Mr. Middleton's Draining Machine.

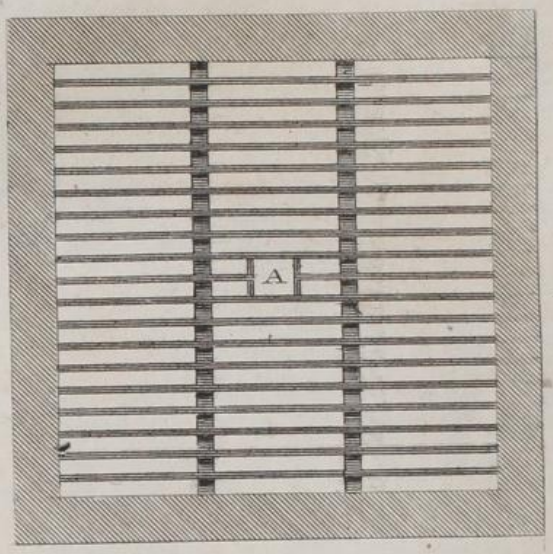


Fig. 1.

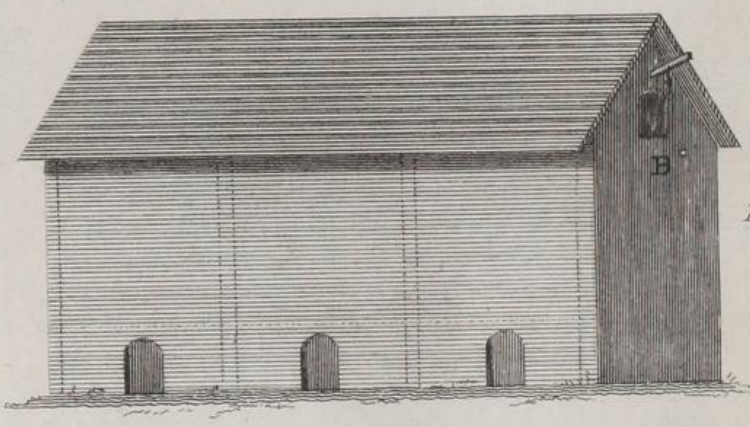


Fig. 2.

Fig. 3.

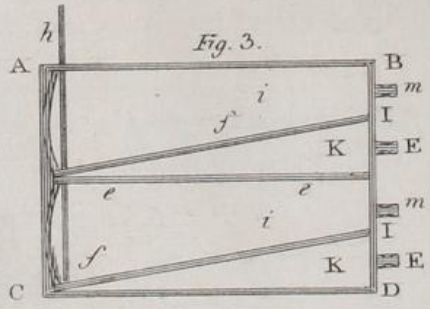
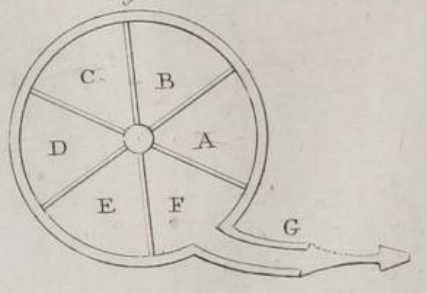


Fig 4.



THE VENTILATED GRANARY.

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ON COW GRASS, MARL GRASS, OR PERENNIAL RED CLOVER.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

AGRICULTURE, like other ſciences, is beſt explained by confining the attention to detached parts. Thoſe minute circumſtances relating to any article are then inveſtigated, which are generally overlooked in a general detail. Having lately cultivated Cow Graſs with ſucceſs, its hiſtory became to me an intereſting object of enquiry.

In the ſpring 1800, a field of eight acres was laid down by ſowing twelve pounds per acre of Cow Graſs, with Barley, which ſucceeded Turnips, manured for, and fed off by ſheep. The ſoil a pebbly loam on a gravelly ſubſoil. Notwithſtanding the dry ſeaſon, the clover kept growing after the common cloven had ſhrunk in the leaf, and yielded, when mown, a larger crop than I had ever gathered, even in a dropping ſeaſon.

