6
Veal	—	6 0 to	8 0	5 6 to	7 6	5 0 to	7 0	5 0 to	6 6
Pork	—	4 0 to	5 0	3 0 to	4 4	3 4 to	4 4	3 4 to	4 8
Lamb	—	0 0 to	0 0	0 0 to	0 0	0 0 to	0 0	0 0 to	0 0
Head of Cattle—Beasts about	—	2,000	—	2,000	—	2,000	—	1,800	—
— Sheep	—	11,000	—	13,000	—	13,500	—	15,500	—
Price of Leather.									
Butts, 50lb. to 56lb. each	—	20½ to	21½	20 to	21	20 to	21	20 to	21
Ditto, 60lb. to 65lb. each	—	22½ to	23	23 to	24	23 to	24	23 to	24
Merchants Backs	—	19½ to	20	19 to	20	19½ to	20	19½ to	20
Dressing Hides	—	22 to	23½	22 to	24	21 to	22½	21 to	22
Fine Coach Hides	—	24 to	25½	24 to	25	23 to	25	23 to	24
Crop Hides for cutting	—	22 to	23	22 to	23½	21 to	23	22 to	23½
Flat Ordinary	—	20½ to	22	20½ to	21½	20 to	21½	21 to	22
Calf Skins, 30 to 40lb. p. doz.	—	28 to	33	28 to	33	28 to	35	28 to	35
Ditto, 50lb. to 70lb. do.	—	28 to	32	29 to	33	28 to	33	28 to	33
Ditto, 70lb. to 80lb. do.	—	28 to	30	28 to	30	28 to	30	28 to	30
Sm. Seals (Greenland)	—	42 to	45	42 to	45	42 to	45	42 to	45
Large do.	—	51 to	71	51 to	71 os.	51 to	71 10s	51 to	71 10s
Tanned Horse Hides	—	18s to	30s	20s to	30s	20s to	30s	20s to	30s
Goat Skins per doz.	—	—s to	—s	—s to	—s	—s to	—s	—s to	—s
Price of Tallow.									
St. James's Market	—	4	9	4	10	4	10	4	9½
Clare Market	—	4	9	4	10	4	10	4	10
Whitechapel Market	—	4	8	4	7½	4	9	4	9½
Per stone of 8lb. Average	—	4	8½	4	9	4	9½	4	9½
Town Tallow	—	70	0	80	0	81	6	81	6
Russia ditto (Candles)	—	78	0	77	0	77	6	76	0
Russia ditto (Soap)	—	73	0	72	6	73	0	72	0
Melting Stuff	—	63	0	63	0	64	0	62	0
Ditto rough	—	46	0	46	0	44	0	44	0
Graves	—	14	0	14	0	14	0	14	0
Good Dregs	—	12	0	12	0	12	0	12	0
Yellow Soap	—	84	0	—	—	84	0	84	0
Mottled ditto	—	92	0	—	—	92	0	92	0
Curd ditto	—	96	0	—	—	96	0	96	0
Candles, per dozen,	—	12	6	—	—	12	6	12	0
Moulds	—	13	6	—	—	13	6	13	0

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 FEBRUARY 18, 1804.

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	52	2			23	5	24	6	32	11	37	1		
Surrey	52	8	30	0	23	7	22	10	35	0	36	6		
Hertford	48	0	35	6	21	2	19	8	32	0	35	6		
Bedford	46	1	28	0	19	6	19	1	28	0	32	4		
Huntingdon	42	4			18	8	17	4	25	11	30	4		
Northampton	50	0	31	6	19	0	18	10	28	3	32	0		
Rutland	53	0			20	0	18	0	32	6			57	3
Leicester	52	2			21	4	18	7	33	10	35	9	35	4
Nottingham	57	0	32	0	24	7	19	10	34	0				
Derby	59	0			26	0	20	4	39	2	42	0	25	5
Stafford	52	4			25	3	20	10	41	5			31	7
Salop	47	3	35	4	23	2	22	0	0	0	42	6	63	7
Hereford	43	8	32	0	23	7	22	7	42	1	59	3	59	3
Worcester	44	10	31	6	23	10	23	9	39	6	45	7		
Warwick	53	4			24	4	21	10	39	2	49	10	45	3
Wilts	50	4			23	8	20	10	40	0	35	0		
Berks	52	1			22	4	22	4	34	3	33	6		
Oxford	48	4			20	10	19	6	31	0	33	6		
Bucks	50	3			21	7	21	0	28	7	31	3		
Brecon	47	2	32	0	24	0	18	4			34	8	35	11
Montgomery	46	5			20	9	15	9			37	4	38	2
Radnor	45	5			23	11	21	5			41	3	67	10

Maritime Counties.

