Neele Sculp.t 352 Strand.

French Oxen Yoked to the Plough.

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THE
# AGRICULTURAL MAGAZINE.

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## THE PREFERENCE THE INTELLIGENT FARMER SHOULD GIVE TO OXEN FOR THE LABOUR OF THE PLOUGH, AND THE METHOD OF YOKING EMPLOYED BY THE FRENCH PEASANTRY, STRONGLY RECOMMENDED.

WITH A PLATE ANNEXED.

THE principal design of the patriotic traveller is to transfer the improvements of other countries into his own. The avidity of the public has been sufficiently directed to comparative politics, we shall be glad to see it as attentive to comparative agriculture; for the introduction of the valuable system of cultivation adopted by Chateauvieux, will be more beneficial to this country, than of the twelve parliaments of the French monarchy.

Our immediate object in this paper, is to recommend the substitution of the Ox for the Horse in tillage, and the mode of yoking the former adopted by the peasantry in France.

The advantages of the ox may be briefly stated. A powerful handsome six year old ox may be purchased at a much cheaper price than a horse of the same description; and after the animal has been worked for five or six years, and has been kept at two thirds the expence of the horse, he will obtain more than his first cost in the public market.

An intelligent writer on this subject observes, "Oxen, after they have fed the hungry, will themselves become the first of human food. Horses after they have eat the food of the fatherless, become a nuisance to the animal world; or, buried in a corner, lie a total loss to agriculture and to the community."

The criterion of agricultural talent is not the beauty of the team, the variety of implements, or, even the abundance of the harvest, but that man is the best farmer, who, availing himself of the exuberance of nature, obtains the highest balance in the comparison of expence and produce.

Oxen are equally tractable with the horse, their strength, like his, depends upon their age and breed, and their activity on their make and proportions. A large deep-chested ox at six years of age, is equal in power to a strong cart horse.—Even on the road the ox is sometimes superior. In stiff pulls (as in acclivities) oxen are the great support. If they are unable to proceed, they will always stand their ground: whereas horses soon lose their feet in a steep or slippery road.

The ox should only be employed from his fourth to his tenth year. But the principal object of this paper is to explain our engraving. It is in vain that we select the most fit animal for the purpose of labour, unless we avail ourselves of the full extent of his powers, by attending to the mechanical laws concerned in their application.

The usual form of the yoke is a frame of wood fitted over the necks of the oxen, whereby they are coupled, and harnessed to the plough. It consists of several parts, as the yoke properly so called, which is a thick piece of wood, lying over the neck; the bow, which compasses the neck about; the stitchings and wreathings, which hold the bow fast in the yoke, and the yoke-ring and ox-chain.

This method is evidently founded on a total mistake in the anatomy of the ox. We have imitated the gear used with the horse, without considering that the strength and agility of the ox is placed by nature in a different situation. The neck of the ox is a tower of strength; if the soil resist, he projects this part of his form with that prodigious muscular force with which she has provided him for his own defence, but without attending to her operations, we impose a load of timber on his withers, we lacerate his flesh, and press him down to the earth.

A lively traveller thus describes the yoke employed in France. The peasant "passes a piece of wood, of about one sixth of the weight of the english yoke, across the forehead of his cattle, having previously neatly hollowed out the extremities of it to fit the mould of the head, and lined those hollows with a piece of woolly sheep-skin, to answer the purpose of a soft pad, or cushion. This light and easy yoke, he braces to the horns with a small thong of leather, attaches the beam of his plough to the middle part of it, and the animal is completely equipped for his labour." We are indebted to the same writer (the Rev. W. Hughes) for the plate, and we trust our readers will find, on examination, that it is sufficiently accurate.

We shall close our observations with some cursory remarks on the superiority of the foreign yoke. In the first place it is well known that the greatest impediment to rustic improvement, is the deficiency of capital: and the little property of the farmer, is too often consumed in expensive implements.—Among these the article of gear is an oppressive annual charge from the perishable nature of the commodity employed. The tackle here recommended for twelve oxen would not amount to six and thirty shillings, whereas the leathern harness for the same number of animals according to the new method, would cost six and thirty pounds, and the annual expence of repairs, would exceed thrice the original cost of the former.

By this mode of yoking, at least one third more of the power of the animal is obtained. In the common way, the shoulder

being bruised by the unyielding bow, no vigour is exerted excepting what is imparted by the goad; and the sinews of the neck, are not brought into employment: hence the sublime and gigantic force with which he is endowed, is not rendered subservient in the important duties he has to perform for the supply of human subsistence. The cattle proceed in the French team bold and erect: no pain oppresses them, and they chew the cud chearfully as they pace along the furrow. On the contrary, in England the painful pressure obstructs the progress of the animals, they lean against each other scarcely capable of supporting their own weight, and the fine intelligent eye which nature has given them to express the generosity of their temper is clouded with anxiety.

The trial of the method here proposed at least has two recommendations. It may be made at very little expence, and under the fair expectation of success. The former is adequately explained by what we have observed on the expence of this furniture, the latter we hope is not less obvious by the allusions we have made to the anatomical form of the animal, and to the mechanism most adopted to receive the full weight of his powers.

If the only valuable object attained by our work, which has so long been sanctioned by public approbation, were to introduce into our own country the substitution of this ingenious contrivance of the French artizan, for the chargeable and oppressive expedients adopted by the English farmer, we should think ourselves sufficiently rewarded for our periodical labours.

E.

## ON SUMMER FALLOWING.

*To the Editor of the Agricultural Magazine.*

SIR,

I CONGRATULATE you, and the readers of your valuable Magazine, on the acquisition of so considerable a number of correspondents, of high and deserved estimation with the public, for their agricultural and oeconomical knowledge; amongst the first of whom, in my opinion, stands John Middleton, Esq. the celebrated author of the Middlesex Report.

Being at the late sheep shearing at Woburn, I had much conversation with some Scotch cultivators on the subject of fallows, and these gentlemen threw much blame on Young, Middleton and Lawrence, as grossly misleading the public, by the unfounded assertion *that the fallowing land was totally unnecessary, after it shall have been once thoroughly cleaned from root-weeds, and that clay-lands are equally adapted to their peculiar fallow-crops, as the lighter species of soils.*

You must understand, Sir, that there exists almost as strong a prejuduice in favour of the summer fallowing system,

in Scotland, as in favour of their bible; and all the arguments I could use from my own confined practice, or the more extensive experience of the above cited writers, were entirely thrown away. It was in vain that I invited several of those gentlemen to visit me on their return home, in order to inspect a nine acred piece of strong, harsh, clay loam, which, after having drained quite dry, I have had under *constant crops during twelve years*, my last year's crop of drilled wheat amounting to *three quarters, two bushels per acre*. Evidence like this is not satisfactory, it seems, I therefore take the liberty through the channel of your Magazine, to call on your respectable correspondent, Mr. Middleton, and to request that he will particularly state the examples within his knowledge, of strong lands, particularly clays, formerly under the fallowing system, but now under the improved one of constant cropping; also any such, under the drill husbandry; with a specification of names and places of abode: in this, according to his usual patriotic habits, he will essentially serve the farming interests of his country. I am, sir, with respect and good wishes,

AN HERTFORDSHIRE FARMER.

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*To the Editor of the Agricultural Magazine.*

SIR,

The Breed of Sheep is a subject already much discussed in your useful Magazine, by men of great abilities and sound judgment; I am, however, persuaded that the following statement of his Majesty's Stock from the pen of Sir JOSEPH BANKS, which I have taken the liberty of copying from a work which, if I may judge by its nature, is seldom perused by your readers, will prove acceptable to them, and your insertion thereof will greatly oblige one of your subscribers,

A MEMBER OF THE BATH SOCIETY.

A REPORT OF THE STATE OF HIS MAJESTY'S FLOCK OF FINE WOOLED SPANISH SHEEP DURING THE YEARS 1800 AND 1801; WITH SOME ACCOUNT OF THE PROGRESS THAT HAS BEEN MADE TOWARDS THE INTRODUCTION OF THAT VALUABLE BREED INTO THOSE PARTS OF THE UNITED KINGDOM WHERE FINE CLOTHING WOOLS ARE GROWN WITH ADVANTAGE. BY THE RIGHT HON. SIR JOSEPH BANKS, BART. P. R. S. &c. &c.

*State of his Majesty's Spanish Flock of Sheep, June 9, 1800.*

ON the 9th of June, 1800, when his Majesty's Spanish flock was shorn, it consisted of 100 ewes and wethers, which produced as follow:

| | | |
|---|---|---|
| Wool washed on the sheep's back - - | | 198 lb. |
| Loss in scowering - - - - | | 104 |
| Amount of scowered wool - - - | | 294 |
| Which produced, when sorted, prime 243 lb. at 5*s.* *per* lb. | | |
| choice 34, at 3*s.* | | 65*l.* 11*s.* |
| fribbs 26, at 1*s.* 6*d.* | | |

Eight rams and nine ewes were this year disposed of, which were all that could be spared from the flock. Two of the rams went into Dorsetshire, where the breed is much approved by some skilful judges of sheep, and seems likely to produce considerable advantage by crossing with the common sheep of the country.

*Mr. Bridge's account of the improved value of sheep and their wool, by crossing with the Spanish.*

Mr. Bridge, of Winford Eagle, communicated this year the result of an experiment he had made on three kinds of sheep, viz. Dorset, half Spanish and half Dorset, and half Spanish and half Mendip.

He kept these sheep from the year 1798, when they were lambed, till February 1800, when they were butchered as fat sheep; and having valued them in June 1798, he found the carcases of each sort, with two years wool which had been shorn from them, to yield at that time the following increase in value:

| | £. | s. | d. |
|---|---|---|---|
| Real Dorset - - - | 4 | 5 | 6 |
| Half Spanish half Dorset - | 4 | 3 | 8 |
| Half Spanish half Mendip - | 3 | 19 | 2 |

In these experiments Mr. Bridge's woolstapler values the Dorset wool at 1s. 2½d. a pound, and the half Spanish wool at 1s. 4½d. only; but as the Spanish cross in both cases increased the quantity of wool and as half Spanish wool has never, when its value was properly known, been sold for less than 1s. 9d. and generally more than 2s. a pound, there can be no doubt that the improvement in value, arising from the cross, is in both cases considerable.

*Mr. Ridgway's statement of similar results.*

Mr. J. Ridgway, of Upperton, in the parish of Yazor, in Herefordshire, communicated an experiment, in which two sheep, the one a Ryeland, and the other half Spanish and half Ryeland, of equal weights, were fed by him together; the half Spanish sheep produced in a year 2 lb. 12 ozs. more wool and 5 lb. more mutton than the Ryelander. This gentleman, whom his Majesty graciously permitted to have rams from the Spanish flock some years ago, has also shewn by his accounts that the wool of his flock of about 16 score sheep, has been so much increased both in quantity and in value by the Spanish cross, as to have produced nearly twice as much money for each clip after the Spanish blood was established in it, as it usually did before.

*His Majesty's Spanish Flock in June* 1801.

In June 1801, the Spanish flock consisted of 108 ewes and wethers,

| | |
|---|---|
| Which produced in wool, washed on the sheeps' back | 397lb. |
| Loss in scowering - - - - - - | 112 |
| Amount of scowered wool - - - - | 285 |

Which produced, when sorted, prime, 237lb. at 5s. 6d. per lb.
choice, 31 at 3s. 6d.
fribbs, 17 at 1s. 9d. } 72l. 1s. 9d.

The wool of the rams and fatting wethers which had been kept separate, was prepared for sale at the same time, and produced in

| | |
|---|---|
| Wool washed on the sheeps' back - | 220lb. |
| Loss in scowering - - - - | 82 |
| Amount of scowered wool - - - | 138 |

Which produced, when sorted, prime, 96lb. at 5s. *per* lb.
choice, 30, at 3s. 6d.
fribbs, 12, at 1s. 9d. } 30l. 6s.

This year, eight rams and twenty-two ewes were sold. If the foot rot had not unfortunately damaged the rams very materially, more of them would have been disposed of. It is, however, observable, that although the rams that are kept at Windsor, in rich land, are occasionally attacked by this harassing disease, the ewes and wethers that feed on the dry and hilly pastures of Oatlands, have never been subject to lameness of any kind.

*Account of the fattening and sale of eleven wethers.*

Eleven wethers that had been sent to the marshes, in order to try the effect of rich pasture in fattening sheep of this breed, were slaughtered this year by Mr. King, of Newgate Market, previous to the Smithfield meeting, which usually takes place the week before Christmas. Two of the carcases were given to persons who had been useful in ascertaining the value of the Spanish breed; the remaining nine were sold to Mr. Giblet, butcher, in Bond Street, whose judgment in selecting, and liberality in purchasing the best carcases, is well known, both to those of whom he buys, and to those who buy of him. The sale bill is as follows:

| | | | | £. | s. | d. |
|---|---|---|---|---|---|---|
| 1 sheep, | 6 stone | 6 lb. | at 6s. per stone | 2 | 0 | 6 |
| 1 ditto, | 7 | 0 | 6s. - - | 2 | 2 | 0 |
| 1 ditto, | 6 | 1 | 6s. - - | 1 | 16 | 9 |
| 1 ditto, | 7 | 2 | 6s. - - | 2 | 3 | 6 |
| 1 ditto, | 5 | 6 | 6s. - - | 1 | 14 | 6 |
| 1 ditto, | 5 | 2 | 6s. - - | 1 | 11 | 6 |
| 1 ditto, | 5 | 7 | 6s. - - | 1 | 15 | 3 |
| 1 ditto, | 5 | 4 | 6s. - - | 1 | 15 | 0 |
| 1 ditto, | 6 | 2 | 6s. - - | 1 | 17 | 6 |
| 11 heads and plucks, at 1s. - - | | | | 0 | 11 | 0 |
| 10 stone 4 lb. fat, at 3s. 10d. - | | | | 2 | 3 | 0 |
| | | | £. | 19 | 8 | 6 |

Respecting the goodness of the mutton, enquiry must be made of Mr. Giblet, at whose shop the carcases were shewn for several days, and of his customers who purchased the joints.

Experience has, however, demonstrated already, both at Windsor and at Weybridge, that Spanish mutton is of the best quality for a gentleman's table.

*Sale of their pelt wool.*

The pelt wool of these 11 sheep was taken off, in order that its value might be ascertained.

| | |
|---|---|
| It weighed in the yoke - | 36 lb. |
| Loss in scowering - - | 8 |
| Amount of scowered wool - | 28 |

It was sold as skin wool for 4s. 6d. a pound, and of course produced 5*l.* 19*s.* or 10*s.* a sheep, all expences deducted. The amount of this profit was quite unexpected, and holds forth a source of advantage in this breed, that has not probably hitherto been calculated upon.

*The commendable exertions of Dr. Parry of Bath, in advancing his Majesty's patriotic view as to this object.*

Of all who have laboured to render his Majesty's patriotic views in importing Spanish sheep permanently useful to his subjects, Dr. Parry, of Bath, deserves the highest commendation. Amidst the labours of a profession always toilsome when successful, and particularly so at Bath, where persons, whose diseases cannot be ascertained by the faculty elsewhere, continually resort, the doctor found leisure to employ himself in the improvement of the British fleece, by crossing various breeds with Spanish rams presented by his Majesty to the Marquis of Bath, and to the Bath Agricultural Society.

The prizes the doctor has continually obtained from the judicious and respectable body from whom he borrowed rams, for cloths made of his own wool, in the midst of a manufacturing country, and amongst abundance of able competitors, prove to a demonstration, that he has brought the fleeces of the mixed breed very nearly to the value of the original Spanish; nor is this to be wondered at, when we recollect that the effect of a mixture of breeds operates in the following proportions.

*Rate of amelioration of wool by the Spanish cross.*

The first cross of a new breed gives to the lamb half of the ram's blood, or 50 *per cent.*

| | |
|---|---|
| The second gives - | 75 ditto. |
| The third - - | 87½ ditto. |
| The fourth - - | 93¾ ditto. |

At which period it is said, that if the ewes have been judiciously selected, the difference of wool between the original stock and the mixed breed is scarcely to be discerned by the most able practitioners.

More need not be said of the doctor's merit. His book, which every man who wishes to improve wool ought to read, will give a more just idea of the acuteness of his discrimination,

the diligence with which he pursued his purpose, and the success that finally attended his judicious management, than can be stated in the brief form of a report like this.

*Lord Somerville's active and judicious labours in establishing a Spanish flock.*

Much, however, as Dr. Parry deserves the gratitude of all who honour the fleece, Lord Somerville's merit stands at least as eminently conspicuous. Emulating the example of his sovereign, his lordship, whose just discrimination of the value of different breeds of stock is admitted by the most experienced agriculturists, made a voyage to Portugal for the sole purpose of selecting by his own judgment, from the best flocks in Spain, such sheep as joined in the greatest degree the merit of a good carcase, to the superiority in wool which the Merino flocks are allowed to possess.

His lordship succeeded, and brought home, more than two years ago, a flock of the first quality, which will probably repay with advantage the costs of the undertaking, as some of his lordship's rams are said to have been already sold for 100 guineas each.

As ten crops of wool have now been shorn from his Majesty's Spanish flock, and not a single sheep from Spain has been introduced into it during the whole of the ten years that have produced them, and as the tenth crop afforded nearly five sixths of prime wool, and only one fourteenth of fribbs, it is to be hoped that the deep-rooted prejudice which has for ages deceived the people of England into an opinion that Spanish wool degenerates in this climate, will now be finally lodged in that catalogue of vulgar errors, which the increase of human knowledge daily enlarges. It is to be hoped also, that a bold assertion hazarded here, that the Mutton of Spanish fine-wooled sheep is coarse, tough, and little better than carrion, will be contradicted by the evidence of Mr. Giblet and his customers, to the satisfaction of those who have unwarily given credit to it.

His Majesty having been pleased to permit the sale of such sheep as can be spared from the Spanish flock to be continued, the rams will be delivered at Windsor, and the ewes at Oatlands, in the latter end of August. As, however, it has been suggested to his Majesty that the carcases of the sheep are evidently improved, and that the wool has rather gained than lost in value, six guineas will be in future the price of a ram, and two that of an ewe. And as his Majesty has been graciously pleased to continue to entrust the management of the flock to Sir Joseph Banks, all letters on the subject of it, addressed to him in Soho Square, will be answered, and the utmost endeavours used to consult the convenience of those who wish to become purchasers.

*July* 1803. JOS. BANKS.

## ON HORSES AS PREFERABLE TO OXEN IN DRAUGHT.

*To the Editor of the Agricultural Magazine.*

SIR, *Aug. 15th*, 1803.

HUSBANDRY is the most important of all arts, it has therefore excited much surprise, that, in a nation so enlightened and enterprising as Great Britain, it has not received more attention than has been hitherto bestowed upon it. The vast consequence of our commerce I readily concede. I must, however, contend, that our commercial and manufacturing concerns, will not stand on that solid basis on which we should place them, till our agriculture is more perfectly and extensively practised. Among the many advantages which would result from such an improvement in our rural management, I conceive that one of the most important would be a rapid increase of many millions in our population; in support of which idea I deem it unnecessary to advance any arguments. I beg leave, however, to observe, that when our restless, ambitious, and inveterate enemies, have increased theirs in so alarming a degree, this subject calls loudly for the utmost attention and exertions of our Landholders and Legislature. I therefore pronounce the great attention which Lord Somerville, and many more of our great proprietors, has lately paid to rural affairs, highly meritorious. Judging, however, of his Lordship's sentiments on the comparative advantages of horses and oxen for the purpose of draught, by what is stated in your Critical Catalogue, No. 45, I beg leave to offer (for publication in your Magazine,) a few remarks upon that important subject, which, as I understand that some of your readers are warm advocates for the superiority of oxen, I shall, perhaps, discuss at greater length, on some future occasion: and in the mean time I take the liberty of recommending to their attentive perusal, Messrs. Bailey and Culley's statement on the point in question (in their Agricultural Survey of Northumberland,) which is the most correct and satisfactory that I have seen, or heard of. Indeed, competent judges have asserted, that they have demonstrated the superiority of horses to the farmer and the community, as clearly as Geometricians have proved that the three interior angles of every triangle, are equal to 180 degrees. A contributor to the Farmer's Magazine, No. 6, has followed the outline of their plan, and drawn a conclusion still more favourable to horses; and if I had sufficient leisure, I would now annex such statements and calculations, as I conceive would show that neither his statement nor those of Messrs. Bailey and Culley are sufficiently favourable to those useful animals. Lord Somerville states a fact which scarcely any person acquainted with Rural Affairs will contradict,

namely, that our fore-fathers employed oxen in farm labour, to a much greater extent than the present generation; and many writers on agriculture, and (if I mistake not,) his Lordship among the rest, state, that farmers are a body of men extremely prejudiced in favour of old habits, obstinate, and ill to draw from the beaten track. Now, Sir, is it not fair to consider the laying oxen aside, as a strong proof of their inutility, and that those reasons must have been powerful indeed, which induced this bigotted and prejudiced body of men to deviate so much from the beaten track as his Lordship laments they have done? Interest is the most powerful incitement to action, and you may rest assured that farmers found from experience *the solid basis on which improvements should rest*—that theirs was much better promoted by employing horses than oxen. It is unquestionably a subject on which nothing could influence their decision, but what they conceived to be their interest; still, however, the advocates for oxen contend for their almost universal employment: what then, my brother farmers, is the inference that we must draw? Why, that these gentlemen reckon us so ignorant as to be unable to decide whether we derive the greatest profit from employing horses or oxen in the cultivation of our farms. We, indeed, evince too much ignorance in many respects, and that many Land-holders think us unable to manage our own concerns, is proved by the contents of the articles of agreement for our farms, and by the *kind* assistance they give us in the shape of restrictive covenants, schemes of husbandry, &c. &c. On the ox and horse question, I humbly conceive that we are the best judges in the kingdom; and that these schemes of husbandry and restrictive covenants, generally shew the ignorance *not of the farmers*, but of the proprietors of the soil, or rather of their agents.

God knows that I am daily lamenting my own general want of understanding, and that I am placed in the occupation of some thousand acres of land, most of which are arable. But as this has been my station for a considerable number of years, and as I have been actively employed as a practical farmer *on a large scale*, for the last twenty-four years of my life, *during a part of which I have employed oxen for draught*, I may be supposed to have acquired *some* knowledge of the subject on which I have ventured to address you; and though some of the lands I occupy are more favourable than others to the working of oxen, yet were I bound to give them even but generally the preference to horses, I am strongly of opinion that a great reduction of the rents which I could otherwise afford, would become indispensable. Nay, on one farm, which, besides perennial pasture, contains 300 acres of land managed under a five course shift, (oats, fallow and drilled leguminous crops and turnips; wheat and barley; clover and ray grass

pasture;) which is merely strong soil of a middling and inferior quality, and which eight horses will perform with ease, all the necessary operations in the cultivation of 180 acres in tillage, besides leading great quantities of lime, delivering corn, &c. &c. I am of opinion that the necessary number of oxen would consume so much of its produce, *were they employed in labouring it*, that I could not afford to pay much, if any thing, more than one half of the present rent; and surely, when it is considered that the ability to pay rent arises from the great amount of the produce, and the small amount of the necessary expences, no man will contend, that, notwithstanding a great reduction of rent, the ox may still be preferable to the horse system, in a national point of view.—Under the latter I am persuaded that I send more human food to market than I could possibly do under the former.—During one part of the year a considerable part of my land is much too wet for oxen, in the manner in which they are generally, and probably in that in which they are from necessity, employed; and on most of the remainder the soil is too hilly, and of so gravelly a nature, that, notwithstanding all the care and attention which could be bestowed in shoeing, &c. they would suffer very materially from sore feet. This, I apprehend, is the case in most parts of the kingdom; but even in favourable situations, I cannot conceive that one pair of oxen, out of fifty, can be procured, which, with one man, will perform near so much work in a proper manner, and for twelve months together, as two horses, either in the plough or cart, even supposing the former to consume as much corn and hay as the latter; and it must not escape our recollection, that experiments have demonstrated the fallacy of *theories* relative to the consumption of ruminant animals being less than that of horses. Very accurate trials, Sir, have proved, that a working ox will consume as much, or more, hay and corn for fourteen days in succession, as a working horse. Pray, are you or any of your correspondents prepared to prove that twenty pair of the best oxen in the kingdom will, with twenty men, completely plough as much land for 313 days in succession, as the same number of men with twenty *middling* horses, both oxen and horses being furnished with the same quantity and kind of food, that work horses are generally allowed? And also how much more, or rather how much less, than prime cost, oxen maintaining such competition would be worth, at the end of the year, supposing markets in the same state. The warmest advocates for oxen will not, I presume, contend, that a given number, say fifty, of the best of these animals, will completely perform (with twenty-five persons, and in the above space of time) near so much work as an equal number of the *best* horses, with one man for each pair. Most of their calculations are made, I understand, on four

oxen against two horses. I am, however, of opinion that, on an average of the kingdom, (keeping corn from the oxen) it will require six oxen of four years old, or upwards, with one man and a boy, to perform as much work as two good horses driven with reins, by the holder of a properly constructed plough. When I speak of this useful implement, I do not mean heavy wheel, but common swing ploughs, *well constructed,* and particularly those recommended by that able and ingenious agriculturist and mechanic, Mr. Bailey, the construction of which is deduced from mathematical principles, (see his Essay on the Plough, which contains practical rules for the use of farmers and wrights, and which is well worth the attention of all agriculturists.) In Hertfordshire and other counties, I have seen (what is the general practice,) four or five heavy horses (without the necessary mettle) employed in a plough. In Northumberland, Roxburghshire, and most parts of Scotland, almost all ploughing is performed by two horses in a plough, driven by the ploughman, with reins. In these parts of the kingdom, lands as strong as any in the southern counties, are cultivated with ease, in this way; and considering the disadvantages of climate, &c. produce as valuable crops as any in England. Indeed I am fully persuaded, that in the North of England and South of Scotland, the management of land and live stock is throughout, more able and judicious, than in most of the more Southern parts of the kingdom; and that if the farmers in the latter paid as heavy rents as we do in the North (where within the last seven years the rents of farms have generally been doubled, many trebled, and some quadrupled on the expiration of leases for twenty-one years) they would not have it in their power to be guilty of so great a waste of strength as that of employing four or five horses in a plough. The tax on horses employed in agriculture, (for which we are, perhaps, in some degree indebted to the advocates for oxen) deserves the severest reprobation; that senator, however, who could prevail on the legislature to lay a heavy tax on the fourth and fifth horses in a plough or a cart would deserve the thanks of his country. In almost all cases, a third horse is unnecessary in a plough, and therefore a considerable tax might, with propriety, be extended farther than I have just mentioned.

I cannot coincide in opinion with Lord Somerville, that our having changed from exporters to importers of corn, almost ever since 1754, *the period about which he says the employment of horses in preference to oxen became general,* is a proof that baneful effects have arisen from ceasing to labour the latter. But, Sir, most men have their *hobby horse,* and he has his *hobby ox,* which draws so *powerfully and moves with such rapidity,* that his Lordship perhaps cannot on all occasions (though it must be admitted that *in general* he is very able, at the investigation of cause and effect) stop to inquire into the effects

of the following causes, namely:—A very considerable increase in our population. A great increase in our paper circulation (which, according to Dr. Adam Smith, speedily doubles the capital of a country.) A vast increase of trade. An immense increase of wealth, (which introduces greater luxury and expence amongst all ranks;) the increase of horses for the purposes of trade and pleasure; and the great increase of distillation from grain, &c. &c.

Instead of endeavouring to diminish the number of horses employed in the cultivation of our lands, our Landholders and Legislators should look at the miserable occupation and defective management of landed estates in general; at their tenants at will; their restrictive covenants and schemes of husbandry; their *wise* agents; the existence of tithes; the non-existence of long leases, and a liberal system of connexion between landlord and tenant; the want of a general inclosure bill, &c. &c. and they will, most assuredly, discover additional reasons, not only why the kingdom of Great Britain and Ireland does not raise corn sufficient for her increased population, but why that population has not been increased to near twenty-four millions. That tithes are a great obstacle to the improvement of the country, is a position, the truth of which is capable of easy demonstration; they are, however, I conceive not so injurious to the landlord, the tenant, and the community, as short or no leases; the want of judgment in land agents; and the restrictive covenants which almost all our agreements contain. To expect great and substantial meliorations without the employment of a much greater agricultural capital, and to suppose that such a capital will be attracted without offering the security of long leases, &c. is absurd.

