

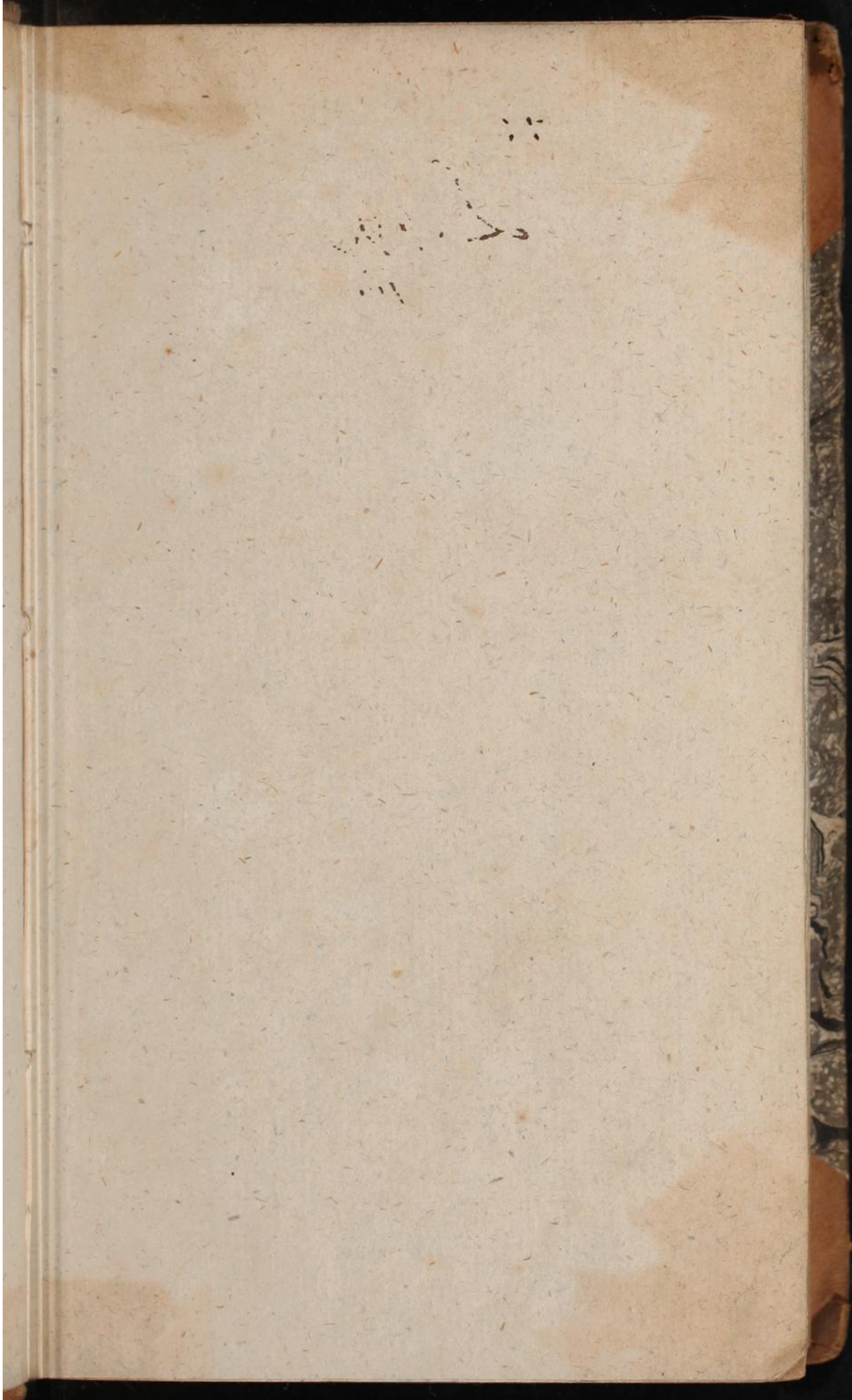
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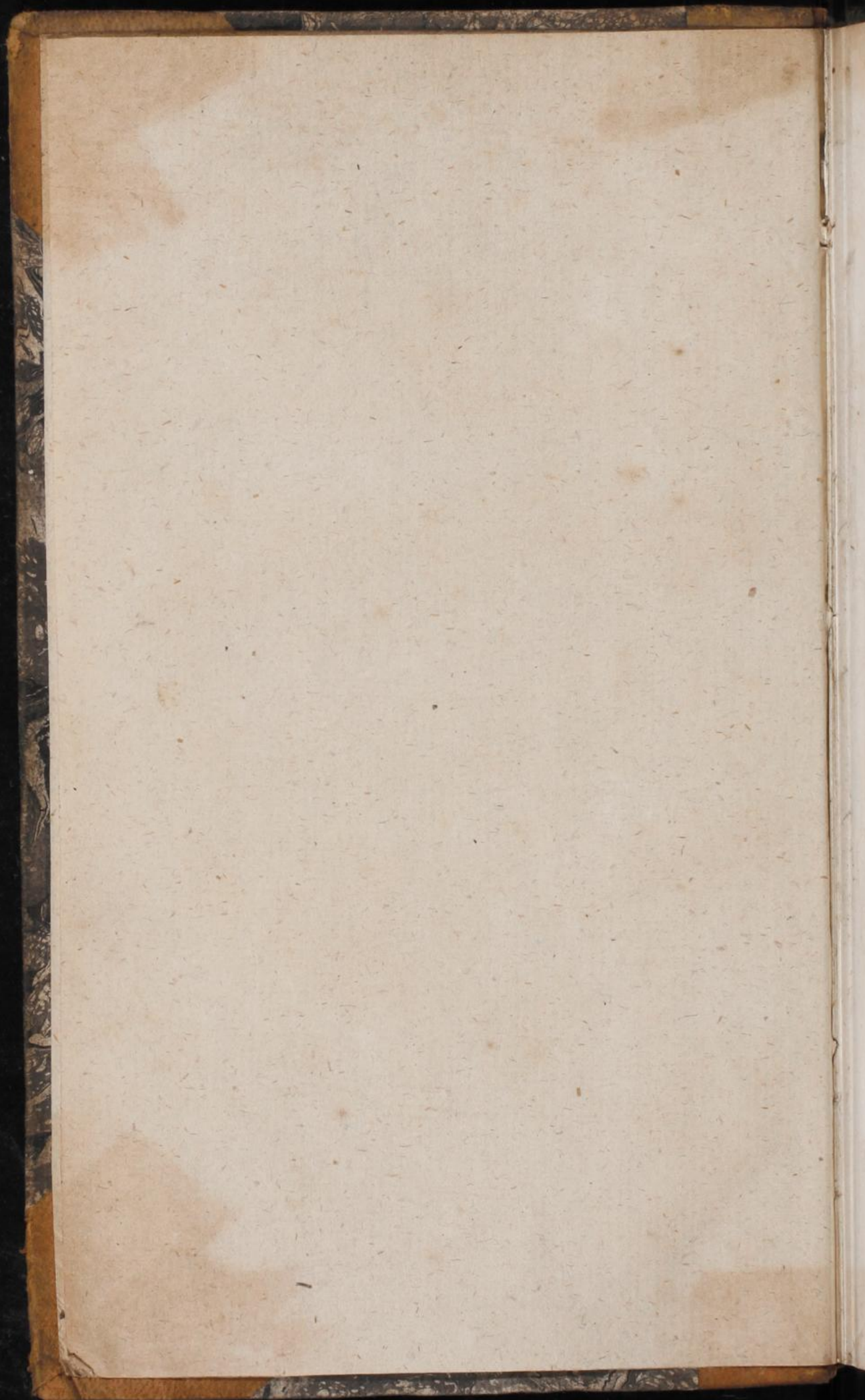
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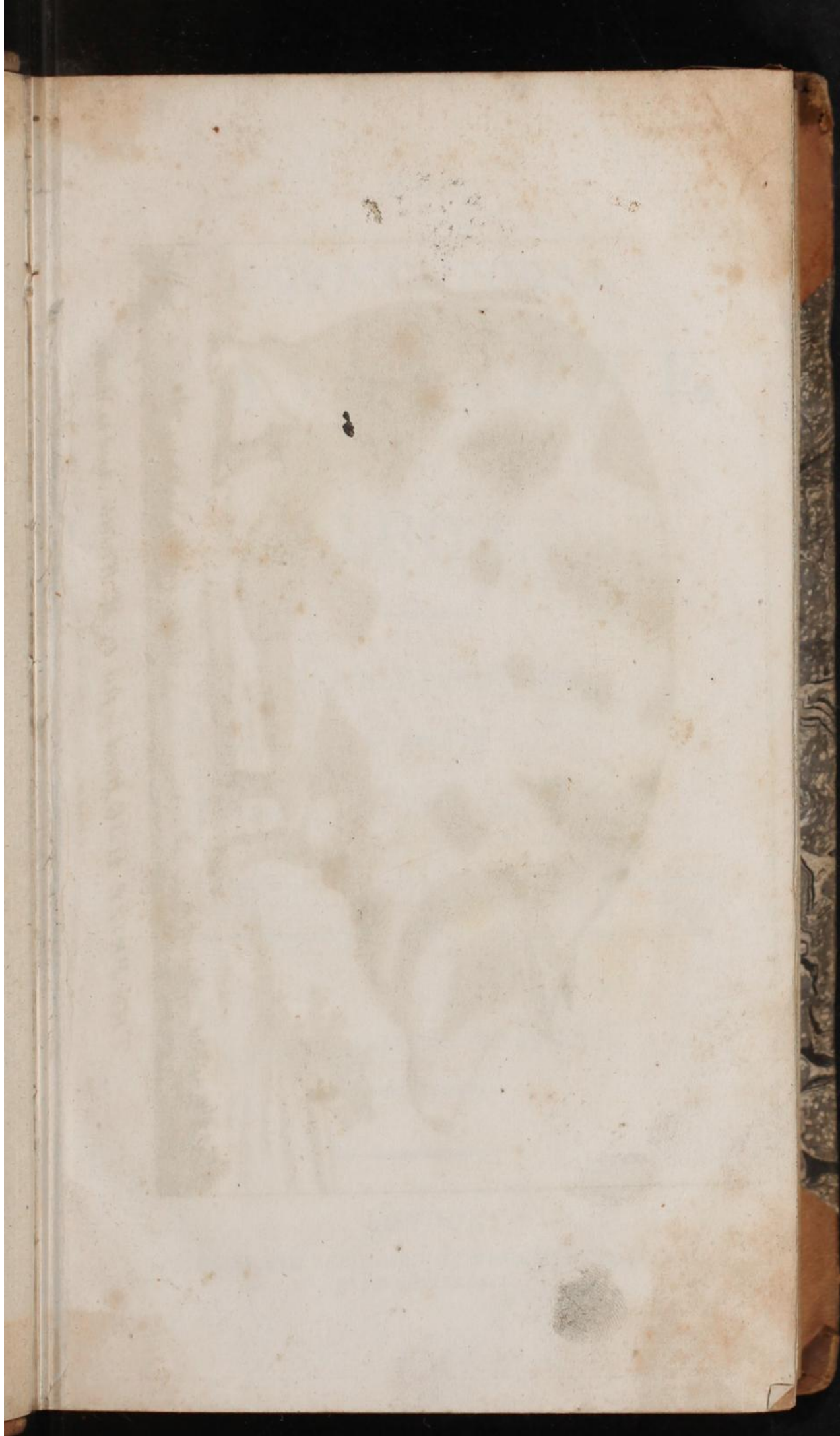
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Made in France

THE PRIZE HOG, bred & fed by M. Whittle, Aged 15 Months.

Published and Sold by J. G. Fisher, Birmingham, B. M.

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THE
AGRICULTURAL
MAGAZINE,

FOR

1804.



A MONTHLY PUBLICATION,

DEVOTED TO

Farmers, and to Rural Affairs.

“He that causes two Blades of Grass to grow where only one grew before, is, so far, a Creator.”
SWIFT.

VOL. X.

FROM JANUARY TO JUNE,

INCLUSIVE.

LONDON:

PRINTED AND PUBLISHED BY VAUGHAN GRIFFITHS,
PATERNOSTER-ROW.

THE PRIZE HOG, bred & fed by Mr. Whittle, Aged 15 Months.
Published and sold by G. J. Griffiths, Cornhill Street.

AGRICULTURAL

MANUAL

1894

A. S. GARDNER

Author

NEW YORK

1894

1894

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PREFACE.

WE have now to make our Periodical Address to our Readers, for the favourable Reception of the Tenth Volume. Since the commencement of our Work, we have seen with increasing pleasure, the regard our peaceful subject has attracted from all orders of men in this country. It has formerly been applied as a stigma to the national taste, that while our insular situation has encouraged the pursuits of trade and navigation, we have neglected the improvement of Agriculture. We do not admit that this censure has at any time been applicable to the people of England; but the tongue of calumny must be for ever silenced, now that it is discovered, that every department of Science and Philosophy is rendered subservient to the duties and occupations of the field. It was not expected by foreigners, that a great Commercial Nation, whose marine reposes on the yielding bosom of the ocean in every part of the globe, should for a while suspend the spirit of adventure to attend to the more permanent advantages of the rural art. The economists of a neighbouring state, since the time of the great Colbert, have never rightly appreciated the comparative merit of the mercantile and agricultural systems: it is to us a subject of congratulation and of triumph, that in this Monarchy, neither of these have received the derogatory distinction of the unproductive class, or have been degraded by any humiliating appellation.

It will be recollected with pleasure, that in the course of the last thirty years, a mean of communication has been established by canals, which renders every part of the country accessible for all the species of produce; and supplies the bounties of nature on equal terms at the door of every man in the kingdom. Thus twelve maritime districts have been formed, by which the export and import of grain have been regulated, and a large increase of the bounty has been

*proposed, to be founded, not on local circumstances, but on the general average of the British markets.**

It will scarcely be credited, that 1197 bills of inclosure have passed the Houses of Parliament within the last few years, and thus a wide field has been opened for the direction of the public industry, and a rental of some millions has been added to the produce of the land.

But our present purpose is not to enumerate the general benefits which have been obtained, and the particular security which has been derived from the just and enlightened principles on which the rustic concerns are now conducted; we may be permitted, however, to express to our Readers, that with these gratifying prospects before us; we continue our periodical labours with additional satisfaction, and we hope, that not less encouragement will be felt by our Correspondents, that every returning season may render our work more deserving the regard and patronage of the Public.

We have sometimes requested the managers of Agricultural Societies, to transmit to us their proceedings, which we have unaffectedly distinguished, as "among the most valuable materials of our work." After the attention we have received in this respect, it might imply some omission on their parts, if we were to renew our solicitations, but we should do a serious injury to our own feelings, if we did not avail ourselves of this opportunity to express to them, in respectful terms, our gratitude.

We shall now take leave of our Readers and Correspondents, sincerely desirous that they may enjoy an abundant harvest, and that the result of their labours may be advantageous to themselves and to their country.

E.

* We have attended the debates on this subject in the Legislature, and shall report the progress and result to our Readers.

THE
AGRICULTURAL MAGAZINE.

No. LIV.]

JANUARY, 1804.

[Vol. X.

WEIGHT OF THE PRIZE PIG AT THE EXHIBITION OF CATTLE AT SMITHFIELD,

WITH A PLATE ANNEXED.

THE engraving which accompanies this number, is from a drawing taken by our artist, of the fat Pig of Mr. Whittle, for which the premium of fifteen guineas was assigned, on the occasion of the annual exhibition, at Wootton's in Smithfield.

On application to the purchaser we find that the price for which it sold was 12l.; which we consider a very low rate, considering the credit, and accidental advantages, usually attached to the purchase of the prize animals. The buyers were Messrs. Edmund Cotteril and Sons, who are very eminent salesmen, to whom these incidental circumstances could be of no benefit. We understand they are well known for the respectability of their property, the integrity of their habits, and the liberality they exercise in all their conduct.* They acquaint us the weight was only 53st. 5lb.; weighed, as it is generally termed in London, bacon fashion, or according to the directions of the commissioners for victualling the navy.

By the above gentlemen we are informed, that a hog was slaughtered at the same time, which under those regulations with respect to the weight, appeared to be 96st. 5lb.; and we suppose this is one of the most extraordinary animals of the hog kind, ever produced in this, or any other country.

We had intended to have made a few observations on the art of pig-fattening; but as we are favoured with a communication from a person whose judgment we respect on this subject, we shall leave the matter to abler hands.

* We learn that Mr. Sewel, of Sutton, in Suffolk, some time since, through the medium of Messrs. Cotterils, has procured an excellent breed of swine, which if properly referred to, may introduce into the county a valuable sort.

ON PIG-FATTENING.

To the Editor of the Agricultural Magazine.

SIR,

IN consequence of information I have received from my salesman, of the slaughter of a hog which weighed near a hundred stone, bacon fashion, I have turned my attention to

that subject; and you will judge if my thoughts deserve a place in your Magazine.

On this occasion, I have nothing to say on the procreation, hogging or weaning. I confine myself to the store management: the former I may not neglect to speak of at some future opportunity.

It is a common prejudice, that the profit of pigs consists in their eating all the refuse, and partaking in no degree of what is valuable for the farm and family. Mr. Whittle did not fat his prize pig in that way, nor was this hog-mountain, which nearly doubled the weight of the former, expanded and rendered substantial by such offal trash. Pigs must receive, besides the waste stuff of the family, solid and costly diet; they must be treated with the greatest cleanliness; and whatever proverbial vulgarity may say, cleanliness is as natural to them as to the human species. Not only this: they must have comfortable accommodations, good warm lodging, and when the proper regard is paid to these particulars, the voraciousness of their habits will abundantly repay the breeder for the food they consume, and the attention they require.

In summer, pigs fatten quickly, and the stores are so easily kept, that this may be properly called the pig-keeping season. Grazing pigs is losing time. In the stubble and corn seasons, they should, however, be kept abroad; and a few of them will quickly repay the expence of the attendance of a boy.

Norfolk and Suffolk farming is so great a favourite, that we are too apt to transplant its absurdities as well as its excellencies: hence, pigs of those counties have been highly esteemed. They are small, thin-eared, but their only good quality is being very prolific. Those of Herefordshire and Shropshire are liable to no objections, they are purchased about Michaelmas by the farmers of the hundreds of Essex from those shires. They give for them about a guinea a head, and the following year, the animals are disposed of, out of the clover and stubbles, to the London salesmen something under four guineas a piece.

Milk and corn, are the profitable articles of pig diet; the animal so fed repays his keep by the superior weight. Barley or oatmeal, with one third of pea-meal, make pork next in rank and goodness to the milk-fed pork. Plenty of water is very necessary; indeed the cheapness of this liquid has made its nutritive properties little understood, and less willingly acknowledged.

When their appetites are so satiated as to begin to decline, a little sulphur in their meat will conduce to its restoration.

I am, Sir, yours, &c.

Epping, Jan. 3, 1804.

G. G.

ON THE KOHLRABE.

To the Editor of the Agricultural Magazine.

SIR,

I SAT myself down the other day, and had actually begun a letter to that effect, resolved, by an application in propria personâ, to endeavour, through the medium of the Editor of the Agricultural Magazine, to obtain a small portion of the seed of the Kohlrabe, the account of which, in page 321 of your eighth volume, I confess, much interested me. It is there introduced to the public as a plant of superior hardiness, little known in this country, and meriting a better acquaintance. Upon a re-perusal, however, of that paper, I am strongly mistaken, if the "Gentleman Farmer" has not unwittingly been led to recommend as a new and valuable addition to the winter provision of our cattle, a vegetable production long known, and in Miller's time, supposed even to be indigenous. But as Dr. Withering takes no notice of it in the last edition of his Arrangement of British plants, those which were considered as growing wild in the neighbourhood of Dover, must probably have arisen from seeds accidentally conveyed thither.

In pages 49 and 50 of the sixth volumes of the *Museum Rusticum*, there are two engravings of what I conceive to be the same plant, under the denominations of *Caulorapum Rotundum*, and *Caulorapum Longum*, sketched as is stated from the prints which Gerard had exhibited of them. About ten years ago I had some of the seeds given me by a gentleman recently returned from a tour on the continent, who had there collected them under the title of the Chou Rave. So striking is the similarity of these compound terms; so evidently expressive of a certain peculiarity of structure, as to leave little doubt in my mind, but that Kohlrabe, Chou Rave, Caulorapum, and Cabbage Turnip, are but different denominations of the same plant, I speak with some hesitation, because, having never seen the Kohlrabe in its growing state, I should commit myself were I at present to adopt a more decided tone. Willing to avow my error whenever it shall be proved to be such, but, at present, presuming myself to be right in my conjecture, I can assure the "Gentleman Farmer" that its culture as a cattle crop was by no means unfrequent in this country between thirty and forty years ago. Indeed, such was the opinion entertained of it, that premiums were, for several years, offered by the Society for the Encouragement of Agriculture, Arts, and Sciences, for "raising and duly cultivating the cabbage turnip, and giving an account of the soil, culture, produce, &c. &c. &c." In order that the public might be enabled, by a set of well conducted experiments, to form a just appreciation of its merits. In the *Museum Rusticum*, in the work

entitled *De Re Rustica*, and in Dossie's *Memoirs of Agriculture, &c.* the reports of several of the successful candidates are published, who speak very highly of its valuable properties. There is also a letter in Dossie's *Memoirs* from one of the most intelligent agriculturists in the county of Norfolk, the Rev. Edward Howman, of Gissing, from which your readers, I trust, will excuse my transcribing the following passage. Speaking of some plants of the cabbage turnip, (*Bressica Gongylodes caule rapum gerens*;) which he had left to see what effect the frost would have upon them, he adds, "I was much chagrined to find that in one week's time, I think in January, 1768, they were all reduced to a soft pulp. The common turnips that week suffered but little, being protected by some snow. I must conclude that the turnip cabbage though a hardier plant than the turnip, will even be more liable to damage from the frost, upon account of their standing so much above the ground, which renders a much greater quantity of snow necessary to protect them than what the turnips require." Whether subsequent experiments confirmed the opinion of this discerning writer, or whether subsequent trials discovered that its first conceived merits were highly overrated, I cannot pretend to say. But certain it is, its culture decline, and has long since, been so totally given up, as perfectly to warrant that part of the Gentleman Farmer's remark, that "it is a plant but little known in this country." Whether the latter part of the period be equally just, that "the more it is cultivated the more its advantages will be felt by all graziers," as the subject is now again before the public, it should be left for their determination. In giving this little detail, let it not be supposed I design to throw any frivolous obstacles in the way of its revival. I have the cause of agriculture infinitely too much at heart ever to indulge an idle vein of critical disquisition. But having, in a favourite course of reading, acquired some information, which I conceived might not be unacceptable, I thought myself bound in justice to impart it. That such as should be disposed to attempt the culture might (by having farther sources pointed out to them) be enabled to form a proper judgment for themselves.

Perhaps the following agricultural anecdote, not relating to, but rising out of, the subject, may prove sufficiently interesting to some of your readers to render an apology for its insertion unnecessary. I stated in a former part of my letter, that premiums were offered for several years for the encouragement of the culture of the cabbage turnip. It is not to those premiums we owe the first knowledge of, and first introduction of that truly valuable plant, the turnip rooted cabbage. But we owe it to an accidental, undesigned importation. Mr. Reynolds, of Adisham, in Kent, intending to become a candidate

for the premium, and unable to procure the seed in England, with a spirit of enterprize not to be damped by trifling obstacles, determined to import it from Holland. But through a mistake of the seedsman received those of the turnip rooted cabbage in its stead, a plant well known in the higher northern latitudes. The seeds were sown, in due course of time planted out according to the mode then adopted; when having acquired a more enlarged size, the discovery of the mistake was quickly made. Mr. Reynolds not disheartened by the disappointment of his first hopes, determined to treat these strangers with respect. He watched their progress, paid every attention to their culture; and at length received the just recompense of reward for his patient unwearied assiduity. They proved to be very valuable crop, and having passed the ordeal of experiment, have since, in compliment to their first introducer and original cultivator, been known and disseminated under the denomination of Reynold's Turnip-rooted Cabbage.

I have the honour to be,

Sir, with great respect,

Near Norwich,
Dec. 26, 1803.

Your obedient Servant,

CASTOR.

P. S. Just as I had finished the above, and was going to send it off, I accidentally met with a letter from the Rev. Davies Lamb, of Ridley, in Kent. As it contains a further confirmatipn of Mr. Howman's opinion, I shall not scruple selecting from it the following extract. "The common turnip cabbage being much recommended as a very hardy plant that would abide the most severe winter, I thought it worth making some trial of; and accordingly in March 1767, I sowed an ounce of its seed; when the plants had six leaves they were pricked out, and transplanted two feet square on very rich ground. At Michaelmas they were fourteen, and some eighteen, inches round; and had a very promising appearance: but the winter proving very severe, a great number of them rotted with the frost, and more in proportion than of the common green round turnip."

REPLY TO AGRICOLA MERIDIONALIS, ON ANIMAL LABOUR.

To the Editor of the Agricultural Magazine.

SIR,

Dec. 20, 1803.