Cow Graſs appears to be longer in the ſtalk, more branching and crooked than the common clover. It is later in arriving at its full growth, and the bloſſom is larger, and of a deeper purple. The leaves are longer, darker, and narrower. The whole plant is larger and heavier. The root is perennial, ſtrikes obliquely, and ſpreads underground. Mr. Arthur Young, on examining the Cow Graſs here referred to, pronounced it to be the beſt ſpecimen of the kind, and the fulleſt of bloſſom that he had ever ſeen.

Mr. Liſle, therefore, I ſhould ſuppoſe muſt have been under a miſtake, when, in ſpeaking of this clover, he ſays, The broad Clover Graſs, which of late years, 1707, has obtained ſome credit, as a longer living graſs than the common broad clover, and is ſown under the name of Cow Graſs, I find to be the common purple Trefoil, or honey ſuckle Trefoil, as deſcribed by Mr. Ray, diſtinguiſhed from the great purple meadow Trefoil, which has always hitherto been ſown by the Engliſh farmers, and I doubt not ever will, for, by experience, I find the other not to yield half the burden.

This plant is well deſcribed by Mr. Afzelius, in the firſt volume of the Tranſactions of the Linnæan Society, where he treats of three ſpecies of Trefoil, Trifolium Alpeſtre, medium and pratenſe. He conſiders Cow Graſs as the Trifolium medium and not the Alpeſtre, as has been generally ſuppoſed.

Mr. Martyn, in his Flora Ruſtica, has given an excellent figure of the Cow Graſs, taken from plants growing in Mr. Curties's garden, at Brompton. They were ſent him out of Hampſhire. On comparing them with other plants of the wild broad clover, which he had collected from different parts of Batterſea field, no difference was diſcovered, except that in the latter, the heads of flowers are ſmall, the ſtalks green and without hairs till they approach the flowers, which appear earlier than thoſe of Cow Graſs.

The Rev. Mr. Onley, of Eſſex, in the fourth volume of the Annals of Agriculture aſſerts, that his Perennial Seed Clover or Cow Graſs, has been equal in paſturage to the moſt luxuriant common clover, and his butter from it equal to the fineſt natural graſs. The ſame gentleman in the third volume of the ſame work, ſpeaks of it as ſuppoſed not to *hove* the cattle as the common clover. He laid down with 10 lb. per acre of ſeed with ſpring corn.

Mr. Parkinſon, in his late publication called, The Experienced Farmer, aſſerts, that he has ſeen a much greater crop from Cow Graſs, on the ſame ſort of land, and in the ſame ſeaſon, that he ever did of Red Clover. Cow Graſs will grow to a very great height and delights in a clayey ſoil. I have ſeen it riſe ſix feet high among thorns, and whins, and goſs. He does not think Cow Graſs is of a very feeding nature. It is a later plant than the Red Clover, and the ſheep do not like it ſo well. He has ſeen one ſide of a field ſown with Cow Graſs, and the other with Clover. The ſheep ate the Clover bare, but left the Cow Graſs.

Mr. Billingſley, in his Survey of Somerſetſhire, ſays that Marl Graſs is the ſpontaneous production of the Marl Land.

It was firſt noticed or collected 50 or 60 years ago, by Mr. James, who lived on a large farm belonging to the Marquis of Bath, in the pariſh of Chilcompton. By his aſſiduity in preſerving and propagating the ſeeds, it became common in the courſe of a few years, and has been conſidered ever ſince as a valuable ſubſtitute for Red or Broad Clover, to which it bears a ſtriking analogy; with this difference, however, that it continues longer in the land.

April 30. ABRAHAM WILKINSON, M. D.

ON SURFACE-DRAINING MACHINES.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

DRAINING is now ſo generally underſtood to be one of the moſt important branches of practical agriculture, that any improvement in the mode of performing that operation, however

ſmall, may be conſidered worthy of attention. Under this idea I requeſt you will do me the favour of giving the following brief hints on the ſubject of ſurface-draining, a place in your Magazine, in order that they may come under the obſervation of many occupiers of wet land, who may, perhaps, benefit themſelves and the community by the adoption of them.