In this letter, Sir, I have slightly touched a variety of subjects, which may, perhaps, induce you to pronounce it of too desultory a nature. It is the first, however, that I have addressed to you; and I have intentionally departed from the principal subject, in order to give you an idea of my principles, 'ere you admit me into the pages of the Agricultural Magazine.

I am, Sir, yours, &c.

AGRICOLA NORTHUMBRIENSIS.

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## ON THE ADVANTAGES OF A PROPER MANAGEMENT OF BEES IN GREAT BRITAIN AND IRELAND, IN ANSWER TO A QUERY IN THIS MAGAZINE, NO. XI, PAGE 412.

*To the Editor of the Agricultural Magazine.*

SIR,

A Proper management of Bees has, for several years past, been one of the chief objects of Agricultural Societies. In Germany, in Switzerland, and in France, several ladies and gentlemen have thought this branch of agriculture a fit

object of their researches, and have formed themselves into societies for the purpose of making improvements in it. Mr. Needham, who has written a very useful Treatise on Bees, in French, and who wished to persuade the Academy of Bruxels to encourage the cultivation of Bees, expresses himself in his Memoir, (1777) in the following manner: See Transactions of the Society of Bruxels, page 12. "An academy of very learned members has lately been established in the little Bautzen, (a Canton of High Lausitz,) under the name of *the Bee Society*, and under the auspices of his Highness the Elector of Saxony. It was formed some years ago by several great men, and even a great number of amateurs of both sexes and all ranks, who study this branch of agriculture with the greatest assiduity."

The Secretary of this Society was the celebrated Mr. Schirach, who has written several things on his discoveries in this branch.

"An institution of the same kind, and upon the same principle as that in Saxony, has been established in Lauter, in the Palatinate, under the title of *The Economical Society*; and his Highness the Elector Palatinate, the greatest friend and royal patron of arts and sciences, did not lose a moment to give his *Letters Patent* to the Society." But would all those societies consult the arguments of a learned gentleman, who had his hasty opinion on this subject printed in Number 12 of your Magazine, and would they receive his opinion with implicit reverence to his dignity, we might see in a little time the premiums for the encouragement of this branch of agriculture, totally expunged from the lists of their generous and patriotic offers? It is matter of astonishment, at least to me, how some gentlemen, who are in many respects men of some talents, commit such gross errors in the most trivial concerns of common life. It is said in that hasty sketch: "Was the *growth* (the produce) of honey to be entered upon to any great extent in this country, it would totally defeat its own end, because so little is used among us for any but medical purposes; and small as the *growth* (its produce) has even been, the price has seldom or never been very encouraging. Its import does not apparently arise from demand in point of quantity, but, as I apprehend, chiefly *on the score* of superior quality," &c. &c. "The people," continues he afterwards, "in many parts of this country, have very little leisure, and (adds he) sooth to say, less inclination to run gadding after Bees."

The learned Doctor has not omitted one single instance that could be mentioned to persuade us of the little advantages arising from Bees; and in order to disgust the public entirely against this useful branch of agriculture, he is not satisfied in endeavouring to prove the inutility of British honey; but he also endeavours to prove the dangerous effects of its free use.

But who is so ignorant as to be unacquainted with the ill consequences that the most nourishing food may have upon some constitutions; and even upon the very same constitution it may sometimes operate in a different manner. Butter, cheese, milk, water, strong beer, spirituous liquors, wine, nay even a hearty meal of a good beef steak, or the paste of a two-penny pye, may sometimes endanger the life of a person, and even cause his death.

To obviate all these objections against the greatest advantages of a proper management of Bees, it will be necessary to shew the extensive utility, and the profits from the produce of Bees, if properly attended to, and then in a subsequent paper give a little sketch of the improvements which ought to be made in this branch of agriculture to bring it to the greatest perfection.

Persuaded, as I have been these several years past, of the great advantages that must accrue to any country from a proper management of Bees, I took every opportunity, upon my excursions in several parts of Ireland, to inform myself of its real state of improvement in that country. The observations, which I made induced me to address two little Memoirs to the *Dublin Society* for the encouragement of Agriculture, Arts and Manufactures. Some of these observations merit a place here; and I shall therefore give your readers a little extract of them.

With respect to the good quality of the British and Irish honey, it is a point in question, whether and how far it may be inferior to that of warmer countries? The honey of Sweden, for instance, is held by many able chemists, to be of an excellent quality, and in many respects even superior to that of several warmer countries. See Enc. Brit. article of honey. If our honey differs at present in its nature and properties from that which we receive from abroad, it does not yet result from this circumstance, that it could not be as good, if not better, than several of the foreign kinds, nor does this preclude yet all improvements that could be made by a proper management of Bees, &c. The Rev. Doctor allows, that various parts of these countries are "*very suitable* to the honey *culture*;" but he also acknowledges the defect of a proper management. If so, how is it possible, that the learned gentleman can persuade himself, that the produce of Bees should not be spoiled by ill management? Is there any thing in this world so immutable, that it does not suffer through neglect and ill-treatment; and secondly, can the want of industry be a sufficient reason to conclude from the inattention paid to any object in nature upon its inutility? For my part, I am certain, that if I did see "*such a commodity go begging at two-pence halfpenny per pound,*" I would cheerfully divide the last shilling in my possession with her, in order to encourage industry.

Thus far I could not avoid answering the observations of that little sketch on the profit of Bees, Number 12, page 40, in your Magazine; and now we will examine, whether the produce of Bees in the united kingdom of Great Britain is indeed of so little importance, that it scarcely merits our attention.

Honey is such a useful article, that no family, especially in the country, should be without it, either in summer or winter. It has three peculiar properties, it warms gently, dissolves the mucus, and therefore is an excellent medicine for all people of a cold and phlegmatic constitution, because it promotes expectoration, and enlivens the animal spirits. It is also of an opening quality, though gently and in proportion to the quantity and also quality; and what it has superior to many other medicines, it is nourishing, and as has been already observed, it greatly exhilirates the animal spirits by means of its spirituous properties.

The produce of Bees is becoming more and more valuable. The utility of honey is unquestionable, even when only considered as a medicine. "Honey," says the Encyc. Brit. considered as a medicine, is a very useful detergent and aperient, powerfully dissolving viscid juices, and promoting the expectoration of tough phlegm. In some particular constitutions it has the inconvenience of griping, or of proving purgative, which is said to be in some measure prevented by previously boiling the honey. This, however, with all constitutions is by no means effectual, and the circumstance has had so much weight with the Edinburgh college, that they do not apply it in any preparation, and have entirely rejected the *nulla medicata*, substituting *syrups* in their place; but there can be no doubt that honey is very useful in giving form to different articles, although there are some individuals with whom it may disagree. In order, however, to obtain the good effects of the honey itself, it must be used in a considerable quantity, and as an article of diet. The following remarkable instances of the good effects of honey in *asthmatic cases*, given by Dr. Monro, in his Medical and Pharmaceutical Chemistry, deserve to be here inserted.

"*The late Dr. John Hume, one of the commissioners of the sick and hurt of the royal navy, was for many years violently affected with the asthma. Having taken many medicines without receiving relief, he at last resolved to try the effects of honey, having long had a great opinion of its virtues as a pectoral. For two or three years he ate some ounces of it daily, and got entirely free from his asthma, and likewise of a* GRAVELLY COMPLAINT, *which he had long been afflicted with. About two years after he had recovered his health, when he was sitting one day in the office for the sick and the hurt, a person labouring under a great difficulty of breathing, who looked as if he could not live many days, came to him and asked him, by what means*

*he had been cured of his asthma? Dr. Hume told him the particulars of his own case, and mentioned to him the means by which he had found relief. For two years after he heard nothing of this person, who was a stranger to him, and seemed so bad that he had imagined the poor man could not have lived many days, and therefore had not even asked him who he was. But, at the end of that period, a man seemingly in good health and decently dressed, came to the sick and hurt office, and returned him thanks for his cure, which he assured him had been entirely brought about by the free use of honey.*"

Allowing that honey may not be always a good ingredient of medicine to all persons afflicted with the same complaint, it is notwithstanding such an useful article, that I must repeat, *not the poorest family, especially in the country, should be without it.* I know that a poor man's child, who had been long in a declining state of health, was rescued by honey from the clutches of death.

Besides the above use of honey, it is an internal medicine in complaints of the breast, &c. it also is a very good ingredient, if not one of the best, for composing ripening plaisters, by mixing a sufficient quantity of honey with coarse flour of rye or barley, and apply it to the place.

Considering honey as an article of consumption for domestic or culinary use, it also is of great utility in that respect. Various kinds of meath can be made of honey, and a mixture of other ingredients, that surpass many sorts of good wine. Were it to be had in great quantity one might probably distil a kind of spirits of it, or make it into vinegar. In many kinds of confections it would be substituted for sugar, were its price not too high for that purpose.

Bees-wax, though only used in China as an ingredient in medicine, and not for burning, is in the European countries chiefly used as an article of luxury, but not less as a material of several arts and manufactures, so that its high price in these countries is to be considered as an obstruction to the improvement of all wax manufactures, and deserves, therefore, in a particular degree, the attention of the patrons of arts and manufactures.

What attention the British and other Governments have sometimes paid to the wax manufactures may be seen from the following extracts of Dr. Anderson's Treatise on Commerce: "It is remarkable," says the author, "and deserves well the attention of the public, *that in* 1782 *Russia exported* 350 *tons of candles, and that she has lowered the duties on this article when exported.* Both the soap and candle trade are of considerable benefit to Great Britain and Ireland."

But how it can be a benefit to these countries to import, what might be had at home I do not see. Perhaps Dr. Anderson meant to say instead of benefit "to a considerable extent."

"*In* 1784 *an act was given by the British Parliament for repealing the duties upon wax and candles* MADE *in Great Britain, and for granting other duties in lieu thereof, and also upon wax imported, as also upon licences to make and sell wax candles in Great Britain.*" This act, therefore, would be to the prejudice of these countries, if it could be a benefit to them to import those articles, &c.

The consumption of wax in Ireland alone is very considerable, and if this commodity could be had in England, it need not be imported into that island from foreign countries, or by the medium of British bottoms. I shall give an exact and special statement of the imports and exports of wax and wax-candles, which statement may lead to many observations, that will corroborate such of my assertions for which I otherwise might incur the censure of my readers. (See the following table)

IMPORTS.

| Years. | Denominations. | Great Britain. | East Country. | Holland and Flanders. | France. | Spain and Portugal. | Plantations | Total. |
|---|---|---|---|---|---|---|---|---|
| 1764 | Wax bees pounds | 8676 | — — 14 | 420 | | 635 | 2016 | 9936 |
| | candles cwt. qr. lb. | | | | | | | 1 17 |
| 1765 | Wax bees pounds | 416 | | 20 | — 1 3 | | — | 3097 |
| | candles cwt. qr. lb. | — 1 — | | | | | 2 — | 2 — |
| 1766 | Wax bees pounds | 6343½ | 1327 | 112 | — 2 21 | | — | 7782½ |
| | candles cwt. qr. lb. | | | | | | 2 21 | 2 21 |
| 1767 | Wax bees pounds | 596c | | — 2 7 | | | 2353 | 11,912 |
| | candles cwt. qr. lb. | | | | | | — 2 7 | 2 7 |
| 1768 | Wax bees pounds | — — 16 | 1 21 | 4 2 — | | 798 | 4092 | 7842 pound to the Plantations. |
| | candles cwt. qr. lb. | | | | | | 10 3 22 | |
| 1769 | Wax bees pounds | 7623 | | | — 2 7 | — — 21 | 12,533 | |
| | candles cwt. qr. lb | 8 — — | | | | | | |
| 1770 | Wax bees pounds | 12,549 | 94 | | 100 | | 4536 | 17,279 |
| | candles cwt qr. lb. | 2 1 — | 3 14 | | — — — | | 3 3 — | |
| 1792 | Wax bees pounds | 38,940 | | | — 3 14 | | 18,771 | 98,981 to the West |
| | candles cwt. qr. lb. | 1 2 23 | | | | | 5 — 11 | |
| 1793 | Wax bees pounds | 27,081 | 465 | | 1 3 — | &c. | 8913 | 53,347 66 pounds of wax and 18 3 16 wax candles. |
| | candles cwt. qr. lb | 1 — — | | | | | 3 3 14 | |
| 1794 | Wax bees pounds | 35,724 | 18 | | | | 43,831 | |
| | candles cwt. qr. lb. | | | | | | 9 1 14 | |
| 1795 | Wax bees pounds | 2922 | 28 | | | | 30,000 | 33,853 2 pounds and 2 23 Honey to England 10 gallons |
| | candles cwt. qr. lb. | 2 1 21 | &c. | | | | 2 — | |
| 1796 | Wax bees pounds | 11,980 | 308 | | | — 2 — | 60,212 | 70,818 |
| | candles cwt. qr. lb | 1 2 21 | | | | | | |
| 1797 | Wax bees pounds | 2820 | | | | | 54931 | 57,751 |
| | candles cwt. qr. lb | — — 1 | | | | | 5 1 — | 6765 |
| 1798 | Wax bees pounds | 357 | | | | 542 | 5886 | — 2 — |
| | candles cwt. qr. lb. | — — 14 | | | | — 2 7 | | |

EXPORTS.

1792 were imported from Germany, 210 lbs. of wax.
1794 ditto ditto Russia, 2 cwt. 2 qrs. 14 lbs. of candles.
And the same year from Italy, 3 cwt. 1 qr 14 lbs.
1795 were exported from Russia, 112 lbs. of wax, and 3 cwt. 21 lbs. of candles.
1796 were exported from Germany, 150 lbs. of wax, and also 168 lbs. of wax from Russia.

It scarcely deserves to be taken notice of, that Ireland in 1796 exported to England ten gallons of honey; and that the exportation of wax and wax candles has always been so inconsiderable, that we may say that the entire quantity of those two articles was imported for home consumption. But it well merits the attention of the public, that no wax has been imported into Ireland from France, Spain, Portugal, or Italy. The reason is obvious. From the first country several small parcels of wax-candles have been imported before the war. In short, wax is become such a necessary article of medicine and luxury, that its importation into those countries, where the management of Bees is neglected, will rather increase than decrease; and it will therefore be always one of those articles of home consumption, that help to diminish the capital of the British countries.

It must be allowed that a considerable quantity of candles imported are Spermaceti candles,* which must have been put down in the official reports of the custom-house of Dublin, under the denomination of wax candles, since I could not find that article once mentioned in the reports of twenty years, through the imposts on the Spermaceti candles†, are paid on the value of the imports, and notwithstanding they are specified in the rates of the custom-house. It is, however, very probable that wax might be greatly improved, and by a proper mixture with other ingredients, make as good candles as the Spermaceti.

A comparative review of the imports of bees-wax and candles, will shew how these two articles, progressively increasing in quantity, balance with each other. For instance:

| | | |
|---|---|---|
| In 1764 | Wax - - | 9036 pounds |
| | Candles - | 1 cwt, 0 qr. 17lbs. |

* A method has been lately proposed by Mr. Smith Gibbes, of Magdalen College, Oxford, to convert animal muscles into a subſtance much resembling Spermaceti. The process is remarkably simple.- See Enc. Brit. and Philos. Transact. of London 1794.

† Spermaceti candles are made of the brains of a kind of whale, called Physeter Macrophalus, and are esteemed much superior to any kind of wax candles. They are often adulterated, but the genuine ones are easily to be distinguished by their elegant whiteness. Spermaceti oil, a whitish, transparent, and unctuous substance, is likewise made of the brains of the same kind of whale. The oil is obtained from the liquid matter, and the substance of the candles is from the remaining part.

| | | |
|---|---|---|
| 1766 | Wax - - | 7782¼ pounds |
| | Candles - | 0 cwt. 2 qrs. 21lbs. |
| 1768 | Wax - - | 7 pounds only but |
| | Candles - | 10 cwt. 3 qrs. 22lbs. |

Now, if we only value the bees-wax at one shilling and three pence half-penny per pound, 70818 pounds of bees-wax imported into Ireland in 1796, will amount to about 4000l. sterling, and though a considerable part of that quantity was imported from England, this country would not benefit much by it, since it was not her own produce. By a statement upon the lowest calculation, we find that twelve hives produce the first year a profit of eight pounds twelve shillings, and the second eleven pounds eight shillings. I leave it now to the judgment and decision of agriculturists, who have the least knowledge of bees, whether the greatest part of those sums, that are annually sent into foreign countries for the above-mentioned articles, could not be saved and applied for other purposes, if Bees were more generally reared in every part of the united kingdoms, where they possibly could find any food. Wax would then become cheaper, and it might then be expected to be brought to a degree of perfection, which it seems to be capable of.

To keep Bees, is not by any means attended with very great expences, and a certain profit is always secure to the possessor of a few stocks.

There are indeed very few places which would not produce some vegetables, that contain principles of which the Bee composes her valuable store of wax and honey; yet some tracts of land abound more than others with plants and herbs of a more prolific nature; and Bees delight most in those spots, where a large quantity of their favorite flowers are found together. The most important question, therefore, will be: "*Which plants contain the greatest quantity and the best quality of those principles of which the Bee composes her wax and honey; and secondly, which of those plants might be cultivated to the best advantage with respect to other branches of agriculture?*" The solution of this query will shew, that the Bee collects the most valuable and plentiful store in places of wildernesses, where hardly any other creature can subsist; and that to provide food for them is, in other words, improving meadows, gardens, corn fields; in short, carrying agricultural improvements to the highest degree of perfection and then to get Bees to collect, what otherwise would be lost.

The following catalogue of flowers contains such plants, that furnish the greatest quantity of honey or farina.

Crocus, turnips, wall-flowers, all species of cabbages, rosemary, borage, viper's buglass, rasberry, holly-oak, white poppies, lime-tree, taca mahacca.

The following produce the finest quality of honey.

Osiers, white clover, serpyllia or creeping lemon thyme, and mignonette. Besides these, there are a great number, of which the Bees are very fond, but which are inferior to the former kinds, as winter aconite, laurustinus, hazel, snow-drops, sallows, primroses, hepaticas, violets, standard almonds, onions, gooseberry, apricot and other fruit-trees, laurel, dwarf almonds, strawberry, tulip, white-thorn, heath, gorse, star of Bethlehem, laburnum, columbine, barberry, beans, yellow lupine, syringa, sweet-brier, mustard, tares, cucumbers, Greek valerian, senna, French willows, capers, buck wheat, nosturlium, yellow vetches, saint foin, alders, scabious, sun-flower, broom, especially the Spanish kind, michaelmas daises, winter savory, Jacob's beard, purple house-leek, tree-ivy, and some others of less note.

From this catalogue we see that clover and saint foin are favorite flowers of the Bee; and when we consider what great quantity of clover and other seeds are annually imported, it is matter of astonishment why such useful articles of home consumption should not be cultivated with more care and attention than is done at present.

In order to put myself entirely in possession of all that could lead me to form a proper idea of this useful branch of agriculture, I have made an extract of the imports of seeds into Ireland, from the official reports of the Dublin custom-house, which belong to the valuable library of the Dublin society. It begins with the year 1764—1770, and from 1792 to 1798 inclusive. The greatest number of these plants belong to the class termed bee-flowers. The greatest quantity of those seeds is imported into Ireland from England and from Holland; during the latter period (from 1792—1798) a great supply has been imported in that country from Scotland, from which period the importation from Holland has decreased considerably on account of the war. Small parcels have been imported from France before the war, and some from the plantations. Holland alone furnished Ireland in 1764 with a quantity of 466 cwt. 1 qr. 14lb. of clover and grass seeds, and 9,037½lb. of garden seeds, which quantity decreased so much within a few subsequent years, that in 1768 the Irish got only from that country 175 cwt. and 14lb of clover and grass seeds; but in 1770, it increased again to pretty nigh 700 cwt. of clover, and 7,983½lb. of garden seeds.

These articles of consumption are so necessary to great Britain and the united kingdom, that even in the year 1798, though at war with that country, a quantity of 472 cwt. 3 qrs. 14 lbs. of clover, &c. were imported into Ireland alone; and also 1858 lbs. of garden seeds. Thus Ireland was obliged to send to her enemies for articles which they might have successfully cultivated themselves, or obtained from Great Britain,

if the English were not as much in want of those agricultural necessaries, as of tea, coffee, and sugar.

The following, therefore, is an exact statement of the imports of all kinds of seeds during a period of fourteen years.

| Years. | Clover and grass seeds. | | | Garden seeds. |
|---|---|---|---|---|
| | cwt. | qr. | lb. | lb. |
| 1764 | 2990 | 2 | 21 | 39,766¾ |
| 1765 | 2798 | 3 | 14 | 32,447¾ |
| 1766 | 3654 | 2 | 0 | 38,867¾ |
| 1767 | 1478 | 1 | 21 | 34,510 |
| 1768 | 4476 | 2 | 4 | 36,443½ |
| 1769 | 2483 | 1 | 14 | 32,770¾ |
| 1770 | 5563 | 0 | 7 | 37,770¼ |

From this period Scotland begins to take great share in the importation of these two articles.

| | cwt. | qr. | lb. | lb. |
|---|---|---|---|---|
| 1792 | 6479 | 1 | 14 | 48,440¼ |
| 1793 | 4981 | 0 | 0 | 35,246 |
| 1794 | 5196 | 2 | 7 | 40,238 |
| 1795 | 5984 | 3 | 7 | 58,295 |
| 1796 | 5579 | 0 | 1 | 47,788 |
| 1797 | 5441 | 0 | 14 | 40,185 |
| 1798 | 5963 | 3 | 7 | 40,445 |

The advantages arising from a proper management of Bees are very considerable, and Scotland seems of late to pay particular attention to this branch of agriculture, and to be very successful; and a circumstance which was mentioned in the Courier, October the 9th, 1800, merits here a place: "Wonderful produce! A stock of Bees belonging to Mr. William Patterson, in the parish of Glencairn, has this season produced the astonishing quantity of five English stones of honey!"

When I said before that those young stocks, which are smothered at an early period, might the ensuing year have collected a double quantity of wax and honey, for which they are killed the first year, it must be understood that it only could be done by a proper management; in which case the produce might often exceed treble the quantiy which a stock of Bees carries in at present; so that a young stock smothered the first year, for the produce of 32 pounds of honey-combs, would have the next year at least 96, and one good swarm of Bees.

Now, if we calculate the profit which would arise to the nation from such improvements in agriculture, that none of those articles above-mentioned need to be imported; if we further reflect on the benefit that would accrue to thousand individuals of finding employment for them, then it will be a question beyond all doubt, "*whether any permanent profit may be expected from Bees.*"

Many poor cottager, or a poor widow, might raise a few guineas a year by keeping Bees. Rural Curates might also, as Mr. Keys says, considerably augment their too frequently niggardly stipends, by the cultivation of Bees, and act at the same time consonantly with their clerical profession, as it is an innocent amusement, both healthy and profitable. Most of the operations on Bees are to be performed in the evening, or very early in the morning, and therefore will not interfere with more important business. By the new method of making artificial swarms, they scarcely require any attendance at day time.

I intend sending you a few observations on a proper management of Bees, and hope you will have the goodness to insert it in your next Number, if it should be too late for your present.

I am yours,
CHARLES SCHULZE, D. D.

## REPLY TO MR. MIDDLETON's OBJECTIONS TO TITHES.

*To the Editor of the Agricultural Magazine.*

SIR, *Fakenham, Aug.* 4, 1803.

MR. Middleton, in your Magazine for last month, has attacked the Establishment provided for the maintenance of our Clergy in a most violent and determined manner, but at the same time with so little justice or force of argument, that I cannot refrain from requesting of you room for a word or two by way of answer to his letter. To avoid confusion, I shall reply to his objections in the order I meet with them.

1. Dr. Anderson's authority is quoted, whose argument, reduced to a syllogism, is briefly this:

"The greater the farmer's produce, and therefore profit, the greater incitement has he to industry and improvement." (This not true.)

But "the parson takes one tenth of this produce and profit," therefore

"The taking tithes is an obstacle to agricultural industry and improvement."

I deny the accuracy of his major proposition, because the reverse is gene ally the truth; the smaller the profits are, the more n[illegible] o ndustry, and generally speaking, the more applied: granting, however, this position true, his conclusion is false; andhow Dr. Anderson could draw such a consequence from such premises I know not!

2. Formidable by their numbers and respectability, next on the list, stand the four first Presidents of the Board of Agri-

culture. I am perfectly aware of the weight of such authority: but as Mr. M. produces only their *opinions* unsupported by proofs, I confidently oppose to these four gentlemen, one, whose opinions are founded on existing facts, who has, I think, incontrovertibly established the truth of his assertion, "That tithes, so far from being *prejudicial*, are actually in an high degree *beneficial* to agriculture. The gentleman I allude to is the Rev. Mr. Howlett, Vicar of Dunmow, in Essex: his pamphlet was published about two years since, and to it I must refer your Correspondent, assuring him, that if he has not already seen it, he will find therein much sound plain sense and shrewd observation.

3. Mr. M. thinks his countrymen calumniated by the idea that the clergy would suffer by a commutation for tithes, and would be insufficiently provided for; which idea, he says, prevails among the advocates for tithes in the present mode. If such an idea ever did prevail, I agree with Mr. M. it is an absurd one: why may not the British Government take as good care of its clergy as they do in Switzerland, and the countries which Mr. M. has instanced? I am confident that the clergy would *not* lose by the change, but, at the same time, would their parishioners fare better? For this the question *sub judice*. Suppose that Government has sold the tithes of each parish to each proprietor for ever? what follows? The landlord adds that sum to his rent, which his tenant before paid under the name of Tithes; and if he has purchased at a high rate, perhaps it will be necessary to ask a little more, that he may be paid even simple interest for his money, and instances could be produced in abundance to prove, that lay-impropriators know the value of the tenth of an acre's produce. But Mr. M. will say, "Be it so; yet (I hear Mr. M. say) will the tenant be benefited, since a landlord can lease to him for a term of years what a Rector or Vicar cannot; and he will thus be secured against every possible chance both of having any part of his crop removed off his land, and of having advantage taken against him of every costly improvement he may make, or at a very slight advance in the price of grain."—I would ask Mr. M. have the clergy *in general* throughout England taken such unfair advantage? Have they not *in general* been more ready to take composition than to gather? Did they in those years, when grain sold at the most enormous price, exact a tithe at all, exceeding its value even at the very low rate at which it is now selling. I say *in general*, for particular instances of oppression cannot militate against a general question. Let Mr. M. conscientiously answer these queries, and he will view the matter, I think, in a more favourable light than he appears hitherto to have done.