Essex	51	0	28	0	19	11	22	8	30	1	28	0		
Kent	53	4			24	8	25	4	31	7	33	0		
Suffex	52	4			25	0	24	8						
Suffolk	45	4	29	10	19	8	20	2	26	5	30	10	47	11
Cambridge	41	1	24	8	19	5	14	6	25	7	27	2		
Norfolk	43	8	26	0	19	0	17	8	28	2	30	11		
Lincoln	45	10	30	6	21	5	16	1	28	4				
York	46	7	35	0	22	3	18	7	35	3	66	8	36	8
Durham	47	7			27	7	20	5						
Northumberland	44	8	30	10	22	5	19	7			32	4		
Cumberland	52	2	40	4	24	6	21	2						
Westmorland	52	10	43	6	25	4	20	8						
Lancaster	52	2			26	6	22	9	43	0	44	10	19	4
Chester	51	0			28	4	21	8					18	11
Flint	50	4			28	6	18	10			33	4		
Denbigh	54	6			26	7	19	6	48	8	35	3	35	7
Anglesea					22	0	15	0						
Carnarvon	58	8			24	8	18	6					34	11
Merioneth	54	2	44	0	24	0	17	8			40	0	34	11
Cardigan	55	0			18	0	13	4			40	0		
Pembroke	44	4			18	10	12	4						
Carmarthen	55	6			21	6	15	0						
Glamorgan	55	9			26	1	20	3						
Gloucester	46	5			21	7	19	3	34	3				
Somerset	52	11			23	6	19	10	32	0				
Monmouth	49	5			25	0	19	2						
Devon	56	10			22	10	22	11						
Cornwall	53	8			24	8	18	6						
Dorset	49	8			21	8	23	1	40	0				
Hants	48	0			23	2	22	3	36	3				

PRICES OF COALS AT THE COAL EXCHANGE, LONDON,
For FEBRUARY, 18c4.

Names of Coals.	Frid.	Mon.	Wed.	Frid.	Mon.	Wed.	Frid.	Mond	Wed.	Frid.	Mond
	27th s. d.	30th s. d.	1st s. d.	3d s. d.	6th s. d.	8th s. d.	10th s. d.	13th s. d.	15th. s. d.	17th s. d.	20th s. d.
Adair's Main				46 6							
Baker's Main											
Bedford Main											
Benton				45	46 6				47		
Biddick Main											
Bigg's Main					48	50				49 6	49
Bladon Main				46 6							
Blyth					46						
Boundry											
Bourn Moor											
Branding	44			45	46						
Birtley											
Byker											
Byker, High & Low											
Cowpen											
Derwent											
Eden Main											
Eighton Main											
Flockton											
Greenwich Moor											
Haigh Moor											
Hartley											50
Heaton Main				46 6				47 6	49		
Hebburn Main				46 6				47 6			49
Holywell						47 6	47 6				
Kenton Main				46 6	48		47 6	47 6	49		49
Lambton's Low dit.										49	
Lawson's Main											
Morley Hill											
Montague Main				43	45						
Mount Moor											
Murton											
Murton High Main											
Newbottle											
New Tansfield											
Pitt's Tansfield M.						50	50				
Primrose								50			50
Pontop											
Percey											
Rectory											
Ruffel's Main											
Sheriff Hill											
South Moor											
Stanley Main											
St. David											
Team											
Tyne Main											
Usworth Main											
Walbottle Moor											
Waller				46 6							
Wall's End	48 6	48 6			49	48		48 6	59	51	50 6
Warwick											
Wharton											
Willington					48						
Wylam Moor											
Wentworth											
Whitefield											
Main Wooler											

A TABLE of the Prices of STOCKS in February, 1804.