The neceſſity for draining the ſurface-water from clay-ſoils, in wet ſeaſons, is ſufficiently evident, but none of the methods now in general uſe appear to me to be ſo ſimple and effectual for that purpoſe as might be wiſhed. Covered drains are not only very expenſive, but frequently fail to produce the deſired effect, in conſequence of the covering material being of too cloſe a texture to ſuffer water to filter through it with ſufficient freedom. The beſt-conſtructed mole-plough requires a team more powerful than moſt farmers can afford to keep; and the number of horſes employed to draw ſuch a plough do much harm by poaching the land. Open drains, made with a ſpade, are objectionable on many accounts; firſt, from their being too large, unſightly, and inconvenient to the harveſt-carts; next, they are dangerous to full-grown ſheep and young lambs; and laſtly, from the circumſtance of much clay, of a nature very inimical to vegetation, being dug up in making them, which, being ſpread over the richer ſurface-ſoil, does conſiderable miſchief. Covered drains are alſo liable to the laſt objection. The method diſcovered by Mr. Elkington, of well-deſerved fame, is not applicable to the conveying a ſuperabundance of ſurface-water from off a deep clay ſoil. In conſequence of the objections which ſeemed to me to lie againſt the ſeveral methods here enumerated, I was, ſome time ago, induced to turn my thoughts to the ſubject, and at length hit upon the following very ſimple contrivance, which I have found to anſwer the purpoſe on my graſs land.

It conſiſts merely of a trifling addition to the felly of a common cart wheel, as repreſented in Plate I. Fig. 1.

A, The felly of a ſix-inch cart wheel.

B, An addition of wood to be put on, round the felly A.

C, A rim of iron, of a triangular ſhape fixed to the wood B.

The coſt of this addition is about a guinea.

A wheel of this deſcription put on the axle of a cart in the uſual way, will, of courſe, reſt on the edge of the rim of iron marked C; and, on driving the horſes forward, make a ſmall indent in the ground merely by the revolution of it. But in order to make it preſs down to the depth of ſix or eight inches, that ſide of the cart muſt be loaded with ſtones, iron, or any other heavy material which happens to be at hand, until the whole of the parts marked B and C, and, if neceſſary, the part marked A, ſink into the ſoil. The cart ſhould then be drawn along in ſuch a manner that the cutting-wheel may revolve where the drains are intended to be made. In land that is in ridges and furrows it will ſome-

times be necessary to draw the wheel along every furrow. When the land is without ridge and furrow the wheel must be drawn over it in parallel lines, five or ten yards distant from each other. The wheel on the contrary end of the axle is a common six-inch wheel, supporting only the empty side of the cart, consequently it will not cut the ground.

The advantage of this contrivance is, that it makes an indent in the soil sufficient to carry off the water during that winter by pressing down the herbage, but without destroying it. In the following spring these drains will be nearly grown up, and clothed with grass, so that there will be nothing taken from the pasturage on the scythe. It is, perhaps, necessary to observe that the wheel must be drawn over the ground every year on the approach of winter. With it, and two old horses, one stout boy or man may drain from ten to twenty acres in eight hours. The expence will vary from threepence to sixpence an acre, according to the price of labour, and the number of cuts to be made on each acre.

I am, Sir, yours respectfully,

May 19, 1801. JOHN MIDDLETON.

MR. TUNSTALL, ON THRESHING-MACHINES.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

SINCE the insertion of my letter in your Magazine, I have received numerous inquiries, which give me pleasure to find your publication so esteemed and useful: some further information, therefore, may interest several of your readers, and perhaps be welcome to the public; as you promised more communications on the Threshing-Machine, if attainable; and the encouragement it meets with, keeps attention alert.

In reply to page 2. No. xii. July 1800. There is no difficulty in applying a horse-wheel to the handy machine you describe. There is no difficulty at least for my machine, or to give it sufficient stability whilst at work, by braces or stays to or from the horse-wheel, or the beams or other places to be met with in a barn or chamber. You observe, it is costly to feed swine with wheat: that is demonstrated, when I assure you, two pennyworth of straw (2s. per thrave) contains on an average two ounces of good wheat, when threshed by a flail.

After my machine, the straw may be cut for fodder with the chaff-cutter, instead of being only fit for litter, from many machines, which cattle are not inclined to eat.