IN the critical catalogue contained in your 45th number, it appears that Lord Somerville has connected the subject of our having become great importers of corn with that of the comparative merits of horses and oxen for the draught. In my

letter of August, *therefore*, I did not discuss the latter as an insulated question, but joined with it an examination of the various causes which, in my mind, had rendered that importation necessary; and unquestionably your correspondent, Agricola Meridionalis, did not act very candidly, when he endeavoured to shew that I ought to have confined myself to *one* subject, and *ridiculed* my manner of proceeding. Without putting himself to the trouble of making so many remarks on the desultory nature of that letter, he might have confined himself to the investigation of *any* of the subjects it embraced; and were I to contend that all the rest are more congenial to his talents than the ox and horse question, I am persuaded that a very great majority of your agricultural readers would coincide in my opinion. Perhaps some suspicion that A. M. was actuated by other motives, besides those assigned for not fully replying to my letter at page 245 of your Magazine for October, are not yet eradicated from the minds of many of them. His apology for not answering it, is contained in these words—"I am a plain reasoner, and am little accustomed to circumvention and circumlocution; but whenever Agricola Northumbriensis will condescend to confine himself to insulated questions, ordinary subjects, and cold arguments, I have no objection to continuing with him the correspondence he has commenced in your useful miscellany." These words he also used in a former letter, and certainly they may, *to a man less ingenious than your correspondent*, prove of a very accommodating nature; for adverse arguments may be deemed desultory, extraordinary, or too warm. But why "circumvention" and "circumlocution" were introduced, I must own I am rather at a loss to discover. If the latter term was intended to carry information to your readers that A. M. can write without periphrasis, it was perfectly unnecessary, for no charge had been exhibited against him; and the papers from his pen, are so many convincing proofs that he can express himself in a concise and able manner. If our controversy had related to our respective abilities as *writers*, I would not have ventured to support the contest; since being so extremely small, that in the scale against his distinguished talents, they would immediately have kicked the beam. The dispute, however, is of a different nature, and I must now not only request the attention of your readers to the remarks I shall make upon it, but declare, that if my arguments and deductions had not been *misrepresented*, I should have deemed it unnecessary to have made any observations on the paper of A. M. (on animal labour) which is inserted in your last number. Before I point out this mis-representation, I must remind them, that in the introduction to my comparative statement, some strong *facts* (the results of accurate experiments) are adduced; which

clearly prove, that *where it is necessary to allow about as much corn to oxen as horses*, the annual expence in the support of the former, will be much greater than that incurred in maintaining the latter animals: *the oxen having each consumed more hay weekly, by near six stones, than each horse.* I must also request their attention to that part of your correspondent's letter in your 50th number, where he uses the words, "singular privation;" after which I think they will conclude, that I run no risk of being contradicted by him when I assert, that his five oxen against four good horses, would require *a very liberal allowance of corn.* Towards the conclusion of my paper which contains the comparative statement, I said, "It is easily deducible from the above estimates, that to maintain a working ox requires the produce of about four, and to support a working horse, that of about five acres of land." But it will clearly appear to those who will take the trouble of reading those estimates attentively, that when I used the words he has quoted, *I calculated on six oxen against two horses, and on the former receiving no corn.* Notwithstanding this however, A. M. says (at page 319 of your last Magazine) "I am not disposed to follow A. N. with contradictory statements, I will take the estimate as he gives it;" and after quoting the above words, proceeds thus, "If therefore it can be shewn, that five oxen will perform the work of four horses, your correspondent will at least agree with me, that no additional expence is incurred." But when we allow each of his five oxen only as much corn as I have calculated upon for each horse, it is clear to demonstration, that while four of the latter can be properly supported on the produce of *twenty*, five of the former animals, would require very little, if any thing, less than that of *thirty* acres of land. With what justice then could he quote my authority for stating, that five oxen, *requiring a liberal allowance of corn*, would not consume a greater quantity of the produce of the ground than four horses? * However much I may be inferior to A. M. in mathematics and logic, I flatter myself that, *after having proved that a working ox properly supported with corn, along with his other food, annually consumes the produce of a much greater quantity of land than a working horse*, your readers will not believe that I would draw so absurd a conclusion, as that he has taken the liberty of placing to my account. In the last-mentioned page he also says, "It is professed, that two oxen *driven by the ploughman, can perform nearly as much work as two good horses, and for a considerable length of time.* But under my suppo-

* I suppose the four horses employed in two properly constructed swing ploughs.

sition, it is only required that five oxen should perform as much work as four horses." The words in italics are *mine*, and so ingeniously has he joined them to the six immediately preceding, that *some* may conclude these are mine also. I never, however, professed that two oxen could perform as much work as two good horses.—What I stated was (in effect) this, that even if they could perform as much work, it would be cheaper done by the horses; and I hope enough has already been stated (relative to the quantity of food consumed by each species of animal, &c.) to make this exceedingly obvious. In his letter in your Magazine for September last, your correspondent accuses me of having advanced assertions unsupported by *facts*. I have, however, stated, that I have had more work performed by one man and two horses, than by a man, a boy, and six oxen. Where are *his* facts and observations?—Instead of advancing them, he has brought forward his "supposition," and a little monosyllable, "If." "If, therefore (says he) it can be shewn, that five oxen will perform the work of four horses, your correspondent will, &c." But does this gentleman really believe that five oxen can, *for a year or two*, perform nearly as much work as four horses;* even with a much greater allowance of corn than the latter animals receive? If he does, he would be contradicted by nine-tenths of the experienced agriculturists in the kingdom. He says, that I formed my calculations on erroneous data—"that I suppose six or eight oxen are required, where only two or three are necessary," and that if I could shew that the power of a single horse is equal to that of three or four oxen, he would give up the controversy, and admit the validity of my conclusions. His arguments are founded on "supposition;" mine are very different, and rest on the solid basis of experience! In calculating on six oxen against two horses, when the former animals are supported *without corn*, but in such a manner as to increase in value two pounds per annum each, I am warranted by the practice of a great majority of the labourers of oxen. But, Sir, I have compared the expence of farm-labour, when performed by two horses to a plough, with that of different numbers of oxen, varying the manner of supporting them according to the severity of the labour. This was done in compliance with the modes of labouring among the warm advocates for oxen; and as the calculations are founded on such a number of these animals to a team as your correspondent approves, and such, therefore, as he will not include in the number of "particular errors," I am rather at a loss to account for his silence on

* His hypothesis having been proved erroneous, the arguments he has built upon it, must be "inconclusive" and "nugatory."

that part of my estimates; *does it proceed from the balance being so greatly in favour of horses?* He descants on the great power of the ox, and increases it by particular attention to breeding for the team; till he produces him such "gigantic" strength, as to induce a *supposition* that three oxen may perform the work of four horses. Here again we have his "supposition," instead of *facts*. Admitting, however, that our oxen are not generally so well adapted to tillage as they would be, were *that*, instead of grazing, the chief excitement to our breeders; will A. M. deny that great improvement may be introduced into the general breed of our draught horses? Will he contend that those of Suffolk and Lanerkshire, cannot perform much more work in the space of a year, *and on less food*, than the more heavy breeds of many other districts? It is well understood, that the horses in the two counties I have mentioned are the most profitable in the kingdom; and this *fact* seems to lessen the force of his "supposition," relative to the labouring powers of the ox being increased by the hugeness of his size.—From all the remarks I have made on labouring animals, I am inclined to think, that either oxen or horses of about the middling size, are best calculated to bear fatigue and perform the most work.*

Perhaps when your correspondent contrasts the great size of his Majesty's oxen with those pygmies called *kyloes*, which are driven in vast numbers from Scotland to the southern counties of England (and which I believe are excellent feeders, and produce the most valuable beef) he may conclude, *because I live near the former county*, that the oxen I have calculated upon are *small*, and that this is the reason of employing six against two horses. But in Durham, Northumberland, the northern parts of Yorkshire, and southern parts of Scotland, the cattle are generally as large as in any other district in the kingdom; and the preference given to six oxen to a team, is founded on experienced utility. Thus employed, *without corn*, they brought an *increased price*, while four to a team, with a full allowance of corn, were depreciated in value. *Here, however, as in most other parts of the kingdom, they are now nearly all set aside for the grazier; two horse teams having been found much more profitable than those with oxen, under any system of management; and I cannot think the mode of yoking by the horns, calculated to produce any change in favour of the old exploded and barbarous custom of labouring, heating, and straining an animal, which seems intended only for human food.*

* For a considerable number of years in succession;

At page 321 of your last number, A. M. says, "but for his (my) argument, drawn from the difference of British and of French ground, I shall be ready to admit its propriety, when he can shew that the specific gravity of bodies is materially different in France and England." Now, Sir, when I stated that the French mode of yoking would not answer on British ground, I certainly had in view, if not the difference in specific gravity of British and French ground, at least what seems almost universally acknowledged, namely, *that the former is stronger than the latter*. But the specific gravity and tenacity are perhaps of less consequence in settling the matter in dispute, than the depth to which the plough penetrates in the respective countries. *The French do not plough so deeply and so well as the British agriculturists*. If they did, would any man of experience contend, that *without an unusually great number of cattle*, they could cultivate their lands with *oxen yoked by the horns!* On this subject also, your correspondent and I differ widely; I am persuaded, however, that I could soon convince him, *by experiment*, that either with the collar or the common yoke, an ox will draw much more than when yoked by the horns, and that the former is the most advantageous mode. If I were near A. M. I would perhaps, though hostile to betting, risk a considerable sum on the issue of the trial.

I agree that it is not unlawful or improper to adopt the improvements of our enemies, and am as ready to praise when they deserve it, as he is; I again, however, reprobate the French manner of yoking, and as a warm friend to agricultural publications, must now beg leave to express my sorrow, that the paper he refers to should, *in such terms*, have been introduced into your Magazine. I concur in his opinion, that the apology for inserting Mr. Middleton's letter on tithes was not necessary. That apology, however, did not appear to me of so mischievous a nature, as the approbation bestowed on the French mode of yoking their oxen; and I heartily wish that it could be blotted out of your pages.

If A. M. writes "to impart information to those who wish to receive it," why does he write in a foreign language? It is evident that agricultural improvements, *to be extensively useful* must be executed by practical farmers; and is he so little acquainted with them as to suppose, that one in thirty can read his Greek and Latin? For my own part, I was not a little perplexed with his quotations from Horace's Art of Poetry. I never knew much of the Latin language, and having for near thirty years past been sedulously engaged as an extensive practical farmer, I have had but little leisure for the perusal of books, even in my mother tongue: those in the Latin have almost always been thrown aside. I therefore

could not fully depend on my translation of the lines he has given us from Horace; and for my own instruction, as well as to see whether your correspondent had quoted correctly, I wished to find what that author himself and Dr. Francis had stated, but he had been laid by as "greasy" as your friend's "Duncan;" and whether the great Roman poet was offended at being used in this manner, or whether he thought it a derogation from his dignity to be placed in a farmer's cupboard at all, I cannot say; he had however hidden himself in an obscure corner, and searching for him cost me no small trouble.* I must therefore request, that *when I am concerned*, A. M. will be so good as to confine himself, in a greater degree, to the English language. This mode will not only save me considerable trouble, but will prove of more extensive utility. Besides, as my brother farmers have doubtless observed the *shifts* to which my simple statement of facts have driven him, they may, perhaps, conclude, *if he should again indulge himself in writing in the Latin language*, that he is afraid to convey, his ideas in plain English, and that his preferring the former arises, not from his being *pedantic*, but principally from its furnishing a kind of veil to a defeat. Perhaps this may (with your friend A. M.) be deemed an additional reason for preferring his mother tongue,† and confining himself to the ox and horse question, instead of sending me to the woods, or soaring to the gods or goddesses.

I have not advanced any thing which can be construed into a wish to deprive practical farmers of that nutritious aliment butcher's meat; on the contrary, I sincerely lament that there are so many occupiers of land unable to indulge themselves and their families, in a liberal use of that species of food. Those, however, who still pertinaciously adhere to the unprofitable practice of labouring with oxen instead of horses, and thus render themselves unable to purchase the delicious flesh of the former animal, may blame themselves for the deprivation. Neither can your correspondent discover any thing in my letter to warrant his stating that I do not think reason and common sense, the same with all ranks and classes of mankind. Unquestionably, however, I would have set "reason and common sense" at defiance, if I had maintained that the *great body* of consumers of butcher's meat, namely, the inhabitants of towns, merchants, manufacturers, mechanics, and in short,

* The quotation is (but I dare venture to assert that it does not proceed from want of knowledge) *incorrect*.

† Notwithstanding his partiality to the custom pursued by the French, *of pressing hard upon the skull and brains*, I suppose him to be Briton.—Pray does he think the former part of the animal *much* thicker in France than in Great Britain?

all people not acquainted with practical husbandry and the management of rural affairs, are as able to judge of the comparative merits of horses and oxen for the draught, as the great body of *practical farmers*.

I rejoice that A. M's sentiments are in unison with those I have long entertained on the important subject of tithes. If his abilities as a writer be sufficiently aided by *facts* and *experience*, the interests of religion, the clergy, and agriculture, which are undoubtedly involved in the tithe question, will be splendidly and ably upheld in any investigation in which he may appear as an advocate for a fair and reasonable commutation; and as a speedy attack may be expected from the Rev. Mr. Howlet, or some of his disciples, I have no doubt but he has the powerful auxiliaries I have mentioned, in readiness. If, however, none of the enemies of a commutation venture to assail him within a short space of time, I should be highly gratified if he would favour your readers with some of the leading arguments of the Reverend and "Doughty Champion of Tithes," and his own remarks on them.

With respect to the horse and ox question, I can expect to prevail against A. M. in no other way but by the aid and power of *facts*, and having, I trust, stated these in abundance, I have sheathed my "Ensis," leaving your readers to range them opposite to his arguments "and suppositions," and being satisfied that they will, in every impartial mind, clearly prove the superiority of the horse, I must decline drawing it again, in the same cause, unless I am impelled by misconception or misrepresentation.

I am, Sir, yours, &c.

AGRICOLA NORTHUMBRIENSIS.

P. S. Experienced men will readily discern, that my estimate at page 243 of your magazine for October, does not *fully* shew the annual expence of an ox team; *if four oxen are to be so severely goaded, as to perform as much work within six months as two good horses, and supported in such a manner as to prevent their being depreciated in value*. If they are driven at such a pace, such men will almost unanimously concur in the opinion, that over and above a *full* allowance of good hay, each ox would require at least as much corn as a horse; and that even with such an allowance of food, they could not perform nearly so much work as the horses, *within the succeeding six months*, besides being lessened in value. Now as the *full* allowance of hay for the ox, *as ascertained by the accurate experiments I have referred to*, exceeds the quantity found to be necessary for keeping a labouring horse in a proper and vigorous state; (and calculated upon at page 239 of your number for October) by almost two tons in seven

months, it is clear that when the latter animal can be properly supported on the produce of five, the former (when four oxen are severely laboured against two horses) will require that of about six acres annually.

A. N.

ON DUNG, COMPOST, AND LIME.

To the Editor of the Agricultural Magazine.

SIR,

Dec. 24, 1803.

FINDING by your last number that your useful pages are open to the enquiries of *Novices*, I am emboldened to request information through the channel of your Magazine, and as I am now concerned as a practical agriculturist, and extremely desirous of such instruction as may enable me to pursue the most advantageous modes of management; I flatter myself that some of your able and experienced correspondents will reach their helping hand to me. I, as well as my brother, "a Novice," have heard much in favour of coal, coaly matter, or what philosophers call carbon, as a manure; and I have attentively read a letter in your last number, signed "Hibernicus" who states a good deal relative to this substance. Still, however, I do not fully understand what kind of coal it is, or where it is to be purchased or raised; and will therefore be much obliged to him if he will condescend to be more minute in his description of it, and of its nature and effects. This correspondent after stating (at page 351) a good deal that I am sorry to say I cannot comprehend, but which nevertheless is, I presume, well founded, says, "and this is the reason of the benefits resulting from the application of dung before it has putrified." Now, Sir, this really perplexes me exceedingly, for my father, who was an old practical farmer, gave me strict orders always to have my dung well rotted, stating that one load of such was superior to two loads in a long state: your correspondent seems of a different opinion, and my brother Novice states, that he has observed the crops of "Philosophers" more productive than those of their neighbours, owing principally to their superiority in managing their manures. This gives additional weight to the opinion of your *philosophical* correspondent Hibernicus, but in opposition to it I must state, that the practice of some of the farmers in my neighbourhood is to apply their dung after it is well putrified, and they maintain that they obtain more productive crops of turnips and corn after it, than when the dung is applied fresh or long. Some, however, do contend for the superiority of the latter, but then they are deemed rather slovenly farmers. It is certainly of vast consequence to know the best way of ap-

plying dung, and as there seems so great a diversity of opinion on the subject, I particularly request that some of your correspondents will do me the favour fully to discuss it in your Magazine. And also the most profitable manner of making and applying composts, whether lime should be applied in autumn or summer, quick or old, by itself or with dung, whether a large dose should be given at once, to last for twelve or fifteen years, or whether quantities of three or four loads per acre should be applied at intervals of three to five years, what is the difference between marle, chalk, and lime,* &c. &c. To the questions I have put to the practical men, I have received answers, which are various and contradictory; I am therefore totally at a loss how to proceed, and I hope you and your correspondents will excuse me for making these enquiries. And am, &c.

A NOVICE.

P. S. I am under as great difficulties, with respect to obtaining information relative to lime in my neighbourhood, as I am on the subject of the most proper state of dung; for while some farmers maintain that it is a powerful, and very profitable manure, others contend that it is of no utility whatever. In short, Sir, no inexperienced agriculturist was ever more perplexed with discordant opinions than I am. In future, however, I will venture to apply to you and your friends for information, under an idea that my conduct will not be thought impertinent.

A. N.

* Both in nature and effect.

ON THE ABSURDITY OF BLENDING AGRICULTURAL ENQUIRIES WITH SUBJECTS TO THEM WHOLLY IRREVELANT.

To the Editor of the Agricultural Magazine.

SIR,

MR. Capel Lofft, of Troston, a gentleman well known in the literary world, sent the following curious letter to the Editor of certain Annals of Agriculture, introductory to a learned astronomical paper.

“As comets may feed the sun, which feeds us, and recruits our atmosphere, they seem to have a fair relation to the Annals of Agriculture: where, too, observations concerning them will branch further, probably, and more effectually, than by any other mode. I therefore send this, and am, with much esteem,

“Dear Sir, your’s, &c.”

We are commencing a new year, and you also a new volume; and I hope we shall have in both of them, to submit

to the reign of common sense, and not be obliged to rear our heads among the poles. Great as may be the ingenuity of that gentleman, his utmost stretch of talent will not be sufficient to convince us, that these blazing stars bear that "fair relation to the Annals of Agriculture" he pretends. His delicate form will as easily be supported by the milky way, as any nutritive principle will be extracted for the purposes of agriculture, from the planetary regions with which he is conversant.

While his thoughts are directed to the sky, I hope you will condescend to think that your attention should be confined to the earth. The plough of heaven* has continued its course for six, or perhaps sixty thousand, years, without the smallest interference with the implement of the same name, on which human subsistence, in the present state of increased population, necessarily depends.

Practical husbandry, illustrated by sound sense and progressive experience, is what we require. We want something more. We desire to be informed of all the changes in the old instruments of husbandry, and of the adoption of new ones; with correct explications of their several parts and uses.

We are not yet satisfied. Farming, like the games of the school boy, will continue, and has continued from century to century, with very little variation; without importing from foreign climes, the inventions which happy circumstances have enabled the mind of man, no less fertile than the surface on which he moves, to produce. Our wants, Mr. Editor, may be unreasonable; but we wish on the subject of Agriculture, *and on Agriculture only*, to have your work converted into a species of focus, wherein every ray of light shall be collected, after having undergone refraction: that these rays being thus united, their force and effect may be increased, and that they may be enabled to burn and to dissipate all the errors and absurdities, with which a mob of literati and diletanti have entangled the science.

I have given this advice, because I conclude, not only from some occasional notices to your correspondents, but from the general spirit of your work, that you will be disposed to adopt it; and wishing you many happy returns of this jovial season,

I am, Sir, &c.

WALTER BARDOLPH.

Christmas-day, 1803.

* Urfa Major so called by the Egyptians.

OBSERVATIONS ON FARRIERY, IN ANSWER TO
A LETTER FROM DONCASTER.

To the Editor of the Agricultural Magazine.

SIR,

I AM not at all surprized that Veterinarius Alter, whose letter was introduced into the last number, is not disposed to receive with perfect satisfaction the compliments applied to the Veterinary institution in the neighbourhood of the capital. It is not, we find, his Alma Mater; he was not educated under its auspices, and a sort of competition exists between the graduates of that college, and the ex-students; similar to that which prevails with the college of physicians, and the ex-quacks, who have not gone through the regular formalities of the Esculapian school.

I rejoice, Sir, in all contentions of this kind; because whether connected with science, with trade, or with agriculture, they do what is most essential to public improvement—they expose the secrets of factions and parties—the mysteries of grave and mercenary monopolists, to general observation.

V. A. has fallen into the ordinary mistake, of supposing the business of farming is essentially influenced by illustrious patronage. It seems that some expression of your correspondent Veterinarius, was derogatory to a certain provincial establishment. “The Society of Odiham, which he states to be obscure, was composed of some of the first people in the country, and St. Bel was introduced by two powerful noblemen.”

It may be very important to V. A. to obtain that patronage for the success of his occupations in the opulent vicinity of Doncaster, but the peaceful and retired pursuits of the farmer, have very little concern with ribbons and coronets; and the true reason why farming has succeeded in this country more than in any other state of the world, is, because we have a body of respectable yeomanry, who leave the hereditary nobility of the land to settle difficult questions on turnpike acts, game laws, and manorial rights, while they devote their own talents to invite, and to collect the gifts of exuberant nature.

It appears that M. St. Bel, according to the opinion of your correspondent, took a most injudicious step, in his adoption of the lectures, opinion, and practice of the French college.

When I address myself to V. A. I am speaking to one who is a professor of the Veterinary art; and therefore I am not to suppose that he is unacquainted with the foundation on which it has been erected. He is not uninformed, that not only the art of farriery, but that surgery is almost wholly derived from the principles and practice established in France. He is not ignorant, that whether the operations respect horses,

or the human species, they are there conducted with a portion of promptitude, address, and facility by the common practitioners, to which our robed and charioted professors in this country are incompetent. If farriery were not to be improved from the lectures, opinions, and practice of the French college, from whence should we derive information? No lectures are here given, no opinions are here formed, and no practice is here adopted, that would not disgrace the disciples of Argentinus.

V. A. again complains of the new medical nomenclature. From respect to this gentleman, I must not forget that I am speaking to a learned professor; I am therefore to conclude, that he is perfectly conversant in the comparative merit of the ancient and modern pharmacopœia, whether under the hands of Bauderon, Quercetan, Zweler, Charas, Bates, Salmon, Lemery, or Quincey.

“ Ambubaiarum collegia, *pharmacopœia*,
“ Mendici, mimæ, balatrones.”

Need I remind him of the absurdities into which these compilers have fallen, to convince him of the necessity of a treatise on a new system, describing the preparations in their several kinds, their uses and mode of application. In the instance he adduces, does the appellative, “Glauber’s Salt,” taken from an arbitrary name, imply the vitriolic acid, and mineral alkali, of which it is composed?

I am very happy at least, that we agree on the subject of Mr. Faplin. His publications have sold; and except a little indulgence of the most egregious vanity, the profits of the sale was the object of the publication; his works are now sent “to sleep with Quarle’s”—the opiate was fatal, and precluded the possibility of resuscitation.

I am, Sir, yours, &c.

Warwick-lane, Jan. 4, 1804.

LUCUS MEDICUS.

ON THE AGRICULTURE OF KENT.

To the Editor of the *Agricultural Magazine*.

SIR,

I observe into your last publication you have introduced the result of my observations on the agriculture of Shropshire, and I see in your address to correspondents, you have very properly invited the attention of those gentlemen who possess an accurate local knowledge of that county. I am conscious, painfully so, that it is impossible for one person to give a correct general view of provincial agriculture, and I wish the exertion of the task I have undertaken to be examined with a

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scrutinizing eye, that my errors may not mislead those who are willing to receive useful information.

While I was directing my thoughts to the commencement of that paper as it appears in your Magazine, my vagrant attention caught the name of my old friend John Hodges, of Aberford, who attributes to me "a wild and adventurous exercise of rampant curiosity." He will recollect the impertinent and inquisitive spirit with which I collected at his hospitable board information on the agriculture of the West Riding of Yorkshire, and on the management of the extensive farms in the estates of Sir John Goodricke. I expect, therefore, that by the next opportunity he will not attribute to me that species of pernicious extravagance in my pursuits and enquiries.

The subject of this communication is the agriculture of the county of Kent, in which I shall have an opportunity of noticing an implement that is new to your correspondent Agricola Norfolkensis, and which certainly deserves to be added to the numerous mechanical improvements of the county in which he resides. I shall consider myself sufficiently rewarded for the trouble I have taken in collecting these materials if I impart a single idea that shall be adopted into the practice of such an intelligent correspondent. When I come to speak of the agriculture of the district where he resides, and the adjacent county, it will seem as if I were giving a dispensation on the highest state of modern attainment in the art, instead of treating on the condition in which it appears within a contracted limit of the kingdom.

KENT.