1804	Bank Stock.	3per Ct. Red.	3per Ct. Confol.	4per Ct. Confol.	5per Ct. Navy.	5per Ct. Loyalty	Long Ann.	Short Ann.	Imp. 3 per Ct.	Imp. Ann.	Irish 5 pr. Cent	Omnium.	India Stock.	Engliff. Tickets.	Confol. for Account
Jan. 31	154½	56½	56½	72½	88½	92½	16 7-16	3 5-16	55½	9½	2½	2½	170	25 00 0	56
Feb. 1	153¾	56½	55½	72½	88½	92½	16 7-16	3 5-16	55	9 7-16	3	3	167½	25 00 0	56
2	153	56	55½	72	88½	92½	16 7-16	3 5-16	54½	9 7-16	3	3	168½	17 6 0	55
3		56	55½	72	88½	92½	16 7-16	3 5-16	54½	9 7-16	3	3	168½	17 6 0	55
4		55½	55½	72	88½	92½	16 7-16	3 5-16	55	9 7-16	3	3	168½	17 6 0	55
5	152	56	55½	72	88½	92½	16 7-16	3 5-16	55	9 7-16	3	3	169	17 6 0	55
6		56	55½	72	88½	92½	16 7-16	3 5-16	55	9 7-16	3	3	169	17 6 0	55
7		56	55½	72	88½	92½	16 7-16	3 5-16	55	9 7-16	3	3	169	17 6 0	55
8		56	55½	72	88½	92½	16 7-16	3 5-16	55	9 7-16	3	3	169	17 6 0	55
9	152½	56	55½	72	88½	92½	16 7-16	3 5-16	55	9 7-16	3	3	169	17 6 0	55
10	153	56	55½	72	88½	92½	16 7-16	3 5-16	55	9 7-16	3	3	169	17 6 0	55
11		56	55½	72	88½	92½	16 7-16	3 5-16	55	9 7-16	3	3	169	17 6 0	55
12		56	55½	72	88½	92½	16 7-16	3 5-16	55	9 7-16	3	3	169	17 6 0	55
13		56	55½	72	88½	92½	16 7-16	3 5-16	55	9 7-16	3	3	169	17 6 0	55
14	153½	56	55½	72	88½	92½	16 7-16	3 5-16	55	9 7-16	3	3	169	17 6 0	55
15	151	55	55½	71	87	92	16 7-16	3 5-16	54	9 7-16	2	2	167½	17 7 0	55
16	151	55	55½	71	87	92	16 7-16	3 5-16	54	9 7-16	2	2	167½	17 7 0	55
17	151½	55	55½	71	87	92	16 7-16	3 5-16	54	9 7-16	2	2	167½	17 7 0	55
18		55	55½	71	87	92	16 7-16	3 5-16	54	9 7-16	2	2	167½	17 7 0	55
19		55	55½	71	87	92	16 7-16	3 5-16	54	9 7-16	2	2	167½	17 7 0	55
20		55	55½	71	87	92	16 7-16	3 5-16	54	9 7-16	2	2	167½	17 7 0	55
21	152	56	55½	72	88½	92½	16 7-16	3 5-16	54	9 7-16	5	5	168½	17 7 0	55
22	152	56	55½	72	88½	92½	16 7-16	3 5-16	54	9 7-16	4	4	168½	17 7 0	55
23	152	56	55½	72	88½	92½	16 7-16	3 5-16	54	9 7-16	4	4	168½	17 7 0	55
24	152	56	55½	72	88½	92½	16 7-16	3 5-16	54	9 7-16	4	4	168½	17 7 0	55
25	152	56	55½	72	88½	92½	16 7-16	3 5-16	54	9 7-16	4	4	168½	17 7 0	55
26	152	56	55½	72	88½	92½	16 7-16	3 5-16	54	9 7-16	4	4	168½	17 7 0	55
27	152	56	55½	72	88½	92½	16 7-16	3 5-16	54	9 7-16	4	4	168½	17 7 0	55
28	153	56	55½	72	88½	92½	16 7-16	3 5-16	54	9 7-16	4	4	168½	17 7 0	55

T. BISH, STOCK-BROKER, Old State-Lottery Office, No. 4, Cornhill, London.

Prices of Raw Hides, Hay and Straw, &c. for February, 1804.