4. Mr. M's argument, that "tithes are an impost outrageous to human feelings,"* because "ninety-nine parts of the world out of an hundred pay none," is as weak as it is untrue. There are many customs and regulations which ninety men out of an hundred do not retain, but is this any proof that these customs and regulations are detestable and *outrageous to human feelings?* Nor is so large a part of the inhabited world free from this *impost:* In very many countries, particularly such as are under the Papal dominion, not the *tenth* only, but the *whole* of a man's property is at the mercy of the priest, whose unlimited sway over the consciences of their flock is *not held for nought.* Mr. M. would, I fancy, soon be glad to return from the Turkish Mufti, also to his own Vicar, and a twelve months residence in the neighbourhood of a Chinese Pagoda would teach him to know the value of this *odious land of tithes.*

5. Tithes, says Mr. M. are not paid in Scotland, and yet the clergy are supported and esteemed. Very true; but might they not have been equally well supported and *esteemed* too, had they taken tithes? I really hope our clergy are not yet fallen so low in every one's opinion as in Mr. M's. I admire the piety and learning of the Scots Divines as much as he can do; but I know no reason for condemning their southern brethren as incapable of the same "christian-like behaviour and superior acquaintance with their respective parishes," and of course of rendering equal service to government in the way which Mr. M. mentions. If at some future period Mr. M. for instance should, after the example of Sir John Sinclair, publish a statistical account of England, (as a friend I would recommend him to digest and arrange his plan better than he has this attack upon tithes,) and in like manner call forth the aid of the English clergy, does he think their contributions would be unworthy his acceptance?" Yes, and for this reason, says Mr. M. "the clergy of Scotland accomplished this great work *without tithes,* which no national clergy can do under any system of tithes:" *because* "every modification of tithes puts a stop to all communication of a statistical nature from the parishioners to their priest." To say nothing of the illiberality here intended to attach to the farmers, the clergy, I apprehend, stand in very little need of such communication. They for the most part are Agriculturists themselves, and can pretty well ascertain the average produce of the farms adjoining their own glebes. If they take their tithes in kind, they have only to multiply by ten to ascertain the exact amount; or again, if

* Surely Mr. M. will recal this violent expression, when he recollects that Tithes are of Divine Institution, being commanded by God himself among his chosen people the Jews. Leviticus 30, 31, 32, 33, 34 verses.

they are compounded for, that very composition is calculated upon the average produce of so many years, which average is to be had with no great difficulty if enquired into diligently, as would certainly be the case, since the value of their livings depend upon the inquiry of the readiness of these gentlemen as well as ability to give all required information, we shall have an opportunity of judging when Mr. M. shall commence his public spirited work.

6. The last argument we find, and on which (as placed last) great stress appears to be laid, is quite new, and is addressed, Mr. Editor, to the feelings of your readers. We are told that throughout England and Ireland in the year 1800, 75,000 persons died through want of food *(literally starved to death!)* and that this dreadful mortality was occasioned by the *outrageous* tithe-laws, "repressing the energies of man." Then follows a sketch of theatricals:

*(Enter Mr. M. throws himself into a striking attitude and speaks,)*

——— Forbid it Legislators!
Forbid it, all ye powers of heaven! (Exit. Mr. M.)

For humanity's sake, it is to be hoped that the above account is much, very much exaggerated. Be that as it may, does any one give credit to the assertion that the Tithe Laws were in the remotest degree the occasion? To answer this bold accusation, I cannot do better than again refer Mr. M. and your Readers to Mr. Howlett's Pamphlet itself, for any extracts from it would but break the connection of the sense, and make this Letter, which is unaccountably swelled already to an enormous size, too big for the limits of my paper.

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

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## IMPROVEMENTS IN THE CULTIVATION OF CARROTS RECOMMENDED, ALSO DESCRIBING THE VARIOUS USES TO WHICH BOTH THE LEAVES AND ROOTS MAY BE APPLIED.

*To the Editor of the Agricultural Magazine.*

SIR,

OF all the vegetables cultivated either in the kitchen garden or field, no one is so little attended to as the Carrot, and in many instances so improperly cultivated. There is also a strong prejudice against them, that they never digest, than which nothing is more erroneous. Observe, with what avidity both women and children eat them, while preparing for cooking, and yet you never hear of any inconvenience arising from their being eaten in that state?

Whenever they do disagree with any one, it is most proba-

ble to be, when they are not properly boiled, and eaten with hard salted beef, and in two large a quantity of both. There is also a great error in boiling, by splitting them length ways; the water by that method gets into them, and spoils the flavor. They should always be cut across into two or three pieces, and the thick ends put in first.

As a proof of the great quantity of nourishment which they contain, every animal who feeds on them gets fat, as cattle, sheep, hogs, deer, rabits, horses, and dogs; poultry in particular, as I have proved by experience for many years, in fattening turkies, fowls, ducks, and particularly geese.

### ERRORS IN THE CULTIVATION OF CARROTS.

1. The ground not being digged or ploughed deep enough.
2. Sowing them on strong clayey or stoney ground.
3. Not weeding or thinning them early enough.
4. In July and August not drawing out those which are running to seed.
5. By a method not much know nor practised, in not cutting off the leaves and hoeing the ground.
6. In purchasing precarious seed, instead of saving your own.

### DIRECTIONS FOR THEIR CULTIVATION.

1. The ground ought in a garden to be double digged, and thrown up into ridges before winter, and if in a field made fine by frequent ploughings, and rotten dung laid on both.

2. Strong clayey and stoney ground are quite improper for them: clay prevents the roots from penetrating deep enough, and stones will make the carrots forked.

A loam of a sandy nature, very light and enriched with rotten dung, is the proper soil for them, and to be continued on the same ground, by which your crops will every year be increasing.

In such soil, you will have many carrots above two feet in length, perfectly straight, and well-flavored, if properly thinned and hoed, and above two pounds weight each.

3. The chief mismanagement is permitting the weeds early in spring to be taller than the carrots, and then not thinning them properly. For early use leave a small bed thicker, but do not pretend to thin them by taking some out as you want, by that method you will spoil the principal crop.

They will require proper thinning and hoeing three times, and more if a very rainy season.

4. In July and August in some years, or perhaps in June, and according to the goodness of your seed, many will be running to seed. Examine them frequently, and draw up all those which shew the least inclination to it; they then are eatable; but in a few days, even the pigs will not eat them. By

this practice, you save many which would be useless, and give the others more space of ground.

5. When they are about three parts grown, and some of the lower leaves begin to decay, which is generally about the middle of August, or sometimes earlier, mow or cut off the leaves, but take care not to cut so low as to injure the crown or top of the carrot; then hoe the ground, and if it be very dry weather, watering will be beneficial, and you will soon perceive a fresh and vigorous vegetation.

The leaves may either be eaten green, or if in a large quantity, carried to some other ground, and made into hay. This is not a method much known, but I have seen it practised with success, and I recommend a small quantity to be tried first by way of experiment.

6. In general, there is not proper attention paid about the seed. If you raise it yourself, you can depend upon it, and when once its reputation is established, you may dispose of some of it at your own price. The Drum-head Cabbage-seed of Mr. Bakewell, at Dishley, gained such a character, that he sold his at 1l. 4s. a pound, when his neighbours sold theirs at only 16s.

When the carrots are taken up in November, select some out to preserve in sand for planting for seed; let them be long, straight, of a deep orange colour, and the crowns not damaged.

In February plant the carrots, at two feet square, keep them clean from weeds, and that is all the culture they require, until the seed is fit to gather.

To a country gentleman this valuable vegetable cannot fail but of being highly acceptable for the various uses to which it may be applied, for his horses, deer, pigs, dogs, and poultry.

To the farmer they will prove equally or more profitable, because if preserved till spring; they sell generally for double the price they fetched in winter, and if his situation be near a market town, he can send the best to market, and reserve the inferior ones for his own use.

Suppose that each foot square produces one large carrot fit for sale, at the price of half a farthing a piece, which is very moderate in winter, an acre will then sell for 22l. 13s. 9d. but if kept till spring, and a halfpenny each, a very common price then, it would produce 90l. 15s. 0d.

### EXPERIMENTS ON SANDY GROUND.

If either the gentleman or farmer should choose to cultivate them on a large scale, on sandy land, I recommend them to the perusal of a small pamphlet, now very scarce, published by Mr. Robert Billing, in 1764, entitled, "A Treatise on Carrots, shewing their great use in feeding and fattening of cattle, 8vo. price 6d."

He fed his whole dairy of thirty-five cows on them, gained

the premium for sowing thirty acres, and twenty four acres in 1764, which was attended with so little trouble, as that sometimes the ground was only ploughed up for them. "Mr. Billing turned his dairy of cows, and flock of sheep, on this land, after the ploughing, without any other trouble or preparation, and had all the reason in the world to be pleased with the event. Both took readily to eating the carrots, though he thinks the cows most so."

"These last, not only all of them gave more milk than usual, at this time of the year, but many of them continued to give milk, which would, with such turnips as he had then to give them, have been nearly dry; the butter made was likewise much better than from turnips; besides this, the land received great and manifest improvement from the stale of the cattle, of which he found the benefit apparent in the succeeding crop.

"On some of his land he had from twenty-two to twenty-four cart-loads of carrots per acre, but from all the thirty acres, five hundred and ten loads, which are seventeen loads on an average, and these he found equal in use and effect to nearly one thousand loads of turnips, or three hundred loads of hay."

The Agricultural Society of Berne, in Switzerland, paid him the compliment of translating his Treatise into French, and inserting it in their Memoirs, as a valuable improvement, for producing plenty of milk from sandy soils.

### EXPERIMENTS ON VARIOUS SORTS OF LAND.

Mr. Arthur Young is so great an advocate for Carrots, that he says he will never cultivate any soil, not absolute clayey, without trying them, and particularly recommends having successive crops on the same land.

In 1770, he published "a Course of Experimental Agriculture, in 2 vols. 4to. 2l. 10s. 0d." and describes nine different experiments on various sorts of land, the perusal of which would be very useful for any one inclined to cultivate them.

Manuring the land is so essential a point, that it generally produced nearly double the quantity of crop to what was unmanured.

On three successive crops, the first year's profit was 7l. 18s. 7d. second 20l. 2s. 0d. third 23l. 2s. 5d. the carrots from fifteen to twenty inches in circumference, and from eighteen to twenty inches long, some three feet, and several weighed forty-two ounces; the quantity about 450 bushels on an average per acre. The average expence of the manured crops, 6l. 4s. 5d. including the rent 17s. per acre. He also published in 1770, "An Essay on Fattening Pigs, 8vo. 1s." in which he describes an experiment tried on forty-eight pigs, divided into four lots, and fed with turnips, cabbages, potatoes, and carrots. The

result was, that the turnips proved the worst, cabbages next, then potatoes, and carrots the best.

From these various experiments Mr. Young makes the following remarks:

After the first year, it may be supposed to be an annual profit of 20l. per acre.

No crop will equal it in profit, nor so little hazard in it, never having a single failure; the seed is very certain, and nothing destroys the young plants but weeds.

The crop depends very little on the seasons, but by the farmer's own diligence he may ensure success.

Besides the immediate profit, the consumption of the carrots enables you to raise a great quantity of manure, forty loads; twenty for the carrots, and twenty for other land. The crop cleaning the land, and at the same time enriching it.

Consider the state the land is in after three crops of carrots! that is, after having been thrice trench-ploughed, thrice manured, and kept under perpetual hoeing.

Carrots prepare ground better than turnips. Turnips perhaps 20s. or 30s. loss. Carrots nearly 20l. profit.

Is there in husbandry a surer method of bringing a farm to the true condition of a garden?

## EXPERIMENTS ON FATTENING GEESE, DUCKS, TURKIES, AND FOWLS.

About July or August is as soon as you can have carrots of a tolerable size or in any quantity; till that time you can have nothing but grains, unless you have a garden and plenty of lettuces.

At first, the carrots will require to be cut and chopped a little before you mix them with the grains, and for the ducks rather smaller.

In a few days you may diminish the quantity of grains and continue the lettuces. The leaves of the carrots may also be chopped and mixed with the grains, but for the last ten days before you kill them, let them have nothing but carrots.

It is worth while to have some lettuces sown for them; a rod of ground 16½ feet square, planted with cos lettuces at a foot asunder, will produce 272 pounds weight, at only one pound a piece.

My first experiment was upon six geese in October, they proved so well that I fattened nearly twenty more that season, and they had nothing but raw carrots and cold water, in the standing of a stable, with a little dry straw to sleep on, and the place kept clean.

The carrots will generally cost a shilling a bushel, weighing about fifty pounds; about two thirds will fatten a goose, which

comes to eight pence, and will require three or four weeks, according to the condition they are in when put up.

For Turkies and Fowls they must be mixed with a little barley meal.

They give the flesh of every sort a remarkable fine flavor, much superior to any other sort of food.

ON THE DISTILLATION OF ARDENT SPIRIT FROM CARROTS.

The following experiment was made by Dr. Hunter and Mr. Hornby, at York, and is recorded in the Transactions of the Royal Society at Edinburgh.

One ton and eight stones of carrots, which, after being exposed to the air a few days to dry, weighed 160 stones, and measured forty-two bushels, were washed, topped, and tailed, by which they lost in weight eleven stones, and in measure seven bushels.

Being then cut, they were boiled with the proportion of twenty-four gallons of water to one third of the above quantity of carrots, until the whole was reduced to a tender pulp, which was done in three hours boiling.

From this pulp, the juice was easily extracted, by means of a press, and two hundred gallons of juice were produced from the whole. This juice was boiled again, with one pound of hops, five hours, and then cooled to 66 of Fahrenheit, and six quarts of yeast being added, it was set to ferment.

The strong fermentation lasted forty-eight hours, during which time the heat abated to 58°. Twelve gallons of unfermented juice, which had been reserved, were then heated, and added to the liquor, the heat of which was thus raised again to 66°. and the fermentation was renewed for twenty-four hours more, the air of the brew-house being all this time at 46°. and 44°.

The liquor was now tunned, and continued to work three days from the bung. Lastly, it was distilled, and the first distillation was rectified the next day, without any addition. The produce twelve gallons of spirit.

A sample of this spirit, sent along with the paper, was examined by Dr. Black, Dr. Hunter, and Mr. Russel: they found that it resembled a corn spirit in flavour, but that it was equal to a corn spirit of the best kind, and that it was proof.

The refuse of the carrots weighed forty-eight stones, which, added to the tops and tails, made provision for hogs, besides the wash from the still which, measured one hundred and fourteen gallons.

From this experiment, which was made by Mr. Hornby, Dr. Hunter draws the following comparison, between the distillation of carrots and that of grain.

Twenty tons of carrots, which will make two hundred gallons of proof spirit, may be bought for 16l.

Eight quarters of malt, or rather of materials for distillation, consisting of malt, wheat, and rye, may be bought for 16l. and will also yield two hundred gallons of proof spirit.

The refuse from the carrots will be 960 stones, which, at one penny a stone, will sell for 4l.

The refuse, or grains from the malt, &c. will be sixty-four bushels, each bushel about three stones, which, at one penny per stone, will sell for 16s.

Dr. Hunter, however, supposes that the manufacturing of the spirit from carrots may be attended with more expence than the manufacturing of it from malt; but imagines that the greater value of the refuse may compensate for that expence; and that the saving of corn, for other purposes, is an object worthy of attention and encouragement.

R. WESTON.

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## ON EXPERIMENTS.

*(Continued from page 42.)*

### XXVII. ON THE NUMBER OF GRAINS CONTAINED IN A BUSHEL OF WHEAT AND OTHER SEEDS.

*By A. Hunter, M. D.*

AS the drill-husbandry is gaining ground in many parts of this island, it seems to be a matter of utility, as well as curiosity, to be informed of the number of grains contained in every bushel of corn sown. When wheat is drilled, or dibbled in, we suppose that every grain is covered, and consequently vegetates; but when sown broadcast, not much more than one half of it is safely covered by the harrows. The following calculations were made by a respectable Member of the Bath Agriculture Society, and which, if not of material use, will, at least, amuse the theoretical farmer.

An acre of land drilled at a foot distance, on ridges of eight feet three inches wide, contains in length 505,808 inches.

A bushel of wheat, weighing sixty-two pounds, contains 616,000 grains. Dropping one grain to an inch requires less than a bushel to an acre.

A bushel of barley, weighing fifty-two pounds, contains 515,000 grains.

A bushel of pig-pease, weighing sixty-four pounds, contains 107,000 peas.

A bushel of horse-beans, weighing sixty-four pounds, contains 35,000 beans.

As all kinds of grain vary in size, the number contained in a bushel will be increased or diminished; but the above are average numbers, and there is reason to think that the emuneration is tolerably exact.

## XXVIII. A METHOD OF MAKING EXCELLENT BUTTER FROM THE MILK OF COWS FED UPON TURNIPS.

*By C. Crowe, Esq. of Kipling.*

Let the bowls, either lead or wood, be kept constantly clean, and well scalded with boiling water before using. When the milk is brought into the dairy, to every eight quarts mix one quart of boiling water; then put up the milk into the bowls to stand for cream. By keeping strictly to this method, I have constantly, during the winter, sweet and well-tasted butter from the milk of cows fed upon turnips. My cows are kept in the house at nights to hay, and are turned out in the day-time to turnips without waste.

## XXIX. A NEW AND PROFITABLE METHOD OF RAISING A CROP OF TURNIPS IN DRILL.

*By Mr. Benson, of Stainley.* 1777.

At this time, every one knows the consequence of turnips to the farmer in supporting his lean stock, and keeping up his fat in the winter season at an easy expence.

Though the growth of turnips is now become universal in the north of England, yet it does not appear that there is any general regularity observed in their cultivation. Particular soils hath hitherto determined the preference of turnip crops. This not falling to the lot of every one, induces me to publish such observations as I have from time to time made in a long series of years.

The first preparation for a turnip crop is to plough the land before the frosts set in. The benefit of this ploughing, critically observed, not only meliorates the soil, but also turns out, and exposes the eggs of that pernicious insect, the fly, to the severity of the winter. The next ploughing should be performed, crossways, about Candlemas, or before the frosts are quite over, that a farther advantage may be taken over the remaining ova of the fly. The ridges must then be harrowed lengthways. After this, the discretional use of the plough, roller, and harrow is all that is necessary to make a good preparation for sowing.

The last week in May, if the weather be moist and gloomy, if not, make use of mornings and evenings, begin by setting the ridges at one about, and close them by a crooked harrow, which will lay them in the form of an arch. This being done, a furrow must be drawn down the middle of every ridge with a double mould-board plough, to receive the dung, which must be laid in heaps (about four to the load) down every tenth furrow. Six loads (twenty-four bushels to the load) will be sufficient for an acre. The dung must then be carried in scuttles from the heaps, and scattered, edge-ways, into the open

furrows. Upon the manure thus disposed, the seed must be drilled by a hand-drill; after which the earth must be returned by a common harrow, passed cross-ways over the lands.

About the fifth day, if the ground be moist, the young plants will make their appearance. As soon as they have got into rough leaf, they must be thinned by women and boys, with a small two-inch hoe. With this hoe, and the fingers, the plants should be left about two inches distant, which will be sufficient for the first hoeing. The second hoeing should be performed with a six-inch hoe, before the leaves interfere, leaving the plants at about eight inches, which will prepare them for the third and last hoeing. This must also be done before the leaves interfere, allowing them sufficient room, according to the vigour of the plants, and the richness of the soil. In this last hoeing, particular care must be taken to cut up all the weeds, and to stir the ground near the ridges, where the plough cannot come.

The hoe-ploughings necessary for completing the crop are three, and may be performed by a narrow plough of about seven inches, made in the common way.

The first is done by going round each ridge, and turning a furrow from the plants into the interval. When a number of these are finished, the field will appear in double ridges; one half of which will be stocked with plants, and the other naked. About a fortnight after this operation, the naked ridges must be split with the double mould-board plough, and the earth thrown to the plants. After this, it will be proper to send in a few women to pluck up such weeds as have escaped the former operations, with a view to prevent their perfecting their seed; otherwise the tillage intended for the benefit of the crop would produce the same effect upon the growth of the weeds, and increase them in an amazing degree. The labour of this is small, but the consequence is important.

EXPENCE PER ACRE.

| | £. | s. | d. |
|---|---|---|---|
| First ploughing — — | 0 | 5 | 0 |
| Second ditto — — | 0 | 5 | 0 |
| Harrowing — — | 0 | 1 | 0 |
| Third ploughing — — | 0 | 4 | 0 |
| Fourth ditto — — | 0 | 4 | 0 |
| Harrowing — — | 0 | 0 | 6 |
| Ploughing the the ridges at one bout | 0 | 1 | 6 |
| Ploughing the furrows for seed — | 0 | 0 | 9 |
| Six loads of dung and leading — | 1 | 1 | 0 |
| Two women to spread the dung — | 0 | 1 | 0 |
| A boy for drilling — — | 0 | 0 | 6 |
| Carried forward — — | 2 | 4 | 3 |

| | £. | s. | d. |
|---|---|---|---|
| Brought over — — | 2 | 4 | 3 |
| Seed — — — | 0 | 0 | 6 |
| Harrowing — — | 0 | 0 | 6 |
| Several hand-hoeings and weedings | 0 | 3 | 6 |
| Three several horse-hoeings — | 0 | 3 | 0 |
| Rent — — | 0 | 12 | 0 |
| | 3 | 3 | 9 |

It will not be improper to enumerate the advantages of this method of culture. The seed being placed upon the moist dung, will vegetate early in all circumstances of the weather; and the manure being well covered, will be secured from evaporation in the hottest seasons. The turnips being placed immediately over the manure, have a ready passage, by means of their tap-root, into a rich bed of nutriment, which will accelerate their growth, and increase their size. As the crop grows upon ridges, with a trench on each side, it is obvious that the turnips will remain dry in the wettest seasons; a circumstance of the utmost utility. To these advantages we may add the doubling of the soil, which I consider as an important article in all situations where the staple of the land happens to be thin.

## XXX. ON THE QUANTITY OF ASHES TO BE OBTAINED BY BURN-BAKING.

*By A. St. Leger, Esq.*

In August 1772, I pared and burnt one acre, three roods, of limestone land, and carefully collected the ashes into two heaps for a future experiment. Having so good an opportunity, I measured the ashes, and was much surprised at the quantity, being eighty cart loads, thirty bushels to the load.

I shall not here enter into the merits of burn baking; but, from the above experiment, it is obvious that a complete dressing may be obtained, in any country, upon very reasonable terms.

## XXXI. ON SPRING WHEAT.

*By A. St. Leger, Esq.*

On the 6th of April, 1772, I sowed three roods of a turnip fallow, with spring wheat, the soil about six inches deep, upon a lime stone rock, and valued at ten shillings per acre. I had the pleasure of seeing the crop cut down about a week sooner than the wheat sown in October, upon the same kind of land.

Upon these three roods I had forty-two stooks, ten sheaves to the stook. When threshed, I had twenty-one bushels of clean corn; and should have had considerably more, had not the lands been much infested with sparrows. I shall not determine much upon this small experiment, as I propose to en-

large my trials very considerably next year. It will, however, be proper to observe, that my tenants were desirous of having part of the seed, but I chose to reserve it all for myself, well knowing that the common farmer should have nothing put into his hands but what has stood the test of accurate and judicious experiment.

## XXXII. ON SOWING CARROT SEED.

*By A. Hunter, M. D.*

Carrot-seed must be sown early; and as it remains a long time in the ground, the weeds frequently spoil the crop. The following method has been found effectually to prevent the above inconvenience.

Take any quantity of carrot-seed, and mix it with about five times the quantity of earth. Moisten the whole with water, and every second day turn the whole over. As soon as the seeds begin to swell and sprout, they may be sown along with the earth.

In this method, the carrot-seeds will vegetate before the weeds; and the farmer will be secure of a good crop, which may be easily and cheaply hoed.

## XXXIII. THE METHOD OF MAKING WHALE-COMPOST.

*By Mr. Charles Chaloner.* 1772.

I have a particular pleasure in describing and making public the best method of forming a compost from whale's flesh, as recommended to me by Dr. Hunter. Having marked out the length and breadth of your intended dunghill, make the first layer of earth about a foot in thickness. Moor-earth, or such as is taken from ant-hills, is the best for this purpose. Over the earth lay one layer of long litter from the fold-yard, or stable, about twelve inches in thickness, then a layer of whale-flesh, and over that another layer of dung. Repeat the operations till the heap be raised about six feet, then give it a thick covering of earth, and coat the heap with sods. In this manner, each layer of flesh will be placed between two layers of dung. In about a month, turn the whole in the usual manner, which will occasion a strong degree of heat and fermentation. When turned, coat with earth as before, with a view to confine the putrid steam which would otherwise escape. In a month or two the heap will be found considerably fallen, when it should have a second turning as before. The operation of turning must be repeated at proper intervals, till the whole becomes an uniform putrid mass. The whale-flesh is of different degrees of firmness, some of it being almost liquid; and, in proportion to its firmness, the heap will become sooner or later fit for use. In general the compost should not be used until twelve months old; but that depends upon circumstances.

Guard the heap from dogs, pigs, badgers, and vermin, as these animals are remarkably fond of whale-flesh.

This animal compost may, with great advantage, be applied to all purposes where good rotten dung is required. I have used it with great success for cabbages, and find it an excellent dressing for meadow ground. According to the best computation, one hogshead of whale-refuse will make eight loads of dung, which, when we consider the great facility with which this basis of our dunghill may be carried, is a momentous concern to such farmers as lie remote from a large town.

When we take a view of the vast quantities of whale-refuse that used formerly to be thrown into the sea, to prevent the bad effects of its putrid steams, and now survey it as converted into the best of dunghills for enriching our fields and pastures, we are insensibly led to return thanks to the editor of these Essays, who has proved to a demonstration, that husbandry must be regulated and directed by the powers of reason and reflection.

## XXXIV. ON THE OIL-COMPOST.

*By Richard Townley, Esq. of Belfield.*

In the spring of the year 1772, a piece of ground was prepared in my garden for onions; and after the seed was sown and ranked in, I had the usual quantity of oil-compost scattered over it. The ground measured forty-eight square yards, including four small paths for the convenience of weeding the crop. Great quantities were pulled up, during the growth of the crop, for the use of the family; great quantities were given to my labourers and poor neighbours, and even some thrown into my hog-yard, in order to thin the crop properly as it proceeded towards maturity. On the 18th of September the crop was judged to be sufficiently grown, and ripe enough for keeping during the winter. The onions were then taken up; and after laying a few days to harden and dry in the sun, they were brought in and weighed, when the produce was found to be 304 lb. of a very large size. This produce is 6½ lb. to a square yard, or 30,653 lb. to a statute acre, which at one penny per pound, the lowest price in our neighbourhood, amounts to 127*l.* 14*s.* 5*d.* I must attribute this extraordinary produce to the oil-compost alone, as the ground upon which the onions were sown had been exhausted by a constant succession of different crops for forty years past, and was besides but of a middling quality.

## XXXV. A COMPARATIVE VIEW OF BARON VAN HAAKE'S COMPOST, THE OIL-COMPOST, AND SOOT MIXED WITH ASHES.

*By Richard Townley, Esq. of Belfield.*

In the beginning of April, 1773, an acre of land was sown with forward oats. I pitched upon one land in the middle of the piece which I esteemed better than any of the rest, and upon this I scatered Baron Van Haake's compost, in the quan-

tity directed in his instructions. On one side I manured a land with the oil-compost, but rather with a less quantity than directed; and on the other side I manured two lands with dry coal-ashes, sifted fine, and an equal quantity of soot. The lands upon which this experiment was made, were much worn out with a long succession of crops.

The lands which had the benefit of the ashes and soot produced an exceeding fine crop; the oil-compost produced a tolerable good one; but that land which had only the assistance of the Baron's compost, produced a very poor one. It could not have been worse, had it been left destitute of every assistance. From this, and from some other experiments made by a worthy neighbour of mine, who was so kind as to furnish me with the Baron's compost, I have great reason to discredit the pompous accounts given of its extraordinary power and qualities by its inventor, which appeared to savour so much of empiricism, that I should hardly have made the above trial, had not my ingenious neighbour intreated me to make the experiment. I should be glad to hear that the Baron's compost has succeeded better with others who have given it a fair trial; for was it possessed of half the boasted virtues ascribed to it, it would prove a most valuable acquisition to the farmer and the public.

The same year in which these experiments were made, I tried the oil-compost upon some parts of my wheat crops, which discovered great weakness and poverty at the time of filtering, and with considerable success.