The county of Kent is bounded on the north and east by the Thames and the sea, on the south by Sussex, and on the west by Surry. It is 58 miles in length, and 48 in breadth, and it contains 39,340 houses, 235,440 inhabitants, 408 parishes, and 31 market towns. The rivers besides the Thames, are, the Medway, the Rowther, the Stour, the Darien, the Ton, and the Wantsheim, and several lesser streams.

Perhaps the extent of this county may be computed at 1,240,000 acres, and I do not much understate the rents at 20s. per acre, including the whole county.

The best land is in the vicinity of Feversham. The high ground is a stiff flinty loam. The Howlets are a mellow loam. The parish of Ash contains about 7,000 acres, and the rents average at about 25s. Romney Marsh, a district which has all the peculiarities of Dutch agriculture, lets from 40s. to 50s. The parish of Goudhurst rents from 15s. to 25s. but the meadows and hop-grounds, in course, considerably higher. The price in the vicinity of Tunbridge is nearly the same.

If a line be drawn from London to Canterbury, and from thence to Dover, the tract of Kent north of that limit includ-

ing Sandwich, Deal, and the Isle of Thanet, contains ground the best treated of any in the kingdom, excepting the districts of Suffolk and Norfolk. But it will appear singular that the Wealds of Kent, capable in many parts of great improvement, and of the high condition of cultivation, should be neglected, and a large portion of it abandoned.

The very excellent letter which appeared in your number for September last, from the pen of Dr. Wilkinson, on the Rural Economy of the Isle of Thanet, makes it unnecessary that I should insert a single observation on the farming of that division, and I may avail myself of it thus far with respect to the rest of Kent, that the same system of farming is adopted within the limits I have just assigned in the northern parts, as far as the situation and soil will admit of it.

The extent to which the culture of hops is conducted, and the immense income it produces in this county, are too well known to require particular observation; it however is worth noticing, that the corn crops produced on the scite of the hop garden afford some of the most extravagant examples of the exuberance of nature.

The artificial grasses are well understood, and extensively distributed in this county, and are generally preceded by the excellent rotation of Wheat, Beans, and Barley.

In the neighbourhood of Feversham, a crop of wheat is three and a half to four quarters, and frequently the crops are much more considerable, but perhaps their barley crops are inferior to what might be expected, from the practice of delaying too long the time of depositing the seed.

Beans are the species of pulse principally attended to; they value the tall bean, because they rightly conceive it the most successfully to smother the weeds. The custom used to be, to drill them at the distance of eighteen inches, in order to plough between that interval during the growth, but the facility of using the horse-hoe, has occasioned these distances to be lessened in every part of the kingdom where it is employed, and it is well known and much used in the county of which I am now speaking.

The prodigious cultivation of potatoes in that part of the county which is adjacent to London, and the large fortunes which have been raised from attention to that part of husbandry, are well known.

In this county they have tried the method of feeding horses on carrots, and on lucerne, and they have found them, by this diet, to be kept in very high working condition.

In the parishes of Ashford, Cranbrooke, Hythe, Tenterden, and Appledore, oxen are worked from three to five years old, they are then fattened with hay, oil cake, and some corn, and sent to market; and this expedient for the culture of their

ground, the farmers consider highly profitable. Also in the country round Tunbridge oxen are generally employed in their teams.

In the neighbourhood of Goudhurst approaching Sussex, the practice of summer fallowing is still continued.

Among the more valuable implements of husbandry is the Horse Shim, an instrument two feet wide, employed for cleaning weeds after harvest, and for cutting the bean stubbles. For further particulars regarding this instrument, I may refer to your own Magazine for November last, in the letter from A. C. page 326. A broad shared plough without a mould-board, is also used for clearing weeds before ploughing. I cannot speak in terms of commendation too high of this neat, useful, and I might say necessary practice for all the purposes of good husbandry. It is to the credit of the Isle of Thanet, that it owes its origin to the intelligent cultivators of that district.

We see in almost all the northern part of this county, some of the best maxims of husbandry pursued.

1st. We never see two crops of white corn succeed each other.

2. The manure is generally applied to the ameliorating crop, as it is called; and this crop is kept perfectly clean, either by the hand or horse hoe, so that the country is rendered a garden.

3. I have just remarked the attention to clearing the weeds before ploughing.

4. Early sowing is generally adopted

5. Paring and burning is a practice widely extended. They then sow turnips, which are fed off with sheep.

6. The manner of making hay in this county deserves commendation. Instead of letting it lie a long time in the swarth, or in the wind-row, they put it early into grass-cocks, which are gradually increased according to the circumstances of the weather; and the produce is thus soon removed from all danger.

I cannot avoid noticing, with some disapprobation, the perseverance of the Kentish farmers, in performing their team-labour with their cattle at length. The frequent stoppages which occur in the business of the field, occasion the animals, when so arranged, to counteract each other, and to exhaust their strength by ineffectual exertion.

The price of labour is, all round the year, excepting in the harvest time, 1s. 6d. to 1s. 9d. a day. Reaping wheat, 8s. to as high as 20s.; according to the crop. Mowing spring corn, 2s. to 2s. 6d. Reaping beans, 6s. to 7s. Harvest work, if done by the day, 3s. to 3s. 6d. and board.

I observe some interesting letters between Agricola North-

umbriensis and Meridionalis, on the comparative utility of oxen and horses. The controversy appears to me to be in very good hands, and as my attention has lately been directed to that subject, I shall see with particular pleasure its revival in your miscellany.

There is another enquiry which I should be glad to see treated by the pen of the former; I mean the agriculture of the county of Northumberland, where my notes are very deficient. My detention at the charming Lakes of the neighbouring counties of Westmoreland and Cumberland, afford me a much more abundant means of communicating information in that department of provincial agriculture.

I am, Sir, yours, &c.

Dec. 12, 1803.

CHOROGRAPHUS.

ON THE ELEMENTS OF WOOL, AND ON THE STRUCTURE OF THE FILAMENTS OF WHICH IT IS COMPOSED.

To the Editor of the Agricultural Magazine.

SIR,

BEING a native of the West, my attention has been drawn to the great article of trade, on which the staple manufacture of this country so materially depends. From the day that the royal Elizabeth, in the sage maxims of her policy, received into this country the ingenious manufacturers of the Netherlands, she imported the respect they had acquired with their connections in Spain, and the confidence they had been accustomed to receive from the parent state to which they were subservient. It was thus that the commerce of this country was established on a foundation, from which a beautiful fabric has arisen, which has commanded the reverence, and attracted the admiration of mankind.

We are now told, Sir, that the Consul of France is not less politic than our favourite heroine, and that this channel of wealth is to be perverted, by the domineering influence of the Court of St. Cloud. If this be the fact, nothing can be more necessary, than the attention which has been recently paid by his Majesty, and by many other intelligent improvers, to render ourselves independent of the supplies of wool from Spain. You have, Sir, exerted your means, by circulating useful knowledge on the subject; I will endeavour, with your assistance, to conduce to the same design, by the cursory observations it is in my power to suggest.

In the computation you have given, under the title *Manufactures and useful Arts*, of your last number, we see that in the short interval of four years, the export of British manu-

factures have increased from £33,148,682, to £48,500,683.* This view of commercial advantage is too flattering to be quietly relinquished; and an Englishman would feel the pang of mortification; at seeing the most ancient and valuable direction of the ingenuity of his country, disappointed in its object by the wily artifices of the school of Mazarin.

Much has been said in your work, on the time and circumstances of shearing, on the climate best adapted to the growth of wool, on the quality most suited to manufacturers, and on the expences attending the importation. But the most valuable part of the remarks are applied to the method of crossing the breed, by which the Spanish exotic may become a native of these islands: we have, however, yet to learn, if, when he is brought to the nearest approach to perfection we are capable of producing, he will not degenerate, like the Andalusian horse, and the English bull-dog, when they leave their native climate.

The first step in all these cases is, precisely to ascertain the materials with which we have to work; and it will appear singular to persons not conversant in the analysis of organized substances, that wool, hair, hoofs, horns, and feathers, which appear so excessively different, under the various operations in the laboratory of nature, are composed of nearly the same elements. These all afford an aqueous alkaline liquor, a concrete volatile alkali, and a fœtid oil, which by repeated rectification becomes more and more limpid. Neumann has given the following result of the chemical distillation of hog's bristles and sheep's wool.

Hog's bristles	16 ounces
Arose in all	11½
Remaining coal	4½
	<hr/> 16

Of urinous spirit	7½
Salt	2
Oil	2
Caput mortuum	3 oz. 6 dr.

And gave 24 grains of fixed salt.

Sheep's wool gave as much volatile salt as the hog's bristles; but a little less spirit, and a little more oil.

Spirit	7 ounces
Oil	2½

Caput mortuum 3 ounces, 6 drams;—and obtained from the calx, by water, 30 grains fixed saline matter.

* The sources from which these calculations are taken, do not admit of precision; but the remark here applied is merely comparative; and so far they may be considered sufficiently correct. E.

Mr. Monge has explained the operation of felting (*feûtrage*) and the effects of fulling, by the external conformation of the wool and hair of animals. He has made some curious remarks on this subject.*

Nothing particular can be discovered by means of the microscope in the filaments of wool, or in the hairs of animals. The surfaces of these bodies are not smooth, they must be formed either of small laminæ, placed over each other in a slanting direction, from the root towards the point, like the scales of fish, which cover each other from the head of the animal to the tail; or more probably, perhaps, of zones placed one upon another, as we see in the horns of animals.

If a hair be laid hold of by the root in one hand, and drawn between the fingers of the other, from the root towards the point, scarcely any friction or resistance is perceived, and no noise is heard; but if, taking it by the point, it is passed in the same manner between the fingers of the other hand, from the point towards the root, a resistance is felt which did not take place in the former instance; and a tremulous motion is perceptible to the touch, and a noise sensible to the ear.

We perceive then, that the texture of the surface of hair is not the same from the root towards the point, as from the point towards the root; and that a hair, when pressed, must meet with greater resistance in sliding or moving towards the point than towards the root; but as it is this texture itself which forms the principal subject of Mr. Monge's memoir, it is necessary to confirm by farther observations.

If after having laid hold of a hair between the thumb and forefinger, we rub them against each other in the longitudinal direction of the hair, it acquires a progressive motion in that direction towards the root. This effect depends neither upon the nature of the skin of the finger, nor on its texture; for if the hair be turned, so that the point shall be placed where the root was before, its motion is turned; so that if the point shall be placed where the root was before, its motion will now be in an opposite direction; that is, it will still be towards the root.

These observations are related of human hair, taken as an example; but they are equally applicable to the filaments of wool, to horse hair, and to that of animals in general. The surface of all these bodies then, is formed of rigid laminæ, laid upon each other like tiles, from the root to the point; which allow a progressive motion towards the root, but oppose one towards the point.

While your correspondent, Mercater Tarraconensis, is explaining the extensive establishments in Spain, and the inge-

* Observations sur la Machanisme du Feûtrage. Ann. de Chym. tom. 6.

nious Secretary of the Bath Society is disclosing the means resorted to in this country, through the medium of your work, to inform the public on this staple commodity, I trust the observations I have collected, will not be wholly immaterial; but will be found to conduce to that clear comprehension of the subject, without which we shall resemble a giant fighting in the dark; dealing around powerful efforts, to terminate only in vacuity and disappointment.

I am, Sir, yours, &c.

Huntingdon, Dec. 30, 1803.

P. Y.

VETERINARY ART. LETTER III.

ON THE DISEASES IN THE BONES OF THE HORSE.

To the Editor of the Agricultural Magazine.

SIR,

IN my last letter, I endeavoured to give a general view of the Bones of the Horse, and particularly directed the attention of your readers to the means of ascertaining his age, which, however simple and easy, are not generally understood even by those whose first and last business of the day is to attend to the animals.

In pursuance of my plan of examining the solids, I shall treat in this paper of the diseases of the bones, and it is more necessary to comment on this subject, because it has been usual with farriers, in the disorders of the bones, especially in fractures, to consign the poor animal to his fate, when, by a little knowledge of the system, they might, without any danger, penetrate to the seat of the evil, and effect an easy cure; for it will be readily discerned by the comparison we have made, that nature employs the same means for the restoration of the bones, as for the softer parts. The attention that is paid to human beings has shewn that the most dreadful fractures and dislocations are often succeeded by the perfect restoration of strength and convalescence, and on some occasions the parts which has been subjected to violence is afterwards less liable to accident than any other portion of the system.

The bones are a white hard brittle insensible part, framed for the defence of the softer parts, and for the support of the whole fabric. They have their vassels and circulating fluid, and are of the same general texture with the other parts, the solidity and the stronger cohesion being the only evident distinguishing characters of their composition.*

There is at least one artery in every bone for the supply of

* Monro. Med. Eff. Ed. Vol. Art. 24.

the marrow or medullary matter : the blood which remains in this process is returned by veins.

A bone may be divided into several parts : the body which is the middle, the heads which are the extremities, and the necks immediately within the extremes, the bones are all covered with a thin web or membrane, and are most of them hollow, and supplied with marrow.

The improvements in optics have enabled the curious osteologist to discover that the bones are completely a vascular system, and that the marrow in the cavity is furnished with its own web or membrane, wherein are included little bags, and in these are glandulous bladders for separating the unctuous marrow from the blood; the use of the marrow is to prevent the bone becoming too dry and brittle: this oily matter also hinders the extremes or heads of the bones from being worn or heated with action, and it contributes to moisten the ligaments or bandages by which the bones are fastened to each other.

I think this explanation necessary to introduce the examination of the diseases of the bones, for by the description I have given, your readers will immediately discover that, having the same vessels, and differing only in the compactness of their form, they are subject to similar diseases with the softer parts, (although less irritable,) and to some, from their singular construction, which are peculiar to themselves.

A fracture in the skull of a horse is not always fatal. In such a case the scalp should be removed, when the injured bones will make their appearance. Those pieces which are loose must be extracted, and such as are indented may be raised. The scalp must then be returned, but the wound must not be in the present state exactly closed. The part should be kept from the external air, and no irritable dressings should be applied.

The os jugale is liable to fracture from kicks and other accidents, and the horse will be frequently starved if a remedy be not employed, as the jaw will be sometimes rendered inactive. The skin in this disorder should be removed, and the loose portions drawn out, and all irritable dressings avoided as in the preceding case. Under this calamity the diet of the horse should be in such a form and of such ingredients as will occasion the least action of the jaw, and as will be least heating to the system.

The fracture in the nose is frequently followed by the fatal disorder of the glanders, (which is the inflammation of the adjacent membrane) no time should therefore be lost, but the part should be skilfully opened : what is incapable of com-

bining should be removed, and every other part should be restored as nearly as possible to its natural situation.

The case of the fractured rib requires little assistance either in man or beast. But if the injured part be so situated as to enter the chest and wound the lungs, the air being admitted occasions a windy swelling, or bloating, like that in the parts of various animals when blown up after they are killed. The air being thus admitted frequently cannot escape at the aperture of ingress, and by the dilatation of the lungs it sometimes is forced into the whole habit, which constitutes the disorder professionally called *emphysema*. The object under this fracture should be to prevent, by bandages, all access of air to the part, but they must be so contrived as to assist the restoration of the rib to its proper place externally, and the action of the lungs themselves will perform the same office internally.

In fractures of the extremities the employment of a sling to assist in supporting the animal is usually necessary. The utmost care should be taken to unite the broken bone, with the greatest accuracy, immediately after the accident; but if any splinters should have separated themselves, which cannot be restored, an incision must be made to draw them forth before that operation. When the fractured bone is thus assigned its situation, *ferulæ* or bandages are to be placed so as to preserve the adhesion without confining the part more than that design shall render necessary, after which nature will take upon herself the office of healing and conglutinating, by the formation of a callus.

The fracture of the thigh I believe has hitherto been found incurable, those of the arms, pasterns, and coronets, and of the tibia or leg, are not without a remedy even in the infant state of the art. By humane attention in such cases the animals may afterwards become not only useful, but very valuable, and in the instance of mares they may be advantageously employed in breeding. Stock from these animals (often suffering from accidents in the prime and vigour of life,) would be much preferable to the offspring produced when the constitution of the parent is hastening to decay, and neither possesses the plethora competent to the supply of its progeny in the embryo, or in the progressive stages of its infant existence.

OF THE MORTIFICATION OF THE BONE.

All the bones in the system, excepting the teeth, are clothed with a web or membrane which is called by anatomists the *periosteum*; of this their observation has discovered the existence; but their learning has not ascertained the origin. This membrane is absolutely necessary to their existence: its internal part enters the cavities of the bones, and furnishes them with their vessels, sustaining the marrow by receiving the

arteries that secret it. Its acute sensibility to inflammation is the cause of frequent destruction, and the decay of the bone it embraces is the inevitable consequence. This disorder is called caries, or the mortification of the bone.

REMOVAL OF THE DEAD BONE.

This process is called exfoliation; it is the effort of nature to remove a defective part of the system, which is no longer useful, and has become injurious. The dead bone irritates the vessels of the living bone, with which it is in contact; the decayed portion therefore loses its union or attachment, and comes away. This is one of those cases in which the actual cautery should be employed, small heated points should be applied round the exterior edge of the decayed part; and frequently if this precaution be not timely resorted to, the mortification will spread to the adjacent bone, and the cure will be beyond the reach of art.

In the course of dissecting dead bodies of the human species anatomists sometimes discover carious bones of the jaw, and even of the legs, where such a disorder was not suspected during the life of the person who was subject to it.

SPLENT.

Farriers being wholly unacquainted with the progress of the disorder in the ossified parts, have given different name to the same disease from the variation of a few inches in the position. Hence this bony excrescence, if placed on the knee, they call oslet, if two approach near each other, they name them fuzee; but when the bony tumour be in the upper part of the shank, it is distinguished by the term splent. All these are the case oseologists call exostosis, which is a deposit of bone generally in consequence of inflammation. This inflammation is often caused by the speedy cut, or by indiscreet blows from the loaded head of the whip, or the hammer of the Smiths, and where no lameness ensues it is always best to leave nature to herself, for the remedy we apply is more destructive than the disease. I have spoken of the periosteum; the projection of the bone is gradual, so as to enable this membrane to accommodate itself to the enlargement in this disorder, and usually no inflammation of it follows. But where the excrescence obstructs the motion of a tendon or important ligament, it will occasion lameness, and the means of cure must be employed. In some cases it will be right to lay the bone completely bare, and to remove the protuberance by a very fine saw, but when the disease is not inveterate, a strong mercurial ointment may be daily rubbed over the excrescence for a week, and then the following blister may be beneficially applied.

Corrosive sublimate, one scruple; Spanish flies, half an ounce; turpentine, half an ounce; or lard, four ounces.

BONE SPAVIN.

This, like the last, is a bony projection, differing only in its locality; being usually situated on the inside of the hock. It commonly arises from the junction of the small bones of this part of the animal: and the lameness, from the consequent interference with the ligaments, and probably with the smaller flexor tendon. In this disease, not only the bones are subject to tumour, but the ligaments enlarge: hence in ligamentary strains in this part, the inflammation should be removed as soon as possible, and a month's time for rest should be gladly sacrificed to the future permanent utility of the animal.

The string halt, frequently degenerates into what is called the ox-spavin; which is a callous tumour at the bottom of the ham on the inside. The mode of cure in cases of this kind, is similar to that recommended in the splent; but when seated on the inside of the hock, more caution is required in using the means, and more doubt is involved in the success of their application.

THE CURB

This is a hard swelling in the posterior part of the hinder leg below the elbow; always attended with rigidity, and not unfrequently with lameness. It perhaps is improper to refer it to this division of my subject, as it is seldom a disease of the bone; yet being usually so understood, I have referred it to this place.

It is commonly an induration of the ligaments; at least if this be not the cause, it is the consequence of the disorder, and where cleanliness and gentle friction are ineffectually employed, a blister will often produce the cure: but if it resist these remedies, the cautery must be applied.

RING BONE.

This excrescence takes its name from its circular form: it is a hard callous substance, growing in the hollow circle of the little pastern, above the coronet. Like the other cases of exostosis, it commonly is occasioned by a strain or blow. The same method of cure, by blister or cautery, may be here used; which I have just now recommended for the splent, the the spavin, and the curb.

THE ANCYLE, OR STIFF JOINT.

I have before said, that the bones articulate with each other. This disorder is, when that juncture or articulation becomes immoveable. If this have actually taken place, to

attempt a cure, is only exposing the animal to excessive pain, without the smallest prospect of success. In its commencement, it however may be sometimes arrested in its progress by motion, friction, and discutient medicines, to open the pores, attenuate the fluids; and disperse the humours; but time must not be lost in milder remedies, and if amendment be not presently conspicuous, the skilful surgeon will proceed to blister and cauterize.

In my next communication on this subject, I shall treat of that part of the anatomy of a horse, which respects the cartilages, and the appendages to bone in general; comprising in the same essay, the diseases to which they are subject, and the remedies to which modern practice has resorted.

I am, Sir, yours &c.

VETERINARIUS.

IMITATION SUGGESTED OF A PRACTICE FOR HATCHING
POULTRY, DERIVED FROM THE EGYPTIANS.

To the Editor of the Agricultural Magazine.

SIR,

I OBSERVE in your miscellany, you are anxious to collect information from every country where agriculture is practised; both where it is considered merely an art, and where it is reduced to great leading maxims, so as to approach the character of a science. But in the opportunity I have had by a cursory attention to your papers, I have not seen that you are disposed to borrow from antiquity; and yet it must be acknowledged, that those principles of agriculture which led to the exuberant fecundity of Egypt (the granary of the Roman empire) are concealed in the libraries of the Escurial, and among the venerable vestiges of Moorish erudition.

It is not enough to collect information from our contemporaries; some of the most valuable truths have been rendered obsolete from neglect, which it was a public duty to transmit for the benefit of posterity.

We should not forget, that the modern system of irrigation is derived from the observations of the Arabian writers, Abulfeda, Abulferagius, and others, on the inundations of the Nile. It is certainly to modern chemistry that we are indebted for the discovery of the two species of airs of which water is composed; and of the facility with which they are elaborated in the vascular system of plants, so as to constitute their nourishment and support.

The design of this communication is rather to recommend the examination of the ancient practice of the productive districts of the Delta, than to enter into any learned disquisitions upon them; I will not, however, conclude without mentioning a circumstance, which if it appear to some trifling, will

to others seem sufficiently important, and by all will be considered as extremely curious.

The Egyptians were in the practice of hatching chickens in ovens. The eggs were kept heated with so temperate a warmth, which imitates so exactly the natural heat of a hen, that chickens are at length formed and hatched. It has been disputed, whether this can be effected in any other country besides Egypt, where the natural heat of the climate is thought to contribute much towards these productions; but M. Thevenot tells us, that the Duke of Florence sent for some of the Cophtis (who are the only Egyptians that follow this business) and hatched chickens in Italy in the same manner. Very lately some experiments have been made in France for hatching chickens, by the fermentation of tan. Within my own knowledge, some successful trials have been made in the same way, by Mr. Gregory, late of Highgate; and I have no doubt that, with the convenience of a warm room, having a boarded floor, and other suitable accommodations to protect the brood, with which your correspondent Jane Partridge is conversant, that the procreation and nurture of Poultry might be prodigiously extended.

The utility of such an expedient, is to prevent the loss of time with the hen, during the interval of sitting upon the eggs, and of attendance upon her rising family. In the way I have described, setting might be only an occasional resource, to promote the health of the bird; and once a year would be sufficient for this purpose.

It will be seen by the intelligent reader, without further explanation in detail, that a prodigious multiplication of the species might be effected; and that by this means, the lesser and more indigent farmers would make a department, which at present is accompanied with little profit, and with a large expence and attendance upon the markets, productive of a respectable fund toward the discharge of the rental of their farms.

I am the more disposed to recommend this practice, because a well-informed woman, with whom I have this moment conversed on the subject, is acquainted with the experiment in the neighbourhood of London, to which I have adverted, and has no doubt of the success of such an attempt.

I am, Sir, yours, &c.

AFRICANUS.

London, Jan. 1804.

METHOD OF MAKING AND TEMPERING CAST-IRON, PLOUGH SHARES, AND OTHER ARTICLES OF CAST-IRON, FOR AGRICULTURAL USES.

To the Editor of the Agricultural Magazine.

RESPECTED FRIEND,

I SEE with pleasure among the useful articles of thy miscellany, thou not only givest a periodical enumeration of all patents enrolled, but occasional disquisitions on the most material of those which are connected with agriculture.

We all know the perpetual inconvenience which arises in the new implements of farming, on which materials of cast-iron are so extensively employed. One of our people, friend Robert Ransome, of Ipswich, has contrived an expedient for tempering cast-iron plough shares, and other articles of cast-iron, for agricultural uses; by which the detriment I have just adverted to, will be avoided for the future.

Without entering into verbose observations on the advantage of this discovery, or on the infinite variety of objects to which it may be directed, I will give the explanation in his own words, which will be intelligible to every reader.

First for the Shares.—The melted pig-iron is poured into a mould, prepared for the purpose, formed with one side or part of iron, and the other side or part, of sand or loam. The side of the share when cast, that lies next the iron mould, will be hard, and of proper temper, while the other side, that is formed in sand or loam, will be soft; and if made of the best soft pig-iron, the share will be much strengthened.