<i>Raw Hides.</i>	First Week		2d Week		3d Week.		4th Week.	
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Best Heifers & Steers, pr ft.	0 0 to 0 0	0 0	3 8 to 4 0	3 8	0 0 to 0 0	0 0	0 0 to 0 0	0 0
Middling — —	0 0 to 0 0	0 0	3 4 to 3 6	3 4	0 0 to 0 0	0 0	0 0 to 0 0	0 0
Ordinary — —	0 0 to 0 0	0 0	3 0 to 3 2	3 0	0 0 to 0 0	0 0	0 0 to 0 0	0 0
Market Calf — —	—	—	10 6	10 6	—	—	—	—
Eng. Horse — —	—s to —s	—s	14s to 17s	14s	—s to —s	—s	—s to —s	—s
Sheep Skins — —	0 0 to 0 0	0 0	4 0 to 8 0	4 0	0 0 to 0 0	0 0	0 0 to 0 0	0 0
Lamb Skins — —	0 0 to 0 0	0 0	0 0 to 0 0	0 0	0 0 to 0 0	0 0	0 0 to 0 0	0 0
<i>Prices of Hay and Straw.</i>								
St. James's—Hay —	4 16 0	4 16 0	4 16 6	4 16 6	5 0 6	5 0 6	4 15 0	4 15 0
Straw — —	1 11 6	1 11 6	1 11 6	1 11 6	1 16 0	1 16 0	1 14 6	1 14 6
Whitech.—Hay —	4 16 0	4 16 0	4 16 0	4 16 0	4 15 0	4 15 0	4 15 0	4 15 0
Clover — —	5 18 0	5 18 0	5 18 0	5 18 0	5 15 0	5 15 0	6 0 0	6 0 0
Straw — —	1 11 6	1 11 6	1 12 0	1 12 0	1 12 0	1 12 0	1 12 0	1 12 0
<i>Newbury.</i>								
Wheat — — —	40s to 56s	40s	40s to 58s	40s	39s to 56s	39s	33s to 56s	33s
Barley — — —	18s to 22s	18s	19s to 22s	19s	18s to 22s	18s	20s to 24s	20s
Oats — — —	17s to 21s	17s	17s to 21s	17s	16s6d to 20s	16s6d	17s to 21s	17s
Beans — — —	—s to —s	—s	—s to —s	—s	—s to —s	—s	—s to —s	—s
New ditto — — —	—s to —s	—s	—s to —s	—s	—s to —s	—s	—s to —s	—s
Peas — — —	—s to —s	—s	—s to —s	—s	—s to —s	—s	—s to —s	—s
<i>Salisbury.</i>								
Wheat — — —	46s to 52s	46s	46s to 52s	46s	48s to 52s	48s	48s to 52s	48s
New ditto — — —	—s to —s	—s	—s to —s	—s	—s to —s	—s	—s to —s	—s
Barley — — —	20s to 24s	20s	20s to 23s	20s	20s to 24s	20s	20s to 24s	20s
Beans — — —	—s to —s	—s	—s to —s	—s	—s to —s	—s	—s to —s	—s
Oats — — —	19s to 23s	19s	19s to 23s	19s	20s to 23s	20s	19s to 23s	19s
Peas — — —	—s to —s	—s	—s to —s	—s	—s to —s	—s	—s to —s	—s

TO OUR CORRESPONDENTS.

WE thank Agricola Norfolciensis for the duplicate he has sent of the letter addressed to us the preceding month, which from some accident never arrived at our Office.

We have received a letter from a "Northern Farmer," and feel ourselves much indebted to him for his assistance: we must, however, postpone the insertion of his communication to a future opportunity, as Agricola Northumbriensis and Meridionalis have so fully and ably discussed the subject in the few preceding Numbers.

From Agricola Northumbriensis, dated the 17th of February, we have received a correction of his paper much too late to notice in the body of the Number, we therefore introduce it here, "since (says this correspondent) I wrote to you, I have been informed that the Corn Laws are again in force; therefore, I see, that what is stated in one of my Letters, as to our ports being open for importation, and exportation being prohibited, is not strictly true."

We have received the communication of Veterinarius Alter.

The paper of Chorographus in the way of Appendix, we wish particularly to receive early next month,