## XXXVI. ON EGYPTIAN WHEAT.

*By Richard Townley, Esq. of Belfield.*

In September, 1772, I received from a friend twelve grains of Egyptian wheat, which I have reason to believe was the *Triticum ramosum et centumgranium* of Pliny, of the produce of which he gives such extraordinary accounts. After giving an account in what parts of Africa this remarkable species of wheat is produced, he says, "Et imprimis Ægypto." Six of these grains I gave to a neighbouring gentleman, the other six I put down in my own garden, at the depth of two inches within the soil, and nine inches distance from each other. The ground was kept hoed and clean from weeds, which was the only assistance that was given to the plants. When the ears became heavy, I ordered the stems to be tied up to stakes, to prevent their breaking down with wind or rain. These six grains produced one hundred and two stems, with large branching ears, and the ears contained, upon an average, one hundred and twenty grains, or better; so that the produce of the six grains, at the medium of one hundred and twenty grains to each ear, makes 12,240, or 2,040 from each grain. Most of

the grains were plump and large, and the flour within was of a good colour. I cannot help expressing my fears, that this species of wheat, produced in the fertile soil and serene climate of Egypt, will be apt to degenerate in this island; though we have often found, by experience, that different kinds of grain, as well as plants, natives of countries far more favourable to vegetation than our own, have flourished very well amongst us; and to appearance have, in a series of years, assimilated their natures to our soil and atmosphere. I propose to sow this kind of wheat at different seasons of the year; and if it can be kept up to its present standard, with early sowing, it will prove a great acquisition to agriculture. According to my trials, it stands our frosts as well as our common wheats; and being a strong-bearded grain, it is well defended against the ravages of the birds, which, near villages and inclosed countries, is no inconsiderable advantage.

## XXXVII. ON THE CULTURE OF CABBAGES.

*By T. B. Bailey, Esq. F. R. S.*

In a field from which I gathered last year a prodigious crop of turnips, amounting to one hundred tons per acre, (Cheshire measure) I this year have raised cabbages. The land was ploughed into ridges of three and a half, or four feet, and each ridge prepared with manure as for potatoes, i. e. the dung or litter was only laid under the middle of the ridge. The plants, raised from seeds sown in August, 1772, and transplanted on beds in October following, were set out in this field at the distance of about two feet and a half, or three feet, in March and April; were once hand-hoed and twice horse-hoed through the summer, but were greatly retarded in their growth by the excessive heats and dry weather in June and July. The number of plants set out on a Cheshire acre was near eleven thousand. As a great quantity of my autumn plants were killed in the winter, I sowed more seed in February; but this year's experience, added to that of the preceding ones, has convinced me, that it is absolutely in vain to expect a weighty crop of cabbages from spring plants. The sorts I sowed were the North American and Scotch; but I find that the Scotch is, on all accounts, preferable, and far more durable.

In the month of November, I took up and weighed a square rod, or sixty-four yards, containing sixty-eight cabbages, of which fifteen or twenty were small, being spring plants. The weight was 1,211 lb.—on an average 17 lb. or eighty-six tons ten hundred.—Taking out fifteen spring plants, at 2 lb. each, out of the above number sixty-eight, the average will be 22 lb. or 103 tons to the Cheshire acre; and this, I take, will not much exceed the acreable produce of my autumn-sown plants.

Supposing, therefore, that, on a medium, each cow or ox eats half a ton a week, or 143 lb. each 24 hours, and that this keep is only worth 4s. per week, an acre of cabbages, as above, at this estimate, will be worth 41*l.* per acre; but at the first calculation of 86 tons ten hundred, it will be worth 34*l.*

EXPENCES.

| | £. | s. | d. |
|---|---|---|---|
| Rent, | 3 | 10 | 0 |
| Manure, | 5 | 0 | 0 |
| Two ploughings, | 1 | 0 | 0 |
| Plants, | 4 | 0 | 0 |
| Setting, | 0 | 8 | 0 |
| Hand-hoeings, | 0 | 4 | 0 |
| Two Horse-hoeings, | 0 | 10 | 0 |
| Harrowing, | 0 | 3 | 0 |
| | 14 | 15 | 0 |
| | 34 | 0 | 0 |
| | 19 | 5 | 0 |

In the account of expences I have rated them beyond the truth, and have estimated the land at an high value; but it will be objected, that 5*l.* an acre is not enough for manure; I answer, more than enough for land rich like mine; but allowing 12*l.* an acre, still the profit will be 12*l.* 5*s.*

This account will, I hope, prevail on others to make trial of these plants. They come to their perfection when the eddish is over and greatly exceed turnips in feeding either fat cattle or milk cows, and are not only to be sought for, as they are an excellent food, and produce much dung, but as they save hay, which, in general, is very dear and scarce in this country, and does by no means produce so much milk, or fatten beasts so well. Will four shilling a-week keep a large cow in fine order when hay is 6d. per stone? and it is often more.

## XXXVIII. THE METHOD OF USING SEA-WEED IN SCOTLAND.

*By Sir A. Purves, Bart.*

Of sea-weed there are three different kinds. The best is that which is cut from the rocks, and of which kelp is made. The second-best is called the peasy sort. The worst is that with a long stalk. All these kinds are used in Scotland, but chiefly for the barley-crop, in which case, or for fallow, it is ploughed in directly. The people of the country have so high an opinion of its fertilizing quality, that they sometimes lay it on after the barley is in the ground, but that is a slovenly and injudicious method. In the neigbourhood of Berwick, it is used in their compound dunghills, with fold-yard,

stable dung, and earth; and in that manner an immense quantity of dung is produced by such farmers as are situated near the sea. In that neighbourhood, the farmers are very intelligent; and it is a pity that such excellent management should be so little known in many parts of the northern coast of England, where the sea-weed is produced in great abundance. It is remarkable that such farmers as use the sea-weed properly, have their lands in such heart as seldom to have occasion for a fallow to restore their freshness. This species of manure is experimentally found to be excellent for gardens, as it not only enriches the ground, but also destroys all kinds of vermin.

## XXXIX. THE METHOD OF PREPARING LAND FOR SOWING LUCERN BROAD-CAST.

*By A. St. Leger, Esq.*

It having been found by repeated experiments, that broad-cast lucern will not succeed upon lands that are not perfectly clean, I determined upon the following method of preparation, which has succeeded beyond my most sanguine expectations.

In the month of August, 1771, I mowed the grass from one acre three roods of land intended for lucern, and immediately after the hay was removed, I pared and burnt the surface. The ashes were put into two heaps, and covered with sods, to prevent the influence of the air upon the salts produced by this operation. The ground was then ploughed as deep as its staple would admit of. On the 11th of November I harrowed it with heavy harrows, and on the 25th I ploughed it across. On the 4th of January, 1772, it was harrowed again. One heap of the ashes was spread on the 23d of March, and on the 2d of April the land was ploughed and sown with lentils. Had the weather permitted, I should have sown immediately upon spreading the ashes. About the beginning of August the lentils were cut, and the other heap of ashes was spread upon the surface; after which the land was ploughed, and immediately sown with turnip-seed. The turnips were well hoed, and produced an exceeding good crop. Being late sown, they consequently kept later in the spring than such as were sown at the usual season.

From this mode of management, I dare say that no land was ever in a better state for the Norfolk course of crops—of all others the most rational and profitable. But as my design is only to give the best method of preparing land for sowing lucern broad-cast, I shall drop any observations upon the propriety of the Norfolk husbandry, viz. turnips, barley, clover, and wheat. The exact estimate of the expence incurred by the management is as follows:

| | £. | s. | d. |
|---|---|---|---|
| Two years rent, | 1 | 8 | 0 |
| Mowing and getting the hay | 0 | 7 | 0 |
| Paring and burning, | 1 | 10 | 7½ |
| Ploughing three times, | 1 | 4 | 0 |
| Harrowing, | 0 | 5 | 0 |
| Gathering the ashes into heaps | 0 | 15 | 0 |
| Spreading ditto, | 0 | 10 | 0 |
| Lentil and turnip-seed, | 0 | 15 | 0 |
| Mowing and getting the lentils, | 0 | 9 | 0 |
| Hoeing turnips, | 0 | 7 | 0 |
| | 7 | 10 | 7½ |
| Produce of hay, | 6 | 0 | 0 |
| Ditto of lentils, | 4 | 0 | 0 |
| Value of turnips, | 3 | 0 | 0 |
| | 13 | 0 | 0 |
| | 7 | 10 | 7½ |
| Profit, | 5 | 9 | 4½ |

In May, 1773, I sowed the field, broad-cast, with lucern-seed, after being properly ploughed and harrowed. The quantity of seed twelve pounds per acre, which I recommend to be sown at twice, in order that the seed may be the more equally distributed upon the surface. Every time that the lucern is cut, the land must be run over by the harrows, to tear up the grass and weeds that otherwise would eat out the lucern. The year after sowing, the plants should be hand-weeded, being then very tender; but the succeeding years, when the roots have firmly penetrated the soil, the heaviest harrows may be introduced, without a possibility of injuring the plants.

After the frosts are over, and vegetation begins, the lands may be harrowed, if foul; but if clean, that operation will not be required till after the first cutting. At this present time, (August 1775) I am cutting the third crop, and expect another cutting this season. With the above preparation of the land, and a proper attention to the lucern after being sown, there is no doubt but that this foreign grass will be a means of improving the British husbandry, by liberally supplying our cattle with green forage of a most luxurious and nourishing nature.

## ON FAT MEAT.

*To the Editor of the Agricultural Magazine.*

SIR, *Aug.* 21, 1803.

YESTERDAY an agent from the West Indies, passed through Borough Bridge, on his route to Northumberland, and else where; celebrated for fat cattle, with an intent to

make a considerable purchase for the West Indian market; where Fat has lately been discovered to be the most salubrious and cheap diet ever yet used by the inhabitants of those climes. One pound of it goes further than four of lean meat; and is even much cheaper diet to the slaves than salt herring, and other mean and disagreeable viands.

If therefore an extensive exportation takes place, a rise on our fat meat will eventually happen; unless British inhabitants *economise* after the manner of the West Indians, who will not, it is expected, stick at the advance of an article, evidently *four times* cheaper to them than the lean meat of this or any other country, that suffers much injury from the salt necessary to its keeping; whilst fat almost suffer none in a pickled state.

The present price of fat is not above 2d. a pound, more than any lean meat; a positive proof that a very large portion is wasted in the cookery, or that the virtues of it is not yet known to us.

It seems by an economical cookery pamphlet, which the West Indian agent had the goodness to shew me, (the author's name I have forgotten.) None of the fat is wasted, but used as a wholesome nutriment, combined with vegetables in the form of stews, fries, soups and many other forms, that makes it go four times further than lean meat.

I remember seeing an address in a newspaper some months back, on the subject of prize cattle; intimating that a large portion of the carcase was literally wasted, that placed their real value little beyond a much leaner stock. And, "that person who could point out by a practical mode of cookery, a method of saving but *one* pound out of *twenty*, hitherto consigned to dogs and tallow-chandlers, would at the hands of the public, deserve to be presented with a coach and six, with income sufficient to maintain the splendour."

This economical cook, who *saves every atom of fat*, for which very important discovery the West Indians have presented her with a silver gallon tureen, filled with dollars: and says the agent, also are opening a subscription to have it filled with spanish joes; both in gratitude to her, and to her relation, a gentleman peculiarly ingenious in the agricultural way, who wishes to devote his time and fortune in experimental farming and feeding of cattle. And it also appears that from 10 to 20,000 copies of economical cookery are about being struck off and offered on a general sale at a low value, for the purpose of applying the cash as above-mentioned. Such a laudable measure, I hope will meet with a general sanction.

Should this system of economy become more general in foreign countries, as well as in the West Indies, the extra

demand for fat, will soon raise it in price in a ratio to its qualities as a food, that will make the grazing system the most important profession in England. And gratitude from the graziers and public at large to the author of such economy of fat, would make her richer than any of the fat cousens related to the old rich lady in Throgmorton street. But should the inhabitants of these kingdoms not chuse to adopt her system, the most cursed of curses would be bestowed on her, as they could not afford to pay an advance of price on an article of general use, and used in the old way. And the legislature must necessarily and painfully interfere, to put a stop to the exportation of a commodity that otherwise would have drawn millions of foreign money into this kingdom.

I am, Sir, yours, &c.

I. S.

## ANSWER TO PHILALETHES ON THE CHARGE OF PLAGIARISM.

*To the Editor of the Agricultural Magazine.*

SIR,

I TAKE the first opportunity of answering the charge of Plagiarism, by Philathes against me. The parcel in which the magazine was sent me, by negligence was not delivered in time for inserting my answer last month.

The article was given to me by Mr. Fisher, a London seedsman, to shew to my acquaintance, as coming from "a gentleman at Drayton in Norfolk," nor had I the least suspicion of it ever having been in print, nor was it hinted to me by Mr. Fisher that it was, and I have the original in his writing to produce.

As a crop of turnips is of so much consequence to a farmer, and thinking that it might be of public utility, was my motive of sending it, especially as some farmers had informed me that they had experienced the same effect themselves, by dunging the ground just before the turnip-seed was sown.

The 2nd volume of the Bath papers, I have not seen these seven years. If I had known it had been inserted there, I should not have presumed to have sent it you.

I am, Sir, yours, &c.

R. WESTON.

*Leicester, July 22.*

## CRITICAL CATALOGUE.

I. *An Eſſay on the Law of Patents for new Inventions, to which are prefixed two Chapters on the General Hiſtory of Monopolies, and on their introduction and progreſs in England, to the time of the Interregnum; with an Appendix; containing copies of the Caveat, Petition, Oath, and other formulæ, with an arranged Catalogue of all the Patents granted from the 1ſt of January 1803, to the preſent time.* By John Dyer Collier. 1803, *Royal 8vo.*

WE ſhould not, perhaps, have introduced this publication into our catalogue, if it were not to avail ourſelves of the aſſiſtance of the Author, to extract from the arranged liſt of patents alluded to in the title, thoſe that are moſt nearly connected with Agriculture.

The Patents which have been paſſed from the firſt of January 1800, to the firſt of May 1803, are three hundred and thirty four in number, and it will be ſeen by the ſubſequent articles how, much the public ingenuity has been directed, and how liberally the royal grant has been extended to the important ſubject of our periodical work.

*Common Waggon, Improvements on.*—To Robert Maſon; for improvements on a common waggon, whereby the ſame may be ſeparated and uſed as two carts, which he denominates the "Patent Hampſhire Waggon."

*Corn and Seeds, ſeparating from the Straw.*—To William Leſter; for an engine or machine on an improved conſtruction, for ſeparating corn and ſeeds from the ſtraw; part of which machinery may alſo be applied to other uſeful purpoſes.

*Corn Damaged.*—To Henry Gardiner; for a method of preventing all ſorts of corn and ſeeds, and various other merchandiſe, from receiving damage by heat on board ſhips, and in warehouſes, &c. and of improving all ſuch corn, &c. as many have received damage by heat or otherwiſe,

*Corn, Graſs, &c. cutting.*—To Robert Meares; for a machine for cutting ſtanding corn, graſs, and the like.

*Corn or Grain Dreſſing.*—To John Cooch; for a machine for the purpoſe of winnowing or dreſſing corn or grain for bread, cattle, or ſeeds.

*Drill.*—To William Jackſon; for a machine or drill to be fixed to a plough beam, for drilling or ſowing turnips.

*Grain and Seeds depoſiting in the ground.*—To James Richards; for a machine for ſetting or depoſiting in the ground, grain and ſeeds.

*Harrows.*—To William Wilde; for improved machinery or apparatus to be attached to or connected with harrows, whereby thoſe implements of huſbandry will execute their work, to much greater advantage than by any mode hitherto practiſed.

*Hay, &c. cutting.*—To William Leſter; for an engine or machine for cutting hay and ſtraw into chaff, and other purpoſes, for the uſe of cattle.

*Hay, &c. cutting.*—To William Leſter; for his further improvements upon an engine or machine for cutting hay or ſtraw into chaff for which he obtained former letters patent.

*Lands, draining of.*—To Richard Lumbert, for improvements on the plough or machine for draining land.

*Lime.*—To Charles, Earl of Stanhope; for a new method of burning chalk, marble, and lime ſtone into lime.

*Manure.*—To Lewis James Armand Eſtienne, for an invention communicated to him by a foreigner, of reducing human excrement into a powder diveſted of all nauſeous ſmell, preſerving at the ſame time its fertilizing properties in rendering land infinitely more productive and vegetative than any other manure hitherto diſcovered.

*Plough.*—To John Southey, Lord Somerville; for a double furrowed plough, fit and proper for ploughing land in this kingdom.

*Plough*, To James How; for a plough upon an improved conſtruction.

*Plough.*—To William Plenty; for his newly invented plough upon an improved conſtruction.

*Straw, Machine for cutting.*—To Thomas Sawdon; for a machine for cutting ſtraw for fodder for cattle, on principles entirely new.

We cannot avoid adding the following remark from the work to ſerve as a caution to the inventor before he acquires his patent.

"The mere inſpection of the liſt (of patents) will ſhew how neceſſary it is that patentees ſhould be informed of the rules laid down in the law of patents. It will be ſeen how great a portion of the grants appear by their titles to be extended not to any *piece of mechaniſm, utenſil or manufacture*, but to a *proceſs, method*, or *principle*, for which no patent can be valid. It is, however, ſome conſolation to reflect that what is ſtated as ſuch, is often the application of a method, proceſs, or principle, in ſome ſubſtantial form for which a patent can be maintained. It is now underſtood that where this conſtruction can be given, it will be applied in the moſt beneficial ſenſe for the patentee, and that no advantage will be taken of minute verbal criticiſms, to render the royal grant nugatory, and to diſappoint the inventor of his equitable reward."

II. *A Tour through ſeveral of the Midland and Weſtern Departments of France, in the months of June, July, Auguſt and September*, 1802. *With Remarks on the Manners, Cuſtoms, and Agriculture of the Country.* By the Rev. W. Hughes. *Illuſtrated by Engravings.* 8vo.

AFTER the numerous journals of tours through France, and deſcriptions of that country, with which we have lately been overwhelmed, we will venture to aſſert that the preſent work will be found to afford conſiderable intereſt and gratification. The lively remarks and amuſing anecdotes with which the author has ſeaſoned its pages, the animated picture of modern manners, and the parallels which he frequently draws between France and our own country, muſt enſure his work a favourable reception.

The greater part of it is, however, foreign to the purpoſe of our publication, but the remarks on the ſtate of agriculture and manufactures in general, are not unworthy of notice.

We ſhall not ſtop to deſcribe his courſe from one town to another, to give a minute detail of the places he viſited, of the route he took to Paris, or his return from that metropolis. It will be ſufficient for our purpoſe to lay before the reader, the ſum total of the author's

obſervations on a ſubject in which they are rather more intereſted. From what follows the difference between the agriculture of our neighbours and that of England, will appear ſtriking.

" The grounds having been abandoned for ſo many years to the women, whoſe object was not to rival one another, but to obtain bread, will account for the ſlovenlineſs in which they are cropped; no where will you ſee the different grains kept *clean*, i. e. diſtinct; and, but ſeldom is there much attention paid to the nature of the ſoil in which they are ſown. In many parts of Normandy you will notice, in the unencloſed fields, pieces of wheat ſcarcely worth the reaping; and, on lands immediately adjoining, barley flouriſhing in the richeſt luxuriance, and returning a net profit, at leaſt, of fifty per cent. greater than the wheat, and yet they go on ſowing wheat ſtill. Other grains are equally injudiciouſly diſpoſed of, and, to crown the whole, they are not unfrequently ſown altogether.

" Seldom do we notice a field of the laſt-mentioned grain eſpecially, in which there is not almoſt an equal quantity of rye flouriſhing, a needleſs, and to be regretted, waſte; for, as the rye ripens from three weeks to a month ſooner than the wheat, when the latter is reaped, almoſt the whole of the former is ſhed and loſt—hence, perhaps, the reaſon why partridges are ſo aſtoniſhingly numerous in France. As we advance to the ſouth, the oats become very thin and meagre—ſcarcely worth cultivation;—turnips I have ſaid there are none;—potatoes are moderately plenty, and, upon the whole, are well managed;—buck-wheat, chiefly uſed in feeding poultry, alſo abounds.

" In Anjou and Touraine maize is much cultivated with it—the roofs of the peaſants houſes are covered, about the latter end of September with it, drying in the ſun; the ears are of a bright golden yellow, and the effect is ſingular;—lucerne is ſeen, but not in the quantity I had expected;—ſaintfoin is more rare—and clover rarer ſtill. In every peaſant's garden we perceive hemp and flax flouriſhing, the latter of which, eſpecially, is prepared at home, and wrought up for the uſe of the family, and not unfrequently into linens of no contemptible quality. Previous to the revolution they were compelled to *pit* their flax, as in England, and for the ſame reaſon; that event having diſſolved all law, and all order, and man becoming amenable to himſelf only, this ſalutary regulation has been broken through; and, at the proper ſeaſon for operations of this kind, the banks of every brook, and every river, ſtink like the peſtilence, to the great annoyance of every paſſenger, and the utter deſtruction of the fiſh; but, meaſures are now taking for the remedy of this ſerious evil—ſlowly and gradually, indeed, like cautious encroachment—for the government fears to trench boldly upon the lawleſs liberty which has been ſeized: the time is, however, at hand, when it will aſſume a more imperious tone, and act with leſs inſidiouſneſs.

" One thing merits obſervation with regard to flax: in England, the richeſt lands are choſen for the cultivation of the plant, which is, I believe, juſtly conſidered an impoveriſher of the ſoil. In France, on the contrary, any ſoil whatever ſerves the purpoſe, and not unfrequently that which is exhauſted; the conſequence of which

is, the Engliſh farmer plucks a *large* crop, the French peaſant a *good* one. It is *thus they obtain the fine ſtapled flax, of which their cambrics and lawns are made.*

" Of the vines I have little to ſay. Arthur Young, in his French Tours, ſpeaks much of them, as conſuming all the manure of the country. In the provinces through which I travelled, I not only ſaw no manure carried to the vineyard, but was, again and again, aſſured, that it would ſpoil the flavour of the wine—but this I am diſpoſed to queſtion, i. e. as a general. In pruning, the laſt year's wood is uniformly cut out, one eye, or bud alone, excepted; upon the whole, I am convinced that the Engliſh agriculturiſt has little to learn in France—but there is much which he might teach. Were the government ſufficiently ſtable, ſufficiently liberal, and enlightened, to induce him, with confidence, to embark his fortune in French lands, it might be an admirable ſpeculation; for, in the firſt inſtance, he could purchaſe them at a rate which would clear him eight per cent. and upwards, for his principal; and, in the ſecond, the ſuperior culture which he would introduce, with himſelf, would enable thoſe lands to return crops, at leaſt, one-third ſuperior to the preſent average; add to which, he would there know nothing (comparatively) of the ſhackles which, in England, enervate his exertions—nor be irritated by the cruel diviſion of the fruits of his induſtry among thoſe who have neither ſhared his toil, nor given him protection.

" In France there are no tythes—no church-rates—no poor-rates; taxes there are, and muſt be wherever there is a government; but, compared with thoſe he is accuſtomed to pay, they are as four to forty; nay, taking the circumſtances above-mentioned into the calculation, I do not believe they are more than as four to four ſcore: they have copied the moſt grievous of our impoſitions—they have a land-tax, a window-tax, and taxes upon luxury—the latter not a whit more accommodating than exactions of a ſimilar deſcription in England; but, taken together, the aggregate but juſt exceeds the ſixth part of a man's rent-roll, i. e. 3s. 6d. in the pound."

" What, continues the author, is the inference from all this? That France is the more eligible country in which to fix our abode? Unqueſtionably not." He then proceeds to draw a parallel between the two countries, he happily contraſts the ſecurity of perſon and property which natives of the Britiſh dominions enjoy, with the degraded ſtate of ſervility and dependence on the will and caprice of a military deſpotiſm.

" One anecdote, he ſays, may ſerve to illuſtrate the truth of theſe poſitions, and calm the fears of thoſe who tremble for the arts and manufactures of their native iſle.

" There was in London not long ſince, he may be there *now*, a French gentleman, ſoliciting a patent for the excluſive advantage of ſome capital improvement in the art of making cables.—He had eſtabliſhed a manufactory in France—but the moment that peace opened the acceſs to this country, he came over for the purpoſe above ſtated. Being queſtioned how under all the local advantages which France poſſeſſes, he choſe rather to eſtabliſh himſelf *here* than *there*, his anſwer was ſtriking.—" It is the ſecurity which England extends

to all, which determined him to fix upon it as the theatre of his exertions. At home is there a fleet (says he) to be fitted out with dispatch—it matters not that my total ruin may be the consequence—my whole stock in trade is instantly laid under requisition—months and years of solicitation for payment may be unavailing:—when my connections are passed into other channels my family is reduced to poverty, and my patience exhausted; I may account myself happy if I can obtain of the minister of the marine the half of my demand, and perhaps am mocked with an order of government (like the proprietors of the late Rue de Necaise) for lands in St. Domingo by way of payment."

"The case must be the same wherever the product of a manufactory may be necessary to the plans of the first magistrate; and under such circumstances it is needless to say, that it can never flourish to any alarming extent. Attachment to the natale solum, and ignorant and bigoted prejudices against every man who is not a Frenchman, may retain at home what manufactures it already possesses, and carry on a languid trade: but men of desperate fortunes alone, will join them from other countries—it would be insanity to translate either capital or talents, even from Prussia into France; and equally insane is the emigration of him whose sole fortune is his hands—encouragement like that he meets at home he must no where hope to find. In France it is absolutely impracticable to find it. A Frenchman has neither talent nor temper for business—he has no conception of system—he knows nothing of the division of labour—his workshop is a perfect chaos—all his means are employed to the greatest possible disadvantage—and he quits his trade precisely at the moment when it begins to be most improveable;—of course while the Englishman sells you a decent broad-cloth at one guinea the yard, the Frenchman cannot furnish one of equal quality at less than one guinea and a half; and were the wages of labour in the one country equal to the wages of labour in the other, he could not sell it for less than fifty per cent. more.

"With every advantage which the country presents unto him, the French mechanic pines in poverty—his temperance, alone preserves him from starving; and as those who toil on the western shores of the channel are not remarkably addicted to temperance they cannot make a more egregious mistake than when they suppose they shall better their condtion by emigration. Of the hundreds who have made the experiment, I question if there be a dozen who have not bitterly lamented it.

"At the Gobelin Tapestry Manufactory, the highest wages given are three shillings and sixpence per diem; by fair analogy in common manufactories not more than one can be gained. Those then that are about to make the experiment, will do well to ask themselves before they move, can they live on one shilling per diem?—true, provisions are cheap in the provinces, but not in the manufacturing towns.—At Rouen, beef is four-pence per pound—this is but half the price of it in England: but then but one third of the wages are to be earned—consequently there is a balance of one-third against the labourer."

The plates repreſent ſome of the carriages in general uſe in France. They are four in number, the firſt ſhews the mode of loading and drawing the wine-cart, the next of which we have given a copy in the preſent number of our Magazine, repreſents oxen yoked to the plough. The other two are charette loading, and a French cart.

# HISTORY.

## National Transactions.

### GREAT BRITAIN.

SINCE our laſt, an unexpected exploſion has taken place in that part of the empire, which has ever been moſt vulnerable by foreign hoſtility, and which ſpread a general alarm through the kingdom.

On the evening of the 23d of July, a variety of inflammatory proclamations were diſtributed in every part of Dublin, calling upon the people to unite as before, in oppoſition to Engliſh oppreſſion, &c. and at ſo early an hour as eight o'clock a large party forced into the Lord Mayor's houſe, and ſeized all the arms and pikes which were in the houſe; and about ten o'clock a general engagement took place in the neighbourhood of James-ſtreet, Thomas-ſtreet, and in every part of the Liberty. Lord Kilwarden (the Chief Juſtice of the King's Bench) coming into town about nine o'clock, was forced out of his carriage in Thomas-ſtreet, with his nephew, and were both killed by pikes. Col. Brown, of the 21ſt, a few more officers, and ſeveral of the ſoldiery and yeomanry, have unfortunately been killed, and alſo a great number of the rebels, who all appeared to be of the loweſt order. Martial law was immediately proclaimed, and a reward offered for the apprehenſion of thoſe concerned in the inhuman affair. There is no queſtion but there was an organiſed plan of rebellion, and that the conſpiracy extended to a majority of the counties. But though there was no want of concert, the effect of the plan ſeems deſtroyed by a premature exploſion. Government, indeed, was attacked, and, in a meaſure, taken by ſurpriſe; but it was found poſſeſſed of means ſufficiently vigorous to break the head of inſurrection in its infancy; and its hands have now been prudently ſtrengthened, to prevent it from rearing a creſt again. Not one perſon of any note appears connected with the conſpiracy; indeed, the brutality of its firſt act is full evidence of this.—Every preparation for a ſucceſsful conſpiracy was made; Pikes and Manifeſtoes were equally fabricated, one of which is low and brutal, the other is drawn up with much art; and propoſes, in caſe of a proſperous inſurrection, a form for a Proviſional Government; but there appears, however, to have been no concert with the French.