In No. xiii. p. 93. The Essex farmer has my hearty wishes for the success of the machine he proposes to introduce. If the plan he was promised answers, I am convinced he has experienced, that the year 1800 has been a yielding year of wheat. As to the credit an artificer may reap from erecting a machine for 30 l. or 40 l. it appears

to me it may be as great as for any other ſum; or more ſo, when it anſwers well: and a farmer, as is evident from a Mr. Hunton, who threſhes fifty buſhels of wheat in ſix hours with my machine, one horſe, one man, and three children, and meaſuring the produce from an equal quantity of ſtraw threſhed by the flail, experiences a real ſervice by obtaining a buſhel more grain! The machine complete, coſt him thirty guineas. The horſe-wheel, by the removal of the threſhing machine, is ready to work a malt-mill, a pair of ſtones, or for any other purpoſe; and, comparing it with the Eſſex farmer's plan, a capital of 120 l. the labour and expence of three horſes and ſeven people, is ſaved,—allowing only two-thirds more time to my machine; beſides, that machine is uſeleſs in a great degree, where ſo many people cannot be procured, or where the ſtraw cannot be conſumed, or the crops are ſuch, as by far the greater number of farmers reap. The Introduction of this grand machine has my beſt wiſhes, as it will certainly act as a ſtimulus for others, or prove the pernicious effects of continuing the flail.

No. xv. page 247. Mr. Patteſon is reſpectfully informed, that the experiment he mentions, was moſt ſucceſsfully made in favour of my machine, at Earl Shafteſbury's, at Winborn St. Giles, Dorſetſhire, where fourteen ſuch machines were ordered, by moſt reſpectable gentlemen and farmers, who witneſſed the immenſe ſaving, as my machine produced nothing on the ſecond threſhing.

A little time will convince the bulk of farmers, that they waſte annually, by bad threſhing, ſufficient ſeed to ſow their land, and conſiderably more than the value of the wages they pay; beſides depriving themſelves of the labour of the ſtrongeſt men they might employ for other uſeful purpoſes, as draining, or improving waſtes.

I flattered myſelf ere this of receiving pleaſure from R. S's intended communication. I ſhall be obliged to him to favour me with his ideas by a drawing and deſcription: in furtherance to his experiments, he may ſee my improvements of the Threſhing Machine, at the Rev. Mr. Lugar's, Ardſley, or at J. Taylor's, Eſq. Abberton, both near Colcheſter. My addreſs, *Mr. Tunſtall, Midd Hall, near Knareſborough, Yorkſhire*, will I hope, induce him to favour me with his; and I take this opportunity alſo of requeſting orders and inquiries, (which I ſhall anſwer your reſpectable readers) to be directed poſt paid.

I am, Sir, your humble ſervant,

May 16, 1801. WILLIAM TUNSTALL.

(Extract of a Letter.)

" Mr. Bodenton has borrowed Mr. Graves's machine, (made " on my plan); he ſays, he ſhall clear 30 l. in about twelve days. " His wheat is very full of ſmut-balls; he has threſhed ſome by

" the flail, and ſome by the machine; he ſays, he ſhall get 3s. a " buſhel more for that which is threſhed by the machine, than " by the flail.

April 8, 1801. " S. STRATFORD."

P. S. I am ſorry you found my former letter not clearly expreſſed. I would explain any thing pointed out. The omiſſion of your Obituary is much regretted; as farmers, experimentaliſts, and patentees, are continually expiring, *et de mortuis nil niſi bonum.*—Lately died, Mr. Palmer, of Maxſtock, Warwickſhire, the inventor of a Threſhing Machine, which is ſaid to have much merit. Having ſeen Mr. Ruſtall's family mill, I apprehend it would anſwer much better to have two wheels added to it, ſo that it might revolve ſixty turns per minute, which, though requiſite, is too quick to be turned, as it now is made. It is obvious alſo, that the ſtone is heavier than the fly-wheel fixed to it, which of courſe can anſwer no purpoſe, being guided by the ſtone. The wheels I propoſe would have leſs caſt iron, and would gain as much time (admitting not to be over-loaded, or proportionate grain) as the Eſſex farmer's grand machine! I am, &c.