To make the moulds for casting the said plough-shares, I proceed as follows:—First, take a well-finished pattern of a plough-share, made either of iron or other metal; then lay it upon sand or loam, carefully stopping it up until an accurate parting is made of that side of the share which is designed to be hardened; then pour thereon either lead, plaister of Paris, or other proper materials, that will take an exact impression therefrom. With this cast of lead, plaister, or other materials, I proceed to take a cast in sand or loam, of the exact shape, in iron or other metal, which is the part used to form one side of the share, and that gives the hardness and temper to the same. The other side of the share is formed in a flask of wood or metal, with sand or loam, in the common way of moulding the same article. These two parts are fastened together by screws, weights, or such other means as may be used to serve the purpose of confining the moulds together, while the metal is pouring therein. The socket (or tray) of the share, is formed by an iron or metal plug, the shape of the said socket or tray, being inserted into the mould; by which

means the socket is certain of being smooth, and exact in size and shape.

Secondly.—Scarifiers and hoes may be cast in a similar manner to the shares.

N. B. Should it be required to make both sides of the shares, scarifiers, or hoes, hard, and the inner part soft, then both sides of the mold or matrix, must be made of iron or other metal.

Any other articles, wherein the above-described properties are desirable, may be made in the same manner.

I am, Respected Friend,

OBADIAH OAKLEY.

Woodbridge, 28th, 12th month, 1803.

THE INCOMPETENCE OF CHEMISTS IN THE DUTIES AND LABOURS OF THE FIELD.

To the Editor of the Agricultural Magazine.

SIR,

IN your last Magazine, under the title Manufactures and Useful Arts, I see, with pleasure, that the Bedfordian gold medal will be presented, towards the conclusion of the present year, to the author of the best Essay on the nature and properties of Manures. I have also noticed somewhere in your work, judicious observations on the melancholy loss of time and labour in procuring manures from distant situations, and afterwards in conveying them in carts upon the land.

We will suppose that the elementary principles in a certain close or field of the extent of one acre are the following :

Sand and Gravel	-	47 parts.
Argill	- -	22 ditto.
Mild Calx	- -	31 ditto.

100 parts.

This soil is deficient in sand, and superabundant in Argill, for the purpose of fertility : and it is proposed to correct it in the subsequent way. We must either use a smaller proportion of the sandy ingredient than its defect requires, or apply a substance that would supply some proportion of the calcareous ingredient also : such are limestone-gravel, silicious marl, effete lime, mixed with sand, or pounded limestone. Suppose the proportion of the substance to be employed, were six per cwt. that is, six pounds for every hundred pounds of the soil, then the quantity requisite for an acre may be calculated thus : a square foot of this soil cut down to the depth of fourteen inches, and paring off the two uppermost as con-

sisting chiefly of roots, weighs about 120 lb. and if 100 lb. require six of the manure, 120 lb. will require (7, 1-5th, which in decimals is expressed,) 7, 2, therefore every square foot of the soil will require 7, 2 of the manure: now an English acre contains 43,560 square feet; and consequently 43,560 multiplied into 7, 2 of the manure—313,632 lb. or 208 cart loads, reckoning 1500 lb. to the cart load.

This mode of improvement is proposed by an ingenious chemist, Mr. Kirwan, (I think, Mr. Editor, you have the chemical mania sometimes upon you,) and a moment's attention will shew the extreme absurdity of its adoption, and how imperfectly the students of the laboratory understand the business of the field. Let us consider 10 acres to be thus improved, and I will admit that until the soluble principle of water shall have destroyed the equilibrium of the component elements, the soil will be essentially improved. If one acre require 208 cart loads, a little field of ten acres will require 2080 cart loads, and supposing this limestone-gravel, silicious mail, and effete lime, mixed as described to be fetched only at the distance of four miles, what will be the expence of labour required? This load would require a two horse team, and including loading and delivering in the proper parcels on the land, two loads, with a strong man to attend, would be the utmost that the hours of one day would admit it to perform, so that the correction of the soil would require more than the working days of three years to effect.*

Messieurs Chemists, you must revive the discovery of the ancient Zosimus, the divine art of making gold and silver, to preserve a farmer from ruin who should borrow from the learned such expedients for the improvement of his ground. For God's sake, Mr. Editor, let us preserve the art of farming a little distinct from the Elixers and Alkahests of your profound students: a certain alliance, a kind of good natured reciprocity, may be formed and pursued between agriculture and chemistry, but this fraternization, this community and unity to which some of your correspondents aspire to reduce them, is as impracticable as the conversion of the milk pail, into the melting cone, or the plough into the pellican.

We have enough to learn, and enough to unlearn, without thoughtlessly rushing into these palpable absurdities.

I am, Sir,

Yours, &c.

Dec. 27, 1803.

R. G.

* Some little saving would be made by the employment of boys to drive, and the engagement of a number of teams at the same time, so that men might be kept at the pit to load, and in the field, to assist at the delivery, but this is a matter so well understood by every farmer that no particular explanation is necessary.

ON PARING AND BURNING.

To the Editor of the Agricultural Magazine

SIR,

Dec. 21, 1803.

I OBSERVE with much pleasure, that my opinions relative to the effects of burnt clay, *on strong soils*, are similar to those entertained by Dr. Wilkinson, and stated at page 339 of your last Magazine. In the same page the Doctor says, "The following course of crops was taken with success, in the breaking up of waste lands, where no sheep were kept.

1. Pare and burn for turnips, which being within reach of the London cow-keepers, were sold for 10l. per. acre; and drawn time enough for sowing in the autumn.

2. Wheat.

3. Fallow.

4. Barley, and laid to grass.—By the above treatment the ashes secured good crops, without any additional manure." He also says, to the advantage in favour of paring and burning, "permit me to add, that by destroying the turf, the corn is less liable to be injured by the sod-worm, than when sown on the inverted sward."—I have frequently remarked, that the two first culiniferous crops,* on land which had been long under old grass, were much less productive, *when paring and burning were not practised*, than might reasonably have been expected from the superior quality and freshness of the soil; and as myriads of grubs, insects, and eggs, are discovered on some old grass lands (near the surface) and as the operations of paring and burning have been succeeded by very luxuriant and productive crops, it seems reasonable to conclude, that the grubs were the principal, if not the only, cause of the failure. I do not rightly understand what the Doctor means by the words "taken with success." But if he means that the occupier of the waste land was successful in effecting *substantial and permanent* improvement, either the land must have been highly enriched by dung, previous to its being broken up, something singular must have appeared in the case, or my practice has made false impressions on my mind. I know from *experience*, that great crops are obtained after paring and burning; and that these crops *greatly exhaust the soil*. This seems the opinion of almost every practical agriculturist; and if it were well founded, it is obvious, that in order to ameliorate the land, *so as to produce plentiful crops of grain and turnips, after being two or three years in grass*, it should be renovated by a copious application of dung, or

* I have never observed leguminous crops injured by the grub, in any considerable degree.

dung and calcareous matter, *immediately after the two or three crops which succeed paring and burning.* Instead of this, however, three crops were extracted from the waste land mentioned by your correspondent, in four years; and no manure, except the ashes of the turf, was applied to it!! If the object of its occupier was, not to promote substantial amelioration, but to obtain great crops, *within four years, at a small expence,* then the practice he pursued may be considered as pretty well calculated to produce the desired effect, and it will be readily conceived, that the crops were "taken with success." To such practice, however, and not to the prejudicial effects of paring and burning, we may justly impute the odium with which so many land-holders view those (frequently) judicious operations.

That the fresh grass from the clover and ray-grass seeds will be more nutritious and valuable, *bulk for bulk,* than the old coarse herbage of the waste land, I readily conclude.—What I contend for is this, *that the management mentioned by Dr. Wilkinson, and noticed in this letter, is not calculated to effect substantial and permanent improvement; and therefore (unless where the farmer's interest in the land is to continue but a few years, is not worthy of imitation.*

You may either commit this letter to the flames, or insert it in the next number of your Magazine.

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

ON THE PROGRESSIVE IMPROVEMENT OF ENGLISH WOOL FROM THE SPANISH CROSS.

To the Editor of the Agricultural Magazine.

SIR,

AFTER having sufficiently exhausted your patience by answering objections to the measure of improvement in our Rural Economy, by the introduction of fine clothing wooled sheep, I may probably crave permission to trouble you with some remarks on the no less important subject of tillage, particularly as it refers to the culture of that most invaluable esculent production the potatoe.

In the mean time, resuming the former subject, I beg leave to suggest that a flock, the offspring of the first cross by the Spanish ram would be the most profitable to the farmer. Because a competent number of this description are to be much more speedily obtained; and that the first cross acquires an indefinitely small fraction more of the Spanish blood, than all the subsequent crosses taken together, however numerous; in other words, the fleece on the first cross is presumed to have

acquired very nearly one half of the amount of its improvement; in a single year, both in weight, and in advance of value per lb. whereas, to acquire the remaining half, many years, perhaps six to eight, would be requisite.

Rejecting fractional minutiae, I beg leave to assume the present value of the *unwashed* Spanish fleece to be 4s. per lb.; and of the *washed* Ryeland 2s. and further, the weight of the former to be * 8lb. and of the latter 2 lb. then the following sketch will serve to convey some idea of the progressive improvement.

Spanish 8 lb.	} med ^m . wt. 5lb.	} viz. 5lb.—3 0 or 0 15 0	} s. d. £. s. d.
Ryeland 2 lb.			
Spa. price 4s.	} med ^m . price 3s.	} First cross.	
Ryeland 2s.			
Spanish 8 lb.	} med ^m . wt. 6½lb	} — 6½lb.—3s. 6d. or 1 2 9	} Second cross.
1st. adm. 5 lb.			
Spa. price 4s.	} med ^m . pr. 3s 6d	} Third cross.	
1st. adm. 3s.			
Spanish 8 lb.	} med ^m . wt. 7¼lb	} — 7¼lb.—3s. 9d. or 1 7 2½	} Third cross.
2d. adm. 6½lb.			
Spa. price 4 0	} med ^m . pr. 3s 9d	} Fourth cross.	
2d. adm. 3 6			
Spanish 8 lb.	} med ^m . wt. 7 lb	} — 7½lb.—3s. 10½d. or 1 9 6¼	} Fourth cross.
3d. adm. 7¼lb.			
Spa. pr. 4s. 0d.	} med ^m . pr. 3s 10½	} Fifth cross.	
3d. adm. 3s. 9d.			
Spanish 8 lb.	} med ^m . wt. 7½lb	} — 7½lb.—3s. 11½d or 1 10 9	} Fifth cross.
4th. adm. 7½lb.			
Spa. pr. 4s 0d	} med ^m . pr. 3 1 1½		
4th. adm 4 10½			

Pursuing this calculation indefinitely, and to speak in mathematical terms, it is evident that the fleece of the production would never completely reach the value of the original or 32s. but be continually approximating.

Such, less than hair breadth distinctions, however, are not of the slightest importance in practice.

The 4th cross, I presume, is perfectly sufficient for every practical purpose, even for the finest fabrics of the woollen manufacture, as well as for extending the propagation of the race.

In point of practice I even incline to think with some men of experience, who have asserted the fact, that by attentive selection individuals of the offspring in the fourth or fifth generation may sometimes be found to exceed the male progenitors both in weight and fineness of fleece.

I remain, Sir, your very obedient servant,

Bath, Jan. 14, 1804.

NEHEMIAH BARTLEY.

* I have sheep which produce upwards of 10lb.

INTERVALS IN DRILLING, TURNIP CULTURE, &c.
IN REPLY TO TWO CORRESPONDENTS.

To the Editor of the Agricultural Magazine.

SIR,

Norfolk, Jan. 16, 1804.

I AM obliged to your Correspondents, J. S. and Agricola Northumbriensis, for their observations in your last Number, on my communications of the 26th of October, and the 16th of November last, and as the former gentleman expresses a wish at the conclusion of his letter, that I would, through the medium of your Miscellany, make my observations on the objections he has stated, I shall take leave once more to trespass on your useful pages. First, then he must not give me credit for the contrivance, (I mean of the toed coulter.) If he refer to my letter of the 16th of November, he will find that I do not claim it. I took the first from a drill belonging to a neighbour, which was filled up with toed coulters of cast-iron, extremely awkward and clumsy, and too broad and blunt, that they could not pierce the *flag* properly, even with a weight attached to them, as heavy as a chain could conveniently raise. I took the hint, I say from these, but had mine made of hammered iron, narrow, light, and very sharp. I shall candidly acknowledge that I have never used the horse-hoe, and though drilling is very generally practiced in this neighbourhood, I do not know a single farm in it, on which that implement is employed. I intend not to deny its merit, but at the same time must dissent from the opinion of J. S. "that the existence of the drill husbandry depends *absolutely* upon the horse-hoe." Setting aside, for the present, all hoeing, it is of material advantage that the seed be put into the ground at an even and proper depth, and at regular distances, which is effectually done by the drill, but never by broadcast and the harrows. The different spaces between the drills, ought in my opinion to depend upon the quality and condition of the land, and of course the probable branching of the plants. When land is *lusty*, wide space may be preferable to narrower, as you may expect a better crop in every respect, where the plants have sufficient (but not too much), room to branch out and spread, than where they stand too thick, as in this latter case they will run up spiry and weak, producing a small short ear, and thin grain. But where land is of inferior quality, and in *less heart*, consequently where the plants are likely to branch much less, the drills should be proportionally closer, but the seed not thicker in the drills, and I know from experience, that I have some land in my occupation, on which in a favourable season, I should obtain an excellent crop of barley, even if the drills were a foot asunder;

and other land, on which the crop would make a very poor and naked appearance at harvest time, if the drills were more than five inches apart.

My peas I drill at nine inch intervals, that the hoers may have room to walk without treading on the plants, but was it not for this necessary consideration, I should also drill them at five inches, to insure; as far as possible, a thick crop, which as every agriculturist knows, improves the land and leaves it clean, whereas a thin crop of peas, leaves it full of weeds and rubbish, notwithstanding all the care that may have been taken to keep the crop clean. But now as to hoeing, I have never yet, as I before observed, had the courage to employ the horse-hoe, (and according to the opinion of J. S. I never can use it, while I adhere to my seven inch intervals, this I do not assent to,) but have always had all my wheat and pea-crops well hand hoed, and I never could have had this done perfectly, without the drill, as the regular space formed by that machine, whether broad or narrow, enable the hoer to cut all the land completely, using a hoe of a breadth proportioned to the spaces between the rows of corn, and though the expence attending the hand hoe, is certainly much greater than that of the horse hoe, it is not very heavy, and I had the whole of my last year's wheat and pea crops well hoed for 2s. 6d. per acre. It is my intention, this year, to hoe my wheat with the horse hoe, and I do not doubt of accomplishing it without injury to the crop, even in my seven inch spaces, and if I had had my fears, they would, in a great degree, have been removed by an observation in the letter of J. S. (viz. "this implement, (the horse hoe) can never be safely employed when the corn is sown in rows at a less distance than eight or nine inches." This observation certainly bears the appearance of absurdity; but I will explain myself.—When we mention the distances from row to row, we do not mean from the edge or outside of one row to that of the other; but from centre to centre; and as Cooke's *cast-iron* coulters are not less than two inches wide, there is an inch lost on each side; so that if the intervals be what we call eight inches, of course there are only six inches remaining for the operation of the hoe. Now as my hammer'd-iron coulters are not more than one inch wide, consequently in my seven-inch intervals, I lose no more than half an inch on each side, and have therefore the like space of six inches remaining for the hoe. But having this, I do not see why narrow intervals may not be hoed as well as wider, provided the hoes be of a proportionate width, as the man who guides the hoes, has only to take care that one of them be in its proper place, (from which one he should never suffer his attention to be taken,) and all the others, if regularly fixed, must be right. In fitting up my implement, I shall not

have any hoe made to go between the trod outer rows of corn, as that must be attended with danger, for be the man who guides the drill ever so expert and careful, it is impossible but at times the outer rows of corn must approach nearer to each other than the regular distances, but this is impossible to happen in those intervals, between the trod outer rows of the *same* drill. As to barley, we never find it necessary to hoe it when put in as it generally is (and always ought to be) after a clean turnip fallow, the only weeds which appear among it, being docks and thistles, on either of which the hoe would do no service, but the good farmer will endeavour to rid his land of them, by drawing up the one, and cutting the other. I have no farther observations to make at present on J. S's letter, except to assure him, that though I do not feel disposed to increase the distance in my rows of wheat, I shall do so in all probability, if I find it impracticable to horse hoe in the present spaces. I beg him to accept my thanks for his very candid and gentlemanly observations on my letter of the 16th of November.

I feel myself flattered that any communications of mine have been thought worthy the observation of your old and very intelligent correspondent, Agricola Northumbriensis, and entirely agree with him "that the results of comparative trials would be still more satisfactory." He must however recollect, that my operation was put in practice from necessity, on the spur of the occasion, with such implements as I had at hand, and that the major part of my horses and workmen, were then employed after other business (getting up the hay) from which I did not think it prudent to take them, so that I had not sufficient *force* to get my land ridged, had I been so disposed, I had no predilection for the intervals of nine inches, but took the drill with the coulter as they happened to be fixed, and as the seed was put in late in the season; and also from the observation I have made of the crop, believe that the turnips would not have attained a greater size than they are of at this time, had the intervals been wider. The weeds which had come up on the land were *Blue Bottle* (Bugloss) very thick, and occasioned, I believe, by the land having been ploughed deeper than usual, which probably brought the seeds which before had been deeply buried, up to or near the surface, and consequently within the action of the vegetative power. The scuffer destroyed them all completely, there was scarcely one afterwards to be seen. The crop has fully answered my expectations, and thus far it has supplied the purpose of a comparative trial, that some of my neighbours re-sowed their turnip lands at the same time in the old method, and without success.

I am much pleased with A. N's description of his drilling Turnip-seed on ridges, the manure being buried underneath; and shall certainly give his practice a trial on my farm next summer. I once saw a similar process going forward with an implement which I think was called a Scotch-drill, (and which answers to the description given by A. N. of his) on the farm of that estimable character, whether we consider him as a public or a private character, or a farmer, T. W. Coke, Esq. What success attended it I am not certain of, the turnip seed was Swedish, was sown very early, and I think destroyed by the fly. I shall not dispute with A. N. on the superiority of the Norfolk Farmers in the cultivation of the turnip, but they are not often guilty of the slovenliness which he mentions (I do not mean to say that he attributes it particularly to them) in leaving a large portion of the manure on the surface. The best practitioners after the fallow has been well ploughed, and made perfectly clean, set on the manure, not immediately before the last or seed ploughing, but about a month before seed time. It is then *scaled* (ploughed in very shallow) rolled with a light roller, sometime afterwards perhaps harrowed, and at the proper season taken up the full depth for the seed. The manure by this process is well mixed with the soil, and very little if any will be seen on the surface. I certainly intend to *drill* (not *drop* as erroneously printed in your No. 51) the whole of my turnip crop this year, and the intervals will be according to the probable *lustiness* of the land, as mentioned in my observations on J. S's letter. Those which are sown in good season, and on land likely to procure large roots, at not less than twelve inches, which if properly *set out* by the hoer, in a quincunx form thus will be full thirteen inches from plate to plate. I should doubt whether putting the seeds on ridges, on our light sandy soils, would not hazard the destruction of the plants in dry weather, when in their infant state; but as I said before, I shall try it. I do not think we shall get our hoeing done more cheaply by drilling our turnips. Our labourers, I believe, would prefer hoeing broad-cast turnips, to those drilled in any way, and at any reasonable distance whatever. The plants are more single, and easier to hoe when broad-cast, than drilled, besides there are many spaces left without a plant in the old method, so that they often get paid for ten acres or more, when in fact they have hoed only nine. In drilling, few places can be missed, so much the better for the master, who must not therefore grudge the expence of hoeing. I have now Sir only to apply the same observations to the remarks on my communications by A. N. which I did to those by J. S.

I have been vexed to see, that some of your correspondents have not always preserved their temper, but made their observations on the communications of each other, with ill-humour and asperity, from which it is likely a disgust has arisen, that has deprived your readers of much valuable information. From the discussions in your entertaining and instructive Miscellany, many useful hints may be obtained, and though your numerous friends may exercise the "fortiter in re," I hope they never will dispense with the "suaviter in modo." Some of the Farmers in this country will make but a poor business of it this year. On many farms there is not a single turnip (the Sheet Anchor of our husbandry) wheat so thin and bad, that the Millers and Merchants do not like to buy it at *any price*, so that they must depend upon what they can make of their barley, at ten shillings per coomb; and much of this must go to feed cattle, if they mean to farm next year. Unfair means seem to be taken to depress the price of corn; but the government must take care that the taxation on barley be not so heavy as to produce the ruin of the farmers, the most useful and respectable class of the community. We must not reverse the old fable, and starve the members to fatten the belly, or all as in the former case will perish together. But the state of the landed interest seems likely soon to be laid before Parliament, and when we recollect that the first man in the kingdom, possesses one of the best hearts, and is a farmer himself, it is not unlikely but he will make his ministers attend to the distresses of his brother agriculturists. But I fear I have already trespassed too much on your time.

I am Sir,

Your constant reader,

P. J.

P. S. I am sorry to see your last volume conclude without a list of errata. The good regulation you have established of inserting no communication in the Number of any month received after the 18th of the same, will, I doubt not, in a great measure prevent the necessity of similar observations from your friends, as it will afford you sufficient time to correct the press.

PATERISH SHEEP.

To the Editor of the Agricultural Magazine.

SIR,

PERMIT me to ask a few questions, through the medium of your very useful Magazine, concerning *paterish* sheep; in hopes that some of your worthy correspondents may give me a satisfactory answer.

Ag. Mag. Vol. 10.

G.

The sheep that we call Paterish, in Sussex, are taken with a fit of turning round continually, all the same way; the cause is, a cist, or bladder, filled with very clear water, in the venticle of the brain: some have one in each venticle, and others have the cist of both sides joined in one. In all the bladders that I have extracted, there has always been several hundreds of very small macula, exactly in the form of eggs. I have taken them out of living sheep, and they have lived several weeks afterwards; but without further advice I fear I shall never make a complete cure. I have seen a great many sheep's heads inspected by a very eminent surgeon; but have not been able to improve much from it.

Young sheep are most subject to this disorder, from the age of ten to twenty months old. Some farmers lose a tenth or perhaps more of their young stock by this disorder. The questions I ask are these:—What is the original cause of this disorder? What is likely to be a preventative? And which, if any, is the most probable way to make an effectual cure? If this is thought worthy of a place in your Magazine, by inserting it you will very much oblige,

Your humble servant.

Falmer, near Lewes,

E. DOWLEN.

Dec. 21, 1803.

P. S. I have several more questions to ask at another time concerning sheep.

WEIGHT OF SHEEP.

To the Editor of the Agricultural Magazine.

SIR

Jan. 16, 1804.

IF you will be so obliging as to insert the weight of the sheep as under, in your useful and entertaining Magazine, you will very much oblige a constant reader, and a well wisher to the same.

Dallington, near
Northampton.

RICHARD EARL.

Two three shear, weight as under:

	st.	lb.	offal	st.	lb.	lb.	lb.
First	29	5	8	7	2	59	and 1 over
Second	26	1	ditto	7	4	ditto, ditto	52 and 1 ditto

The three following were shewn in Mr. Wooton's yard for the prize; weight as under:

	st.	lb.	offal	st.	lb.	lb.
First	23	4	7	2	or	47 per quarter
Second	23	0	ditto	7	7	or 46 ditto
Third	22	2	ditto	7	5	or 44½ ditto

The offal includes, inside or rough fat.
 Head and pluck.
 Entrails.
 Blood
 And Skin.

The method of cutting off the shin bone at the knees, and the hind legs at the houghs, is not customary in our market, which must add to the offal and help to diminish the carcase.

ON A PASSAGE FROM THE PEN OF DR. HUNTER, INTRODUCED INTO A QUARTERLY SCOTCH MAGAZINE.

To the Editor of the Agricultural Magazine.

SIR,

IN a letter from Dr. Hunter, of York, introduced into a Scotch Magazine for November last, I observe, with some displeasurè, the following passage.

“ I find many papers of mine inserted in an Agricultural Magazine, published in London; and these papers not being mentioned as extracts from the Georgical Essays, have the appearance of making me a supporting correspondent of that work, which I really am not.”

In this paragraph, two charges are made against you.

First, that you have availed yourself of the Georgical Essays without referring to the authority from which they are extracted.

Secondly, that you have implicated this respectable physician in representing him as a correspondent with your work.

From these remarks, I suspect the Doctor is troubled with a little redundance of gall in his constitution, and that in consequence of the overflow of this humour, he has seen with a jaundiced eye the contents of your publication. At least in your late numbers you have religiously pointed out the authority of which you availed yourself. You will recollect that I was so fatigued with the repetition of his desultory strictures, that I expressed a wish they might be discontinued, and I was happy to see your compliance with my suggestion in the last numbers.

In your review of that work under your Critical Catalogue of April last, you very rightly object to the defective arrangement of the materials, which must be fatal to the success of a work of this description; because if method or skill in distribution be required on any subject, it is necessary in agriculture, that the quackery of Doctors, and the speculations of theorists may be completely separated from the art, in order that it may be established on a few didactic principles drawn from acknowledged and accurate experiment.