Conſiderable anxiety continues to prevail in Ireland; for though no actual diſturbance has taken place in Dublin ſince the ſhocking maſſacre of Lord Kilwarden and his nephew, alarms of riſings are hourly in circulation, and the peaceable citizens are deprived of every comfortable repoſe. Nor are theſe alarms confined to Ireland; ſeveral of the plotters are ſaid to have taken up their reſidence in this country, ſome of whom have undergone examinations before the Lord Mayor of London; but nothing has yet appeared to eſtabliſh their guilt.

The preparations for repelling the invaſion, with which we are menaced, continue with the utmoſt energy. The ſpirit of the country is roused to the higheſt pitch! every claſs of inhabitants has come forward nobly in the ge-

neral cauſe with patriotic offers of perſonal ſervice, as well as liberal contributions in behalf of the cauſe in which we are embarked! Indeed ſuch a ſpirit of determined loyalty and reſolute oppoſition to the implacable animoſity and unlimited ambition of the Gallic deſpot has been excited from one extremity of the kingdom to the other, that inſtead of deprecating the threatened invaſion, we ought to wiſh that it might be attempted.

There are ſome rumours of intended expeditions againſt the vulnerable parts of the French coaſt. It is our wiſh, however, that the war may become more actively offenſive. To be cooped up, and expect invaſion, without the ſpirit to retaliate by the leaſt aſſault, is very foreign from the dignity of a brave and military people. Autumn is the ſeaſon of expeditions, and the French, by a well-planned one, might be kept at home.

The iſlands in the Weſt Indies, lately ceded to the French, are again ſucceſſively falling into our hands. An expedition ſailed from Barbadoes on the 14th of June, under the command of Lieutenant General Grinfield, and Commodore Hood. They arrived at St. Lucie on the 21ſt, diſembarked the troops the ſame day, and ſummoned the French commander at Morne Fortunée to ſurrender, but, as he refuſed to come to any terms, the fortreſs was attacked and carried by ſtorm on the morning of the 22d, by which the whole iſland was put completely in the poſſeſſion of the Engliſh. On the 25th, the expedition proceeded to Tobago, which ſurrendered on the 1ſt of July without any reſiſtance being attempted on the part of the garriſon;—an event which was received by the inhabitants, who are chiefly Britiſh, with the livelieſt ſentiments of gratitude. The principal part of the enemy's forces in the leeward iſlands having previouſly been concentrated for the defence of the more important iſland of Martinique, the troops left at Tobago were, in point of number, ſo very inſignificant as to render hopeleſs any oppoſition they might be induced to make, and accordingly they ſurrendered at diſcretion, the honours of war merely being granted to them by capitulation.—Martinique is expected to be the next point of attack. That colony is underſtood to have been lately placed in a very reſpectable ſtate of defence. If ſo, its capture cannot reaſonably be hoped for without a ſtruggle on the part of the enemy; but our reliance on the ſkill and ability of our Commanders, and the ſteady valour of our forces under their command, does not permit us to doubt, for an inſtant, of the ultimate ſucceſs of their gallant exertions.—Thus will the enemy be once more deprived of moſt of the principal ſources of their commercial advantages.

FRANCE.—The Firſt Conſul has finiſhed his tour: he arrived at St. Cloud on the evening of the 11th. At Rheims he was received with a ſervility of adulation which even ſurpaſſed the abject flatteries laviſhed upon him in the other cities through which he paſſed. It is not expected that he will long remain ſtationary in the capital; preparations are already making at Breſt for his reception, where he is expected to arrive about the end of next month. After forwarding the preparations at that port, he is again to return to Belgium, and take up his abode at Ghent, in order to place himſelf in the centre of the grand army deſtined for the invaſion of this country. In about two months this formidable invading force is to be collected along the coaſt from Boulogne to the moſt northern point of Holland. It is to conſiſt of 150,000 men, and a vaſt number of tranſports are now preparing to aſſiſt with the flat-bottomed boats in conveying them to the Britiſh ſhores. In conſtructing the latter, no leſs than 180,000 men are employed, and their number is expected by the end of the year to amount to 4,000. But of the apprehenſion to be entertained from this ſpecies of warfare, a ſtrong and convincing proof is given in the defeat off Boulogne of ſeven of theſe crafts by a ſingle Britiſh gun-brig; and when the moderate and ſenſible part of the people of France behold the firm attitude we have aſſumed, and the ſpirit that now actuates every deſcription of the inhabitants of this country, they muſt

inwardly feel aſhamed and confounded at the vanity of their Government, their impotent threats, and gaſconading menace.

Nor is the French Government content with holding forth this aſpect of menace and attack on the part of France only; they have again revived the rumour of an armed neutrality of the North, and the appointment of a Congreſs, at which not only the preſent diſpute between France and England is to be adjuſted, but the moſt ponderous intereſts of the great potentates of Europe are to be duly weighed, and the balance of power to be once more eſtabliſhed on a broader baſis and a firmer foundation.

HOLLAND.—The French Government appears to entertain the moſt ſerious apprehenſions of an attack upon Holland by the Engliſh; and knowing how anxious the inhabitants of that country are to be relieved from the oppreſſion which they at preſent labour under, they will not truſt the defence of any place of importance, particularly on the coaſt, to Dutch troops. Almoſt every fortified town is garriſoned by Frenchmen, who, with true military *ſang froid*, are buſily employed in cutting down trees and knocking down houſes, to improve their means of defence.

At Fluſhing, the inhabitants are ſtated to have been reduced to the laſt degree of human wretchedneſs. The Chief Conſul has ordered all the reſident Engliſh, many of whom have lived there in habits of uſeful induſtry for more than forty years, to quit the place; which order has been carried into execution in the moſt rigorous manner. Upon the Engliſh the native inhabitants principally depended for ſupport; and, in conſequence of their departure, Fluſhing is repreſented as totally ruined, and the number of thoſe who are crying out for bread is ſo great, that the moſt dreadful effects are apprehended.

ITALY.—Several bodies of French troops have begun their march from the interior of Italy to the coaſts of the Mediterranean, and it is ſuppoſed from theſe movements, that ſome ſecret expedition is in contemplation. The Army of Obſervation in the ſouth of Italy, under the command of General St. Cyr, daily receives reinforcements. It at preſent occupies that part of Naples which extends from the frontiers of the ſtates of the church to Otranto and Tarentum. The other half of the kingdom will not be occupied unleſs circumſtances render it neceſſary. The Neapolitan ports in the Mediterranean are blocked up by the Engliſh. A part of the two French diviſions poſted between Mantua and Verona, have received orders to croſs the Adige, and to paſs by Ferrara and Ançona, into Naples. There will remain in the environs of Mantua, and along the Auſtrian frontiers, not more than 12,000 men. This ariſes from the circumſtance of the Cabinet of Vienna having declared formally, that the Emperor is determined to obſerve the ſtricteſt neutrality.

PRUSSIA.—The blockade of the Weſer has occaſioned more ſenſation in the northern parts of Germany than we ſhould have expected from the meaſure. Our intelligent correſpondent at Hamburgh, in treating of the ſubject, ſays, "This event has created great ferment at Berlin, and in Sileſia, the linen-weavers, who are thrown out of employment by it, are in a ſtate of inſurrection. The effects here, on the interruption of the navigation of the Elbe, are greatly injurious. The merchants were wont to ſend the linen through Hanover to the Weſer for embarkation; but, on hearing of the blockade of that river likewiſe, all Pruſſian commerce became ſuſpended, the orders for linen were countermanded, and ſeveral bills ſent here for acceptance were returned diſhonoured. Pruſſia will, by the continuance of the blockade, loſe ſeveral millions; and thouſands of her manufacturers are reduced to want.

Although Pruſſia was indifferent to the general ruin of Europe, her individual ſuffering has called forth prompt exertions for redreſs. On the blockade of the Weſer being announced, ſhe ſent the Privy Counſellor Lombard, to

Bruſſels, to Bonaparte; and, in a letter from Berlin of the 9th inſt. we learn that he has returned to that capital, where a report immediately obtained credit, that the free navigation of the Elbe and Weſer will be reſtored, provided that propoſals which Pruſſia is about to make to the Britiſh Court, ſhall be accepted. Theſe propoſals, it is added, agree in the leading points with the terms of the Ruſſian mediation, and are to be ſupported by the influence of St. Peterſburgh.—If the propoſitions in queſtion are ſuch as in honour and juſtice we ought to entertain, we are ſatisfied that there will be no heſitation on the part of our Government to accept them.—Should they be otherwiſe, not the United Power of the Univerſe can now coerce us to adopt them.

The Court of Berlin has drawn a cloſe cordon on her frontiers, in the neighbourhood of Hanover, and has completely cut off all intercourſe with that unfortunate country.—The French general complained that the meaſure militated againſt his troops, as numerous articles, of which they were in want, could only be drawn from thence; but the Pruſſian Commander replied, that his orders were peremptory.

Auſtria is renewing her lately ſuſpended military preparations. A vaſt quantity of artillery has been ſent to the Venetian States—a numerous army is forming in Gallicia, and another corps, of 24,000 men, with a conſiderable park of artillery, is aſſembling at Mindendorff. Theſe meaſures immediately ſucceeded the arrival of two couriers from London, whoſe diſpatches were reported to be of great importance.

Letters from Vienna, of the 30th ult. mention, that the French have expreſſed an intention to occupy the coaſts of Greece, with a view to ſhut the Britiſh from the ports of the Adriatic. We have a ſquadron cruizing off Ancona, competent to prevent the execution of the plan, ſhould it be entertained.

NORTHERN POWERS. The intelligence received from the Continent affords no elucidation of what ſome conſider the myſterious policy of the Court of Ruſſia; but our private communications continue to aſſure us, that his Imperial Majeſty, become at length ſenſible of his true intereſt, has determined to make a common cauſe with this country, in oppoſition to the perfidious principles and overgrown dangerous power of France. It was ſtated that a Ruſſian naval force was to be ſent to co-operate with the fleet of Great Britain; this opinion is fully ſanctioned by the laſt accounts, which ſtate, that ten or twelve ſhips of the line are actually deſtined for this ſervice. The blockade of the Weſer and the Elbe, has, to all appearance, produced the deſired effect. Since the adoption of that ſalutary ſyſtem, an evident change has taken place in the conduct, not only of Ruſſia and Pruſſia, but alſo in that of Sweden and Denmark. Impelled by a due conſideration of their own obvious intereſts, affected in common with thoſe of Great Britain, they have given their full aſſent to the propriety of the meaſure, and, if we are rightly informed, a league is on the point of being concluded between the whole of thoſe Powers, ſanctioned, in all probability, by the Houſe of Auſtria, for the purpoſe of checking the inordinate ſpirit of ambition and control, at preſent exerciſed on the Continent by the inſolent Deſpot of France. A private letter, ſtates, in poſitive terms, that the Emperor Alexander has already ſignified to his Ambaſſador at Paris, that unleſs the Firſt Conſul immediately cauſes his troops to be withdrawn from the north of Germany, he is to quit the French capital in a given time. This ſtatement we conſider by no means improbable. Juſtice and policy alike demand of his Imperial Majeſty the adoption of ſuch a line of conduct. It is the obvious intereſt of Ruſſia, and all the other great Northern Powers, to oppoſe the violent efforts and gigantic ſtrides of French ambition; and affairs being arrived at ſuch a criſis, the moſt important conſequences to Europe may naturally be expected to reſult.

# Agriculture.

OUR accounts from all quarters of the kingdom aſſure us, that there are the moſt abundant crops of wheat, rye, barley, oats, peaſe and beans, that have been known for a ſeries of years. Moſt of theſe crops are already cut and ſtacked.

The grain is wholly free from ſmut, blight or mildew, as there never was a finer ſeaſon for bringing the crops to maturity, than that with which Providence has for ſome time bleſſed the country.

Notwithſtanding the dryneſs of the ſeaſon, the hop-gardens are uncommonly fine; the poles are well covered, and the projecting branches from their tops are ſo prolific with bloſſom, that every hop hill is covered with a delicious canopy.

At the meeting of the Berkſhire Agricultural Society, held at Ilſley on Monday, the ſhew of ſheep was much increaſed. Mr. Stephens, of Peaſemore, and Mr. White, of Speenhamland, were the chief competitors for, and gainers of, the prizes adjudged for the horned ſheep. Several lots of croſs-breeds from the New Leiceſter, by different ſorts of ewes, particularly thoſe of Mr. Tull's, were ſhewn and much approved of. No South Down ſheep were brought; but, as the number requiſite to be ſhewn is in future, on the motion of Sir John Throckmorton, to be diminiſhed, a good ſhew of that breed (ſo well adapted for the Down countries) is expected next year. There was a very full attendance of the gentlemen and firſt flock-maſters of the county. Mr. Wroughton and Mr. Dundas (on behalf of Mr. Palmer) preſided as ſtewards, and propoſed the continuance of nearly all the premiums of laſt year for the year enſuing, which was generally approved of. Mr. Morland, of Weſt Ilſley, who, together with George Vanſittart, Eſq. were nominated as ſtewards for the year enſuing, offered to reſerve a ſcore of their folding flock for the uſe of the ſhearers for 1804. The thanks of the meeting were unanimouſly voted to Mr. Dundas, the excellence of whoſe ſhew of the New Leiceſter ſheep gave much ſatisfaction, for the very handſome manner in which he declined accepting the pecuniary reward offered by the ſociety. The ſilver cup given by Mr. Fowler for the beſt heave by a ram of his, was adjudged to Mr. Dundas, who declined accepting it, as there was no competition.

## *Derbyshire Agricultural and Breeding Society.*

The next meeting of the Society will be held at the King's Head in Derby on Eaſter Fair day next.

William Cave Browne, Eſq. in the chair, on which day the following prizes will be adjudged.

| | £. | s. | d. |
|---|---|---|---|
| For the beſt two-year old bull | 3 | 3 | 0 |
| Second beſt ditto | 2 | 2 | 0 |
| For the beſt bull three-years old, or upwards | 3 | 3 | 0 |
| For the beſt four-years old ox | 3 | 3 | 0 |

No bull above three years old to be ſhewn for a prize the ſecond year.

The following prizes will be ſhewn for on the firſt Wedneſday after the 8th of July next.

| | £. | s. | d. |
|---|---|---|---|
| For the beſt three theaves | 4 | 4 | 0 |
| Second beſt ditto | 3 | 3 | 0 |
| For the beſt ſhear hog ram | 3 | 3 | 0 |
| Second beſt ditto | 2 | 2 | 0 |
| For the beſt two ſhear ram | 3 | 3 | 0 |
| Second beſt ditto | 2 | 2 | 0 |
| For the beſt ſhear hog wether | 3 | 3 | 0 |

| | £. | s. | d. |
|---|---|---|---|
| Second beſt ditto | 2 | 2 | 0 |
| For the beſt two ſhear wether | 3 | 3 | 0 |
| For the beſt two-years old heifer | 4 | 4 | 0 |
| Second beſt ditto | 3 | 3 | 0 |
| For the beſt three-years old ox | 3 | 3 | 0 |

Nothing but green food or hay to be given to any kind of ſtock ſhewn for a prize, from the 1ſt of September every year.

Any ſubſcriber may ſhew ſtock for the above prizes, provided it be purchaſed of and bred by a ſubſcriber, and has been the property of the perſon ſhewing it one year.

FRANCIS BRUCKFIELD,
*Aug.* 3, 1803. Secretary and Treaſurer.

## *Lincolnſhire.—Diviſion of Lindſey Agricultural Society.*

The Right Hon. Lord YARBOROUGH, Preſident.
The Rev. GEORGE TURNER, } Vice-Preſidents.
WILLIAM GRABURN, Eſq. }

At a meeting of the Committee appointed by this Society, the following premiums were ordered to be offered for cattle and ſheep bred within the ſaid diviſion, and to be ſhewn at the White Hart Inn in Market Raiſin, in the county of Lincoln, on Wedneſday the 24th day of Auguſt, 1803.

| | | | |
|---|---|---|---|
| For the beſt ſhearling ram | 5 | 5 | 0 |
| Second beſt ditto | 2 | 2 | 0 |
| For the beſt two ſhear ram | 5 | 5 | 0 |
| Second beſt ditto | 2 | 2 | 0 |
| For the beſt ſix two ſhear ewes that have bred and brought up lambs during the preſent year, and ſuckled until the 1ſt of Auguſt in the ſame year | 6 | 6 | 0 |
| For the beſt ſix gimmers | 5 | 5 | 0 |
| ——————— bull | 5 | 5 | 0 |
| Second beſt ditto | 2 | 2 | 0 |
| For the beſt milch cow | 5 | 5 | 0 |
| Second beſt ditto | 2 | 2 | 0 |
| For the beſt two-years old heifer | 5 | 5 | 0 |
| Second beſt ditto | 2 | 2 | 0 |
| For the beſt boar | 2 | 2 | 0 |
| Second beſt ditto | 1 | 1 | 0 |
| For the beſt gilt not exceeding nine months old when ſhewn | 2 | 2 | 0 |

It was alſo ordered by the Committee, That a premium of ten guineas be given for the beſt bull (not bred within the ſaid diviſion, but the property of a ſubſcriber) from any part of England, to be allowed by the judges to be ſuperior to any bull ſhewn for the premiums, and with a reſtriction that he ſhall remain and be uſed twelve months in the ſaid diviſion.

N. B. Theſe premiums will be decided at the firſt meeting, and certificates of the age required.

No ſtock to be entitled to the premiums without full proof of its being bred by the claimant, except as to the premium of ten guineas for the bull. No perſons to be entitled to a premium without firſt becoming a ſubſcriber. If only one of a ſort of ſheep or cattle be ſhewn (where more are required) the judges ſhall give ſuch premium as they ſhall think proper, not exceeding thoſe allowed by the Committee.

The ſtock confined to be kept on vegetables, and perſons intending to become candidates, to give notice in writing to the ſecretary.

Alſo the following premiums were ordered to be offered the ſame day for perſons reſiding in the ſaid diviſion, viz.

| | £. | s. | d. |
|---|---|---|---|
| To the labourer in husbandry, who has brought up the most numerous family without parochial assistance . . . | 2 | 2 | 0 |
| To the labourer in husbandry who has worked for one master, or one farm, the longest time, he working for such master, or on that farm, at the time he makes his claim . . . | 1 | 1 | 0 |
| To the male servant who has lived the longest time with any one master or mistress in husbandry . . . | 1 | 1 | 0 |
| To the female servant who has lived the longest time with any one master or mistress in husbandry . . . | 1 | 1 | 0 |

N. B. These premiums will be disposed of at the annual meeting, and candidates must give notices in writing, with the necessary information, to the secretary before the 24th of August. No claim will be admitted but for those who have lived at least seven years in each of the above situations.

*Barton-upon-Humber,* THOMAS MARRIS, Sec.
*Aug.* 5, 1803.

## *Sussex Agricultural Society.*

The annual shew of cattle and sheep for the prizes given by the Sussex Agricultural Society, held at Lewes on the 15th of August, was, as usual, most respectably and numerously attended. His Royal Highness the Prince of Wales, with several distinguished noblemen and gentlemen, amateurs, were in the shew-field. After the company had sufficiently gratified their curiosity, they retired to an excellent dinner at the Star Inn, when nearly two hundred sat down to table. The Earl of Egremont presided in the chair with that attention and ability which always distinguishes him. Amongst those who dined, we observed the Duke of Richmond, Lord Gage, the President of the Board of Agriculture, Lord Sheffield, Lord St. Asaph, Sir William Ashburnham, Sir Charles Burrel, Sir John Honeywood, Sir H. Blackman, Sir Thomas Carr, Mr. Fuller, of Rosehill, Mr. Commerell, Col. Newton, Mr. Kemp, Mr. Shiffner, Mr. Poyntz, Mr. Shelley, Mr. Hare Naylor, Mr. Newbery, Col. Gooch, Mr. Gilbert, Mr. Partington, Mr. Ellman, with a long train of visitors, Sussex gentlemen, &c. &c.

The Noble Chairman having observed that it was a rule with the Society to drink no other toasts or sentiments but such as were purely agricultural, gave the greatest farmer in England, the King, with many others equally appropriate. The general business of the day having been gone through, at the usual time the reports of the judges were read, when the thanks of the meeting were given to them and to the stewards, for their very impartial conduct and public attention.

We cannot but notice with pleasure, that although so many gentlemen were prevented from coming to the above meeting, by the harvest having been begun in several counties, and by the still more indispensible necessity of being obliged, at this particular crisis, to be at their respective posts, the general attendance of the gentlemen of the county, leaves us no room to doubt but that the Sussex Agricultural Society will still continue to flourish with new vigour, by the aid of their general support.

Lord Pelham intended being at the meeting; but business of a more important nature prevented his Lordship's attendance.

The Earl of Egremont, with his accustomed liberality, presented the Society with a brace of fine fat bucks, from his Lordship's park at Petworth.

At a general meeting of the Society, held as above, after the shew, the judges delivered in their several reports as follows, viz.

Ten pounds for the best bull, two-years old, to Mr. Pursglove, of Hurstmonceux.

Ten pounds for the best bull, three-years old, to Mr. Alfrey, of Friston

Ten pounds for the best bull, four-years old and upwards, to Mr. Ellman, of Glynd.

Five pounds for the beſt heifer, two-years old, to Mr. Awcock, of Barcomb.

Five pounds for the beſt heifer, three-years old, that had produced a living calf, between the 1ſt of January, and the 1ſt of April laſt, and is now in milk, to Mr. Whittle, of Fairleigh.

Five pounds for the beſt cow, four-years old, or upwards, under the ſame conditions as the laſt article, to Mr. Scraſe, of Broil Place.

Five pounds for the beſt yoke of working oxen, of the ſame age, from four to ſix years old, to Mr. Augur, of Eaſt Bourne.

*** The piece of plate, value ten pounds, awarded to Mr. Alfroy, in 1801, had not been challenged.

Eight pounds for the beſt South Down ram, one-year old, to the Right Honourable Lord Viſcount Gage.

Eight pounds for the beſt South Down ram, two-years old, to Mr. Saxby, of North-eaſe.

Eight pounds for the beſt South Down ram, three-years old, to Mr. Hamſhar, of Patcham.

Eight pounds for the beſt South Down flock ram, two-years old, to Mr. Farncomb, of Stoneham.

Eight pounds for the beſt South Down flock ram, three-years old, to Mr. Hamſhar, of Patcham.

Five pounds for the beſt pen of twelve South Down ewes, to Meſſrs. Hooper, of Ringmer.

Four pounds for the ſecond beſt pen of twelve South Down ewes, to Mr. Denman, of Willingdon.

Three pounds for the third beſt pen of twelve South Down ewes, to Mr. Farncombe, of Stoneham.

Two pounds for the fourth beſt pen of twelve South Down ewes, to Sir Thomas Carr, of Bedingham.

One pound for the fifth beſt pen of twelve South Down ewes, to Mr. Hamſhar, of Patcham.

Two pounds for the beſt South Down ram fleece, to Sir Thomas Carr.

One pound for the ſecond beſt South Down ram fleece, to Mr. Saxby, of Northeaſe.

The Society have great reaſon to lament, that by the inattention of ſeveral of the candidates to their printed reſolutions, the ſtewards were obliged to reject many animals, which appeared to poſſeſs great merit, and which, from the well known character of the breeders, it is preſumed, might have been ſucceſsful, had they been ſhewn.

## *Berkshire Agricultural Society.*

The Rev. PHILIP WROUGHTON, } Stewards.
RICHARD PALMER, Eſq. }

At the meeting held at Iſley, on Monday the 25th of July, the following gentlemen were elected in order to adjudge the prizes to the flock maſters who produced ſelections from their flocks as competitors for the prizes offered laſt year:—

The Rev Fulwar Craven Fowle, of Kintbury.
Mr. Henry Sellwood, of Pibworth.
Mr. Thomas Lanfear, of Woolley.

To Mr. Stephens, of Peaſemore, the prize for twenty of the beſt horned ewe lambs, lambed and bred in the county of Berks.

To Mr. Lovegrove, of Sottwell, the prize for the beſt Berkſhire nott lambs.

To Charles Dundas, Eſq. the prize for the beſt new Leiceſter lambs.

To Mr. Edward Tull, the prize for the beſt lambs of croſs breed, out of Southdown ewes, by a Leiceſter ram.

The prize offered by the Society laſt year, in order in ſome degree to determine the beſt and moſt uſeful ſort of thoſe ſheep which were ſhown in 1802,

viz. Berkſhire horned ſheep, Berks Nott, Cotſwold, South Down, Leiceſter, or any croſs breed, was adjudged.

To Charles Dundas, Eſq. for having produced fifteen of his twenty new Leiceſter two-tooth ewes, which were ſhewn and gained the prize as the beſt rams in 1802.

To Mr. White, of Speenhamland, the prize as owner and breeder of twenty of the beſt two-toothed horned ſheep, lambed and bred in Berks.

To Charles Dundas, Eſq. the prize for twenty of the beſt new Leiceſter two-tooth ſheep.

To Mr. John Tull, of Hampſtead Norris, the prize for twenty of the beſt croſs breed two-tooth ſheep.

The prize for the Berks Nott two-tooth ſheep was withheld on account of the owner having given them corn as a ſubſtitute for hay.

No Cotſwold or South Down were ſhown.

RAMS.

To Mr. White, of Speenhamland, the prize as owner and breeder of the beſt two-tooth horned ram.

To Charles Dundas, Eſq. the prize as owner and breeder of the beſt new Leiceſter.

Mr. Fowle's ſilver cup was adjudged to Mr. Dundas, for producing a moſt complete theave out of his own Leiceſter ewe, by a ram hired of Mr. Fowle in 1801.

SHEEP-SHEARERS.

The firſt prize of three guineas was won by Charles Hepburne, of Kintbury; the ſecond by Thomas Head, and the third by William Grey, both of Ilſley.

SHEPHERDS.

The firſt prize was adjudged to Thomas Butler, who has lived forty-five years in the ſervice of Mr. John Bunce, of Frilford, and his father; the ſecond to Henry Henwood, who has been in the ſervice of Mr. John Pottinger, of Compton, and his predeceſſor, upwards of forty-three years; and the third to William Nichols, who has lived with Mr. Henry Sellwood, of Pibworth, and his predeceſſor, upwards of forty-two years.

A gratuity of half-a-guinea was made to William Thatcher, who has been in the ſervice of Mr. John Tull, of Hampſtead Norris, and his predeceſſor, upwards of forty-two years.

The next meeting will be held at Reading, on Tueſday the 20th of September next.

BUDD & GREY, Secs.

*Newbury, Aug.* 5, 1803:

## *Whitby-Strand and Pickering-Lyth Agricultural Society.*

SIR R. B. JOHNSTONE, Bart. Preſident.
Mr. JOHN GRAY, } Vice-Preſidents.
Mr. D WARD, }

The Committee appointed for conducting the buſineſs of this Society being of opinion that a ſhow of tups, for ſale and letting, would tend greatly to the improvement of the ſheep ſtock of the above-mentioned diſtrict, have reſolved,

That Wykeham, being nearly central with reſpect to the ſheep farms of the two diſtricts, ſuch ſhow ſhall be held there on the firſt Tueſday in September, when the following Premiums will be given.

| | |
|---|---|
| For the beſt aged tup . | £3 3 0 |
| For the beſt two-ſhear ditto | 3 3 0 |
| For the beſt ſhearling ditto | 3 3 0 |
| For the beſt tup lamb . | 1 1 0 |

The above premiums will be awarded on the day of ſhow, and will be paid at Hackneſs on Whitſun Tueſday, when certificates will be required of

their having ſeveral ewes the property of an inhabitant of the above-mentioned diſtricts, and that they have got lambs.