W. T.

QUERY FROM MR. LAWRENCE, AUTHOR OF THE NEW FARMER'S CALENDAR, TO DR. WILKINSON, RESPECTING ROWEN.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I Am heartily glad to obſerve, that Dr. Wilkinſon, of White Webb Farm, Enfield, has honoured your Magazine with his correſpondence; an able and enlightened cultivator he truly is, and one who has rendered real ſervice to the cauſe of agriculture, by his occaſional eſſays. The Doctor's letters, in your Numbers 16 and 17, are now under my peruſal; the firſt contains very important intelligence on the ſubject of Incloſure arrangements, and on Tythes, which merit particular attention at this period. On the ſize of Farms and the Poor, this comprehenſive writer has exactly *hit the white*, ſaying more, and to greater purpoſe, in half a Magazine page, than many very *thick* pamphlets have afforded. On the Doctor's ſecond ſubject, that of *kept graſs*, in which he is equally fortunate and equally uſeful, I beg leave to propoſe a queſtion, on which I truſt he will have the goodneſs to favour the Magazine with his opinion. Would it be practicable, and would it not be advantageous, to mow the reſerved graſs in winter, and carry it to the cattle, rather than turn them into it?

The practice of keeping Rowen in this way, has been many years familiar to me, but I have generally ſeen the land ſo poached by the tread of the cattle, and the long graſs, a commodity, at that ſeaſon, very precious, ſo trodden down, waſted, and deſtroyed, that the above remedy invariably ſuggeſted itſelf, and yet I can ſcarcely account why I never tried it.

I am, Sir, your very humble Servant,

Sommers Town, May 19. JOHN LAWRENCE.

ON THE CULTIVATION OF APPLE AND PEAR TREES.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

THE manufacture of Cyder and Perry is ſo conſiderable an one in this country, and produces ſo delicious a beverage to its inhabitants, that I conceive a paper or two on that ſubject will not be unwelcome to your Magazine; and I propoſe to intrude on you a few obſervations of my own on that head. If they are not entirely new, they may perhaps be placed in a light, which will render them not deſtitute of utility.

To begin with thoſe *ſoils which beſt ſuit the cultivation of Apple and Pear Trees.*

Although there may be ſome objection to a ſoil purely of clay, and eſpecially where the trees are ſet too deep, yet where there is a due admixture of loam with the clay, or at leaſt a ſurface of loam, it is found that there are the beſt plantations of trees, bearing a ſufficient *quantity* of fruit of the richeſt and moſt productive *quality*. Such a ſoil, in a ſheltered ſituation, eſpecially protected from the *eaſterly* winds, is the moſt to be ſought for; and a very moderate degree of moiſture will be found neceſſary, as the Trees delight in dry ſtations, and the fruit is much more ſaccharine and rich, though it may not be ſo abundant nor ſo juicy.

It is always the moſt prudent plan to raiſe ſeedling-plants for one's own uſe, rather than to purchaſe them; and having ſelected ſuch ſoils as are moſt approved, to graft on them, when ſet for ſtocks. The proper ſeaſon for ſetting them is the month of *October*, though it may not be ill done, ſomewhat later. The lands being divided at twenty feet by the plough, the Trees ſhould be exactly planted on the ridge, or middle part of them, at the diſtance of twenty feet each tree. This arrangement will form them into a *ſquare* plantation. The holes ſhould be proportioned to the ſize of the roots, ſo as to give them room to ſhoot freely in a looſe earth; where the ground is light, dry, and thin, they ſhould be eight or ten inches deep; where it is deep and wet, it ſhould be four or ſix inches. As you make the holes, ſeparate the top and bottom-

earth: when the Trees are to be planted, cut off the end of every root, ſo far as it has been wounded in taking up; and then, if the land is deep and wet, put all the beſt earth in the bottom of the hole, and place the tree as near the centre of the hole as may be, laying each root in its proper place, ſo that there may not be any interference, one with the other. Then, having previouſly prepared a ſufficient quantity of compoſt, made of rich earth, lime, and ſea-ſand or chalk, and high-way earth, well mixed and digeſted together, to every Tree add four inches' depth of this dreſſing, and on that lay the remainder of the natural earth of the hole, and thus complete the planting of the Tree. Care ſhould be taken, by three croſs bars and ſtakes to ſecure it againſt being ſhaken by the wind; and furze-buſhes placed round the body, will preſerve it from the injury of cattle; at the ſame time that they will become preſervative from wintry-froſts, and from droughts and weeds in ſummer; which are very detrimental to young plants. The *Southams* method is to *top-dreſs* the roots of *old* Apple-trees, in *November*, at fartheſt, with an *amalgama* of high-way ſoil, the ſcouring of ditches, lime or chalk and ſea-ſand, laid on furze, or without it, about five or ſix inches thick, and about four or five feet all round from the body of the tree Apple-trees ſhould be dreſſed every three or four years; nothing being more eſſential, than to keep the roots from having to encounter a hard ſurface. It is of advantage to an orchard to ſuffer ſheep to feed in it, as they will contribute to its fertilization by their natural manure.