The objection made by the Doctor, is the more extraordi-

nary, as it is by express permission, given in his publication, and noticed in your review, that you have probably availed yourself of some of the more useful materials from this farrago: and you properly intimate that the work would not bear indiscriminate use, and that it is only the papers that are new and important to which you will condescend to have recourse.*

If on any occasion you have availed yourself of the awful name of the Doctor, without acknowledging the classic medium through which this pharmaceutic Maro has imparted his wisdom, it must be from a conviction, that the Apollo of Mantua, and the Esculapius of York, are known to all mankind, and that any further explanation would have been needless, if not obtrusive. If, indeed, from any other motive, you shall have substituted Virgil for Virgil's Georgics, or Hunter for Hunter's Georgics, I may perhaps have to lament, that there is as much deception and knavery in the art of writing as in the art of healing; and that the golden beard of the Doctor's patron has equally attracted the avarice of both professions.

I am not at all capable of estimating the portion of disgrace to which you will expose the Doctor, if any inattentive reader should conclude he is a correspondent of your work. But this I know, that he has submitted to no small degradation by indulging his spleen on an occasion so frivolous, and that the grey hair is never so respectable as when the eye is discerned through it, glowing with all the candid and generous sensibilities of our nature.

What can have influenced the Doctor to have abandoned the labours of his profession; to have dissected plants instead of animals, to have analysed mud instead of mucus, and to have compounded dung instead of diachylon; but that he might benefit his species by the application of his talents in a more productive way than by enlarging the annals of empirica, and that he might exchange the absurdities of Argentinus for the wisdom of Columella. If this be a correct view of his motives, what ingenuity can discover any objection to the circulation of beneficial truths through the channel of your miscellany.

Without venturing on this solemn occasion, to advert to the *Ex Sutore Medicus* of the fabulist, I may apply the *Calvus et Musca*, the *Bald Paté* and the *Fly* of the same facetious writer. You will excuse me, Mr. Editor, if I compare you to that contemptible insect which chanced to repose on the glossy

* The passage to which I allude is as follows. "We already have, and shall in future avail ourselves of the author's permission, to lay before our readers, such of the original papers that have appeared for the first time in this collection, as we conceive most worthy the attention of the practical farmer."

scalp of Calvus, when a furious blow was directed at the little fugitive. The latter, smiling, withdrew, leaving the angry dotard to lament the sanguinary effects of his own violence.

“ Physician, heal thyself,” and then attend to this observation of the entertaining moralist.

“ Hoc argumentum veniam magè dari docet,
Qui casu peccat, quàm qui consilio est nocens :
Illum esse quâvis pœnâ dignum judico.”

I am, Sir, yours, &c.

DEMOCRITUS.

ON THE USE OF MADDER IN AN UNDRIED STATE.

To the Editor of the Agricultural Magazine.

SIR,

I Observed an intelligent paper, signed Agricola Meridionalis, on the subject of Tythes, in which the article of Madder was mentioned. I have since seen a letter from M. Michel, Secretary to the Society of Agriculture established at Beauvais, which refers to a method of using the roots of madder green without drying. I there notice that a trial was made of dying two pieces of thin flannel with the roots of some Madder, newly taken up out of a Surgeon's garden on the Town Rampart. Messrs. Guerin, who made the trial, undertook it without the smallest expectation of success, but the result was, that it went twice as far as the dried Madder, and the flannels surpassed, in liveliness of colour, every piece which could be produced, prepared from the Zealand Madder.

If this account be correct, it will be a material inducement to your correspondents for the cultivation of this plant, and I hope some among them will be able to inform me whether the practice have been adopted in our provincial establishments connected with the staple manufactures.

I am, Sir, yours, &c.

Dec. 25, 1804.

JOHN DANVERS.

ROTATION OF CROPS SUITED TO MANY VARIETIES OF SOIL,
RECOMMENDED BY THE REV. H. J. CLOSE.

To the Editor of the Agricultural Magazine.

SIR,

I N looking over some of the late Communications to the Board of Agriculture, I have discovered the following table, with which the Rev. H. J. Close, concludes his letter to the President, and I have considered it so intimately connected with the improved principles of modern Agriculture, as to deserve a place in your Miscellany. You will observe,

the immediate object is the course of crops most suited to the different species of earth detailed in the first volume, but these rotations of husbandry are only recommended on condition that all the crops are hoed well, and are kept perfectly clean, and that the turnips, pease, and beans be put in double rows of three feet ridges, and the cabbages in single rows of three feet ridges.

Anxious to hear the opinion of your correspondents on this admirable system,

I remain your's, &c.

Thorp Arch, Jan. 4, 1804.

T. T.

A TABLE,

Shewing at one View a Course of Crops adapted to various soils, for any number of years.

Clay	Turnips or Cabbages.	Oats	Beans and Clover.	Wheat.	Turnips or Cabbages.	Oats	Beans and Vetches.	Wheat.
Clayey loams.	Turnips or Cabbages.	Oats	Clover.	Wheat.	Turnips or Cabbages.	Barley	Beans.	Wheat.
Rich loams or Sandy loams.	Turnips and Potatoes.	Barley	Clover.	Wheat.	Beans.	Barley	Pease.	Wheat.
	Beans	Barley	Pease.	Wheat.	<i>Ad infinitum</i>	Barley	Pease.	Wheat.
Peat Earth.	Turnips	Barley	Clover;	Wheat.	Potatoes.	Barley	Pease.	Wheat.
Chalky substratum.	Turnips.	Barley	Clover.	Wheat.	Potatoes.	Barley	Pease.	Wheat.
Gravels.	Turnips	Barley.	Clover	Wheat	Potatoes	Barley	Pease	Wheat
Light Lands.	Turnips	Barley.	Clover and Rye Grass	Clover and Rye Grass	Clover and Rye Grass	Barley	Pease	Wheat or Rye.

But on this soil ten acres in every hundred should be laid with Saintfoin for eight or ten acres.

ZZ

EMBANKMENTS, WITH SWING-GATES OR VALVES, FOR OCCASIONAL IRRIGATION, ON THE SHORES OF THE SEVERN, &c.

To the Editor of the Agricultural Magazine.

SIR,

I observe some of your papers signed "Chorographus," and the last under that signature applies to the agriculture of the county of Salop. In your address to your correspondents you express a wish, that these communications may attract the notice of those "whose local situations will give them the best opportunity of enlarging the body of intelligence on this department of provincial agriculture."

Thus invited by you, Mr. Editor, I have taken the liberty of imparting an improvement which is carried to great perfection upon the land subject to the flood of the rivers Severn and Vernieu, in Montgomeryshire, bordering upon that county, by embankment. The banks are fixed at discretionary distances by the side of the river, so that when embanked on both sides the course of the flood may not be too much narrowed. In many instances it should be from forty to fifty yards. Yet there has been a great inconvenience attending this improvement, for though the produce of hay, &c. has been all saved, yet this land has been found to be much less fertile, by water being kept off, and in some places it has occasioned the banks to be disregarded. There is, however, an easy remedy for this, by fixing at proper distances troughs with swing-gates or valves, by which the water may be suffered to overflow as usual from November to March inclusive, and be shut out in the summer months; thus the fertility would sustain no injury, and the produce would be preserved. This is an improvement of great utility and more neglected than that of floating.

Consider for a moment, the immense quantity of hay, as well as pasturage, that may be preserved, particularly in wet seasons, and at a very small expence; many thousand acres may be saved from pernicious inundation, at 3d. or 6d. per yard, on the side of the water boundary.

By the Montgomeryshire inclosure Act, 3,000l. has been laid out in this important improvement.

I am, Sir, yours, &c.

Jan, 10, 1804.

P. G.

LIXIVIAM USED BY THE FARMERS OF NIDAU, IN SWITZERLAND, TO PREVENT THE SMUT IN CORN: FROM THE ACCOUNT OF MR. N. E. TSCHARNER.

IN the country of Nidau, where they grow a great deal of good corn; bere or square barley in particular, is very much subject to be smutty.

A farmer of Mœsiguen boasted he had a secret of preserving corn from that distemper; and in fact, his assertion was proved to be true, by his crops being more free from it than those of his neighbours.

He made use of a lixivium to wash and prepare his seed before it was sown.

Not having time to assist all those who applied to him, he came to a resolution of selling the receipt to his neighbours; one of whom was disinterested enough to make it public.

The more this method of preparing the seed corn was known and tried, the more credit it acquired; and at this time no farmer in that neighbourhood is lazy enough to grudge the trouble of preparing his seed in this manner, or covetous enough to hesitate at the expence of the operation.

A wealthy and intelligent farmer communicated the receipt to me, assuring me at the same time, that for ten years passed, which he has used it, his corn has been entirely free from the smut; without excepting last year, when the smut made such havock amongst the wheat and bere.

To twenty gallons of water, put about half a bushel of quick lime, half a pound of soap, and the same quantity of saltpetre. These two ingredients may be saved, if the draining of the farmer's yard be used instead of plain water. These twenty gallons of water should be boiled, till the lime is entirely dissolved.*

The farmer begins to prepare his seed when the lixivium is almost cold. He first puts half a bushel of seed into a tub on which he sprinkles, with his hand, to the quantity of two quarts of the mixture, keeping the corn stirring all the time with a stick.

He then throws in another half bushel, which, he in the like manner, sprinkles with the mixture, stirring at the same time, the whole mass well. He continues this work till the tub is nearly full, using about two quarts of the lixivium to half a bushel of corn.

He then covers the tub with a course cloth, and leaves it for eight and forty hours to dry, only he must stir the corn twice in that time to forward the evaporation of the superfluous moisture, and to spread the dust of the lime in all parts alike.

It is to be remarked, that, in this operation, the corn in-

* On a farm within twenty miles of London, a tub was constantly kept to receive the urine of the family, when the time of wheat sowing drew near. This human urine was poured on the wheat, after the grain had been mixed with a little slacked lime. In this state it remained for twelve hours, on a boarded floor; after which it was used for sowing. This practice was continued for some years, and during those years smut was never seen or known on the farm. E.

creases in bulk one-sixth part; of course, where five bushels of unprepared seed would be sown, six must be used.

The farmer who furnished me with this account says, that he always prefers using the lixivium milk-warm; and that of all drainings of yards, he likes that best which comes from horses or hogs, which may occasionally be mixed with the muddy water of bogs or ponds.

T. W.

CRITICAL CATALOGUE.

A New System of Farriery, including a Systematic Arrangement of the External Structure of the Horse, illustrated with copper-plates representing the exact proportions of a Blood Horse, with a Description of the Defects that tend to impede velocity. With Directions for ascertaining, with exactness, the age of a Horse, from his being foaled, till fourteen years old. To which are added the Improved Mode of Treatment, and Principles recommended by the Veterinary College, in every disease of difficult management. Interspersed with occasional References to the dangerous Practice of Country Farriers, Grooms, &c. and the Method of curing the Principal Epidemic Diseases, to which cows, sheep, &c. are subject. By John Feron, Veterinary Surgeon to his Majesty's 13th Regiment of Light Dragoons, &c. &c.

Mr. Feron denominates his book a *New System of Farriery*, but we must confess ourselves at a loss to discover wherein the Novelty consists, as he has done little more than retail the observations of Mr. Coleman, which have long been before the public.

We mean not to disparage the system adopted by the ingenious Professor of the Veterinary College, a system which has powerfully contributed to remove prejudices, and to introduce a more rational mode of treatment in the practice of animal medicine.

The Writer sets out with observing: "the utility of a knowledge of the Veterinary Art is manifested by daily experience: and although so many books have been written on the subject, that any person would imagine more to be superfluous; I am sorry to say very few of them have proved by actual experiment what they assert." After descanting on the ignorance of Farriers in general, he proceeds to state: "In describing the different surgical operations, I have almost invariably followed the accurate and judicious method of Mr. Coleman, having seen the practice of this able professor, and followed it successfully myself during many years of an extensive practice; in short, I have been particularly attentive to admit nothing but what is justified by experience."

Thus for little more than the recommendation of a method of treatment, the efficacy of which has been already established by experience, the Author requires the moderate sum of one guinea, and for a less quantity of matter than is contained in the compass of an ordinary duodemimo.

"Having many times, continues the Author, considered deficiency which exists in the Veterinary Art, in respect to the external structure of the horse, I have introduced here rules, or easy

scriptions, by which every man will be able to judge of the good or bad conformation of a horse. There are works, I confess, which explain the external proportions of the horse; but after the Readers have gone through a few pages, they find themselves puzzled with the confused idea they give of the anatomical, geometrical and mechanical action of the muscles. Whilst in the present work I have been very particular in observing the exact proportions of horses, this being the only thing which I consider as truly important when treating on that subject."

The author has illustrated this part of his treatise by several plates, which are well calculated to assist the explanation. This is preceded by observations on the age of horses, which are likewise accompanied with a plate of the teeth in illustration of a subject of considerable interest to the purchasers of horses. Next follows the method of treatment of the various diseases to which the horse is subject, and this is succeeded by observations on breeding, which certainly contain reflections worthy the consideration of the breeders of these useful animals.

Having explained the impropriety of breeding from unsound horses, and the impolicy of that economy which confines the mare in foal to the impoverishing treatment of a straw-yard, he continues: "But a matter of much greater consequence, the inattention to which has been productive of more disappointment and vexation, is the crisis of delivery; an event so wonderful that it becomes a matter of admiration how the animal sustains the shock without a frequency of danger. Nevertheless it is worthy of remark that difficulties are apt to take place which generally terminate in the death of one or the other, and not uncommonly in the destruction of both.

"However common this unlucky circumstance may be, I do not recollect an instance in which a proper attempt has been made for the recovery of the young animal, in case of suspended animation; on the contrary it is pronounced dead with all possible speed, and immediately cut to pieces for the benefit of the dogs, without reflecting any further on its present situation. This circumstance, however, ought to be very minutely investigated, particularly if the apparent death should proceed from hard delivery; as we know that such an unfortunate occurrence often produces an accumulation of blood in the cavity of the head, by a privation of air, or by impeded extension of the lungs; accidents which generally follow when the colt is foaled with the hind instead of the fore-feet first; or the anus foremost without any appearance of legs; or when the fore-legs present themselves in their natural state, but with the head bent backward upon the shoulder. All these unnatural situations may suspend life without destroying it entirely, a case which I have frequently witnessed during the first ten years of my private practice.

"The first treatment in cases of suspended animation, whatever may be the cause, should be directed to excite a susceptibility of stimuli; and next for restoring susceptibility itself. An advantage so essential must induce us to be particularly careful in the choice and application of stimulant medicines, and not to administer such as are too powerful at first, which would indeed excite irritability, but

in too violent a degree; and it is also deserving attention that, in the beginning of the process when susceptibility of irritation is but slight, violent stimulants may be pernicious, by tending to suppress the latent sparks of life. But by a due proportion in the administration of those medicines, and being skilfully managed, the action and re-action of the vital power may be restored, and the system again become susceptible of stimuli.

“ It is difficult, and sometimes impossible, to discover whether or no the vital principle is entirely suppressed, and the animal apparently dead, may be insensible to the effect of the strongest stimuli, such as the operation of the knife, and the effects of a red hot iron; and yet the vital power may not be extinct.

“ These remarks on suspended animation will be sufficient to point out to every humane master and faithful servant, the great danger of destroying a colt of considerable value, before having previously tried the following treatment.

“ If a colt is foaled apparently dead, in a place where little or no assistance can be got, let his tongue be immediately stimulated; rubbing it well with common salt. This stimulant may promote expectoration, and thus admit the external air freely: I have seen several instances of colts foaled apparently dead, recovering all the symptoms of animation in less than twenty minutes. Instilling a few drops of volatile spirit, into the inner corner of the eyes, may likewise operate with good effect; but should the case prove obstinate, and vitality continue suppressed, I recommend the application of the actual cautery, on one or both sides of the chest, or under the belly. Rubbing the legs well with oil of turpentine, is capable of producing a good effect also.

“ If any signs of life should be perceptible, then it would be an excellent practice to supply the blood with a greater proportion of oxygen gas, pure or diluted with atmospheric air. Stimulating the nostrils with the vapours of vitrolic or marine acid, will also be a very proper application.

“ But a more proper method of immediately stimulating the heart and arteries would be, by transfusing new blood into them. This operation deserves particular attention, in cases of suspended animation. It is performed by injecting the blood that comes out of the artery of a calf or sheep, into the jugular vein of a colt that is apparently dead at the time he is foaled, and is done in the following manner, viz.

“ The animal you wish to kill, in order to save the other, must be well secured, and laid as near the other as possible. Then a longitudinal incision must be made in its neck, that you may find the carotid artery, which lies along side, and immediately under the jugular vein; having previously secured two injecting pipes, such as those used for injecting anatomical preparations, at each end of a tube, long enough to reach from one animal to the other. One of these pipes must be introduced into the carotid artery of the calf, and the other into the jugular vein of the colt apparently dead; the artery must be well secured with a ligature, just under the pipe, until the other pipe is fixed in the vein of the colt, or other animal, that we suppose to be in a state of suspended animation only.

When the apparatus is ready, you may cut the ligature of the carotid artery of the calf; you will then see the blood that comes immediately from the heart, running from one animal to the other. This operation is almost certain to restore life, if the organic fibres of the heart and arteries can be at all effected by stimulants."

The concluding portion of the work contains observations on some of the diseases of oxen, cows, and sheep.

We should conceive, that upon the whole, this volume is likely to prove of greater utility to those who breed horses for the turf, than to the public in general. To the former, the part treating of the external structure and proportions, must more particularly apply; and there persons of that description will probably find hints that may prove of considerable advantage.

Essays on Miscellaneous Subjects. By Sir John Sinclair, Bart. 8vo. Cadell.

No person interested in the progress of agricultural improvement, can be a stranger to the name of Sinclair—a name which its present possessor has rendered synonymous with benevolence, patriotism, and zeal for the public welfare. Of this, if further proof were required, the present volume affords additional demonstration; and the reader is obliged to confess, that its contents are equally honorable to the talents and the feelings of its author.

Instead of prefixing a long preface to his work, expatiating on the importance of the subjects of which he treats, maintaining the justice of the principles he lays down, Sir John, with singular modesty, contents himself with a few lines, in which the mind and intentions of the writer are admirably displayed.

"I should hardly have ventured (he says) to have troubled the world with this publication, had I not flattered myself with the idea, that any person who will take the trouble of perusing the following Essays, will on the whole be inclined to say, 'This is the work of an author who seems to have directed his attention to subjects connected with public utility and national improvement, and whose favourite object was, *not to have lived in vain.*'"

The volume contains twelve essays, and we shall as briefly as possible, endeavour to give the reader an idea of their contents.

1. Observations on the nature and advantages of statistical enquiries; with a sketch of an introduction to a proposed analysis of the statistical account of Scotland. The statistical reports of all the parishes in the northern section of the island, it will be recollected, were obtained by the author from the Scottish clergy, and of these he intended to draw up an analysis, as soon as the collection should be completed; but for some time past his health, and other occupations, having prevented him from engaging in so laborious an attempt; he has therefore thought it advisable to explain the nature of the plan he intended to pursue; as it might afford some useful hints to any other person willing to commence such an undertaking.

2. The second essay contains observations on the means of enabling a cottager to keep a cow, by the produce of a small portion of

arable land. The plan here proposed by the author, is certainly entitled to the serious attention of the landed proprietor; and the advantages which he anticipates from its adoption, appear by no means over-rated. Here, again, we cannot help remarking that spirit of benevolence, so conspicuous in all the works of Sir John Sinclair; in the questions with which he terminates this essay.—“ I shall conclude (he says) with asking, if any one can figure to himself a more delightful spectacle, than to see an industrious cottager, his busy wife, and healthy family, living in a comfortable house, rented by himself, cultivating their little territory with their own hands, and enjoying the profits arising from their own labour and industry? Or whether it is possible for a generous land-holder to employ his property with more satisfaction, or in a manner more likely to promote, not only his own, but the public interest, by endeavouring to increase the number of such cottagers, and encouraging, by every means in his power, the exertions of so meritorious and so important a part of the community?”

3. Hints as to the advantages of old pastures, and on the conversion of grass lands into tillage. From the facts collected by the author on this subject, he draws the following conclusion: “ That though on the whole, it may not be adviseable to recommend the ploughing up of very rich, old pastures, or water meadows, or land apt to be overflowed; yet with these exceptions, there is every reason to believe, that other sorts of grass lands may be rendered much more productive, by being occasionally converted into tillage; and for that purpose, it is desirable that the conversion of such lands should be promoted as much as possible; by removing the obstacles to such conversion; by enforcing the necessity of commuting tithes, without which no considerable tract of old pasture can be broken up; by pointing out to landlords the conditions under which they may agree to such a plan, not only without detriment to the real value of their property, but also yielding a most important addition to their income; and above all, by explaining to Parliament, and the public, that the measure above recommended, is one which may effectually tend to remove future scarcities, and to render this country independent of foreign nations, in the important article of provision.”

4. Hints regarding cattle. In this essay, Sir John enquires into the particulars essential in forming a perfect breed of cattle; and the appendix annexed to it, in which he treats of the different kinds of cattle-farms, is replete with practical and useful information.

5. On the improvement of British wool; containing the substance of an address to a society constituted at Edinburgh, for that purpose, on Monday January 31, 1791. In this address, the author points out such means as appeared calculated to improve the breed of native sheep, and diminish the importation of foreign wool; a subject intimately connected with the internal prosperity of the country. The growth and labour of the wool of the united kingdom, are calculated to furnish employment to about a million and a half of people, and to amount in value to the sum of twenty millions sterling per annum.

In consequence of this address, a society was formed, which was dissolved, after persevering in the pursuit for which it was constituted,

and accomplishing the principal objects for which it was established: leaving such experiments as it had not leisure to finish, in the hands of persons likely to complete them. The following are the objects which the worthy Baronet informs us, were actually accomplished by this society:—

“ It roused a great spirit for the improvement of sheep and wool; and introduced those sheep-shearing festivals, which are likely to be productive of so much public benefit. It improved so much, by premiums, the quality of the Shetland wool, and increased so much its price, as to add 3000*l.* per annum to the value of those remote islands. It ascertained, that a breed of sheep were to be found on the borders of England and Scotland, to which the society gave the name of the Cheviot breed; which was peculiarly calculated for a hilly or mountainous district, possessing great hardiness of constitution, and a very valuable fleece.

“ This breed is now extending itself over the most northern parts of the island, and will render those remote districts infinitely more valuable to the proprietors and occupiers, and much more useful to the public than otherwise they could have been.

“ Lastly, under the auspices of the British Wool Society, the Cheviot breed of sheep itself has been greatly improved; a subordinate society having been erected for that purpose, by several public-spirited farmers on the borders, by whose exertions that species of sheep, it is to be hoped, will not only be materially improved, but will soon be ranked amongst the most celebrated breeds in the island; more especially for possessing all those requisites by which a mountain breed ought to be distinguished.”

An appendix to this essay contains some excellent observations on the proper system to be pursued for the improvement of British wool; together with a description of the Cheviot breed of sheep, and an analysis of a Cheviot sheep-farm.

6. The Sixth essay, is an address presented on the 17th of Nov. 1795, to the Board of Agriculture, (of which, at that time, Sir John was President); on the cultivation and improvement of the waste lands of the kingdom. He here adduces many strong arguments, and convincing facts, to demonstrate the advantages that would be derived, both by individuals and the public, from the division and improvement of our wastes and commons. He contends, that the passing a general inclosing bill, is the first and most essential means of promoting the general improvement of the country; and, among other reasons, urges the adoption of such a measure, for one which, at the present moment, cannot be considered as unimportant.

“ The improvement of wastes, not only adds to the wealth and population of a state, but also renders it more defensible. An inclosed country is perhaps the strongest of any: every hedge and ditch becomes a rampart, through which an enemy cannot easily penetrate, and which there is little difficulty in defending. Were this country completely inclosed, and no opportunity afforded of fighting any pitched battle (the only thing to be dreaded in the event of an invasion) we should have little reason to lament the landing of any body of men, however numerous and well disciplined. They might do some mischief on the coast, but could never penetrate into the interior

of an inclosed country. The best defence the capital can have, is not to suffer a spot of uninclosed ground to remain between it and the coasts in its neighbourhood."

7. Substance of a Speech in a Committee of the whole House, on the means of improving the system of private bills of inclosure, and the resolutions of the Select Committee on that subject. These resolutions were afterwards carried into effect, by an act which tended much to reduce the expence of private bills of inclosure.

8. Hints regarding certain measures calculated to improve an extensive Property more especially applicable to an Estate in the Northern Parts of Scotland.

From this paper it appears that Sir John is engaged in the practical demonstration of the possibility of the improvements he proposes, upon his extensive estate of above 100,000 acres in the county of Caithness. In this plan, the author, far from consulting only private advantage, far from confining himself to the improvement of his own possessions, displays the enlarged views of an enlightened statesman and a zealous benefactor to his country. This essay is accompanied with the plan of a new town which Sir John is actually building.

In the Appendix the author considers the means of promoting the fisheries of the North and likewise introduces some account of the encouragement given by Frederick the Great, king of Prussia, for promoting the internal improvement of his own dominions.

9. Account of the Origin of the Board of Agriculture, and its progress for three years after its establishment. This account is followed by several appendixes, containing the plan for the establishment of the Board, the objects of their labours, various addresses of the author while president, &c.

10. Proposals for establishing by subscription a new institution, to be called the Plough, or Joint Stock Farming and Experimental Society for ascertaining the Principles of Agricultural Improvement.