A premium will be given at the Hackneſs ſhow for the beſt crop of green food, (as a ſubſtitute for turnips) to be grown on the high, cold, poor lands of the two diſtricts, and to be eaten on the ground by cattle or ſheep, in the months of April and May.

N. B. The Hackneſs ſhow and fair will be held at the uſual time, and due notice of the premiums will be given.

By Order,
RICHARD SMAILES, Secretary.

## *York Agricultural Society.*

At a Half Yearly Meeting of the York Agricultural Society, at the George Inn, Coney ſtreet, Auguſt 11, 1803.

HALL PLUMER, Eſq. Vice Preſident, in the Chair.
H. J. BAINES, Eſq. Vice-Preſident, Deputy-Chairman.

The following Gentlemen were appointed judges of ſtock this day ſhown viz.

Mr. Thomas Kendall, Neſs;
Mr. John Kemp, Catton;
Mr. William Haſlel, Catton,

Who awarded the premiums as follow:

| | £. | s. | d. |
|---|---|---|---|
| Mr. B. Lund, for the beſt three year old heifer with calf | 3 | 3 | 0 |
| Mr. B. Lund, for the ſecond beſt ditto | 2 | 2 | 0 |
| Mr. Thomas Thackwray, for the beſt two-years old heifer with calf | 3 | 3 | 0 |
| Mr. George Ainſley, for the ſecond beſt ditto | 2 | 2 | 0 |
| Mr. Matthew Lowſon, Farmer to the Earl of Carliſle, for the beſt ſhearling tup bred upon his Lordſhip's Farm at Caſtle Howard | 5 | 5 | 0 |
| Mr. Triffit for the ſecond beſt ſhearling tup | 3 | 3 | 0 |
| Mr. Matthew Lowſon, Farmer to the Earl of Carliſle, for the beſt two ſhear tup bred upon his Lordſhip's Farm at Caſtle Howard | 4 | 4 | 0 |
| Mr. Legat, for the ſecond beſt two ſhear tup | 2 | 2 | 0 |
| Mr Triffit, for the beſt ſhearling gimmer | 2 | 2 | 0 |
| Mr. Swift, for the beſt boar | 2 | 2 | 0 |

The premium of five guineas to the cottager or day labourer, who ſhall have maintained and educated the greateſt number of legitimate children, without any or the ſmalleſt relief from the Pariſh, was awarded to John Froſt, of Whitwell, who has had fifteen children, fourteen of whom are now living.

The premium of three guineas to the cottager or day labourer who ſhall have maintained and educated the next greateſt number, &c. was awarded to William Hewitt of Upper Helmſley, who has had fourteen children, thirteen of whom are now living.

Reſolved—That the thanks of this Society be given to Mrs. Mary Ann Soulſby, for her communication on cookery.

That the thanks of this society be given to Mr. John Foſter, of Bolton, for his valuable communication on the improvement of poor weak ſand land.

## *Caledonian Gardener's Lodge.*

On Thurſday the 11th of Auguſt, the Caledonian Gardener's Lodge held their Anniverſary Meeting, at the King's Arms Tavern, Edinburgh. The members convened in the forenoon, and the Committee, who had on a previous occaſion inſpected a ſhew of pinks, at this meeting inſpected the melons and cauliflowers. All that were produced for competition, were very excellent, and evinced the great perfection to which they had brought the cultivation of theſe plants. The judges found themſelves at ſome loſs to decide where the ſuperiority lay, but at laſt determined to fix the premiums as follows:

Mr. Alexander Henderſon, Nurſeryman, Edinburgh—firſt pink,
Mr. John Shanklie, Nurſeryman, Leith Walk—ſecond pink.
Mr. William Dick, Gardener to Mr. Maxwell, of Carriden—firſt melon.
Mr. John Chalmers, Gardener to Sir Robert Dalyell, of Binns—ſecond melon.
Mr. James Reid, Gardener to Mr. Bonar, Eaſter Warriſton—firſt cauliflower.
Mr. William Wood, Foreman to Mr. Charles Peacock, Bonington Road, ſecond cauliflower.

The Caledonian Gardener's Lodge have two objects in view by their conſtitution; the one is by holding out premiums to thoſe who excel in the cultivation of plants, flowers, &c. to induce ſuch a competition as may be inſtrumental in improving the various candidates in the knowledge and practice of their profeſſion, which, of courſe, will be beneficial to mankind at large. The other object of the Lodge, embraces thoſe reciprocal duties of friendſhip and kindneſs which mankind owe to each other. With this view a fund has been raiſed, to which all the members contribute, and they are thus enabled to help a brother in diſtreſs.

*Thetford Wool Fair.*—This annual mart was held on the 16th of July, Thomas Williams, Eſq. M. P. in the chair, attended by Lord Albemarle, and about 200 Gentlemen Farmers and Wool-buyers from the adjacent country. The growers of wool aſked 52s. 6d. for the tod of 28 lbs. Mr. Coke was offered 52s. for his. The general currency offered, according to quality, was from 49s. to 52s. per tod. Mr. Coke, after dinner, ſtated to the company, that when he firſt farmed his own land at Holkham, he kept a flock of 800 Norfolk ewes for eleven years, during which time they invariably conſumed the whole of his turnips, and he was obliged to ſell his lambs as flock lambs, at the fair: that he has now for eleven years changed his flock for South Downs, and has invariably kept his lambs over the year, and ſold them at market, fat wethers: and that he has alſo planted 700 acres of the land which the Norfolk ſheep uſed to feed upon.

Lord Albemarle declared, that as far as his experience had gone, the South Down were much ſuperior; he found them to produce more lambs, to be better nurſes, to poſſeſs a much greater degree of hardineſs, to procure more wool, and their wool more valuable. In ſupport of this opinion his Lordſhip ſtated, that he kept two flocks, conſiſting of 900 Norfolk, the other of 900 South Down ewes; that each had the ſame number of acres of land of nearly an equal quality aſſigned them; that the laſt year the 900 Norfolk ewes produced 752 lambs; the 900 South Downs, 826; that during the time of lambing there were always from 15 to 25 Norfolk ewes penned up to oblige them to own and take their lambs: of the South Downs not a ſingle ewe, the whole lambing ſeaſon, was ever put in the penns, or deſerted her lamb. Of the 900 Norfolk 18 died in lambing; of the South Downs only 4; of the Norfolks 15½ fleeces went to the tod of 28lb. on the average of the 900; of the South Downs 11 fleeces went to the ſame weight, on the ſame average. And, laſtly, that the South Down wool ſold for 2s. the tod more than the Norfolk. His Lordſhip ſaid, that after having ſtated theſe facts, he ſhould leave the company to make their own comment. For his own part, he ſhould increaſe his South Down flock.

*Abolition of Cook's Perquiſites.*—In conſequence of the high price of butcher's meat, which has continued for ſome length of time paſt, a number of philanthropic Gentlemen met at the Bull Inn, York, for the purpoſe of aſcertaining the cauſe thereof. By documents there produced, it was adjudged, that only about three-fourths of the fat meat daily purchaſed of butchers, finds its way to table; the remaining one-fourth, as a *moderate pretty little* perquiſite, is retained by cooks and other domeſtics in families, who ſell it to the public for inferior, and often diſgraceful purpoſes; but if uſed as a nutriment, a thing quite practicable, would feed 50,000 people daily.

This ſtatement of facts calls loudly for reform, eſpecially in war time, when every article of ſuſtinence may be fairly expected to advance in price, during its continuance. And whilſt the above deſtructive ſyſtem of kitchen economy is ſo impolitically ſuffered to remain; the object of the feeding ſocieties, which is to procure fat meat at market inſtead of lean, thereby eventually, it is expected, leſſen the price of butchers meat, will ſtill continue to be defeated.

It is ſufficient to obſerve, that reſolutions were unanimouſly entered into by the company preſent, *to allow, if neceſſary, more wages to cooks, and aboliſh perquiſites of fat, and other offals of meat, altogether*—which we hope to ſee adopted throughout the kingdom; that will, in the firſt inſtance, it is expected, be a means of reducing the price of butter; and perhaps tend to leſſen the price of butcher's meat, as ſeveral experimental diſhes compoſed of fat, were taſted and approved of.

At Hawick, in Scotland, there was a conſiderable ſhew of excellent cattle competing for the premiums offered by the Farmer's club, when Sir John Buchanan Riddell, Bart. was found entitled to the higheſt premium for the beſt bull, and Thomas Elliot Ogilvie, Eſq. of Cheſter, to the premium for the beſt quey, of their own breeding.

Magdalen-hill fair, the prices of cheeſe were as follow: good new, from 2l. 18s. to 3l. 16s. old cheeſe, about 3l. 10s. to about 4l. and prime ditto, 4 guineas.

At Lanſdown fair, there was a tolerable ſhow of fat and lean cattle; the former experienced a ready ſale, but the latter was rather dull. Sheep and lambs were on the advance. Of horſes there were many, and thoſe of the better ſort went high, from the great call for them in the cavalry. There was a large quantity of cheeſe, which ſold at the following prices: Beſt Coward, from 50s. to 63s. per cwt. Half Coward, from 3[illegible]s. to 38s. and a conſiderable part remained on hand.

Porſtdown fair, on Tueſday, was very numerouſly attended, owing to the fineneſs of the weather. Horſes were very plentiful, and ſold reaſonably.--Cheeſe, of which there was a large ſupply, ſold early in the morning at 40s. to 66s. but afterwards fell 12s per cwt. and nearly half the quantity remained with the dealers unſold.

At Hexham fair, on Friday ſe'nnight, little buſineſs was done: lambs and pigs were the principal articles, and, owing in a great meaſure to the wetneſs of the day, moſt of the latter returned unſold.

There were a good many ſhearers at the Weſt Port on Monday, ſeveral of whom were hired--wages from 6d. to 9d. per day, excluſive of victuals.

On Wedneſday ſe'nnight, at Porfar market, the prices of cattle continued to decline.

At Newcaſtle fair on Friday, there was a tolerable ſhow of good horſes, which ſold uncommonly high. Fat cattle were not very numerous, and ſold ſomewhat under the late prices. Milch cows were very high. Swine were numerous, and rather lower. The ſhow of ſheep was but poor. On the whole, the fair was rather dull.

At Morpeth market on Wedneſday, there was only a ſmall ſupply of cattle, but a very full market of ſheep and lambs, ſome of which ſold at reduced prices, and many remained unſold. Beef from 7s 6d. to 8s. 6d. Mutton 6s. 6d. to 7s. 6d. per ſtone, ſinking offals.—Wheat from 52s. to 58s. per quarter. Rye 40s. Barley 24s. Oats 22s. 8d. to 24s. Peaſe 38s. Beans 34s.

At Brentwood fair, yeſterday ſe'nnight, there was but a thin ſhew of cattle, and thoſe principally of the South Wales kind, which went off at high prices; the horſe fair was well ſtocked, particularly with the nag kind, which ſold freely.

*Haddington, Aug.* 12.—Wheat had a heavy ſale, but prices were a little higher. Barley ſold nearl as laſt week; beſt 19s. 6d. current prices 17s. to 18s. 6d.; one parcel 20s. 6d. Oats ſold readily, and prices rather on the advance; beſt 19s. 6d. current 17s. 6d. to 18s. 6d Potatoe Oats 20s Peaſe and Beans 18s. to 20s. being nearly as laſt day.—There were 386 bolls of wheat in the market.

At a Special Meeting of the Committee of Land Owners, Barley Growers, and Maltſters, of the County of Norfolk, held at the Angel Inn Norwich, purſuant to advertiſement for that purpoſe,

WILLIAM BECHER, Eſq. in the Chair,

*Reſolved*—That the late increaſed duty on malt, is highly prejudicial to the barley growers and maltſters, in this kingdom, and partial in its effects on landed property, and that an application ought to be made to parliament, in the next Seſſion, for relief.

*Reſolved*—It is the opinion of this Committee, grounded upon experience and the moſt accurate information, that the act of the thirty-firſt of his preſent Majeſty, intitled "An act for regulating the importation and exportation of corn, and the payment of duty on foreign corn imported, and the bounty on Britiſh corn exported;" is become inadequate to the purpoſes intended, injurious to the corn trade of this kingdom, and requires to be amended, or wholly altered.

It appearing to this Committee, from the accounts preſented to the Houſe of Commons, relative to the diſtilleries in Great Britain, Scotland, and Ireland, that the duty on Iriſh diſtilled ſpirits exported to England, not being charged by ſtrength, the diſtillers in this kingdom have been induced to employ ſtills in Ireland, and to import the ſpirits, there manufactured, into this kingdom; whereby the conſumption of barley, in that kingdom, has been conſiderably increaſed, whilſt the conſumption of barley, of the growth of this kingdom, has, from the ſame cauſe, been conſiderably decreaſed, and the land-owners, barley-growers, and maltſters of this kingdom materially injured.

*Reſolved*—That the Committee are of opinion that an application to Parliament ſhould be made in the next Seſſion, to have the revenue laws reſpecting the making malt, wort and raw ſpirits, in Ireland and Scotland, and the importing the ſame into this kingdom, altered and amended, with new proviſions aud reſtrictions.

It being the opinion of this Committee, that improper ſubſtitutes for malt are and have been uſed by many brewers of ale, beer and porter, in this kingdom, which have tended and muſt tend to leſſen the conſumption and depreciate the price of barley and malt, to the great injury of the landed property, and the barley growers and malſters of this kingdom,

*Reſolved*—That it is expedient that an application ſhould be made to parliament, in the next Seſſion, by the whole body of land owners, barley growers, and maltſters, for an act for the more effectually preventing the uſe of any drug, compound, or ſubſtitute whatever, for and in the place of malt, in the brewing and making of beer, ale and porter, or the refining the ſame, and for impoſing ſuch heavy fines, pains, and penalties, on brewers, their aſſiſtants, clerks, and ſervants, uſing or having in their cuſtody or poſſeſſion, directly or indirectly, any Drug, compoſition, or ingredient whatſoever, that can be uſed as for and in the place of malt in the making and brewing beer, ale, and porter, or in giving additional ſtrength to the ſame after brewed, as will effectually put a ſtop to and prevent the uſe of ſuch drugs, compounds, or ingredients, in future.

This Committee being fully ſenſible of the neceſſity of the co-operation of the great body of land owners, barley growers, and maltſters, in this kingdom, in order to give weight and conſequence of ſuch meaſures as may be deemed neceſſary to be adopted for obtaining redreſs in the premiſes.

*Reſolved*—That the land owners, barley growers, and maltſters, in every corn diſtrict in this kingdom, be, and they are hereby requeſted forthwith to

call a meeting in every principal Market Town, in every corn district upon the above subjects, and to form a Committee, to deliberate and advise upon the same, and to transmit their sentiments and advice thereon to this Committee, previous to the next meeting, addressed to Mr. Johnson Lee, their solicitor, at King's Lynn.

*Resolved*—That the next Meeting of this Committee be held at this house on the fifth day of October next, at eleven o'clock; where the attendance of every land owner, barley grower, and maltster, interested, is particularly requested, in order to prepare such petition and remonstrance to parliament, upon the matters and grievances aforesaid, as shall be then thought expedient.

At the Annual Shew of the Derbyshire Agricultural and Breeding Society, held at the Wheel Inn, Derby, on Wednesday the 13th of July, 1803, the prizes were adjudged as follows:

| | £. | s. | d. |
|---|---|---|---|
| For the best three theaves, Mr. Greaves | 3 | 3 | 0 |
| The second best ditto, Mr. Mundy, of Shipley | 3 | 3 | 0 |
| The best shear hog ram, Mr. Greaves | 3 | 3 | 0 |
| The second best ditto, Mr R. Jowett | 2 | 2 | 0 |
| The best two shear ram, Mr. Greaves | 3 | 3 | 0 |
| The second best ditto, Mr. R. Jowett | 2 | 2 | 0 |
| The best shear hog wether, Mr. Mundy, of Shipley | 3 | 3 | 0 |
| The second best ditto, Sir R. Wilmot, Bart. of Chaddesden | 2 | 2 | 0 |
| The best two shear wether, ditto | 3 | 3 | 0 |
| The best two-year old heifer, Mr. Mundy, of Markeaton | 4 | 4 | 0 |
| The second best ditto, Sir R. Wilmot, Bart. | 3 | 3 | 0 |
| The best three-year old ox, Mr. R. Jowett | 3 | 3 | 0 |

It was the opinion of the judges that the pen of two shear wethers was the best that ever was shewn in the county of Derby.

## *Staffordshire Agricultural Society.*

At a meeting held at the Swan Inn, in Lichfield, on Tuesday, the 27th day of July, 1803, the following premiums were adjudged:

To Mr. Edward Baker. of Haunton, for the best shear hog ram, a gold medal.
To Mr. Harvey, for the second best, a silver medal.
To Mr. Edward Baker, for the best two shear ram, a gold medal.
To Mr. Dyott, for the second best, a silver medal.
To Mr Meek, for the best two years old fat wether, a gold medal.
To Mr. Harvey, for the second best, a silver medal.
To Mr. John Standley, for the best fat wether shear hog, a gold medal.
To Mr. Meek, for the second best, a silver medal.
To Mr. Thorwell, for the two best theaves, a gold medal.
To Mr. Dyott, for the two second best, a silver medal.
To the Rev. George Talbot, for the best grey faced two shear ram, a gold medal.
To Mr. Bond, of Swansmore, for the best grey-faced ewe, a gold medal.
To Mrs. Wright, of Whittington, for the best grey-faced two shear wether, a gold medal.
To Mr. Meek, for the best fat pig, a gold medal.
To ditto, for the best three years old bull, a gold medal,
To Mr. Michael Harding, for the best two years old heifer, a gold medal.
To Mr. Anson, for the second best, a silver medal.
To labourers in husbandry, for having reared families without parochial relief.

| | £. | s. | d. |
|---|---|---|---|
| John Wright, of Hopton, twelve children | 3 | 3 | 0 |
| William Hyden, of Armitage, eleven ditto | 2 | 2 | 0 |

To servants in husbandry, for long and faithful services.

| | | | |
|---|---|---|---|
| Sarah Healy, 59 years with Mrs. Crockett and her predecessors, on Shushion's farm | 3 | 3 | 9 |

Thomas Martin 44 years with Thomas Kent and his succeſſors, on the ſame farm, at Admarſton . 2 2 0

To labourers in huſbandry, for long and faithful ſervices.

Thomas Smith, 44 years with Mr. Wilcox and his ſucceſſors, on Dunſtall farm in the pariſh of Tanworth 3 3 0

Edward Robinſon 38 years with Mr. Butler and Mr. Woolley, of Rowley farm, in the pariſh of Hamſtall, Ridware 2 2 0

The premiums are continued for labourers in huſbandry bringing up children (born in wedlock) without aſſiſtance from the pariſh, ſervants in huſbandry, for long and faithful ſervices, and labourers in huſbandry for the ſame.

Applications to be delivered to the Secretary on or before the 1ſt of July, 1804.

The application muſt deſcribe the ground of claim, and be accompanied by a certificate ſigned by the miniſter of the pariſh, or the maſter and miſtreſs under whom the applicant has ſerved, or two reſpectable houſeholder, having a poſitive knowledge of the facts certified.

No perſon to receive any of the above premiums more than once in four years.

The ſubſcriptions of one guinea each were determined as follows:

For the beſt bull, Mr. Meck, Mr. Anſon, Mr. Harvey: won by Mr. Harvey.

For the beſt dairy cow, Mr. Meck, Mr. Anſon, Mr. Harvey, Mr. Dyott: won by Mr. Meck.

For the beſt fat cow, Mr. Meck, Mr. Anſon, Mr. Harvey: won by Mr. Meck.

For the beſt fat pig, Mr. Meck, Mr. Anſon. won by Mr. Meck.

For the beſt two year old heifers, Mr. Meck, Mr. Anſon, Mr. Michael Harding, Mr. Harvey: won by Mr. Harding.

For the two beſt theaves, Mr. Meck, Mr. Anſon, Mr. Dyott, Mr. Harvey: won by Mr. Dyott.

For the ſhear hog ram, Mr. Meck, Mr. Anſon, Mr. Dyott, Mr. Harvey: won by Mr. Harvey.

The following premiums are offerded for the enſuing year.

To the perſon who ſhall in the laſt Tueſday in July 1804, produce the beſt ſhear hog ram, a gold medal.

For the ſecond beſt, a ſilver medal.

For the beſt two ſhear ditto, a gold medal.

For the beſt two years old fat wether, a gold medal.

For the ſecond beſt, a ſilver medal.

For the beſt fat wether ſhear hog, a gold medal.

For the ſecond beſt, a ſilver medal.

For the two beſt theaves, a gold medal.

For the two ſecond beſt, a ſilver medal.

For the beſt grey-faced two ſhear ram, a gold medal.

For the beſt grey-faced ewe, a gold medal.

For the beſt grey-faced two ſhear wether, a gold medal.

For the beſt boar pig, a gold medal.

For the beſt fat pig, a gold medal.

For the beſt three years old bull, a gold medal.

For the beſt four years old bull a gold medal.

For the beſt two years old heifer, a gold medal.

For the ſecond beſt, a ſilver medal.

The ſheep and cattle to have been fed with graſs, hay or roots, not to have had corn, and to be ſhewn by the perſon who bred and fed them, and information in writing to be given by each perſon to the Secretary, on or before the firſt Tueſday in July, of what ſheep and cattle they intend to ſhew.

All the ſheep for this ſhew, to be ſhorn on or before the 20th day of June.

No perſon to ſhew the ſame ſtock a ſecond time, having gained a premium at a former meeting.

Mr. Anſon propoſes to give a ſilver cup, of the value of fifteen guineas, to the perſon, who (being a tenant) ſhall plough and prepare for ſowing, the greateſt quantity of land upon his farm, not leſs than thirty acres, with only two horſes or oxen abreaſt, and without the aſſiſtance of a driver, between the preſent time and the next meeting of the ſociety, in the year 1804.

A certificate of the ploughing being done in a huſbandman-like manner, to be ſigned by two reſpectable perſons in the pariſh where the claimant reſides, and delivered to the preſident at the next meeting. This premium to be confined to the county of Stafford.

Sir Robert Lawley propoſes to give a ſilver cup of the value of ten guineas, to any perſon producing the beſt crop of Swediſh turnips not leſs than an acre. The claimants to ſend their names and places of abode to the ſecretary before the 10th day of November, 1803, and a perſon to be appointed by Sir Robert Lawley, to view the different crops.

The following ſubſcriptions of one guinea each were opened for different kinds of ſtock to be produced at Lichfield, the laſt Tueſday in July 1804, and to be the property of a ſubſcriber, bred by himſelf, viz.

| | |
|---|---|
| For the beſt Bull | For two beſt Theaves |
| Dairy Cow | Shear Hog Ram |
| Two years old Heifer | Fat Pig. |

The ſubſcriptions to remain open till the 1ſt day of March, 1804.

W. BOND, Secretary.

# Commerce.

*Peterſburgh, July 24.*

WE learn from Kiachta, that the Ruſſian merchants trading to China have bartered the following articles with the Chineſe, in the month of March,—tea, beſt ſort, 90,684 roubles; middling ditto, 90,799; ordinary ditto, 30,500; nankeen, 245,425 roubles. The Chineſe took from the Ruſſians, cloth, of various qualities, 277,255 roubles; leather, 28,900 roubles; ſquirrel ſkins, 74,815 roubles; curled lamb ſkins, 50,360 roubles; tame cat ſkins, 19,774 roubles; fox ſkins, 11,700 roubles.

*Stockholm, July 29.*—Vaſt quantities of iron continue to be ſent off, particularly to Great Britain. The prices of that article have riſen half a rix-dollar per ſhip pound in Government bills.—We expect a moſt abundant harveſt; and the proſpects in Denmark are equally promiſing.

An account of the number of fiſhing veſſels which have entered at the Coaſt Office in the Cuſtom-houſe, in the port of London, from the 25th of March, 1798, to March 25, 1803, diſtinguiſhing each year.

| | *Number of Cargoes* |
|---|---|
| From 25 March 1798, to 25 March 1799 . | 1417 |
| From 25 March 1799, to 25 March 1800 . | 1623 |
| From 25 March 1800, to 25 March 1801 . | 2167 |
| From 25 March 1801, to 25 March 1802 . | 2608 |
| From 25 March 1802, to 25 March 1803 . | 3255 |

Coaſt Office, Cuſtom-houſe, London, 4th Auguſt, 1803.

An account of the total quantities of fiſh brought to Billingsgate-market by the different candidates for the bounties granted by the Lords Commiſſioners of His Majeſty's Treaſury, in the ſeaſons 1801-2 and 3.

| | *Tons.* | *Cwts.* | *qrs.* | *lbs* |
|---|---|---|---|---|
| Freſh cod, haddock, &c. in the ſeaſon, commencing Oct. 1, 1801, and ending June 1, 1802 | 1416 | 10 | 3 | 4 |
| Freſh cod, haddock, &c. in the ſeaſon, commencing Oct. 1, 1802, and ending June 1803 . | 2173 | 10 | 3 | 1 |

| | *Tons.* | *Cwt.* | *qrs.* | *lbs.* |
|---|---|---|---|---|
| Slightly ſalted cod, in the ſeaſon, commencing Oct. 1, 1801, and ending June 1, 1802 . | 171 | 9 | 1 | 8 |
| Slightly ſalted cod, in the ſeaſon, commencing Oct. 1, 1802, and ending June 1, 1803 - | 312 | 10 | 1 | 8 |
| Skaite, Thornback, &c. in the ſeaſon, commencing Oct. 1, 1801, and ending June 1, 1802 . | 649 | 8 | 2 | 14 |
| Skaite, thornback, &c. in the ſeaſon, commencing Oct. 1, 1802, and ending June 1, 1803. | 1090 | 3 | 3 | 17 |
| Freſh herrings, from Oct. 1, 1802, to April 1, 1803, 4,677,500 or | 623 | 0 | 0 | 0 |
| Freſh ſprats, from Nov. 1, 1802, to March 1, 1803, 10,309 buſhels | | | | |
| Freſh mackarel, from March 1, 1802, to July 1, 1802 . . . | 186,200 Mackarel. | | | |
| Freſh mackarel, from March 1, 1803, to Aug. 1, 1803 . . . . | 866,995 | | | |

The eſtimate of the expenſe of the execution of the intended London and Portſmouth canal, and of its probable revenue when finiſhed, being now perfected, it appears that the coſt of the execution will be 721,000l. and that the revenue will exceed 100,000l. per annum. At a late general meeting at the Crown and Anchor, it was unanimouſly voted to open a ſubſcription immediately for raiſing a capital of 800,000 in ſhares of 100l. each, and to proceed to parliament for an act to carry the meaſure into execution.

Mr. Rennis' report on this important national object concludes in the following manner; when therefore the extent of country, through which this canal will paſs, is conſidered; the communications that will ſooner or later take place, not only with thoſe navigations already made, but with others now in contemplation, and likely ſoon to be made, the abundance of ſhip-timber there is in the countries through which it will paſs, the communications that will be opened with London, and with his Majeſty's dock-yards at Portſmouth, Chatham, Woolwich, Deptford, Chicheſter and the numerous towns and villages ſituated near to it; the various articles of traffic which muſt be carried between London and theſe places, and the local trade they will have with each other; the quantities of timber and naval and military ſtores, which muſt be carried between, to and from his Majeſty's dock-yards without being liable to the hazards of the ſea, and uncertainty of the voyage, or riſk of being taken by the enemies' cruiſers; the quantities of goods which will be ſent by the Eaſt India company to their veſſels when lying at Spithead; the immenſe quantities of chalk from the inexhauſtible chalk-pits, bordering on the line, for manure; the quantity which will be wanted in London for lime, which is of an excellent quality; the quantity of coals, &c. &c. taking all theſe things into conſideration, I think this is one of the moſt important lines of inland navigation, which have ever come under our obſervation.