By a different proceſs, if an orchard be kept under tillage, the Apple-trees will thrive to a very extraordinary degree. This is much practiſed in *Kent*, and may be advantageouſly done for many reaſons, eſpecially if the trees are planted at thirty feet diſtance every way. In ſuch an interval of ground, the plough has room to work, and the tillage will be productive, in corn, or turnips, &c. until the tops of the trees expand themſelves very conſiderably, and their roots occupy a very great ſpace. As the trees advance to maturity, it is always prudent management to keep their heads in due order, ſo that one ſhoot or branch ſhould not interfere with another; and ſo as to cauſe them to ſpread as widely as poſſible, ſince they are in that ſtate much leſs expoſed to the miſchief of boiſterous and tempeſtuous winds, in deſtroying the young fruit, or that which is nearly ripe, eſpecially when the tree is plentifully laden with apples.

The proper ſhape of a full grown Apple-tree ſhould have its loweſt branches ſpread at four feet and a half from the ground, and all the reſt diffuſed in regular diſtance and form, from each other, as nearly horizontally as poſſible, ſo that the uppermoſt ſhoots ſhould not be above twenty feet high; a form and regularity eaſily attained by an early and judicious uſe of the pruning knife. Upright ſhoots from the middle are always

prejudicial; and the more open the centre of the tree is kept, when young, the better founded is the hope of its being highly productive in its maturity.

The beſt Cyder Apples, which are preferred in Herefordſhire, are, 1ſt, The *Redſtreak Apple*, which, though a wilding, is eſteemed, when mixed with other apples, to produce the beſt Cyder. There are three varieties of it; the *Ruby Red Streak*, the *Long Streaked*, and another, not particularly denominated. It is the production of a hardy tree, which thrives in poor land, and can endure the inclemencies of weather: its fruit, though abundant and excellent for Cyder, is of a nature not to induce the eating of it, which is a circumſtance of manifeſt advantage. 2d. The *Styre Apple* and the *Golden Pippin*—the one a rough, ſtrong fruit; the other, a mild-mellow one; form an excellent combination for Cyder. In *Devonſhire*, the *White Sour Cyder Apple* is preferred to moſt other apples. It is of an oblong form, and of a pale colour; and is frequently joined with the *Corniſh Cyder Apple*, a ſmaller fruit, more round, and a with ſtreak of red in its hue.

The *Meget or Medyat Cyder Apple*, is alſo a favourite ſpecies, of a longiſh form, and bright yellow colour when full ripe. The Cyder made from this rough fruit requires a length of time to mellow and ſoften it, but by age it becomes an excellent liquor. The *Rackamoor Cyder Apple* is another ſpecies not much inferior. The *Royal Wilding*, is ſimilar to the *Meget*, but rather milder. The *Cockagee* or *Iriſh Crab*, is more and more propagated, as producing a moſt ſuperior Cyder. The *Red Streaked* is alſo a favourite in Devonſhire: and the *Bitter Sweet*, of which there are many ſorts. This is not uſed alone, but is very deſirable when mixed with ſharper-tarted apples.

The *Gathering* of the apples is generally performed by means of poles. Until they are ground it is moſt adviſable to heap them under ſheds, where they may be preſerved from rain, and yet have the advantage of air to prevent their moulding; and though rotten apples are not always excluded, it muſt certainly be better to have the fruit as ſound as poſſible, and hence the diſtinction made by ſome of *fine* and *ſuperfine* Cyder.

There are *wooden* Cyder Mills, and *ſtone* ones: the objection to the latter is their bruiſing the pippins or ſtones of the apples, and thereby giving the cyder an ill taſte; but this is by many conſidered as a frivolous objection, and the ſtone mill is frequently uſed, and by many in preference.