Of the nature and plan of the proposed institution, for which, after £30,000 had been subscribed, a charter of incorporation was refused by government, the author gives the following sketch;

" 1. *Proposed Capital.*

" 1600 Shares at £.50 each 80,000

" It also intended to admit half shares at £.25 each, but the persons holding them, though they will have a right to partake in the pecuniary advantages of the proposed institution, are not to be entitled to vote in the choice of directors. The number of shares which each person may hold, not to be restricted. The directors to be annually chosen in London, and to meet there. The books of the Society to be always open to the subscribers.

" 2. *Proposed Expenditure.*

" To the expence of establishing eight experimental arable and grazing farms in the neighbourhood of London, and in different parts of the kingdom, at £.4000 each on an average 32,000

" To ditto for two upland farms for improving mountain sheep at £.1,500 3,000

" To ditto for purchasing 5000 acres of land, inclosing and planting them with larch, fir, and other trees, and various expences attending the same 35,000

“ To a contingent fund reserved for incidental and unforeseen expences 10,000

Total, £.80,000

“ 3. *Ultimate Return and other Advantages*

“ Sale of stock, crop and implements on the experimental farms, at the conclusion of 21 or 30 years, or any other period that may be fixed on by the Society 35,000

“ Value of 5000 acres of land, the buildings to be executed thereon, of 1,250,000 larch, fir, and other trees at the conclusion of 30 years, 218,000

“ Principal of the contingent fund, on the supposition that the interest will defray all the expences of management, 10,000

Total, £.263,000

“ Which is above thrice the original capital.”

“ In addition to the ultimate return, the Subscribers will, in the interim, enjoy the following advantages, namely:

“ The advantage of having an account of the proceedings of the Society annually transmitted to them.

“ The privilege of visiting the experimental farms, either in their own neighbourhood or wherever they may be established by the Society.

“ The right of nominating persons to be instructed at the different agricultural academies proposed to be erected at each experimental farm; and

“ A division of the annual profit, that may arise from the experimental farms.

“ It is also intended to keep up such a connection with the Board of Agriculture, and the various societies formed for agricultural purposes in the kingdom, as cannot fail to be attended with the most important advantages, both to the Society itself, and to the farming interest in general.”

We cannot deny that such a plan appears likely to answer the purposes intended by its public-spirited projector, and we cannot but lament with him, that the encouragement of government was withheld. Nothing but Sir John's unabated zeal and unwearied exertions, on a former occasion, procured its sanction to the establishment of the Board of Agriculture, to whose labors the various branches of the Public Economy are so materially indebted. In case the plan of an Experimental Society should ever be revived with a better prospect of success, the author thought it adviseable to preserve the papers regarding it in this collection.

11. Letter to the Proprietor of an Extensive Property on the means of promoting the comfort and improving the situation of the People in his Neighbourhood.

12. The twelfth and last Essay treats of Longevity, or the means of preserving health and attaining a great age.

Such are the contents of a Volume which cannot be too warmly recommended to the public attention; we doubt whether the hints and facts recorded in its pages will be found more worthy of the consideration of the statesman, the landed proprietor or the practical farmer.

HISTORY.

National Transactions.

GREAT BRITAIN.

THE reports of the projects of the French against this country have taken a new turn; and, if they be ill founded, they have at least the merit of variety, for certainly the public must have been disgusted with the eternal menace of invasion, which every day was to realize. It is now said, that from recent information, there is good reason to believe, that while Bonaparte engrosses the attention of the British Empire, with the threat of an attack on England, or at least on Ireland, he intends, the first opportunity, to send out the Brest fleet, or a strong division of it, laden with troops for the East Indies.

We may expect various reports of new schemes of the enemy, and it is obvious that any rational plan that could be devised to save the credit of the First Consul, without the necessity of a direct invasion of this country, would to him be highly acceptable. He had no idea, when he committed himself by making the rash threat, that the youth of this country, instead of requiring, like his conscripts, to be carried to the army in chains, would volunteer in such numbers, that the government would be obliged to restrain them. The intelligence must have deranged every calculation he had previously made, and shewn him the necessity of making some new arrangements; and, though it may be the sum of his ambition, at the present moment, to effect an invasion, it is more than probable he aims at attacking us in some other way, that his troops may not remain idle.

The rumours of a war with Spain and Portugal, have lately been renewed. The intelligence, on which they are grounded, is, however, very contradictory, agreeing only in one point, namely, that these two weak, enslaved countries continue to be the prey of consular rapacity, a pretty useful lesson to other countries threatened with the same yoke. We cannot consider it at all likely that Bonaparte will drag Spain and Portugal into a war, where they can be of comparatively little service to him, while he can extort from them money, of which he stands so much in need, as the purchase of their peace.

FRANCE.—On the 30th of December, the First Consul again left Paris on another inspection of his preparations for invading this country. His absence however was not of long continuance, for on the 6th of January he again arrived in the Metropolis. What will be his next adventure, is perhaps a mystery even to himself. His repeated journies to the coast, and his frequent boastings that the grand attempt was now at length to be made, clearly demonstrates the uncertainty in which he has for some time been involved. He has for some time been slowly advancing in the conviction that he has entered upon an attempt far beyond his power to accomplish. Perhaps he may now hope, that the many false alarms which he has lately caused to this country, may at last seduce us to look upon the whole as a mere delusion

and that our countrymen will in the end, be taken unawares, when the *wolf* does actually invade our fold. In this expectation he will assuredly be disappointed; as our means of defence, and our activity to anticipate all hostile attempts, daily encrease in a proportion far beyond his preparations. Flushing is now stated to be the grand rendezvous of the invading force. There are there assembled a very great number of large Dutch merchantmen, fitted up as transports; there and at Rotterdam together, nearly two hundred sail, each capable of containing from three to five hundred men. There are at Rotterdam and Flushing two 74 and two 60 gun ships, for the purpose of escorting this flotilla; and though a week ago there were not troops sufficient upon that part of the coast to fill these vessels, there can be no doubt but enough could in two or three days be drawn together for that purpose. In a word, if we are to believe the accounts from the Continent the expedition is on the point of taking place. The Italian troops destined to aid in the expedition, as well as French troops of every description, are marching to the coast. Among others, it is said, that the army assembled at Bayonne, under Augereau, is on its march to Boulogne. If this be true, it seems probable that an arrangement has been made with Portugal, and that all projects of attack on that country, and for overawing Spain into the war, are for the present abandoned.

The naval preparations are also mentioned as very considerable. At Dunkirk several sloops and gun-boats have been lately launched; and flat-bottomed boats are continually arriving there from Bruges and St. Omer's. The armament at Flushing is daily reinforced by gun vessels from Amsterdam and Rotterdam; while we learn that the flotilla at Boulogne consists at present of 350 vessels, and will shortly amount to 600.

Positive orders have been received by the French Admiral at Ferrol, from the French Government, to effect a junction with the *Corunna* Squadron, at all risks: but the active vigilance of Sir Edward Pellew, and his Squadron, notwithstanding the heavy gales of wind which have blown him several times off his station, has effectually prevented the intended junction of the two Squadrons.

A frequent interchange of couriers, it is said, takes place between Vienna and Paris, supposed to be on the subject of the Bavarian disputes, which were on the eve of adjustment; but the Elector of Bavaria, it is stated, had committed a new aggression, by taking possession of some new district, to which he lays claim as part of the late plunder in the plan of indemnities. If this be the case, it is clear that he must be instigated by France, for the purpose of stirring up a quarrel between Russia and Austria.

RUSSIA.—A Russian army of 200,000 men is actually collecting, the greater part of which is in Livonia and Volhynia. His Imperial Majesty, it is reported, has sent Baron Giersen to Hanover, fully authorised, according to report, to give further assurances to the States, of his earnest solicitude to obtain the complete evacuation of the Electorate.

TURKEY.—The accounts from the Turkish empire are of the most serious nature. The Sultan has been attacked in his capital by two rebel Pachas, who penetrated into the very streets of Constantinople, carrying terror and destruction wherever they came. The rebels indeed at length retired, altho' it is suspected that they were induced to do so, more by some disgraceful compromise on the part of the Grand Seignior, than by the force or dread of his Janissaries.

The Turkish commanders in Alexandria have at length agreed to capitulate to the Beys, on condition that the same government shall be restored in Egypt, as existed previous to the French invasion. The Beys have agreed to these terms, provided they shall be ratified by the Turkish government.

ITALY.—It is at length settled, that the duchies of Parma, Piacentia, and Guastalla, are to be united to France, with the exception of a small district, which is to be allotted to the Italian Republic. These countries

are to be organised, like Piedmont, into departments, and orders have already been given on the occasion.

EAST INDIES.—The report of the capture of the French squadron, sent out to the East Indies under Admiral Linois, proves to have been premature. The squadron, it appears, actually reached Pondicherry, and lay for a considerable time in the roads; but the British having refused to give up the place, the admiral returned to the Mauritius, where he arrived on the 10th of September, and landed the troops which he had carried out, to the number of two thousand men. The vessels under his command consisted of two sail of the line and five frigates.

Agriculture.

Essex Agricultural Society.

AT a Meeting of the General Committee of the Society, held at the Shire-House, in Chelmsford, on the 11th of January, 1804.

MONTAGUE BURGOYNE, Esq. in the Chair;

IT WAS RESOLVED,

That Premiums for the exhibition of stock, in the present year, be allowed as follows, viz.

To the person who shall exhibit to the General Committee of this Society, at a Meeting to be held at Chelmsford, on Friday, the 25th of May next, the best cart stallion, his own property, and which he shall engage to cover the ensuing season within the county, the Silver Medal.

The best bull, being two years old or more, his own property, and which he shall engage to use during the season within the county, the Silver Medal.

The best cow or heifer, (then giving milk,) his own property, which shall be kept by him for the purpose of breeding within the county, the Silver Medal.

The best ram, growing a fleece coming under the denomination of long, or combing wool, his own property, which during the ensuing season he shall engage to use, or cause to be used, within the county, the Silver Medal.

The best pen of three long-wool ewe hoggits, bred by him within the county, and his own property, the Silver Medal.

The best ram, growing a fleece, coming under the denomination of fine, or clothing wool, his own property, which during the ensuing season he shall engage to use, or cause to be used, within the county, the Silver Medal.

The best pen of three short-wool ewe hoggits, bred by him within the county, and his own property, the Silver Medal.

The best two year old wether, bred and fed by him within the county, having had neither corn or oil cake, the Silver Medal.

The best boar, being not less than twelve months old, his own property, and which shall be used the ensuing year within the county, the Silver Medal.

The rams and ewe hoggits to be shown in their wool; the fat wethers to be shorn.

No person to be intitled to any of the above premiums for stock, to which at any former period a premium shall have been adjudged; nor any person who shall not have been resident in the county at least twelve calendar months preceding the day of exhibition. Separate judges to be appointed for each sort of long and short wool sheep, or as the majority of the candidates may approve.

No claim will be allowed, unless an account, in writing, of the stock to be produced, shall have been delivered to the secretary, at least seven days previous to the day of exhibition.

ALSO RESOLVED,
That John Jeffery Salter, and Robert Mitchel Robinson, Esqrs. be requested to accept the office of Stewards, to see the field properly arranged.

N. B. Pens will be provided for the sheep.

JOHN GOULDING, Secretary.

Chelmsford, Jan. 11, 1804.

Drayton Agricultural Society.

At a Meeting held at the Talbot, in Drayton, on Thursday, 24th of November, 1803, the Secretary's accounts were examined and allowed; and the following Premiums directed to be paid.

	£.	s.	d.
To John Evison, servant to Mr. Smith, Shawbury Park, for ploughing the greatest number of acres (10A.) with four oxen and without a driver	1	1	0
Mr. Harding, of Old Springs, for the best summer fallow	3	3	0
Mr. Clarke, of Peplow, for the best 12 Acre of turnips	5	5	0
Mr. Britcoe, of Caynton, 8A. ditto	3	3	0
Rev. Offley Crewe, Muxon, 4A. ditto	2	2	0
Ditto 5A. Swedish ditto	3	3	0
Sir Corbet Corbet, 3A. ditto	2	2	0
The Workmen of Mr. Dicken, Peatswood, for hoeing Turnips	2	2	0
Sir Corbet Corbet, best Dairy of Cheese, the Silver Cup.			
To Servants in Husbandry, for long and faithful Service.	£.	s.	d.

Edward Stevenson, 26 years, with Mr. Grinsel

2 2 0

Thomas Thufffield, 22 years, with Mr. Bates

1 1 0

To Day Labourers in Husbandry.

James Key, 45 years with Sir Robert Cotton

3 3 0

Edward Jones, 46 years with Sir Richard Hill

2 2 0

William Harrison, of Drayton, for having reared a family of 13 children without Parochial assistance

5 5 0

N. B. The Sweepstakes for the best four acres of turnips (11 subscribers) was decided in favour of the Rev. Offley Crewe.

Sir CORBET CORBET, Bart. President.

JOHN HILL, Esq.

And the

Rev. WILLIAM JUDGSON,

} Vice Presidents.

The following Premiums are offered for the ensuing Year.

To the person who shall produce at the next meeting on the second Thursday in May, the best bull for stock, under three years old, bona fide his own breeding and property, Gold Medal

To the second best ditto, ditto, Silver Medal.

Notice to be delivered to the Secretary before 1st of May, with Certificate of the sort.

To the two men who shall at the May Meeting shear two sheep each in the best manner, to the first

2 2 0

To the second

1 1 0

Names of the Candidates to be given in to the Secretary before 1st of May, and must be persons at liberty to be employed by any of the Members.

The following Stock to be shewn at the July Meeting.

To the person who shall produce at the Meeting to be held on the last Thursday in July, the best two-year old heifer, his own breeding and property.—Gold medal.

To the second best ditto, ditto, Silver Medal.

To the best three-years-old, ditto, ditto, being in milk, Gold Medal.

- To the second best ditto, ditto, ditto, Silver medal.
- To the best new Leicester ram, to be kept for stock, not more than two years old the preceeding Spring, Gold Medal.
- To the second best ditto, Silver Medal.
- To the best grey-faced ditto, ditto, Gold Medal.
- To the second best ditto, ditto, Silver Medal.
- To the best pen of four N. L. yearling Ewes, own breeding and property, Gold Medal.
- To ditto of four grey-faced yearling ditto, ditto, Gold Medal.
- To the best boar pig under 18 months old. Gold Medal.
- To the best sow, under 12 months, Gold Medal.
- Notice in writing to be given before the 20th of July, with Certificates of age, number, and sort of stock intended to be shewn at the July Meeting.
- To the person who shall produce at the November meeting the best fat new Leicester wether, two years old the preceding Spring, his own breeding and property, Gold Medal.
- To the best grey-faced ditto, Gold Medal.
- The comparative merit to be ascertained by the live and dead weight, with the least proportion of offal.
- To the farmer who in proportion to the extent and quality of his farm and number of cows (not less than 10) shall make the largest and best dairy of cheese in the year 1804, Silver Cup.
- Claims to be given in before 1st of October.
- To the Farmer who in the years 1803 and 1804 shall have made the greatest and most improvements by marling, draining or otherwise, according to the nature, quality and extent of the Lands occupied, Silver Cup.
- Claims to be given in before 1st of October, that the persons appointed to inspect the improvements may have time to make themselves acquainted with the original state of the land.
- To the servant or labourer in husbandry who, under the direction of his master, in the Year 1804, and before the 20th of October, shall plough the greatest number of acres (not less than 10.) with any plough drawn by four oxen without a driver I I 0
- To ditto for ploughing same with two horses, under like terms I I 0
- Claims for ploughing, with certificates signed by two members, to be given in before the 1st of November.
- To the farmer who shall make and prepare the best Summer fallow for wheat, (not less than five acres) according to the quality of land and the average of the whole of his fallows, 3l. 3s.
- Notice of claim before the 1st of July.
- To the person who shall sow with the drill the greatest number of acres (not less than five acres) with Lent corn, and hoe the same and produce the cleanest and best crop at harvest, 2l. 2s.
- Notice to be given before the 1st July.
- To the best and cleanest crop of turnips, according to the nature and quality of the soil, and the fair average of his whole growth of turnips not less than five acres, and to include all kinds, The large Gold Medal.
- To the second best ditto, under the same conditions, Gold Medal.
- Claims for turnips before the 1st of October.
- To the workmen who shall have hoed in the best and most regular manner any crop of turnips belonging to a Candidate for the above premiums whose servants or laborers they must be.
- Claims for hoeing young turnips before the 1st of October, with certificates from the masters.
- To the man-servant in husbandry who shall have continued the greatest number of years in the same service, or on the same farm, 2 2 0

To the second ditto,	1	1	0
To the woman-servant in husbandry in the like manner	2	2	0
To the second ditto,	1	1	0
To the daylabourer in husbandry who shall have brought up the greatest number of legitimate children in habits of industry, without relief from the parish, except in illness	5	5	0

Claims for servants and labourers, with proper certificates, to be delivered to the Secretary on or before the 1st of November. Not less than six children or 14 years service will be deemed a sufficient pretension. No stock will be permitted to be shewn, unless sufficiently secured; proper notices and certificates having also been sent in. Cattle and sheep to have been fed with hay, grass and vegetables, and not to have had corn. And it is to be fully understood, that in future the Society intend strictly to adhere to the general rule in all cases, and to withhold the premium where no real merit appears.

The following Members are on the Committee for the Year ensuing.

Sir John Chetwood, Bar.

William Clive, Esq.

George Tollet, Esq.

Mr. John Briscoe,

Mr. S. Bradbury,

Mr. John Taylor, and

Mr. Edward Bartlam.

The Meetings are appointed to be held on the Second Thursday in May, the last Thursday in July, and the Thursday before the full Moon in November.

The following Subscriptions of One Guinea are entered, and to remain open till after the May Meeting. The best carrots and parsnips, one acre each—Sir Corbet Corbet, Rev. Offley Crewe.

The best four acres of turnips, the Rev. Offley Crewe, P. Davies, William Briscoe, Thomas Clarke, William Jellicoe, John Hill, Thomas Taylor, John Briscoe, Samuel Bradbury.

To the best four acres of Swedish turnips, P. Davies, Sir Corbet Corbet, Rev. Offley Crewe, Thomas Dicken.

Subscription of Five Guineas each.

For the best half acre of carrots. Rev. William Judgson, Sir Corbet, Rev. Offley Crewe.

By Order of the Society,

THOMAS DICKEN, Secretary

Highland Agricultural Society of Scotland.

The Anniversary General Meeting of this Society, agreeable to the charter, was held in their Hall, South Bridge Street, on Tuesday 10th January, when there were present, the Marquis of Lorne, the Earls of Morton, Muray, Haddington, Aboyne, Moira, and Mansfield; Lord Viscount Duncan, Lords Montgomery and Rencliffe, Lord Provost of Edinburgh, Hon. Mr. Dundas, of Melville, Hon. Archibald M'Donald, Sir William Forbes of Pittligo, Sir Hew Dalrymple Hamilton of Bargeny, Sir John Sinclair of Ulbster, with several other Baronets; Lieut. General Vyse, and other military men of rank in the army, Gentlemen of eminence in the law, and many others of the most respectable consideration, as landed proprietors, and commercial interests in the country, upwards of an hundred in number. After balloting for new Members the Meeting proceeded to take into consideration the business which had been before their Committee of Directors since the general meeting in June last, and approved of their continued attention to the objects of the institution, as appeared from a number of premiums adjudged to authors of essays of merit, on subjects connected with the improvement of agriculture and the fisheries, whereby much useful information had been obtained.

The Society also approved of the premiums voted, for improvement of waste lands, raising green crops, meliorating the black cattle, curing the diseases incident to sheep, and the emulation lately excited among ploughmen, by

the premiums bestowed at the sight and approbation of the Committees of Members of the Society, in different parts of the country.

On hearing the Secretary upon the funds of the Society which had considerably increased since last year, the Meeting voted a larger sum than usual, to be laid out by their Committee of Directors in premiums towards the encouragement of useful objects, for the present year, over all the country; and the Meeting was pleased to find, from the number of respectable names daily coming forward in support of this institution, that notwithstanding their expenditure, the fund, which has been accumulating progressively, must be soon considerably increased; by the countenance and support of the public.

On hearing Mr. Campbell, of Carbroke, in his place, and a report from the Committee of Directors, and of the proceedings of that Committee in regard to the application and reference made to this Society, composed of a great body of the landed interest of the country, by many of the counties of Scotland for an investigation and inquiry into the comparative quality of English and Scots barley, and of bigg compared with barley, for the purpose of being made into malt, the Society, on motion by Henry Mackenzie, Esq. approved of the proceedings of the Directors, and remitted to them to take such measures as shall appear proper and expedient for obtaining such information as may be useful to the Committee of Parliament expected to be appointed for prosecuting the investigation as a matter of the highest importance to the country at large.

The Meeting afterwards, upon hearing several of the Members, resolved unanimously, upon motion, that the thanks of this Society be voted to the Lord Provost, now present in his place, and to the Magistrates and Town Council of the city of Edinburgh, for having recommended to his Majesty Robert Jamieson, Esq. author of a valuable work, intitled the "Mineralogy of the Scottish Isles," to the vacant chair, as Professor of Natural History in the University of Edinburgh. That Mr. Jamieson having received the most ample testimonies of his talents, particularly in the important Science of Mineralogy, from Mr. Werner in Germany, from Sir Joseph Banks, and Mr. Hatchet, in London, and from Mr. Kirwan in Dublin, all celebrated Mineralogists; and having sometime ago agreed to undertake a general Mineralogical survey of Scotland, including the nature of its soils, under the direction of this Society, which the appointment in question would enable him by degrees to execute, during the vacations of his class, this Society considered themselves particularly interested in a recommendation of so much importance, not only to the University, but to the general improvement of the country.

Having heard Sir John Sinclair, Bart. and a memorial presented by him on the general utility of opening a speedy communication by a diligence or mail coach from Perth by the Highland road to Inverness, and of course to the northern counties of Ross, Sutherland, and Caithness, which was suggested might be obtained upon application to the Postmaster-General; Sir John moved, that it should be remitted to the Committee of Directors to take such measures as might appear to them most proper for obtaining this desirable object; and the same was agreed to accordingly.

The Secretary reported, that the second volume of the Society's Transactions had been published since the last Anniversary Meeting, and was received with much approbation, as containing important information and experiments on a variety of subjects connected with the views of the institution, and therefore well merited the attention of the Public, as well as the members of this Society.

It was also mentioned by the Secretary, that reports had been made by some of the members, as to the success of the Egyptian barley and Ruta Baga, formerly stated to have been presented to the Society by Benjamin Bell, and distributed in very small parcels for experiments, and particularly

a very distinct and accurate report from Lord Balmuto, by which it appears that the Egyptian barley, when properly attended to in the cultivation, may prove a valuable acquisition.

Thereafter, the Meeting proceeded to the election of President, Vice Presidents, and other Officers of the Society, for the current year, when

His Grace the DUKE of ARGYLE, was re-elected President.

Navan Farming Society.

The anniversary of this laudable institution was held on Thursday, the 5th of January, at which the different successful claimants for premiums received the rewards of merit and industry, principally in medals, with mottos, expressive of the grand purposes of the society's formation, which were executed with emblematical devices in elegant simplicity.

The premiums for extensive green crops were bestowed on John M. Grainger, and Brabazon Morris, Esq.

Resolved, That as the meliorating the condition of the Poor and consulting their Comforts, is one of the main objects of this Society, and as in this vicinage they suffer in no instance so much as in the want of fuel;— That a Premium of a Silver Medal be given to the person who shall send in to the Secretary, on or before the next Quarterly Meeting, to be held on the 5th of April next, the best Plan for providing Fuel for the Poor. The premium to be adjudged by the Society on the above quarterly day.

Each plan to be accompanied with a sealed letter containing the Author's name and Address, with a word or motto on the superscription, corresponding with a like word or motto annexed to the plan; which letter will not be opened except the plan is approved of.

By order of the Society,

CHR. MURPHY, Secretary.

The amateurs in breeding cattle, were highly gratified by an exhibition of heifers, of the home breed, at the King's-Arms Inn, at Cross, Somersetshire, on the 30th of December, by Mr. Fry, of Axbridge, and Mr. Board, of Lympsham, (two of Captain Baker's troop of Volunteer Cavalry), to decide a bet of a dinner for the whole troop, which should produce the best heifer of the home breed. The umpires decided in favour of Mr. Board.

The troop dined at Cross, and the day was spent in the most convivial manner, in the true old English style.

CORN-MEASURE.—A very large assembly of farmers met at Driffield on the 22d of December. Shortly after dinner, the Chairman, Major Topham, rose and stated to the company "the reasons why he had presumed to call them together; the great losses which the East Riding had sustained by using a larger measure than other parts of the kingdom, which amounted to a sacrifice of the ninth part of their property; that the selling by any other measure than the Winchester Bushel, subjected the seller to a forfeiture of his grain, and a very large penalty, which might be levied on the information of any servant, and which no Magistrate could refuse to adjudge; while no debt for grain, sold by any other measure, could be recovered by law."

The company unanimously adopted the following Resolution, moved by Digby Legard, Esq. and seconded by John Grimston, Esq. of Newick:

"That we will not, after the 10th of January instant, sell any Grain whatever by any other Measure than the Standard Winchester Bushel of Eight Gallons, and that we will not sell any Grain by Weight as not being called on by Law to do so.