## *Manufactures and Useful Arts.*

MANY of the Cornwall tin mines are at preſent exhauſted, and ſome others are to little advantage. Poſgooth, the greateſt tin mine in the world, though it produces large quantities of ore, is, however, attended with ſo great an expence, in conſequence of its depth, that it yields but ſmall profits to its propritors. Some mines near the Land's End, which, for ſome years, produced but little, are now working to more account. The manufacturers complain that the metal brought to market is leſs pure than heretofore.

The copper mines are alſo in general falling off, and ſome are relinquiſhed in conſequence of their depth. Dolwath has, however, at an enormous expence, been brought into work, and yields an abundance of indifferent metal,

IMPROVEMENTS ON FIRE PLACES.—Dr. Joſeph Barth, a phyſician of Vienna, has invented an economical fire places of a very ſimple conſtruction, which requires much leſs fuel than any hitherto known. The Emperor has ordered a certain number to be made on this plan, and the deſcription to be publiſhed.

The Society oe Arts of the Department of La Sarthe, which meet at Mans, propoſes for the ſubject of its firſt prize, to be decreed in the year 1803, a medal, or the ſum of 300 francs, at the option of the author of the beſt memoir of the following queſtion the uncultivated lands of the department of La Sarthe?

For a ſecond prize, the Society offers a medal of the value of 200 francs, to the author of the beſt memoir on the queſtion: What is the beſt method of reſtoring the maeufactures of La Sarthe to their former flouriſhing ſtate?

None of the reſident or correſponding members are admitted to be competitors; but, nevertheleſs, they are invited to turn their attention to the above ſubjects; and the Societ\ will take every opportunity of recommending to notice thoſe who ſhall deſerve its apprbation.

# Commercial Law Eales

GLOUCESTER ASSIZES.

*The Corporation of Tewkeſby* v. *Diſton.*

This was a cauſe of great importance to the agricultural intereſt of the country in general. It was an action brought by the corporation of Tewkeſbury againſt Mr. Diſton, the owner of a burgage in that Borough, and alſo a Freeman of Monmouth, for tortiouſly buying corn by ſample, in the market of Tewkeſbury, whereby the corporation loſt the toll they would be entitled to, if ſold in bulk. A verdict, by conſent, was taken for the plaintiffs, with nominal damages, and liberty for the defendant to move the court of King's bench to enter a nonſuit, if that court ſhall be of opinion, as a queſtion of law, that corn muſt be bought in a market where toll is paid, in bulk only, and not by ſample.

*Hare* v. *Harford and Taylor.*

On the 14th of July, 1803, a cauſe was tried at the Guildhall of the city of London, before Lord Alvanley and a ſpecial jury, which had exited a good deal of attention amongſt ſcientific men, with regard to thoſe improvements in the conſtruction of the copper-heads, which, with various modifications, are now pretty generally adopted in the brewery, for the purpoſe of heating the liquor for the ſucceeding maſhes, by the ſteam of the worts during the proceſs of boiling them.

The plaintiff was Mr. Hare, a gentleman of Bath, who was ſome years ſince the owner of an extenſive brewery at Limehouſe; and the defendants were Meſſrs. Harford and Taylor, his ſucceſſors in the concern. The action was brought on a bond, conditioned for the payment of an annuity to Mr. Hare, during the exiſtence of a patent, granted to him in September, 1792, in conſideration of his licenſing the defendants to uſe the invention for which it was obtained. The defendants had pleaded, that one Sutton Thomas Wood had before practiſed the ſame thing; that the plaintiff's invention was therefore not new, and the patent conſequently void. The queſtion therefore was reſpecting the ſimilarity or diſſimilarity of the two inventions of Mr. Hare and Mr. Wood.

Mr. Hare's patent had been granted for "An apparatus, whereby the eſſential oil of hops, which was before loſt and diſſipated in the air during the operation of boiling worts for beer, is preſerved and applied to uſe; and the water for brewing at the ſame time heated to a ſufficient degree of heat without any application of fire to the veſſel containing it." Mr. Wood had previouſly, in 1785, obtained a patent for "Certain new diſcoveries in the

application of ſteam; and alſo certain methods of uſing the water produced from condenſed ſteam, and for applying the water from the coppers or boilers of ſteam engines to other purpoſes than that of working the ſteam-engine; and alſo various methods of heating and applying water for the ſeveral purpoſes of the breweries and diſtilleries, and for forwarding the proceſs of brewing; and alſo certain methods of conſtructing and adapting coppers, boilers, tubes, and other hollow bodies, for the more effectual means of heating water and worts; and of rendering ſuch coppers, boilers, tubes, and other hollow bodies as are employed in the breweries and diſtilleries, ſteam and air-tight." In the ſpecification of which he had ſaid nothing reſpecting the preſerving the eſſential oil of the hop. It ſeemed, however, to be admitted, that if the ſame purpoſes as thoſe for which Mr. Hare's patent had been granted had been really effected by Mr. Wood, it would notwithſtanding have invalidated the ſubſequent patent.

Mr. Hare's contrivance, of which a model was produced in court, conſiſted of baſin or concave veſſel, placed over the dome or head of the copper; in which baſin the liquor for the ſucceeding maſhes was to be contained. From the centre of the dome proceeded a large perpendicular trunk provided with ſafety valves on the top, from which trunk iſſued a horizontal tube, having three ſmaller tubes ſuſpended from it, whoſe extremities were immenſe in the water in the baſin; ſo that all the ſteam which iſſued from the copper during the proceſs of boiling the worts muſt neceſſarily (except in the event of its acquiring ſufficient elaſticity to open the ſafety-valves) paſs into it, and could only riſe into the atmoſphere by bubbling up through it from the extremities of theſe ſmall tubes. The ſteam thus combining with the water heated it very rapidly; and at the ſame time impregnated it ſtrongly with the aroma of the hop.

Mr. Wood's invention conſiſted of a baſin ſomewhat ſimilar in form to Mr. Hare's, but the difference was, that inſtead of the ſteam from his copper being mixed, or brought into contact with the water in the baſin, it was carried off by a trunk, and applied to work a ſteam-engine during the boiling of the worts.

It was contended on the part of the plaintiff, that this contrivance was totally different from his, inaſmuch as it was no part of Mr. Wood's object to preſerve the aroma or eſſential oil of the hop, which was the primary object of Mr. Hare's patent; and that even with reſpect to the heating the water, only performed in Mr. Wood's by the heat tranſmitted through the dome from the ſteam below, it was by no means accompliſhed in the ſame degree, or in a ſufficient degree for the purpoſe of brewing.

Mr. Wood, who was called on the part of the defendants, explained the nature and effect of his invention, and that it was antecedent to Mr. Hare's. He ſtated, that he had once entertained an idea of preſerving the eſſential oil of the hop, but that the experiment had failed, and he did not think it worth repeating.

A number of ſcientific perſons were called on the part of the plaintiff, who ſtated their opinions as to the diſſimilarity in principle and effect between the two inventions, and their reaſons for conceiving that the objects of the plaintiff's patent could not be attained by Mr. Wood's apparatus. On the part of the defendant, ſeveral ſcientific gentlemen ſupported a contrary opinion.

The jury, on the Lord Chief Juſtice's proceeding to ſum up the evidence, appearing previouſly to have made up their opinions, and inclining, through the whole courſe of the trial, to the ſide of the defendant, pronounced their verdict without any heſitation, and in a manner ſo prompt and decided, that Lord Alvanley declared, that in all future trials, when their minds, from the evidence, were ſo manifeſtly ſatisfied, he would not trouble them with a recapitulation, on their declaring their ſentiments.—Verdict for the Defendant.

# LONDON PRICES OF GRAIN for *Auguſt*, 1803.

## MARK-LANE, *Monday*, *Auguſt* 1.

*Price of Grain, on board Ship, as under*

OUR ſupply of Wheat for this day's Market was not great, yet the Sales were heavy, and prices from one to two ſhillings per quarter cheaper than laſt Monday. Barley and Malt are both without variation, and but little doing in either.—Peas and Beans, of the different ſorts, are ſomething dearer.—We have freſh Oats, and thoſe of prime quality ſell high, but the ordinary ſorts do not obtain laſt week's prices.—Top price for beſt Flour—fifty ſhillings.

| | | | | | |
|---|---|---|---|---|---|
| Wheat | 46s to 57s | Barley | 21s to 25s od | White Peas | 44s to 50s od |
| Fine | 58s to 59s od | Malt | 53s to 59s od | Grey Peas | 35s to 37 od |
| Rye | 32s to 35s od | Oats | 19s to 25s | Sm. Beans, | 33s to 36s od |
| | | Polands ditto | 26s to 27s 6d | Ticks, | 27s to 32s od |

## *Monday*, *Auguſt* 8.

Moſt articles of Grains have experienced a riſe at this day's Market, and that in conſequence of the ſupply being ſhort, and the demand conſiderable. Wheat has riſen ſince this day ſe'nnight from 2s. to 3s. per quarter.—Barley and Malt have likewiſe a briſk ſale, and prices rather better.—Grey Peas are ſcarce and dearer; the other ſorts are higher, as are Beans. Fine freſh Oats are alſo much ſought for, and even the ordinary ſorts fetch better prices than laſt week.

| | | | | | |
|---|---|---|---|---|---|
| Wheat | 47s to 59s | Malt | 40s to 46s od | White Peas | 41s to 47s od |
| Fine | 60s to 61s 6d | Oats | 20s to 26s | Grey Peas | 32s to 34s od |
| Rye | 32s to 35s | Polands | 27s to 28s od | Sm. Beans, | 29s to 34s od |
| Barley | 20s to 25s od | | | Ticks | 26s to 30s 6d |

## *Monday*, *Auguſt* 15.

For the time of the year our ſupplies of Grain were very conſiderable to-day, and at firſt of the morning, Wheat ſold at laſt Monday's prices; but towards the cloſe, the ſales were dull. Barley and Malt remain ſtationary at laſt reported prices. Boilers and Grey Peas continue dear. Beans are cheaper. Oats are a good ſupply, and thoſe of prime quality ſtill continue to find buyers at laſt week's prices. The ordinary ſorts are dull and lower.

| | | | | | |
|---|---|---|---|---|---|
| Wheat | 50s to 62s | Malt | 54s to 59s d | Grey Peas | 39s to 42s od |
| Fine | 63s to 64s od | Oats | 20s to 25s | Small Beans | 30s to 35s od |
| Rye | 32s to 34s 6d | Polands ditto | 26s to 27s 6d | Ticks | 28s to 32s od |
| Barley | 20s to 25s 6d | White Peas | 45s to 51s od | | |

## *Monday*, *Auguſt* 22.

Our Market was but thinly ſupplied with Grain to-day. In Wheat there is an advance of price from 2s. to 3s. per quarter ſince laſt Monday. Barley and Malt remain with few ſales, and without variation. Oats are dull and rather cheaper, as are Peas of both ſorts; but Beans are rather dearer. Flour is 2s. per ſack higher.

| | | | | | |
|---|---|---|---|---|---|
| Wheat | 52s to 65 | Malt | 54s to 58s | Grey Peas | 39s to 42s od |
| Fine | 66s to 67s 6d | Oats | 22s to 25s | Small Beans | 33s to 37s od |
| Rye | 32s to 35s | Polands ditto | 26s to 27s 6d | Ticks | 30s to 33s |
| Barley | 20s to 25s 6d | White Peas | 46s to 52s od | | |

## *Monday*, *Auguſt* 29.

Some late obſervations on a partial mildew in the Wheat, ſeem to have loſt their impreſſion on the public mind, the mildew not being of that ſerious conſequence as firſt apprehended. To-day our Market was but moderately ſupplied with Wheat, and the purchaſers of that article not numerous—the ſales were at reduction of about 1s. per quarter. Barley continues at laſt quoted prices. The different ſorts of Peas and Beans fetch full as much as laſt Monday; and fine Oats are a trifle higher. Flour, on account of the dry weather, is not in ſuch plenty as could be wiſhed.

| | | | | | |
|---|---|---|---|---|---|
| Wheat | 52s to 62s | Malt | 50s to 58s od | Grey Peas | 36s to 39s od |
| Fine | 63s to 65s od | Oats | 21s to 25s | Small Beans | 33s to 36s od |
| Rye | 32s to 34s | Polands | 26s to 27s 6d | Ticks, | 30s to 33s od |
| Barley | 20s to 25s od | White Peas | 44s to 50s | | |

# BANKRUPTCIES AND DIVIDENDS,

*Announced between the 20th of July, and the 20th of August, 1803.*

## BANKRUPTCIES.

*The Soliciters' Names are between Parentheses.*

BOYCE, John, late of Catherine ſtreet, Strand, London, now of Tiverton, carpenter. (Baxters and Martin, Furnival's inn

Brackney William, Boſton, hoſier. (Kinderley, Long, and Ince, Chancery lane

Burnley John Farnley, Scribbling and Fulling maker, (Partner with Robert and James Gurnett of Hunſlett.) (Evans, Furnival's inn

Briſtow Charles, Newgate ſtreet, linen-draper. (Jackſon, Walbrook

Benbow, John, Eaton Biſhop, Hereford, miller. (Tayler, Featheritone buildings

Bankes, Henry Lincoln, maltſter and china manufacturer. (Illingworth, Pen on ſtreet

Barclay George and George Saikeld, Little Trinity lane, merchants. (Wadeſon, Barlow and Groſvenor, Auſtin-friars

Clarke, Clement, Great Yarmouth, Liquor merchant. (Swain and Stevens, Old Jewry

Church, Matthew, America ſquare, merchant. (Loggen and Smith, Baſinghall ſtreet

Catley John, Harpers, near Colne, Lancaſter, callico manufacturer. (Ellis, Curſitor ſtreet

Colvel, John, Adam ſtreet, Rotherhithe, carpenter and builder. (Loxley, Cheapſide

Challand, William, Peet, Nottingham, plumber and glazier. (Robins, Gray's inn place

Chadwick, John, Elland, innholder. (Spark, Gray's inn ſquare

Day, Benjamin, Biſhop's Stortford, draper. (Collins, Spital ſquare

Davies, William, Hampton Biſhop, mealman. (Downes, Hereford

Donne, Francis Thomas London and Walthamſtow, broker. (Malton, Girdler's hall

Deaken, Robert, Swambrookes, merchant. (Lee, Braband, and Malon, New Bridge ſtreet

Edwards, Joſeph, Peter ſtreet, Bloomsbury ſquare, plumber (Mills, Ely place

Edmundſon, John, Carliſle, and Iſaac Edmundſon, Keſwick, dyers. (Birkett, Bond court, Walbrook

Evans, Hugh, ſhopkeeper, &c. Stanmore, Middleſex. (Barrow, Forbes, and Hancock, Baſinghall ſtreet

Frampton James, butcher, now or late of Stourton Caundle, Dorſet. (Gapper and Bird, Henitridge, Somerſet

Glenton, Frederick, and Jeſſe Neſs, Newcaſtle, chemiſts, &c. (Grey, Gray's inn

Greenough, George, dryſalter, Mancheſter. (Ellis, Curſitor ſtreet

Gordon, James, Great Peter ſtreet, Weſtminſter, Cudbear manufacturer. (Williams and Brooks, Lincoln's inn

Holmes, David, Liverpool, grocer. (Kearſley, Inner Temple lane

Hayward, Waller, New Sarum, Clothier. (Millett, Temple lane

Houlbrooke, Joſeph, Cateaton ſtreet, dealer in ſpirits. (Wadeſon, Barlow, and Groſvenor, Auſtin friars

Hancox, Edward, Dudley, banker and currier. (Willington and Small, Temple

Hoad, John, Farcham, timber merchant. (Bleaſdale and Alexander, New inn

Hernes, Charles Harris, Trowbridge, linen-draper. (Price and Williams, Lincoln's inn

Hogg, James, and Edward Holmes, Sherborne lane, merchant. (Adams, Old Jewry

Hall, Robert, Upper Thames ſtreet, merchant. (Potts, Creſcent, Jewin ſtreet

Harriſon, T. Biddſon merchant. (Blackſtock, Temple

Hunter, Patrick, Briſtol, merchant. (Bill and Meridith, Gray's inn

Ingram, James, Strand, hatter. (Senior, Charles ſtreet, Covent Garden

Jamiſon, George, late of Charing croſs, watchmaker. (Harman Wine office court, Fleet ſtreet

Iſaacs, Solomon, 2, Queen ſtreet, London, upholder. (Cockayne and Taylor, Lyon's inn

Kerſhaw, John Wakefield, chemiſt and druggiſt. (Evans, Furnival's inn

Kerney, John, Duke's ſtreet, Union ſtreet, Biſhopsgate ſtreet, cabinet maker. (Patten, Croſs ſtreet, Hatton Garden

Lea, Henry, tobacconiſt, Ropemaker ſtreet, and Biſhopsgate ſtreet. (Langham, Barlett's buildings

Lonſdale, John, Croxdale mill, Durham, paper manufacturer. (Welch, Printing-houſe ſquare, Blackfriars

Loſh, George and William, and John Deiderick Lubbren, Newcaſtle, merchants. (Spedding, Temple

Lewis, Thomas, and Henry Cock, Mancheſter, cotton manufacturers (Ellis, Curſitor ſtreet

Lewis, Richard, Codford, St Peter, ſhopkeeper. (Allingham, St. John's ſquare

Moffatt, Edward, Warminſter, grocer and linen-draper. (Chubb, Salisbury

Meullen, William Lewis, Mancheſter ſtreet, ſurgeon and apothecary (Buxton, Great Marlbro' ſtreet

Metcalf, Joſeph, and John Jeyes, Upper Eaſt ſmithfield, oilmen, inſurance brokers, &c (Magnal, Warwick lane

Needway, John, Rawſon, Dorſet, yeoman and dealer, (Bleaſdale and Alexander, New inn

Marten, Thomas, Whitecroſs ſtreet, victualler. ſhaw, Redcroſs ſtreet

Muſſon, Thomas Hulme, cotton ſpinner. (Ellis, Curſitor ſtreet

M'Evoy, Michael, Piccadilly, wine and liquor merchant. (Crowder and Lavy, Frederick's place

M'Callam John, Kingſton upon Hull, victualler. (Roſſer, Kirby ſtreet, Hatton Garden

Maſon, William, Mansfield, plumber and glazier. (Robins, Gray's inn place

Mores, Thomas, Brighthelmſtone, linendraper and grocer. (Adams, Old Jewry

Nixon James, Lawrence lane, merchant. (Milne and Parry, Temple

Nixon, Edward, Mancheſter, merchant. (Milne and Parry, Temple

Popplewell, James and John Jephſon, Lawrence Poulteney lane, brokers. (Shephard and Adlington, Gray's inn

Prince, Richard, Hereford, mealman. (Dounce, Hereford

Petrie, Samuel, Mancheſter ſtreet, late of Hamburgh, merchant. (Barnett, Soho ſquare

Peirce, John, Lower Thames ſtreet, fiſhmonger. (Richardſon, Monument yard

Parker, Nathan, Weſt Auckland, brandy merchant. (Webſters, Queen ſtreet, Cheapſide

Penny James, Liverpool, hat dealer. (Blackſtock, Temple

Ruſſell, George, Birmingham, merchant. (Alexander, Bedford row

Serres, Dominic Michael, late of Northumberland ſtreet, Mary-le-bone, now of Mount ſtreet Weſtminſter road, drawing maſter, &c. (Cockayne and Taylor, Lyon's inn

Sawyer, John Martin, Joſeph Fletcher Trueman, and Joſeph Powell, Cannon ſtreet, Merchants and brokers. (Palmer and Tomlinſon, Warnford court

Simpſon Charles, Muſſborough, boat builder. (Taylor, Southampton buildings, Holborn

Sutton, Benjamin, Birmingham, button maker. (Devon and Tooke, Gray's inn

Saxton, John, and George Chapman, Cheſterfield, hoſiers. (Alexander, Bedford row

Sanderſon, John, St. James's ſtreet, goldſmith. (Higgins and Lynn, Currier's hall

Spears, William, Rood lane, fiſh faleſman. (Elſtob, Catharine court

Smith, George, Godalming, paper maker. (Loxley, Cheapſide

Travis, Joſeph, and Peter Nevill, Bolton le Moors, muſlin manufacturers. (Croſs, Bolton le Moors

Tamwell, George, Shaftsbury, butcher. (Sykes and Knowles, Boſwell court

Thennington, Charles, Lyndhurſt, linen draper. (Loxley, 80 Cheapſide

Towell, William, Camberwell, carpenter. (Townſend and Ruſſell, Southwark

Uſher, William, Vere ſtreet, Clare market, dealer. (Smedley, Alderſgate ſtreet

Vole, Alice, Liverpool, milliner (Willis, Warnford court

Vanderzee, Daniel, St Dunſtan's hill, merchant. (Caton and Beetſon, Gray's inn

Winpenny, Samuel, Crearfley mill, cotton ſpinner. (Gleadhill and Payne, Lothbury

Webb, Joſeph Dudley, Liverpool, merchant. (Battye, Chancery lane

Wainwright, James and William, Liverpool, anchor ſmiths, ironmongers, &c. (Williamſon, Leigh ſtreet, Liverpool

Wakefield, Thomas Wilton, and John Wakefield, Sandiway, merchants. (Sanoys and Horton, Crane court

Watkins, Richard Rowley, Straud, haberdaſher. (Berry, Walbrook

Wilkinſon, James, Leeds, dyer. (Lambert, Hatton Garden

Woods, James Leyland, cotton manufacturer. (Milne and Parry, Temple

Wilſon, John Delver, George ſtreet, Queen Anne ſtreet, pawnbroker. (Comrie, 42, Fleet ſtreet

## DIVIDENDS ANNOUNCED.

Aldis, James, and Charles Atkinſon, late of Littleport, ſhopkeepers. Joint eſtate and ſeparate eſtate of Aldis, Auguſt 20

Anderſon, John Robert, Throgmorton ſtreet, merchan September 24

Allen, Peter, Nantwich, innholder, September 13

Bromc, William, Telford, haymaker. Auguſt 15

Badeley, Samuel and Joſeph, Walpole, Suffolk, and John Woodcock, jun. Haleiworth, bankers, Auguſt 16

Bird, Chriſtopher Chapman Little Abingdon ſtreet, merchant, Auguſt 20

Buddicom Robert Joſeph, Michael Cullen, and Robert Martin, Liverpool, merchant. Joint eſtate and ſeparate eſtate of Buddicom. Auguſt 31

Bartram, George, Clifton ſhopkeeper, Auguſt 25

Bennett, Joſeph, Blackman ſtreet, Surry, carpenter, Auguſt 27

Behenna, Richard, late of Penryn, now of London, maltſter, Auguſt 30

Biſhop William, of Yealand Conyers, Lancaſter, and John Jocelyn Biſhop, of Leighton hall, merchants, September 1. Separate eſtates

Barnes, John, Rochford, dealer, September 3
Bradley, Robert, of Storrs, paper maker, September 5
Bowen, Joseph, Swansea, mariner, September
Beresford, Richard, Alfreton, hosier, September 5
Besley, William, Barnstaple, clothier, September 24
Bridge, Samuel, Sible Hedingham, Essex plumber and glazier, September 12
Cooper, Thomas, Sharply, Lancaster, shopkeeper, August 17
Carr, George, jun. Friday street, Staffordshire warehouseman, September 3
Crisp, Jonathan Tabor, Banbury, clothier, August 29
Compton, Edward, Cholderton Lains, farmer, corn dealer, &c. August 22
Cape, Thomas, Lincoln, corn factor, September 8
Cobham, Elijah, Liverpool, merchant, September 6
Cole, Edward, Exeter, taylor, September 12
Critchell, Richard, Buckland Newton, shopkeeper, September 12
Darby, George, Great Winchester street, merchant, August 20
Davies, William, Liverpool, slater and plasterer, August 17
Davies, Richard, Lamb street, Spitalfields, cheesemonger, August 27
Dixon, John, late of Exeter, now of Topsham, William Jeffrey Dixon, late of Exeter, now of St John's, Newfoundland, and James Jardini, and John Dixon of Newton Abbot, merchants (late partners with John Williams) Separate estates of Jardini, and John Dixon, August 12
Duhamel, Louis, Liverpool, merchant, &c. September 5
Easterby, George, and William Macfarlane, Canada wharf, Rotherhithe, merchants, October 18
Field, William, Streatham, victualler, October 8
Ford, Richard, Coleorook Dale, iron master, August 31
Finlayson, John, late of Liverpool, now abroad, merchant. Trading under the firm of John and William Finayson, August 13
Fisher, Joseph, Pollington, seedsman, August 30
Fisher, Flower, Chepllow, currier, September 3
Goldsmith, Lewis, Thaives inn and Trinity lane, merchant, August 13
Gadd, James, Bristol, dealer, &c. August 29
Girling, Anthony, Hackney road, shoe maker, August 23
Goldsmith, Lewis, Thaives inn, and Great Trinity lane, merchant, September 3
Griffiths, Thomas, Henstridge, victualler, September 12
Halfhide, James, sen. and jun. and Edward Halfhide, Merton, calico printers. Separate estate of each, August 27
Horton, James, Islington, mealman, August 9
Hinde, John, Houndsditch, late of Preston Hows, Cumberland, merchant, September 24
Harvey, Henry Hill, Tokenhouse yard, and Terrace court, Islington, broker, September 24
Harrison, William, jun. late of Newman street, and of Pall Mall, now of Newport street, agent and broker, August 20
Heal, Edward, Trowbridge, inn keeper, September 5
Holt, Robert, Hulme, dyer, September
Johnson, Robert, late chief mate in the Honourable East India Company's ship the Wood or, August 27
Jones, John, Prince's street, Spitalfields, agent, August 27
James, William, Swansea, money scrivenor, September 15
King, John, Saint Neots, Huntingdon, grocer, August 13
Kempson, Samuel, Fleet street, linen draper, August 25
Keetley, Thomas, Sandiacre, timber merchant, September 13
Lancheiter, Ann, Sackville street, dealer, December 23
Lloyd, Thomas, Dudley, grocer, September 6
Lovell, William Henry, Fetter lane, leatherseller, September 10
Mundell, S. E. Scarborough, corn dealer, August 8
Maltby, T. and G. Size lane, merchants, August 23
Mendez, L. Crutched Friars, merchant, July 29
Mozley, Morris Lewin, Liverpool, merchant, September 3
Noble, Joseph, Walthamstow, Brewer, October 29
Parke, William, Lancaster, merchant, August 13
Pickworth, Thomas, Bottesford, butcher, September 13
Rider, Thomas, Popham Lane, Southwark, innholder, August 5
Richardson, Henry, Manchester, house builder, September 12
Rideal, William, Wakefield, merchant, (Firm Titus Rideal and Son.) September 17
Stir, Stephen, Halesworth, merchant, August 15
Stevens, William, late of Bristol, glassmaker, September 8
Scott, Susannah and John, Mount street, Grosvenor square, Bankers, September 17
Taylor, John, Worcester, draper, August 27
Tonge, Christopher, Liverpool merchant, August 20
Thomson, John and Charles M'Adam, Liverpool, merchants, August 22
Tregan, Thomas, Bristol, silversmith, September 1
Woodcroft, Thomas and John, Sheffield Moor, comb manufacturers Joint estate, and separate estate of Thomas, August 17
Wright, John, and Peter Beauvais, Bristol, linen drapers, October 8
Willmot, Henry, and Samuel, Beaminster, farmers, August 25
Ward, George, and Patrick Thomson, Manchester, and Thomas Lovell, Paulerspury, merchants, August 20
Warwick, William, Red-lion street, Clerkenwell, jeweller, September 7
Wood, Richard, Liverpool, August 30