There are three ſpecies of *Preſſes*: The *Screw-Preſs*, the *Piece*, and the *Pully-Preſs*. The Screw-Preſs is reckoned the beſt, as it operates more uniformly, and of courſe drains the maſs of bruiſed apples moſt effectally.

The Fermentation and racking the Cyder is a part of its manufacture which is both delicate and important. The caſks ſhould

not be filled at firſt, nor ſhould the bung-hole be cloſed till after the firſt racking, nor even then until the fermentation is entirely over. The ſooner it is racked from the firſt lees the better; and great care is neceſſary that it ſhould be racked into caſks that are perfectly ſweet. Generally ſpeaking, twice racking is ſufficient, but it is ſometimes repeated to a third and fourth time.

If it be neceſſary to fine the Cyder, it may be done by two different ways; though in the *Southams*, in Devonſhire, a few weeks ſtanding after being racked is eſteemed ſufficient for the purpoſe.

1ſt. When the fermentation is entirely over, take two or three quarts of neat Cyder or French Brandy; add two ounces of beaten powdered alum, with three pounds of powdered ſugar-candy, and four or five ounces of ſtone-roll brimſtone, and put all theſe ingredients into a hogſhead of Cyder, with a penny-worth of cochineal, tied up in a rag. Otherwiſe, 2dly. Beat the whites of eight eggs with their ſhells, and mix them with two or three handfuls of bean flour finely ſifted, half a pint of ſpirit of wine, and ſome honey or treacle, enough to make it a thick liquid: Stir all well into a hogſhead of racked Cyder. From the nature of the compoſition, it is to be preſumed the firſt proceſs muſt be the beſt.

If, Mr. Editor, you ſhould eſteem theſe curſory hints of uſe, you will of courſe communicate them; and in ſo doing

You will oblige your conſtant Reader,
And very humble Servant,
POMARIUS.

May 1801.

THE BRITISH MERCHANT. No. V.

HISTORY OF COMMERCE FROM THE REIGN OF AUGUSTUS TO THE END OF THE FIFTH CENTURY.

THE dominion of Auguſtus was very favourable to commerce, as the peace which then reigned over the civilized world, enabled the merchants to purſue it unmoleſted. At this period, we find that Malta was famous for its number of workmen, and its various manufactures, particularly fine cloth. The houſes of which country, we are are told, were of fine ſtone, beautiful and ſtately. The inhabitants were the deſcendants of the ancient Phœnicians, and, like them, purſued commerce with avidity. Under Tiberius we find the Romans extending their protection to the north, and the town of Havern, the moſt ancient in Frieſland, founded. The cultivation of vines in France, Spain, and Portugal, ſeems to have increaſed about this time, the inhabitants, we preſume for their profit, neglecting to cultivate corn, and turning much of their arable land to vineyards. Under Nero (A. D. 50.) we find the capital of England firſt mentioned as a place of note. Tacitus ſays, it was famous for merchants, and plenty of merchandize. Under Veſpaſian (A. D. 78.), Agri-

cola, governor of Britain, ſailed round the north cape of Scotland, and determined Britain to be an iſland, which was only ſuppoſed to be ſo before.

So fully employed were the hiſtorians of this period in relating wars and political events, that they ſcarcely find room to mention the progreſs or ſtate of Commerce, and it is remarkable that the induſtrious Anderſon has not been able to ſelect a ſingle article reſpecting it from any ancient author for near two centuries. About the year of our Lord 270, he tells us, that ſilk was brought from India to Rome; we ſuppoſe he means in greater quantity than before; for it is certain that, by a law of Tiberius, men had been prohibited from wearing ſilk, as too effeminate and debaſing, which was then deemed fit only for women. So much were the Romans under Heliogabalus, that that prince had a dreſs made entirely of ſilk. We may preſume the whole here ſpoken of was manufactured ſilk, which was then extravagantly dear, and ſo ignorant were the people of Europe reſpecting this beautiful production, that they thought it grew on ſhrubs like cotton; an error in which they remained until the reign of Juſtinian.