Sir Mark Sykes being detained from the meeting, sent his Steward to give his sanction to a plan so essential to the interests of his numerous tenantry, and Sir Francis Boyton did the same. Harrington Hudson, Esq. of Besfingby, exerted himself much afterwards amongst his tenants. The thanks of the Meeting were voted to the Chairman for the unremitting pains he had taken on the occasion.

A Gentleman of Wexford has, by public advertisement, offered the following Premiums to the Farmers of the Baronies of Forth and Bargo in that county.

Great loss having been sustained from the difficulty and expence of weeding corn sown broad-cast, especially Beans and Wheat, where the ground lies hardening for many months; and great loss having been sustained from the want of Winter and Spring Feed.—Now in order to encourage the growing of Winter and Spring Feed, and to encourage the sowing of Corn in drill (in grounds subject to weeds) and horse-hoeing the same, I do hereby offer the following Premiums:

For the best acre of Beans, sown in drill, and horse-hoed a piece of Plate of the value of	£.	s.	d.
	10	0	0
For the best acre of wheat, oats or barley sown in drill and horse-hoed, a piece of Plate of the value of	10	0	0
For the best acre of rape after flax or early potatoes,	5	0	0
For the best acre of turnips after flax or early potatoes	5	0	0
For the best acre of rye sown on a stubble in the Autumn of 1804	5	0	0
For the best acre of winter vetches sown on a stubble	5	0	0

The premium for the drill crops to be adjudged in the week before the harvest of 1804, and the premium for winter and spring feed in the December following.

N. B. A drill plough, sowing Barrow, and horse-hoe may be seen at Bargo, intended for the use of the candidates for the drill premium at seed time, who are requested to send in their names immediately.

Bargo Cattle, Dec. 23, 1803.

JAS. HARVEY.

A few days ago, a bullock was slaughtered at Alford, and was found to be of the extraordinary weight of 1940lb. the whole of which was sold at the rate of 10d. per lb. The weight of the loose fat was 280lb. hide 177lb. The rump and loin were played for at whist by a party of gentlemen, and presented by the winners to the Alford Volunteers.

In the year 1803 Mr. William May, a considerable farmer near Wokingham, planted some pease, which were housed in due time (rather early). As is often the case, many of the pease were scattered and took root; the land not being immediately put into cultivation, they flourished and produced some sacks of fine green pease for the table. The last gathered was November 3d, on which day he sent several pecks as presents to his friends.

In consequence of a challenge by Mr. Burns, of Bouth, butcher, "that he would produce, at Christmas eve, a sheep, thicker by two inches at rib, than any other person in Furness or Furness Fells could," much curiosity was excited amongst the butchers and others in the said district, and no little exertion used to meet such an extraordinary challenge. On the 22d ult. at Ulverton (where the oldest person living never remembered such a shew of mutton) this wonderful animal was produced, and for a considerable time excited the amazement of every spectator; all unanimously concluding, that such a sheep was never before seen there, and that it could scarcely be equalled in the kingdom; when, to the astonishment of the whole town, a small fore-quarter of mutton, sent to market by the Rev. Mr. Ellerton, of Colton, was produced, which, in beauty, weight, and thickness, very considerably exceeded that of Mr. Burns. Mr. Ellerton's quarter was from the small improved Leicestershire breed; and though cut as fair as possible at rib, and without skewer, measured four inches and a quarter, weighing thirty four pounds and a half.

The fattest and largest wether sheep exhibited in the shew-yard at Smithfield, on the 16th of December, was bred and fed by Mr. Earl, of Dallington, near Northampton, and was by a tup of Mr. Freeman's of Hitcoat Gloucestershire. This sheep was fed on grass, hay, and turnips only, and was allowed, by good judges, to weigh upwards of 55lb. per quarter.

At Hunfley, in the parish of Rowley, a few miles from Beverly in Yorkshire, there is a field of turnips this season, which for product, both in size and quantity, it is supposed, has never been equalled in this or any other country. Great numbers of the plants have been matured to the weight of two stone and upwards each turnip; and one in particular (not inferior in girth to the dimensions of a bushel skep) actually weighed three stone ten ounces. This plot of ground was recently, and for a great number of years, used as a coney warren.

A Bambourghshire ewe, (Northumberland) bred by Mr. Caleb Ostfeld, of Marlborough, in the parish of Holm Cultram, in Cumberland, (and still in his possession) yeaned a lamb on the 1st of January, 1802; another on the 25th of December, in the same year; and a third, on the 1st day of the present year: three yeannings within two years.

An ewe of the Leicestershire breed, belonging to William Butler, of Leece, in Low Furness, yeaned a lamb on the 26th ult. which was sold at Ulverston, for 25s.

Agricultural Society for the County of Durham.

At a meeting of the Society, held at Durham, on the 27th day of December, 1803, it was resolved to offer the following rewards for the ensuing year.

1. To the farmer whose farm, not less than 150 acres, shall be deemed to be in the most skilful mode of cultivation, and the best condition £. s. d.
5 5 0

2. For the greatest quantity and the best quality of rye-grass seed produced from two acres of ground 5 5 0

N. B. The candidates for either of the above rewards are desired to send in their claims to the secretary on or before the first day of July next, and their several farms, grounds, and crops will, in due time, be reviewed by a committee of the society appointed for that purpose, and who will take into consideration the nature of the soil, and the situation of the ground of each candidate, and form their estimates accordingly. The candidates for No. 2. must also transmit to the secretary a certificate from two respectable persons in the neighbourhood, certifying the quantity of ground and of the seed grown thereon, and the rewards will be adjudged and paid at the meeting of the society, to be holden at Durham, in December next.

3. To the cottager usually employed in husbandry by whom the greatest number of legitimate children, (not less than six) have been maintained, educated, and placed in service, without the assistance of the parish £. s. d.
4 4 0

4. To the cottager employed in the like manner, who shall have maintained, educated, and placed in service, the next greatest number of children under the same restrictions 2 2 0

The case of each claimant to be certified by the minister and major part of the church-wardens and overseers of the poor of the parish and place where such cottager resides, and delivered to the secretary, on or before the first day of July next; and the society earnestly request that no minister or parish officer will grant any such certificate unless the facts contained in it, are within their own personal knowledge, or ascertained to them by parochial records, or other indubitable testimony.

The rewards will be adjudged and paid at the meeting of the society, to be holden in September next, at Darlington.

5. For the best stallion, for getting harness or draught horses, to be kept in the county of Durham as a stallion, at one guinea a mare, for one season afterwards, and to attend Durham market in the usual manner £. s. d.
3 3 0

6. For the best stallion for getting hunters or road horses with the same injunction mentioned in No. 5 3 3 0

7. For the best bull not less than two years old to be kept in the county of Durham one year afterwards £. s. d.
5 5 0

The horses and bulls must be shewn at Darlington on Easter Monday next, when the several rewards will be adjudged and paid, and the successful candidates must give such security to the society, at the meeting holden upon that day, for the performance of their different conditions as they may deem satisfactory.

8. For the tup wether aged or shearling, to be kept in the county of Durham for one year afterwards £. s. d.
5 5 0

9. For the best cow or heifer, in milk or with calf, bred in Darlington or Stockton Wards, to be kept in the county of Durham for two years afterwards, as a breeding cow 5 5 0

The tups, cows, and heifers must be shewn at the meeting of the society at Darlington, in September next, when the rewards will be adjudged and paid; the successful candidates giving satisfactory security for the performance of conditions

10. For the best cow or heifer, in milk or with calf, bred in Chester or Easington Wards, to be kept in the county of Durham for two years afterwards as a breeding cow £. s. d.
5 5 0

These cows or heifers must be shewn at the meeting of the society at Durham, in December next, when the rewards will be adjudged and paid; security being given by the successful candidate.

11. For the best pen of five fat wether sheep, under two years old, bred and fed by the respective candidates in the county of Durham, and bona fide their property at the time of shewing, and which have not been fed by any other than green food £. s. d.
10 10 0

Certificates respecting the feed of the sheep will be required at the time of shewing.

12. For the best fat ox bred and fed in the county of Durham, certified to be under four years old at the time of shewing 10 10 0

The candidates for the two last mentioned rewards must shew their sheep and oxen at the meeting of the society to be holden at Mr. Hault's, of Durham, on Friday the 21st day of December next, at ten o'clock in the forenoon. And as no perfect judgment can be formed of the real merits of those animals by merely examining them when alive, they must be slaughtered upon the day they are shewn, and their carcases examined by the society the day following, when the rewards will be adjudged and paid.

The oxen requiring a greater length of time between their being slaughtered, and the carcases made fit for examination, must be shewn first.

13. For the best fat pig, not exceeding eighteen months old, to be bred and fed in the county of Durham, and shewn and slaughtered on the 21st day of December next. £. s. d.
5 5 0

The society trust that no person will presume to shew any stallion, bull, tup, cow, or heifer, unless they are in every respect such as the public will be benefited in breeding from.

The improvement of the different breeds is the grand object of the society, and they beg it to be understood that they will deem themselves justified in withholding the rewards which they have offered where any horse, &c. although the best of their class shall not in their judgment possess a sufficient degree of excellence to promote the desired end.

Resolved unanimously, that none of the members of this society will, in future, hire any servant who does not produce a certificate of good behavior from his last place of service.

JOHN DOUTHWAITE NESHAM, Esq. President.

Mr. JAMES JACKSON, }
Mr. JOHN WETHERELL } Vice Presidents.

About twenty years since a farm of about 40 acres belonging to Mr. Randal, an opulent butcher, of Hammer-smith, fell into his hands at Had-

den, near Hounslow. It being out of condition and much impoverished by the tenant who had quitted, Mr. Randal consulted a friend on the best method of getting it into order, or in the farmer's phrase, into heart again. The farmer advised him to give a dinner at Crauford-bridge, to all the neighbouring farmers, and their servants. He did so, and on the day on which the feast took place, he had the satisfaction of knowing that 396 loads of dung had been deposited on his land; all brought that morning.

Lord Romney has found that parsnips are a valuable food for cows.— They are very fond of them, and yield more milk than when fed with oil-cake, or any other food.

A new threshing mill has been built in the Isle of Ely, by Messrs. Edes and Nicholls, which with the aid of two women, three boys and two men will thresh twenty quarters of wheat, or thirty of oats, in a day; and it does its work much cleaner than it can be done by manual labour.

Mr. Leeds, of Somersham, in Huntingdonshire, has very successfully cultivated hemp on a black peaty soil, which was much overrun with nettles and other rubbish. This mode of culture not only yielded fifty stone of hemp per acre, but cleaned the land completely.

Mr. Thompson, of Waverley Abbey, in Surrey, has used graves from the London tallow-chandlers with great success as manure on a sandy soil.— They were tried on two fields with equal effect. No common dressing of the richest dung could have exceeded that at the rate of 10 cwt. per acre.

At Ayr fair there was a large quantity of flannels and blanketing, but the sale for both was very dull. A part of it was not sold, the owners preferring to keep it rather than accept the prices offered. On the second day there was a greater number of horses than has been at any fair for several years; a considerable part of them were Irish horses. Many of the best brought high prices, but evidently not so much as the sellers expected. Inferior ones sold poorly, and a great many were not sold.

The Christmas horse show was well attended by buyers. A great number of horses were brought for sale; good ones, however, were very scarce, and brought high prices.

The following method of applying the refuse of potatoes to the feeding of calves has lately been recommended. Take two gallons of small potatoes, wash them clean, put them into a pot of boiling water sufficient to cover them, and let them boil till the whole becomes a pulp: then add strong water, and run the whole through a hair sieve, which will produce a strong nutritive gruel. At first use a small quantity, warmed up with milk, to make it palatable to the calf, and increase the quantity daily till it becomes equal. A quart of potatoe gruel and a quart of scalded or skimmed milk will be sufficient for a good meal, which should be given warm three times a day.

In the north of England, hay tea has likewise been tried with success for the rearing of calves. In order to prepare it, take a large handful, or about a pound of red clover hay, well got in, and six quarts of clear spring water; boil the hay amongst the water until it is reduced to four quarts; then take out the hay, and mix one pound of cut barley, or bean meal, among a little water; put it into the pot while it is boiling: keep the whole constantly stirred until it is boiled and thickened. Let it cool to be luke-warm, then give it to the calf, adding as much whey as will make a sufficient meal. This is a cheap mode of rearing calves; and may answer the purpose as well as more costly ingredients. In this way, the valuable article of milk may be saved for other purposes.

It has been discovered, that pasturing sheep on ground abounding with broom, for several days when the broom is in blossom, prevents the sheep from being infected with the rot during that season.

LONDON PRICES OF GRAIN for *January, 1804.*MARK-LANE, *Monday, January 2.**Price of Grain, on board Ship, as under.*

OUR arrivals of Grain to-day have been (as expected) very considerable. The Wheat trade still experiences a depression, and the sales may be noted at from 1s. to 2s. per quarter cheaper than last Monday. Barley is alike plentiful, but nearly maintains last week's prices. Malt is a trifle lower. Some Foreign Oats are come in, and the supply good, but with scarce any variation in price.—White and Grey Pease, and both sorts of Beans, are cheaper.

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

Monday, January 9.

The late influx of all Grain has been followed by additional supplies for this day's market, and which, with the unfold of last week, has rendered the sales extremely heavy. Wheat scarcely obtains last Monday's prices. The same may be observed of Barley and Malt. Oats, of which we have plenty, are likewise very flat. Tick Beans fell readily at former prices, but the other sorts, with White Grey, and Pearl Peas, are cheaper; the latter to be noted at 45s. per quarter. Fine Flour scarcely fetches 50s. per sack.

Wheat	35s to 53s	Malt	50s to 57s od	Pearls	45s od
Fine	54s to 55s od	Oats	18s to 23s	Grey Peas	30s to 38s od
Rye	28s to 31s	Polands	24s to 25s od	Small Beans	33s to 37s od
Barley	19s to 24s 6d	White Peas	35s to 42s	Ticks,	30s to 35s od

Monday, January 16.

Our Supply of Wheat, to-day, was not great, neither were the samples generally of the best quality. This, with the excess of last Monday's market, has not improved the prices of that article.—Barley is likewise rather a short supply, as are also Oats: these both remain at last stated prices.—White Peas are in great plenty.—Grey, with both sorts of Beans, keep nearly to the standard of this day week.

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

Monday, January 23.

Our market has not been furnished with any supply of Wheat to-day; and the runs being generally coarse, caused fine samples to be sought after with much avidity, which fully maintained last Monday's prices: the ordinary sold heavily and hardly obtained last currency. We find little fluctuation in Barley and Malt, hence the prices remain nearly as last week. White Peas and New Tick Beans have rather declined; but good old Horse Beans keep their prices. We have some foreign Oats in; fine samples sold for rather more money than last Monday. Flour 45s. to 48s. and in plenty.

Wheat	35s to 54s	Malt	51s to 57s od	White Peas	36s to 43s od
Fine	55s to 56s od	Oats	20s to 24s	Grey Peas	30s to 35s od
Rye	29s to 31s	Polands	25s to 26s od	Sm. Beans,	30s to 35s od
Barley	20s to 24s 6d			Ticks	26s to 30s od

Monday, January 30.

In our report of this day's Market we have to state, that the arrivals of Wheat have been pretty considerable, the fine of which hardly reached last Monday's prices, and the various inferior sorts are dull of sale, and cheaper. We have a good supply of Barley, but which, with Malt, are heavy sale, and rather declining. White and Grey Peas likewise look downwards; of the latter, we have a very full supply. Old Beans of prime quality keep their price. New Ticks the reverse, being in plenty, and rather lower. Oats, of which the supply has been tolerably fair, fully maintain last week's prices.

Wheat	34s to 53s	Malt	50s to 56s od	Grey Peas	30s to 33s od
Fine	54s to 55s od	Oats	19s to 24s	Small Beans	29s to 34s od
Rye	28s to 31s	Polands ditto	24s to 26s od	Ticks	25s to 30s od
Barley	19s to 24s od	White Peas	35s to 42s od		

BANKRUPTCIES AND DIVIDENDS,

Announced between the 20th of December, and the 20th of January, 1803.

BANKRUPTCIES.

The Solicitors' Names are between Parentheses.

AXSON, J. Manchester, calico manufacturer. (Ellis, Curfitor street)

BURTON, P. Ratcliff, builder. (Waller and Unison, Shadwell)

BORNECKER, C. Birmingham, merchant. (Swain and Stevens, Old Jewry)

BEAULIEAD, W. and J. Clark, Halfpenny, maltsters and corn merchants. (Robins, Gray's inn place)

BROWN, Wm. High street, St. Giles's, hatter and hosier. (Hudson, Buckingham street)

BROOKBANK, J. Kewick, dealer. (Clayton and Scott, Lincoln's Inn)

BADCOCK, R. Marham, maltster. (Blagrove, Salisbury street)

BARKER, T. Brickwall, victualler. (Cookney, Staples Inn)

BEATON, W. and J. St. Mary at Hill, merchants and brokers. (Palmer and Fomblin, Warrford court)

CORDER, J. K. Rotherhithe, maltster. (Druce, Billiter square)

CLAYTON, T. Kingston, Hull, printer and bookfeller. (Watkins and Cooper, Lincoln's Inn)

CURLING, B. S. Portland place, Clapham road, stone mason. (Gale and Son, Bedford street, Bedford row)

DAY, J. Oxford street, linen draper. (Walker, Coleman street)

DAVIES, E. Ivy lane, furrier. (Wild, Warwick square)

DUNN, T. Trowbridge, clothier. (French and Williams, Castle street, Holborn)

EDGAR, J. Blackburn, dealer. (Dewhurst, Blackburn)

EYRETT, T. and J. Bishop, Wells, ship builders. (Ifaacs, George street, Minories)

EMMETT, H. Manchester, colourman. (Milne and Parry, Temple)

FORD, J. E. Coleman street buildings, factor. (Dann, Threadneedle street)

GOULD, J. Havington, paper manufacturer. (Bousfield, Bouverie street)

GREEN, J. and J. Landborough, Manchester, haberdashers and shopkeepers. (Ellis, Curfitor street)

HAYNES, B. Pepper street, St. Saviour's, hat maker, surviving partner of John Haynes. (Collingwood, St. Saviour's Church yard, Southwark)

HUNT, Wm. Chipping Wycombe, inn holder and butcher. (Edmunds and Son, Exchequer officer, Lincoln's Inn)

HART, W. Lorbury, Blackwell hall, factor. (Swain and Stevens, Old Jewry)

HITCHEN, F. Newcastle street, Strand, walebone cutter, surviving partner of J. Hitchen. (Jennings and Collier, Great Shore lane)

HAMMERTON, T. Lyng, Norfolk, paper maker. (Hammerston, Lyng)

HUDSON, H. L. Huntingdon, merchant. (Cooper and Lowe, Southampton buildings)

HALL, T. Berwick, merchant. (Carruthers, Clement's Inn)

HAZEL, W. Rambury, mealman. (Price and Williams, Lincoln's Inn)

HAMILTON, J. and W. Turkington, Finch lane, merchants. (Hindman, Dyer's court)

KING, W. Shaftesbury, draper. (Bowles, Shaftesbury)

LEWIS, J. Lamb's buildings, Bunhill row, carver and gilder. (Willkin, Gray's Inn)

LANG, J. Wakefield, merchant. (Sykes and Knowles, Hofwell court)

LAURIE, J. Bientwood, draper. (Willis, Warrford court)

MILLS, J. Wood within Saddleworth, dyer and clothier. (Milne and Parry, Temple)

MOSMAN, J. Lawrence Poultry lane, merchant, in partnership with John Baptist Davallen, Firm J. B. Davallen and Co. (Dann, Threadneedle street)

MARTON, S. St. Alban's, corn dealer. (Harvey and Robinson, Lincoln's Inn)

MAITLAND, D. Wigan, Walter Campbell, London, and W. Wright, Liverpool, cotton manufacturers. (Blackstock, Temple)

MASON, J. Snowhill, shoemaker. (Heard, Hooper's square, Goodman's fields)

NORRIS, T. Petersfield, victualler. (Willken, Gray's Inn square)

NORRIS, T. Manchester, cotton merchant. (Edge, Temple)

NAIB, J. Dean street, Shadwell, mariner. (Archeison, Ely place)

NETTLESHIP, J. Moorgate, Clarbrough, baker. (Young, New Inn)

OBEY, T. Upper Cleve and street, Fitzoy square, bricklayer. (Van, Hetnuyson and Carr, John street, Bedford row)

OATES, J. Birmingham, jobber. (Tooker, Bread street)

PEKINS, J. Huntingdon, banker. (Cooper and Low, Southampton buildings)

PARKES, W. Aiton, carrier. (Nichols, Tavistock place, Tavistock square)

PILLY, M. Thorne, grocer. (Roffer, Kirby street)

PYALL, J. sittingbourn, shopkeeper. (Bodfield, Lawrence lane)

PHILLIPS, G. Brook street, Ratcliff, timber merchant. (Burt, Golden squares, Crutched friars)

PAPILTON, P. J. St. Swithin's lane, merchant. (Pearce and Dixon, Paternoster row)

RAFFORD, T. Bermondsey street, cheesemonger. (Rippon, Bernonsey street)

RYLAH, G. York, Tea and chinaman. (Lambert, Hatton Garden)

RICHOLD, M. Brighthelmstone, wine merchant. (Swain and Stevens, Old Jewry)

ROBERTS, L. Blanford, Travathan, timber merchant. (Sherwin, James street, Beoford row)

SCHOFIELD, J. Coney nook, Osham, cotton manufacturer. (Ellis, Curfitor street)

SHEPHERD, F. Lynn, draper. (Langley, Plum tree street)

SCOTT, J. and C. Stewart Bissett, Liverpool, merchants. (Kearsey, Temple)

SANDERS, J. Charlotte street, Old street road, builder and plasterer. (Crawford, Craven buildings, City Road)

SWAN, J. Wapping wall, malt and block maker and grocer, surviving partner of Richard Swan. (Shepherd, Bartlett's buildings)

SANDERS, J. Brunfwick, scrivener. (Blandford and Sweet, Temple)

STOPES, A. Britwell Prior, dealer. (Mayhew, Cook's court Serle street)

TAYLOR, G. Leek, shopkeeper. (Townsend, Staple Inn)

TENNISWOOD, S. Pentonville, currier. (Pering, Lawrence Poultry hill)

WRIGHT, D. Saxlingham, miller. (Folter, Son, and Unthank, Norwich)

WHITE, J. Newnham, patten ring maker. (Bigg, Hatton Garden)

WEBSTER, W. Fore street, linen draper. (Fisher, Bread street)

WIDDOWS, J. Manchester, Calenderer. (Ellis, Curfitor street)

WHITELY, A. Hampton Mills, woollen dyer, (Duckworth and Chippendall, Manchester)

DIVIDENDS ANNOUNCED.