## *Prices of Raw Hides, Hay and Straw, &c. for August, 1803.*

| | First Week | 2d Week | 3d Week | 4th Week. | 5th Week. |
|---|---|---|---|---|---|
| *Raw Hides.* | *s d* *s d.* | *s.d.* *s.d.* | *s.d.* *s.d* | *s.d.* *s.d.* | *sd.* *s. d.* |
| Best Heifers & Steers, pr st. | 3 6 to 3 10 | 3 6 to 3 10 | 3 6 to 3 8 | 3 6 to 3 8 | 3 6 to 3 8 |
| Middling — — | 3 2 to 3 4 | 3 4 to 3 6 | 3 2 to 3 4 | 3 2 to 3 4 | 0 0 to 3 4 |
| Ordinary — — | 2 10 to 3 0 | 2 10 to 3 0 | 2 10 to 3 0 | 2 10 to 3 0 | 3 0 to 3 2 |
| Market Calf — — | 9 6 | 9 6 | 9 6 | 9 6 | 9 6 |
| Eng. Horse — — | 14s to 17s | 13s to 16s | 14s to 16s | 14s to 16s | 14s to 16s |
| Sheep Skins — — | 0 0 to 0 0 | 0 0 to 0 0 | 0 0 to 0 0 | 0 0 to 0 0 | 0 0 to 0 0 |
| Lamb Skins — — | 2 0 to 3 3 | 2 0 to 3 0 | 2 0 to 3 0 | 2 4 to 3 4 | 2 0 to 3 3 |
| *Prices of Hay and Straw* | *l. s. d.* | *l. s. d.* | *l. s. d.* | *l. s. d.* | *l s. d.* |
| St. James's—Hay — | 5 10 0 | 5 1 6 | 5 6 9 | 5 11 0 | 5 6 |
| Straw — | 2 8 0 | 2 14 9 | 2 8 9 | 2 11 9 | 2 17 0 |
| Whitech.—Hay — | 5 18 6 | 5 15 6 | 5 15 0 | 5 15 0 | 5 15 0 |
| Clover — | 6 18 6 | 7 2 0 | 6 16 6 | 6 18 6 | 7 — 0 |
| Straw — | 1 18 0 | 2 7 6 | 2 8 0 | 2 9 0 | 3 13 0 |
| *Newbury.* | | | | | |
| Wheat — — — | 40s to 62s | 40s to 62s | 50s to 64s | 46s to 62s | 42s to 62s |
| Barley — — — | 19s to 22s | 20s to 23s | 20s to 23 | 20s to 24 | 24s to 26s |
| Oats — — — | 19s to 20s | 21s to 25s | 21s to 24s | 21s to 26s | 22s to 26s |
| Beans — — — | —s to —s | —s to —s | —s to —s | —s to —s | —s to —s |
| New ditto — — — | —s to —s | —s to —s | —s to —s | —s to —s | —s to —s |
| Peas — — — — | —s to —s | —s to —s | —s to —s | —s to —s | —s to —s |
| *Salisbury.* | | | | | |
| Wheat — — — | 52s to 56s | 52s to 56s | 52s to 56s | 52s to 56s | 52s to 58s |
| New ditto — — — | —s to —s | —s to — | —s to —s | —s to —s | —s to —s |
| Barley — — — | 22s to 26s | 22s to 26s | 23 to 26s | 24s to 28s | 29s to 29s |
| Beans — — — | —s to —s | —s to —s | —s to —s | —s to —s | —s to —s |
| Oats — — — — | 21s to 25 | 21s to 25s | 22s to 25 | 24s to 26s | 23s to 26 |
| Peas — — — — | —s to —s | —s to —s | —s to —s | —s to —s | —s to —s |

# *Prices of Hops, Meat, Seeds, Leather, Tallow, &c. for August.*

1803.

| *Price of Hops.* | First Week | 2d Week | 3d Week | 4th Week | 5th Week |
|---|---|---|---|---|---|
| Bags. | *s.* *s.* | *s.* *s.* | *s.* *s.* | *s.* *s.* | *s.* *s.* |
| Kent — — | 88 to 105 | 88 to 105 | 90 to 100 | 70 to 84 | 63 to 84 |
| Suſſex — — | 83 to 100 | 88 to 100 | 90 to 98 | — to — | 63 to 72 |
| Eſſex — — | 88 to 100 | 88 to 100 | 90 to 98 | — to — | — to — |
| Pockets. | | | | | |
| Kent (new) — | 90 to 112 | 90 to 112 | 90 to 110 | 90 to 115 | 80 to 120 |
| Suſſex — — | 90 to 108 | 90 to 10[illegible] | 90 to 105 | 80 to 96 | 80 to 100 |
| Farnham — — | 100 to 126 | 100 to 126 | 112 to 130 | 80 to 120 | 120 to 160 |
| *Seeds.* | | | | | |
| Canary Seed (per buſhel) | 10 to 11 | 10 to 11 | 9 6 to 10 6 | 6 to 10 6 | 9 6 to 10 6 |
| Red Clover ditto — | — to — | — to — | 40 to 112 | 80 to 115 | 50 to 115 |
| White Clover ditto — | — to — | — to — | 70 to 112 | 80 to 120 | 50 to 120 |
| Trefoil, ditto — | — to — | — to — | 20 to 50 | 20 to 50 | 15 to 55 |
| Carraway ditto — | 40 to 44 | 40 to 44 | 40 to 44 | 40 to 44 | 40 to 44 |
| Coriander ditto — | 28 to 32 | 2 to 32 | 28 to 32 | 28 to 32 | 28 to 32 |
| Turnip, (per buſhel) — | 18 to 24 | 18 to 24 | 18 to 24 | 18 to 24 | 18 to 24 |
| Rye Graſs, (per quarter) | — to — | — to — | — to — | — to — | — to — |
| Cinque Foil, ditto — | — to — | — to — | — to — | — to — | — to — |
| Rape Seed, (per laſt) — | 42l to 48l | 42l to 48l | 40l to 42l | 40l to 42l | 40l to 40l |
| *Meat at Smithfield,* | | | | | |
| To ſink the offal, p. ſt. 8lb. | *s.d.* *s.d.* | *s.d* *s.d.* | *s.d,* *s.d* | *s.d.* *s.d.* | *s.d.* *s.d.* |
| Beef — — | 4 4 to 5 2 | 4 4 to 5 0 | 4 0 to 5 0 | 4 0 to 5 0 | 4 4 to 5 2 |
| Mutton — — | 4 8 to 5 4 | 4 8 to 5 4 | 4 4 to 5 0 | 4 4 to 5 4 | 4 8 to 5 4 |
| Veal — — | 4 0 to 5 6 | 4 6 to 5 6 | 4 0 to 5 6 | 5 0 to 6 0 | 5 0 to 6 0 |
| Pork — — | 4 0 to 5 0 | 4 8 to 5 4 | 4 0 to 4 8 | 4 8 to 5 4 | 4 8 to 5 0 |
| Lamb — — | 4 8 to 5 8 | 5 0 to 6 0 | 4 8 to 5 8 | 5 0 to 6 4 | 5 0 to 6 0 |
| Head of Cattle—Beaſts about | 1,900 | 1,800 | 2,000 | 1,800 | 1,800 |
| ——— Sheep and Lambs | 17,000 | 16,600 | 17,000 | 18,000 | 8,000 |
| *Price of Leather.* | *d.* *d.* | *d.* *d.* | *d.* *d.* | *d.* *d.* | *d.* *d.* |
| Butts, 50lb. to 55lb. each | 21 to 22½ | 21 to 22 | 21 to 22 | 21 to 22 | 21 to 22 |
| Ditto, 60lb. to 66lb. each | 24 to 25 | 24 to 25 | 23 to 24 | 23 to 24 | 24 to 25 |
| Merchants Backs — | 21 to 22 | 21 to 22 | 21 to 21½ | 21 to 21½ | 21 to 21½ |
| Dreſſing Hides — | 23 to 24 | 23 to 24 | 23 to 24 | 23 to 24 | 23 to 24 |
| Fine Coach Hides — | 24 to 25½ | 24 to 26 | 24 to 26 | 24 to 26 | 24 to 25½ |
| Crop Hides for cutting | 22 to 23 | 21 to 22 | 21 to 22½ | 21 to 22½ | 21 to 22½ |
| Flat Ordinary — | 20½ to 21 | 20½ to 21½ | 20 to 21½ | 20 to 21½ | 20¼ to 21 |
| Calf Skins, 30 to 40lb *p.doz.* | 28 to 34 | 28 to 34 | 28 to 33 | 28 to 33 | 28 to 34 |
| Ditto, 50lb. to 70lb. do. | 27 to 33 | 27 to 33 | 28 to 32 | 28 to 32 | 27 to 33 |
| Ditto, 70lb. to 80lb. do. | 26 to 28 | 26 to 28 | 26 to 28 | 26 to 28 | 26 to 28 |
| Sm. Seals (Greenland) | 42 to 45 | 42 to 45 | 42 to 45 | 42 to 45 | 42 to 45 |
| Large do. | 51 to 71 10s | 51 to 71 10s | 51 to 71 | 51 to 71 | 51 to 71 |
| Tanned Horſe Hides | 18s to 33s | 18s to 33s | 18s to 32s | 18s to 32s | 18s to 32s |
| Goat Skins *per* doz. | —s to —s | —s to —s | —s to —s | —s to —s | —s to —s |
| *Price of Tallow.* | *s.* *d.* | *s.* *d.* | *s.* *d.* | *s.* *d.* | *s.* *d.* |
| St. James's Market — | 4 3 | 4 3 | 4 4 | 4 4 | 4 5 |
| Clare Market — — | 4 3 | 4 3 | 4 4½ | 4 3½ | 4 4½ |
| Whitechapel Market — | 4 1½ | 4 3½ | 4 2½ | 4 3½ | 4 4½ |
| Per ſtone of 8lb. Average | 4 2½ | 4 3 | 4 3½ | 4 3½ | 4 4 |
| Town Tallow — — | 71 6 | 73 6 | 73 6 | 73 0 | 74 6 |
| Ruſſia ditto (Candles) — | 73 0 | 73 0 | 74 0 | 74 0 | 75 0 |
| Ruſſia ditto (Soap) — | 68 0 | 70 0 | 70 0 | 69 0 | 9 0 |
| Melting Stuff — — | 61 0 | 62 0 | 62 0 | 61 0 | 62 0 |
| Ditto rough — — | 50 0 | 43 0 | 43 0 | 44 0 | 44 0 |
| Graves — — — | 14 0 | 14 0 | 14 0 | 14 0 | 14 0 |
| Good Dregs — — | 10 | 10 0 | 10 0 | 10 0 | 10 0 |
| Yellow Soap — — | 82 0 | 82 0 | 82 0 | 82 0 | 82 0 |
| Mottled ditto — — | 90 0 | 90 0 | 90 0 | 90 0 | 90 0 |
| Curd ditto — — | 94 | 94 0 | 94 0 | 94 0 | 94 0 |
| Candles, per dozen, — | 12 0 | 12 0 | 12 0 | 12 0 | 12 0 |
| Moulds — — — | 13 0 | 13 0 | £1 0 | 13 0 | 13 0 |

# PRICES OF COALS AT THE COAL EXCHANGE, LONDON, For AUGUST, 1803.

| Names of Coals. | Mon. 1st. s. d. | Wed. 3rd s. d. | Frid. 5th s. d. | Mond. 8th s. d. | Wed 10th s. d. | Frid. 12th s. d. | Mond. 15th s. d. | Wed 17th s. d. | Frid. 19th s. d. | Mond 22nd. s. d. | Wed. 24th s. d. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Adair's Main | | | | 44 | | | 44 3 | 44 6 | | | |
| Baker's Main | | | | | | | | | | | |
| Bedford Main | | | | 42 6 | | | | | | 42 | |
| Benton | | | | 45 9 | 45 9 | | | 45 6 | 45 6 | | |
| Biddick Main | | | | | | | | | | | |
| Bigg's Main | | | 47 9 | 47 | | 47 9 | 47 6 | | | 47 6 | 47 3 |
| Bladon Main | | | | | | | | | | | |
| Blyth | | | | 44 | | | 44 | 43 9 | 44 | | |
| Boundry | | | | 42 9 | | | | | | | |
| Bourn Moor | | 43 6 | | 44 | | | 44 | | | 43 6 | 43 6 |
| Brandling | | | | | | | | | | | |
| Birtley | | | | | | | 44 6 | 44 6 | | | |
| Byker | | | | | | | | | | | |
| Byker, High & Low | | | | | | | | | | | |
| Cowpen | | | | 44 6 | | | | | 44 6 | 44 6 | |
| Derwent | | | | | | | | | | | |
| Eden Main | | | | | | 44 | | | | | |
| Eighton Main | | | | | | | | | | | |
| Flockton | | | | | | | | | | | |
| Greenwich Moor | | | | | | | | | | | |
| Haigh Moor | | | | | | | | | | | |
| Hartley | | | | 44 | | 44 6 | 44 | | 44 | | |
| Heaton Main | | 47 | | 47 | 47 3 | 47 9 | 47 3 | 47 3 | 47 6 | 47 3 | 47 3 |
| Hebburn Main | 46 9 | | | 47 | | 47 3 | 47 3 | 47 3 | 47 6 | | |
| Holywell | | | | | | | 44 | | | | |
| Kenton Main | | | 47 6 | 46 9 | | | | | | 46 9 | |
| Lambton's Low d t | | | | | | | | | | | |
| Lawton's Main | | | | | | | | | | | |
| Morley Hill | | | | | | | | | | | |
| Montague Main | | | 43 9 | | | | | | 44 6 | | |
| Moun Moor | | | | | | | | | | | |
| Murton | | | | 42 9 | | | | 41 3 | | | |
| Murton High Main | | | | | | | | | | | |
| Newbottl | | | | | | | | | | | 41 6 |
| New Tansfi l | | | | | | | | | | | |
| Pitt's Lan field M | | | 44 6 | 44 6 | 45 | 44 9 | 45 | 45 | 44 9 | 44 6 | |
| Primrof | | | | | 43 3 | | | | | | |
| Ponton | | | | | | | 44 6 | 44 9 | | 43 9 | 43 6 |
| Pecy | | | 48 | 47 9 | 47 | 47 9 | 47 6 | | 47 6 | | |
| Rectory | 41 | | | 41 6 | 41 6 | | | | | | |
| Ruffel's Main | | | | | | | | | | | |
| Sh riff H ll | | | | | | | | | | | 42 3 |
| South Moor | | | | 42 6 | | | | | | | |
| Stanl y Ma n | | | | | | | | | | | |
| St. David | | | | | | | | | | | |
| Team | | | | | | | | 41 9 | | | |
| Tyne Main | | | | | | | | | | | |
| Ulwo th Main | | | | | | | | | | | |
| Walbottle Moor | | | | | | | 43 | | | 41 9 | |
| Wa ker | | 47 | | 47 | 46 6 | 46 6 | 46 9 | 46 6 | 46 6 | 45 6 | 45 6 |
| Wall's End | | | 48 6 | 48 6 | 48 6 | | 48 6 | 48 6 | 48 6 | 48 | 48 |
| Warwick | | | | | | | | | | | |
| Wharton | | | | | | | | | | | |
| Willington | 46 6 | 46 6 | 47 6 | 46 9 | | 47 6 | | | | 46 9 | 46 9 |
| Wylam Moor | | | | | | | 42 | 42 | 42 | | |
| Wen worh | | | | | | | | | | | |
| Whitefield | | | | | | | | | | | |
| Woolr Main | | | | | | | | | | | |

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, ending AUGUST 20, 1803.*

## *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 | 59 | 11 | 36 | 0 | 24 | 11 | 25 | 11 | 35 | 7 | 41 | 0 | | |
| Surrey | 63 | 2 | 32 | 0 | 26 | 0 | 26 | 8 | 36 | 3 | 38 | 0 | | |
| Hertford | 58 | 4 | 35 | 6 | 25 | 9 | 24 | 4 | 35 | 3 | 38 | 9 | | |
| Bedford | 55 | 3 | | | 25 | 0 | 25 | 6 | 33 | 8 | 37 | 8 | | |
| Huntingdon | 54 | 6 | | | 22 | 0 | 20 | 4 | 29 | 11 | | | | |
| Northampton | 55 | 2 | 30 | 0 | 23 | 3 | 22 | 3 | 30 | 3 | 30 | 0 | | |
| Rutland | 58 | 0 | 35 | 0 | 22 | 0 | | | 30 | 0 | | | 57 | 3 |
| Leicester | 54 | 11 | | | 22 | 11 | 19 | 2 | | | | | 34 | 11 |
| Nottingham | 58 | 0 | 36 | 6 | 26 | 0 | 22 | 10 | 38 | 0 | | | | |
| Derby | 60 | 10 | | | | | 22 | 4 | 39 | 3 | | 9 | 29 | 0 |
| Stafford | 51 | 3 | | | | | 22 | 11 | 39 | 0 | | | 30 | 2 |
| Salop | 49 | 0 | 32 | 6 | | | 23 | 7 | | | | | 63 | 7 |
| Hereford | 51 | 6 | 31 | 11 | 23 | 9 | 24 | 0 | 35 | 10 | 34 | 7 | 61 | 0 |
| Worcester | 53 | 10 | | | 27 | 1 | 26 | 2 | 35 | 11 | 36 | 2 | | |
| Warwick | 54 | 8 | | | 28 | 0 | 24 | 0 | 37 | 9 | | | 39 | 11 |
| Wilts | 55 | 8 | | | 26 | 6 | 23 | 8 | 37 | 8 | 38 | 9 | | |
| Berks | 60 | 8 | | | 25 | 9 | 26 | 3 | 38 | 1 | 37 | 0 | | |
| Oxford | 55 | 9 | | | 23 | 6 | 22 | 6 | 34 | 6 | | | | |
| Bucks | 56 | 10 | | | 25 | 2 | 24 | 8 | 38 | 0 | 41 | 3 | | |
| Brecon | 52 | 9 | 35 | 2 | 24 | 0 | 20 | 0 | | | | | 36 | 3 |
| Montgomery | 50 | 4 | | | | | 18 | 7 | | | | | 41 | 4 |
| Radnor | 50 | 6 | | | 25 | 2 | 24 | 4 | | | | | 67 | 10 |

## *Maritime Counties.*

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Essex | 59 | 0 | 34 | 0 | 23 | 6 | 29 | 0 | 32 | 7 | 33 | 0 | | |
| Kent | 58 | 6 | | | 26 | 0 | 27 | 9 | 32 | 9 | 41 | 0 | | |
| Sussex | 51 | 0 | | | | | 27 | 3 | | | | | | |
| Suffolk | 53 | 2 | | | 20 | 10 | 23 | 10 | 30 | 0 | 40 | 9 | 52 | 6 |
| Cambridge | 51 | 5 | | | | | 19 | 11 | 26 | 10 | | | | |
| Norfolk | 53 | 5 | | | 21 | 4 | 23 | 0 | 30 | 0 | 39 | 0 | | |
| Lincoln | 51 | 9 | 34 | 0 | 23 | 7 | 19 | 11 | 30 | 0 | | | | |
| York | 56 | 7 | 42 | 8 | 24 | 2 | 20 | 7 | 33 | 9 | | | 39 | 7 |
| Durham | 59 | 6 | | | | | 26 | 1 | | | | | | |
| Northumberland | 54 | 7 | 40 | 0 | 25 | 4 | 23 | 4 | 34 | 8 | | | | |
| Cumberland | 55 | 11 | 43 | 8 | 30 | 9 | 24 | 10 | | | | | | |
| Westmorland | 66 | 0 | 50 | 0 | 27 | 0 | 28 | 10 | | | | | | |
| Lancaster | 57 | 9 | | | 29 | 8 | 23 | 1 | 36 | 0 | 56 | 0 | 17 | 9 |
| Chester | 51 | 7 | | | | | 20 | 0 | | | | | 17 | 1 |
| Flint | 55 | 1 | | | 26 | 6 | 22 | 0 | | | | | | |
| Denbigh | 57 | 1 | | | | | 20 | 9 | | | | | 35 | 7 |
| Anglesea | 50 | 0 | | | 24 | 0 | 15 | 0 | | | | | | |
| Carnarvon | 61 | 4 | | | 25 | 0 | 16 | 0 | | | | | 31 | 9 |
| Merioneth | 61 | 10 | 40 | 0 | 27 | 10 | 20 | 0 | | | | | 33 | 10 |
| Cardigan | 57 | 1 | | | 22 | 0 | | | | | | | | |
| Pembroke | 52 | 9 | | | 21 | 11 | 16 | 0 | | | | | | |
| Carmarthen | 57 | 5 | | | 24 | 0 | 16 | 0 | | | | | | |
| Glamorgan | 57 | 9 | | | 25 | 10 | 20 | 6 | | | | | | |
| Gloucester | 54 | 1 | | | 24 | 9 | 21 | 1 | 34 | 5 | 37 | 4 | | |
| Somerset | 56 | 11 | | | 24 | 0 | 19 | 10 | | | 33 | 4 | | |
| Monmouth | 59 | 0 | | | | | 25 | 10 | | | | | | |
| Devon | 60 | 2 | | | 26 | 1 | 21 | 7 | | | | | | |
| Cornwall | 60 | 5 | | | 27 | 2 | 22 | 5 | | | | | | |
| Dorset | 56 | 0 | | | | | 24 | 6 | | | | | | |
| Hants | 53 | 10 | | | 24 | 1 | 24 | 8 | 34 | 4 | | | | |

# A TABLE of the Prices of STOCKS in *August*, 1803.

| | Bank Stock | 3 per Ct. Red. | 3 per Ct. Consols | 4 per Ct. Consols | 5 per Ct. Navy. | 5 per Ct. Loyalty | Long Ann. | Short Ann. | Imp. 3 per Ct. | Imp. Ann. | Irish 5 per Cent | Omnium. | India Stock. | English Tickets | Consols for Opening |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| August 1 | ——— | 52 3/4 | 52 3/8 | 67 7/8 | 93 3/8 | 8 5/8 | 15 13-16 | | 51 3/4 | | | 9 9 1/4 | | 17 2 0 | 52 5/8 |
| 2 | ——— | 53 3/4 | 53 | 68 5/8 | 88 | | 15 7/8 | 3 9-16 1/2 | 51 5/8 | | | 9 1/4 8 | | 17 2 0 | |
| 3 | 140 3/4 | 53 3/4 | 53 | 6 3/8 | 85 3/4 | 89 1/2 | 16 1/4 | | 52 1/8 | 9 5/8 | | 7 8 | | 17 2 0 | 53 3/4 |
| 4 | ——— | 53 3/8 | 52 3/4 | 69 1/2 | 85 3/4 | 89 3/8 | 16 7/8 | | 52 3/4 | 9 3/4 | | 7 1/4 8 1/4 | | 17 2 0 | |
| 5 | ——— | 53 1/2 | 53 | 6 1/4 | 84 7/8 | 88 5/8 | 16 1-16 | | 52 1/4 | | | 8 1/4 3/4 | | 17 2 0 | |
| 6 | 141-140 | 53 1/4 | 52 1/2 | 68 5/8 | 85 | 88 5/8 | 16 1-16 | | | 9 5/8 11-16 | | 8 1/2 9 | | 17 2 0 | 52 5/8 |
| 8 | ——— | 52 7/8 | 52 1/4 | 68 1/2 | 84 1/4 | 88 1/4 | 16 7/8 | | 52 1/4 | | | 8 3/4 9 1/2 | | 17 2 0 | 52 3/8 |
| 9 | 138 | 53 3/8 | 52 1/2 | 68 7/8 | 84 1/4 | 88 5/8 | 15 15-16 | | | | | 9 1/2 9 | 160 1/4 | 17 2 0 | |
| 10 | 138 | 53 1/2 | 53 | 68 3/8 | 84 1/2 | 87 7/8 | 16 | | 52 | | | 8 1/2 8 3/4 | | 17 2 0 | |
| 11 | 139 1/2 140 | 53 1/4 | 52 3/4 | 68 7/8 | 84 5/8 | 88 1/2 | 16 1-16 | | 52 5/8 | | | 8 8 3/4 | | 17 2 0 | |
| 13 | ——— | 53 1/4 | 52 3/4 | 68 7/8 | 84 5/8 | 88 1/4 | 16 1-16 | 3 1/2 | | 9 3/4 | | 8 1/2 3/4 | | 17 2 0 | |
| 15 | 140 1/4 140 | 53 1/2 | 52 7/8 | 69 | 85 | 88 1/2 | 16 | | 52 3/8 | | | 8 1/2 3/4 | 162 1/2 | 17 3 0 | |
| 16 | 140 1/2 | 54 | 53 1/2 | 69 1/8 | 85 7/8 | 88 5/8 | 16 1/8 | 3 7-16 1/2 | | 9 5/8 11-16 | | 8 1/2 1/2 | | 17 3 0 | |
| 17 | 141 | 53 3/4 | 52 7/8 | 69 | 84 7/8 | 88 3/8 | 16 1 16 | | | | | 7 1/4 8 1/2 | | 17 3 0 | 53 |
| 18 | ——— | 54 | 53 3/8 | 69 | 85 | 88 1/2 | 16 1/8 | | | 9 3/4 | | | | 17 3 0 | 53 1/2 |
| 19 | 141 1/2 | 54 1/2 | 54 | 69 | 85 1/4 | 88 3/4 | 16 1/8 | | 52 5/8 | | | 8 7 | | 17 3 0 | 53 1/2 |
| 22 | 141 3/4 142 | 54 1/4 | 53 3/4 | 69 5/8 | 85 5/8 | 88 5/8 | 16 1/4 | | | 9 11-16 3/4 | | 7 7 1/4 | | 17 4 0 | |
| 23 | 141 1/2 | 54 7/8 | 53 3/8 | 69 7/8 | 85 3/4 | 89 7/8 | 16 1/4 | | | 9 11-16 | | 7 1/4 3/4 | | 17 4 0 | |
| 25 | 141 1/2 | 54 1/4 | 53 3/4 | 70 | 86 | 90 | 16 1/8 | | 53 3/8 | 9 11-16 5/8 | | 7 1/2 8 | | 17 4 0 | 53 3/4 |
| 26 | ——— | 54 1/2 | 54 | 70 1/4 | 86 3/8 | 90 1/2 | 16 1/4 | | 53 5/8 | 9 3/4 | | 7 3/4 1/2 | | 17 4 0 | 54 1/8 |
| 27 | ——— | 54 5/8 | 54 7/8 | 70 7/8 | 86 5/8 | 90 1/2 | 16 5-16 | | 53 1/4 | 9 13-16 | | 7 1/4 6 3/4 | | 17 4 0 | 54 5/8 |
| 29 | 143 1/2 | 55 | 54 1/2 | 70 3/8 | 86 3/8 | 90 1/4 | 16 1/2 | 3 1/2 | 53 3/8 | | 81 1/2 | 6 3/4 1/4 | | 17 5 0 | 55 |

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

## TO OUR CORRESPONDENTS.

WHEN it is considered how many of our ingenious Correspondents have been attending either the fields of Ceres, or those of Mars, it should not be a matter of surprise if our present Number were not found so interesting and instructlve, as we hope on perusal it will prove to be.

Our Readers will find a discussion of the important question: whether for the purposes of Agriculture the preference be due to the Horse or the Ox? The arguments are forcibly stated on both sides. But as a subject of so useful and practical a nature cannot ba too much discussed, we hope and request our Correspondents will favour us with their opinion of the matter.

The other favours of Northumbriencis mentioned in his private letter, will be very accepable, as will also be Dr. Schulze's promised Essay on the Management of Bees.

On every subject where a difference of opinion prevails, our pages shall always be open to either side.—Hence we have inserted the Reply of a very valuable Correspondent to Mr. Middleton's objections against Tithes, though without the name of the writer: a circumstance which we regret the more, as Mr. Middleton had in so handsome a manner avowed his sentiments.

In compliance with the request of our Bath Correspondent we have given in this number, the report of Sir Joseph Banks, on the flock of Spanish sheep belonging to his Majesty. We are persuaded that in giving every possible circulation to such useful intelligence, we enter into the views of the Patriotic Baronet.

Our readers will judge of the merits of I. S's letter on *Fat Meat*. The latter part induced us to suspect the writer of interested views; but we deemed it our duty not to withhold it from the public, on mere suspicion.