BARLOW, J. Manchester, grocer, Jan. 16

BABB, J. S. Cooper, and R. Brewin, Leadenhall street, hosiers, Feb. 17, final

BLAKWAY, E. J. Rose, and R. Winter, Coalport, porcelain manufacturers, Jan. 18

BURKET, M. Gray's Thurrock, Essex, and Three Cranes Wharf, London, soap manufacturers, Jan. 24

BUXTON, T. and T. Bentley Buxton, Leicester, bankers, separate estate of T. Buxton, Jan. 30—of T. Bentley Buxton, Jan. 31—and joint estate Feb. 1

BATY, J. Grocer's hall court, warehoufeman, Jan. 28

BISHOP, S. Great Newport street, Stationer, Jan. 31

BROWN, Z. and S. Fixen, Coleman street, merchants, Jan. 28, final

BRICE, W. Lodon, shopkeeper and grocer, Feb. 2

BEAUMONT, R. and S. Vickerman, Healey Butts, clothiers, Feb. 2

BEAUMONT, W. Healey Butts, clothier, Feb. 2

BURNETT, E. and K. Oliver, Manchester, drapers, Jan. 31

BATTIER, J. Ralph, and J. Jacob, Gould square, Crutched Friars, merchants, Feb. 11

BALE, J. and R. Packham, Manchester, cotton spinners; joint estate, and separate estate of Bale, Feb. 13, both final

BLANTY, T. of the Walthamfow East Indian, and of Bouverie street, mariner, Feb. 4

BUNOY, W. Old Gravel lane, currier, &c. Feb. 4

BRITAN, G. Britol, grocer, Feb. 18

BEEDLER, J. Matket Deeping, brazier and corn merchant, Feb. 10, final

COTTEREL, J. Wallall, linen and woollen draper, Jan. 21

CARR, T. King's Lynn Norfolk, merchant, Jan. 21, final

CLEWETT, J. Cecil street, Strand, tailor, Jan. 21, final

CHUBB, J. Britol, Umbrella maker, Jan. 25, final

COOPER, H. Sandwiche, linen draper, Jan. 31, final

CHAMBERLAIN, P. Norwich linen draper, Feb. 8

COPIAND, R. Liverpool, merchant, Feb. 10

COOMBS, E. St. James's street, Stationer, Feb. 7

DEACON, T. Queen's Elm, Chelsea, Feb. 10, final

DOUFE, E. Coade's row, Lambeth, milliner, &c. Jan. 24, final

DONALD, J. Aldermanbury, warehoufeman, Jan. 27

DIXON, C. Fenchurch street, brush maker, &c. Feb. 25, final

DAWSON, Rachael, Edward street, Portman square, milliner, Feb. 7

ENTWISLE, Wm. Entwisle, cotton manufacturer, Jan. 20, final

ELTON, J. Liverpool, merchant, Jan. 24

EARLY, K. Chelmsford, coal merchant, Jan. 30

EDWARDS, S. Manchester, cotton spinner, Feb. 1, final

EVERY, W. New Sarum, shopkeeper, Feb. 11

FRYER, G. Red Lion street, Clerkewell, merchant, Feb. 14, final

FELLOWS, E. Camberwell, haberdasher, Jan. 27

GARDNER, H. Thames street, seedman, Jan. 28

GUTHRIE, R. and C. Cook, Liverpool, merchants, Jan. 18

GREATWOOD, R. Gloucester, grocer, Jan. 16, final

HODGSON, L. Cow lane, apothecary, Jan. 27

HARDY, J. Nightingale lane, East Smithfield, grocer, Feb. 17, final

HALL, C. Brick lane, Whitechapel, rib bon weaver, Jan. 17

HOMES, J. and J. Palmer, Craven street, Strand, army commission brokers, &c. joint estate, and separate estate of Holmes

IRELAND, W. N. Calvert, J. Overend, and C. Tomlinson, Lancaster, merchants, separate estate of Calvert, as partner with F. Simpson, of St. Christopher, Jan. 18, final

Jones, J. Whitechapel road, backmaker, Jan. 24, final
 Jackson, J. Oxford street, linen draper, Feb. 11
 Jackson, F. Basinghall street, factor, Feb. 14
 Farquhar, J. late of Cavenish court, now of Winchester street, merchant, Jan. 28
 Lewis, T. Bedford street, Covent Garden, druggist, Jan. 28, final
 Lane, B. Baker street, agent, Feb. 14
 Lloyd, R. Thaves Inn, scrivener, Jan. 24
 Lea, T. C. Oxford court, Cannon street, iron manufacturer, Feb. 4, final
 Ludby, W. Petworth, shopkeeper, Jan. 28, final
 Lightley, J. and J. Thompson, Upper Thames street, paper dealers, Jan. 28
 Lund, W. Virginia street, builder, Feb. 25
 Landell, W. Berwick, fadler, Feb. 9, final
 Maydwell, S. Wheeler street, Spitalfields, dyer and dry-falter Jan. 27
 Mailard, J. J. Lime street, merchant, Jan. 27
 Moffat D. Fleet market, grocer, Feb. 4
 Mawbey, J. Long Buckby, cordwainer and fellmonger, Feb. 3, final
 Milne, R. Rochdale, scrivener, Jan. 30
 Partridge, T. Dover, sail maker and ship owner, Jan. 27
 Peirpoint, J. Sunhill row, carpenter, Jan. 27
 Page, C. Croydon, taylor, Jan. 27
 Perkins, Timothy, Blue Anchor road, Bermondsey, tanner, Jan. 21
 Parker, G. Strand, victualler, Feb. 7
 Peacock, J. A. Broad street, Ratcliff, cheese monger, Jan. 28
 Property, J. Leadenhall street, victualler, Feb. 25
 Pourtales, Andrew Paul, and Andrew George, Broad street buildings, merchants, Jan. 28
 Rofs, H. Liverpool merchants, and W. Rofs, Washington, North Carolina, merchant, Jan. 20

Richmond, T. G. Bridge yard, Tooley street, corn factor, Jan. 21, final
 Rippon, R. Liverpool, merchant, Feb. 20
 Rowland, Northy, and Peter, Great Coggleshall, blanket makers, Feb. 28
 Simpson, W. Clement's lane, merchant, Jan. 20
 Smith, R. Streatham, and C. Smith, Croydon, Brewers, joint and separate estate, Jan. 24, final
 Stuart, H. Krutzen Brook, Whitster, Jan. 23 final
 Sherriff, J. Hatten Garden, merchant, Jan. 24
 Schlotel, B. Mansion house street, merchant, Feb. 25
 Seward, P. and T. Pipon, Southampton, merchants, joint and separate estates, Feb. 9
 Sweetland, D. Topsham, merchant, Feb. 11
 Tipping, W. Leeds, merchant, Feb. 7, final
 Turnbull, J. Aldgate, grocer, Feb. 17, final
 Taylor, T. Birmingham, draper, Feb. 7
 Taylor, J. Worcester, draper, Jan. 31
 Tremlett, W. Totnes, shopkeeper, Feb. 7
 Van Dyck, Peter Dubbledeemuts, Arnold John Gevers Leuven, and Wynand Adriaen de Gruiter Vink, Circus, Minorities, merchants, joint estate, and separate estates of Leuven, and de Gruiter Vink, March 10
 Wilton, F. Great Clacton, linen draper, Jan. 24
 White, T. jun. Stroud, Kent, coal merchant, Jan. 31
 Wilkinson, W. and T. Chapman, Jewry street, and Coal Exchange, coal factors, joint estate, and separate estate of Chapman, Feb. 17, both final
 Waller, E. Grantham, coach master, Jan. 28
 Wood, F. and R. and W. Troughton, Smitham Bottom, brewers, Jan. 28
 Wigfield, J. jun. Northallerton, mercer and grocer, Feb. 11, final
 Young, Gaven, and Gaven Glennie, Budge row, merchants, separate estate of Young, Feb. 7

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

Raw Hides.	1st Week		2d Week		3d Week		4th Week		5th Week.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Best Heifers & Steers, pr ft.	3 6 to 3 10	0 0 to 0 0	3 8 to 4 0	0 0 to 0 0	3 8 to 4 0	0 0 to 0 0	3 8 to 4 0	0 0 to 0 0	3 8 to 4 0	0 0 to 0 0
Middling	0 0 to 3 4	0 0 to 0 0	3 4 to 3 6	0 0 to 0 0	3 4 to 3 6	0 0 to 0 0	3 4 to 3 6	0 0 to 0 0	3 4 to 3 6	0 0 to 0 0
Ordinary	3 0 to 3 2	0 0 to 0 0	3 0 to 3 2	0 0 to 0 0	3 0 to 3 2	0 0 to 0 0	3 0 to 3 2	0 0 to 0 0	3 0 to 3 2	0 0 to 0 0
Market Calf	10 6	—	10 6	—	10 6	—	10 6	—	10 6	—
Eng. Horse	15s to 17s	—s to —s	14s to 17s	—s to —s	14s to 17s	—s to —s	14s to 17s	—s to —s	14s to 17s	—s to —s
Sheep Skins	3 6 to 6 6	0 0 to 0 0	3 6 to 7 6	0 0 to 0 0	3 6 to 7 6	0 0 to 0 0	4 0 to 8 0	0 0 to 0 0	4 0 to 8 0	0 0 to 0 0
Lamb 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	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
<i>Prices of Hay and Straw.</i>										
	l. s. d.	l. s. d.	l. s. d.	l. s. d.	l. s. d.	l. s. d.	l. s. d.	l. s. d.	l. s. d.	l. s. d.
St. James's—Hay	4 15 0	5 2 6	5 2 0	5 — 0	5 1 6	—	5 1 6	—	5 1 6	—
Straw	1 7 0	1 10 9	1 15 9	1 9 3	1 12 3	—	1 12 3	—	1 12 3	—
Whitech.—Hay	4 15 0	4 19 0	4 16 0	5 — 0	4 15 0	—	4 15 0	—	4 15 0	—
Clover	5 18 0	5 18 0	6 — 0	6 0 0	6 — 0	—	6 — 0	—	6 — 0	—
Straw	1 9 0	1 13 0	1 13 0	1 11 0	1 9 0	—	1 9 0	—	1 9 0	—
<i>Newbury.</i>										
Wheat	40s to 60s	40s to 58s	40s to 60s	40s to 60s	41s to 58s	—	41s to 58s	—	41s to 58s	—
Barley	20s to 23s	20s to 23s	20s to 23s	20s to 23s	20s to 23s	—	20s to 23s	—	20s to 23s	—
Oats	19s to 22s	18s to 21s	18s to 21s	18s to 21s	18s to 21s	—	18s to 21s	—	18s to 21s	—
Beans	—s to —s	—s to —s	—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	—	—s to —s	—	—s to —s	—
Peas	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—	—s to —s	—	—s to —s	—
<i>Salisbury.</i>										
Wheat	46s to 50s	46s to 50s	46s to 50s	48s to 50s	48s to 50s	—	48s to 50s	—	48s to 50s	—
New ditto	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—	—s to —s	—	—s to —s	—
Barley	20s to 24s	19s to 24s	20s to 23s	20s to 24s	20s to 23s	—	20s to 24s	—	20s to 23s	—
Beans	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—	—s to —s	—	—s to —s	—
Oats	20s to 23s	20s to 22s	20s to 23s	20s to 23s	20s to 22s	—	20s to 23s	—	20s to 22s	—
Peas	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—	—s to —s	—	—s to —s	—

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

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	—	94 to 105	84 to 105	90 to 110	90 to 110	90 to 110	90 to 110	90 to 110	90 to 110	90 to 110	90 to 110
Suffex	—	90 to 100	90 to 100	90 to 102	90 to 102	90 to 102	90 to 102	90 to 102	90 to 102	90 to 102	90 to 102
Essex	—	96 to 100	96 to 100	90 to 100	90 to 100	90 to 100	90 to 100	90 to 100	90 to 100	90 to 100	90 to 100
Pockets.		First Week		2d Week		3d Week		4th Week		5th Week	
Kent (new)	—	108 to 126	108 to 126	106 to 126	106 to 126	106 to 126	106 to 126	106 to 126	106 to 126	106 to 126	106 to 126
Suffex	—	108 to 114	108 to 114	105 to 120	105 to 120	105 to 120	105 to 120	105 to 120	105 to 120	105 to 120	105 to 120
Farnham	—	120 to 160	120 to 160	120 to 189	120 to 189	120 to 189	120 to 189	120 to 189	120 to 189	120 to 189	120 to 189
Seeds.		First Week		2d Week		3d Week		4th Week		5th Week	
Red Clover per cwt.	—	60 to 100	40 to 100	40 to 100	40 to 100	46 to 100	46 to 100	50 to 100	50 to 100	50 to 100	50 to 100
White Clover, ditto	—	70 to 190	70 to 126	70 to 126	70 to 126	70 to 126	70 to 126	70 to 126	70 to 126	70 to 126	70 to 126
Trefoil, ditto	—	30 to 60	30 to 58	30 to 58	30 to 58	20 to 65	20 to 65	25 to 65	25 to 65	25 to 65	25 to 65
Caraway ditto	—	60 to 65	60 to 65	60 to 65	60 to 65	40 to 66	40 to 66	60 to 70	60 to 70	60 to 70	60 to 70
Coriander ditto	—	16 to 17	16 to 17	16 to 17	16 to 17	14 to 18	14 to 18	16 to 20	16 to 20	16 to 20	16 to 20
Turnip, (per bushel)	—	20 to 30	18 to 28	18 to 28	18 to 28	20 to 32	20 to 32	20 to 28	20 to 28	20 to 28	20 to 28
Canary Seed (per last.)	—	—	—	—	—	65 to 70	65 to 70	65 to 70	65 to 70	65 to 70	65 to 70
White Mustard Seed	—	10 to 12	9 to 11	9 to 11	9 to 11	10 to 14	10 to 14	12 to 14	12 to 14	12 to 14	12 to 14
Brown ditto	—	10 to 16	10 to 14	10 to 14	10 to 14	10 to 16	10 to 16	12 to 16	12 to 16	12 to 16	12 to 16
Rape Seed, (per last)	—	351 to 381	351 to 381	351 to 381	351 to 381	361 to 391	361 to 391	351 to 381	351 to 381	351 to 381	351 to 381
Meat at Smithfield,		First Week		2d Week		3d Week		4th Week		5th Week	
To sink the offal, p. ft. 8lb.	—	s.d.	s.d.	s.d.	s.d.	s.d.	s.d.	s.d.	s.d.	s.d.	s.d.
Beef	—	4 0 to 5 8	4 4 to 5 8	4 0 to 5 4	4 6 to 6 8	4 4 to 5 6	4 8 to 5 1	4 4 to 5 6	4 8 to 5 1	4 4 to 5 6	4 8 to 5 1
Mutton	—	5 0 to 6 0	4 8 to 6 0	4 4 to 5 6	5 0 to 6 0	4 8 to 5 1	4 4 to 5 6	5 0 to 6 0	4 8 to 5 1	4 4 to 5 6	5 0 to 6 0
Veal	—	6 0 to 8 0	5 0 to 7 6	5 0 to 6 6	6 0 to 8 0	6 0 to 8 0	6 0 to 8 0	6 0 to 8 0	6 0 to 8 0	6 0 to 8 0	6 0 to 8 0
Pork	—	1 0 to 5 4	3 8 to 4 4	2 8 to 3 8	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0
Lamb	—	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	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
Head of Cattle—Beasts about	—	1,600	1,800	2,500	2,300	2,000	2,000	2,000	2,000	2,000	2,000
— Sheep and Lambs	—	7,500	8,500	15,000	11,500	11,000	11,000	11,000	11,000	11,000	11,000
Price of Leather.		First Week		2d Week		3d Week		4th Week		5th Week	
Butts, 50lb. to 56lb. each	—	20 to 21	20 to 21	20 to 21	20 to 21	20 to 21½	20 to 21½	20½ to 21½	20½ to 21½	20½ to 21½	20½ to 21½
Ditto, 60lb. to 65lb. each	—	22 to 23	22 to 23	22 to 23	22 to 23	22 to 23	22 to 23	22½ to 23	22½ to 23	22½ to 23	22½ to 23
Merchants Backs	—	20 to —	20 to —	19½ to 20	19 to 20	19½ to 20	19½ to 20	19½ to 20	19½ to 20	19½ to 20	19½ to 20
Dressing Hides	—	21 to 22	21 to 22	23 to 24	22 to 24	22 to 24	22 to 24	22 to 23½	22 to 23½	22 to 23½	22 to 23½
Fine Coach Hides	—	23 to 24	23 to 24	24 to 25½	24 to 25	24 to 25	24 to 25	24 to 25½	24 to 25½	24 to 25½	24 to 25½
Crop Hides for cutting	—	21 to 22½	21 to 22½	22 to 23	21½ to 22½	22 to 23	21½ to 22½	22 to 23	22 to 23	22 to 23	22 to 23
Flat Ordinary	—	19½ to 20½	19½ to 20½	20 to 21	20 to 21	20 to 21	20 to 21	20½ to 22	20½ to 22	20½ to 22	20½ to 22
Calf Skins, 30 to 40lb. p. doz.	—	28 to 32	28½ to 32½	28 to 32	29 to 33	28 to 32	28 to 32	28 to 32	28 to 32	28 to 32	28 to 32
Ditto, 50lb. to 70lb. do.	—	29 to 33	29 to 33	28 to 32	28 to 32	28 to 32	28 to 32	28 to 32	28 to 32	28 to 32	28 to 32
Ditto, 70lb. to 80lb. do.	—	27 to 29	27 to 29	27 to 29	27 to 30	28 to 30	28 to 30	28 to 30	28 to 30	28 to 30	28 to 30
Sm. Seals (Greenland)	—	42 to 45	42 to 45	42 to 45	42 to 45	42 to 45	42 to 45	42 to 45	42 to 45	42 to 45	42 to 45
Large do.	—	51 to 71	51 to 71	51 to 71	51 to 71	51 to 71	51 to 71	51 to 71	51 to 71	51 to 71	51 to 71
Tanned Horse Hides	—	18s to 28s	18s to 28s	18s to 28s	18s to 28s	18s to 30s	18s to 30s	18s to 30s	18s to 30s	18s to 30s	18s to 30s
Goat Skins per doz.	—	s to s	s to s	s to s	s to s	s to s	s to s	s to s	s to s	s to s	s to s
Price of Tallow.		First Week		2d Week		3d Week		4th Week		5th Week	
St. James's Market	—	4 7	4 9½	4 8½	4 9	4 10	4 9½	4 10	4 9½	4 10	4 9½
Clare Market	—	4 7½	4 8	4 8	4 8	4 9	4 8½	4 9	4 8½	4 9	4 8½
Whitechapel Market	—	4 7½	4 8½	4 8	4 8	4 8	4 8	4 8	4 8	4 8	4 8
Per stone of 8lb. Average	—	4 7½	4 8½	4 8	4 8	4 8½	4 8	4 9	4 8½	4 9	4 8½
Town Tallow	—	79 0	80 0	79 6	80 0	80 6	80 0	80 6	80 0	80 6	80 0
Russia ditto (Candles)	—	78 0	78 0	78 0	78 0	78 0	78 0	78 0	78 0	78 0	78 0
Russia ditto (Soap)	—	73 0	73 0	73 0	73 0	73 0	73 0	73 0	73 0	73 0	73 0
Melting Stuff	—	65 0	65 0	65 0	65 0	64 0	64 0	64 0	64 0	64 0	64 0
Ditto rough	—	44 0	44 0	44 0	44 0	44 0	44 0	46 0	46 0	46 0	46 0
Graves	—	14 0	14 0	14 0	14 0	14 0	14 0	14 0	14 0	14 0	14 0
Good Dregs	—	12 0	12 0	12 0	12 0	13 0	13 0	12 0	12 0	12 0	12 0
Yellow Soap	—	84 0	84 0	84 0	84 0	84 0	84 0	84 0	84 0	84 0	84 0
Mottled ditto	—	92 0	92 0	92 0	92 0	92 0	92 0	92 0	92 0	92 0	92 0
Curd ditto	—	96 0	96 0	96 0	96 0	96 0	96 0	96 0	96 0	96 0	96 0
Candles, per dozen,	—	12 6	12 6	12 6	12 6	12 6	12 6	12 6	12 6	12 6	12 6
Moulds	—	13 6	13 6	13 6	13 6	31 6	31 6	13 6	13 6	13 6	13 6

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AVERAGE PRICES OF CORN, by the quarter of eight Winchester bushels; and of OATMEAL, per boll, of 140 pounds Avoirdupoise:
From the Returns received in the Week, ended JANUARY 17, 1804.

INLAND COUNTIES.

COUNTIES.	Wheat.		Rye		Barley.		Oats.		Beans.		Peas.		Oatmeal.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Middlesex	54	0			24	0	25	4	36	3	40	1		
Surrey	52	0	32	0	23	7	22	6	37	0	40	3		
Hertford	50	0	35	6	21	6	20	4	32	9	37	9		
Bedford	43	0	31	2	20	1	19	8	29	8	34	7		
Huntingdon	43	5			18	8	17	4	24	11	30	4		
Northampton	51	6	31	0	19	10	18	10	31	0	32	0		
Rutland	55	6			19	6	18	6	33	0			57	3
Leicester	53	1			21	8	19	4	33	10	47	1	36	7
Nottingham	59	4	32	0	24	4	21	2	55	6				
Derby	58	4			26	4	20	10	40	4	40	0	20	9
Stafford	52	8			25	9	23	4	44	5			32	6
Salop	47	5	32	6	24	1	22	7	44	5	42	11	63	7
Hereford	45	10	32	0	24	5	23	7	43	2	42	4	60	2
Worcester	45	5	33	2	23	8	24	11	40	2	44	7		
Warwick	53	1			25	0	23	2	38	6	52	4	45	9
Wilts	49	0			23	2	21	0	40	4	35	0		
Berks	53	4			23	3	22	8	35	9	35	0		
Oxford	49	9			21	1	20	5	31	11	34	2		
Bucks	51	1			22	7	22	1	33	7	38	0		
Brecon	49	7	32	0	25	4	21	4			34	8	36	0
Montgomery	46	11			16	0	16	2			37	4	44	6
Radnor	46	5			23	3	20	7			41	3	67	10

Maritime Counties.

Essex	53	10	30	6	21	3	23	4	31	9	31	6		
Kent	55	2			25	6	26	9	34	11	38	0		
Suffex	53	10			26	7	25	4			44	6		
Suffolk	47	10			20	6	20	4	30	1	34	7	48	6
Cambridge	44	0	31	10	20	0	13	8	27	8	28	0		
Norfolk	45	3			19	6	18	7	28	7	32	1		
Lincoln	48	6	26	3	20	3	17	5	29	3	30	0		
York	49	4	31	10	22	1	19	0	37	0			42	8
Durham	49	9					21	3						
Northumberland	46	10	36	0	22	1	20	2			32	0		
Cumberland	53	11	41	4	26	4	22	2						
Westmorland	53	10	43	2	25	10	22	0						
Lancaster	57	11			27	0	25	1	44	0	68	0	21	6
Chester	52	4			27	3			44	4			21	3
Flint	49	4			28	4					36	10		
Denbigh	54	3			27	4	20	1	48	0	38	5	38	2
Anglesea							16	6						
Carnarvon	58	0	48	0	25	2	19	6					42	1
Merioneth	56	0			27	6	18	10			40	0	36	0
Cardigan	51	0			19	2	15	11			40	0		
Pembroke	45	1			21	6	16	0						
Carmarthen	56	5			22	0	16	8						
Glamorgan	55	7			27	8	19	11						
Gloucester	49	4			22	7	22	5	34	5				
Somerset	54	8			24	0	22	2						
Monmouth	51	0			25	4								
Devon	57	7			26	0	20	9						
Cornwall	53	6			26	10	18	7						
Dorset	51	3			21	10	24	0						
Hants	59	6			23	1	24	1	40	4				

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

1804	Bank Stock.	3 per Ct. Red.	3 per Ct. Confls.	4 per Ct. Confls.	5 per Ct. Navy.	5 per Ct. Loyalty.	Long Ann.	Short Ann.	Imp. 3 per Ct.	Imp. Ann.	Irish 5 pr. Cent.	Omnium.	India Stock.	English Tickets.	Confls for Account
Jan. 2	146½	54½	70½	70½	87½	90	7-16	3-16	9	9-5-16	5½	17	17	17	56½
3	146	54½	70½	70½	87½	90½	16	3-16	53½	9-5-16	5½	17	17	17	55½
4		54½	70½	70½	87½	90½	16				5½	17	17	17	55½
5	146½	54½	70½	70½	87½	91	1-16				5½	17	17	17	56
7	146½	54½	70½	70½	87½	91	16	3-16	53½		5½	17	17	17	56½
9	147	55	70½	70½	87½	91	16			9½	5½	17	17	17	56½
10	147½	55	70½	70½	88	92	16	3-16	54½	9½	4	17	17	17	56½
11	148	55	70½	70½	88	92	16	3-5-16	54½	9½	4	17	17	17	56½
12	148	55	70½	70½	88	93	16	3-16	54½	9½	4	17	17	17	56½
13	150	55	70½	70½	88	93	16	3-16	54½	9½	4	17	17	17	56½
14		55	70½	70½	88	94	16		54½	9½	4	17	17	17	56½
16	151	55	70½	70½	88	94	16	3-16	54½	9½	4	17	17	17	56½
17	152	55	70½	70½	88	94	16	3-16	54½	9½	4	17	17	17	56½
19	152	55	70½	70½	88	94	16	3-5-16	54½	9-9-16	3	17	17	17	56½
20	153	56	70½	70½	89	94	16	3-5-16	55	9-9-16	3	17	17	17	56½
21		56	70½	70½	89	94	16				3	17	17	17	56½
23		56	70½	70½	90	95	11-16				3	17	17	17	56½
24	155	56	70½	70½	90	94	16	3-5-16	55	9-9-16	3	17	17	17	56½
26	155	56	70½	70½	89	94	16	3-5-16	55	9-9-16	3	17	17	17	56½
27	155	56	70½	70½	89	94	16	3-5-16	55	9-9-16	2	17	17	17	56½
28	155	56	70½	70½	89	93	16	3-5-16	55	9-9-16	2	17	17	17	56½

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

TO OUR CORRESPONDENTS.

WE have seen Mr. Lester, and we understand he has written to Agricola Norfolkensis on the subject on which he enquires.

Topographus will soon see we shall not neglect his communications.

We hope Veterinarius will excuse our remarking, that however important the subject of his Essays, the last has rather exceeded the limit to which we wish them to be confined, as they will, if he fulfil the intentions he has expressed, become a permanent article through the nine ensuing numbers. As we presume the next communication on this subject is already prepared, we shall not be disposed to abridge it, should it be liable to this objection.

The Postscript to the letter from Thomas N. Parker, Esq. of Hatton Grange, introduced, page 398, et infra, in our last Number, is from a previous publication, and should not have been connected with his letter of the 7th of Dec. 1803. It will be satisfactory to our Readers to learn, that further improvements on this subject will be very soon published, and we shall take the earliest opportunity of announcing them.

We have inserted the letter from *Democritus* with some reluctance, because it has a sarcastic character hardly within the limits of good nature. As far as we are personally concerned, we can readily forgive the observation alluded to, which would have escaped our notice had it not been forced upon our attention by our facetious correspondent.

We notice the following corrections by desire of Agricola Northumbriensis.

ERRATA.

No. 53.	Page	402	line	40	after, "dung" insert, <i>even</i>
		406		15	after, "thirteen" insert, <i>inches</i>
		407		2	for, "turnips" read, <i>turnip</i>
		407		6	for, "in every respect similar to each other, except with regard to size" read, <i>of from the middling to the large size.</i>
		408		13	for, "the" read, <i>that</i>
		409		1	for, "expedited" read, <i>expedites</i>