From the ſubject of ſilk we may with propriety turn to the ſtate of the Commerce with India, from whence this commodity came. With this Commerce the Romans were well acquainted in the time of Auguſtus, under whoſe reign the trade to India was better regulated than it had been before. The chief paſſage by which commodities were carried between Europe and India was by Egypt, a courſe which, if the French ſhould ſucceed in keeping poſſeſſion of Egypt, will, we have no doubt, ſoon be revived. The merchandize was brought from various parts of India up the Red Sea to its head, thence carried by land to the Nile, and down that river, in the ſmall craft of the country, to Alexandria, where it was reſhipped and carried to the various countries of Europe: In this manner large fleets were employed on the Red and Mediterranean Seas; and in this manner the Commerce continued for ſeveral ages; and Rome, as the metropolis of the military was alſo that of the commercial world, until the fourth century, when Conſtantine removed the ſeat of empire to Conſtantinople, and made it the emporium of Commerce. This city was moſt undoubtedly adapted for that honour; it was favoured by nature with a fine climate, and by its ſituation well formed for trading with every part of Europe and Africa.

But the invaſion of the Northern barbarians, in the fifth century, checked the progreſs of Commerce, and blaſted this fair proſpect. Rome was taken by the Goths, and plundered. The Franks invaded Gaul, and an end was put to the weſtern empire. By theſe events the courſe of Commerce was changed, and for many ages was, in the conquered provinces, nearly at a ſtand.

Britain, however, ſecured by the Ocean, did not immediately feel the effects of theſe invaſions, and could ſhe have defended

herſelf againſt her northern neighbours, the Picts and Scots, might have riſen to ſome conſequence. During the Roman dominion ſhe had much trade, but her exports were confined to corn, tin, lead, and horſes. From the Romans ſhe had learned the art of manufacturing cloth, of building houſes, and many improvements in huſbandry and arts.

In the fifth century a city roſe, which afterwards made as conſiderable a figure as a commercial ſtate as any which hiſtory has mentioned. The Huns invading Italy, the inhabitants of the country, near the bottom of the Adriatic, fled with their beſt effects to ſome iſlands, where before there were only ſome fiſhermens' huts; here they built them habitations, and here by degrees aroſe the celebrated commercial city Venice.

The foundation and progreſs of this celebrated city deſerves more particular mention. It is fixed by hiſtorians about the year 425; the number of iſlands nearly contiguous to each other was ſeventy-two, the chief of which called Rialto was firſt ſettled. Here, by induſtry, by Commerce, and by bridges, they connected theſe iſlands together, and formed Venice, which is now one of the moſt magnificent cities in Italy. It is ſaid to contain 180,000 inhabitants. Neceſſity firſt drove them to Commerce, and in no very great length of time they became almoſt the ſole carriers for the Eaſt India merchandize brought to Alexandria, diſtributing it in their veſſels to all parts of Europe. At length they gained the dominion of a very conſiderable territory on the continent, and many fertile iſlands of the Levant. In time this ſtate acquired immenſe wealth, and aroſe to he a great naval power, have been able to contend againſt the great powers of Europe, many of whom have ſought her protection and courted her friendſhip. How ſhe loſt theſe advantages again by the re-diſcovery of the paſſage round the Cape of Good Hope will be depicted hereafter.

B.

ON THE EXCESSIVE FATTENING OF CATTLE, WITH AN ACCOUNT OF THE FATTENING SEVEN OXEN.

By a SUFFOLK CLERGYMAN.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

BEING a conſtant and original ſubſcriber to your very uſeful monthly Intelligencer, I have obſerved with pleaſure, the waſteful and unpopular practice of fattening meat to exceſs, very properly reprobated by ſeveral of your correſpondents; and as this fooliſh and oſtentatious practice, from being thoroughly expoſed, begins now to loſe ground, it becomes all thoſe, who are earneſt for its abolition, to continue their warnings to a public, who can ill afford any loſſes of this kind, as long as thoſe warnings ſhall appear neceſſary. In this view,

I preſume, through the channel of your Magazine, to offer my preſent obſervations.

From the moſt authentic intelligence which can be obtained, the expence of feeding theſe monſtrous, raree-ſhew animals can never be re-imburſed to the feeder, by a fair market price, and even granting it could, weight per lb. for market price, the loſs would ſtill be great to the public, from a deteriorated, ſickly and waſteful commodity. But the cunning or vain feeder knows too well, that he muſt be repaid by extra price, and the butcher, indemnifying himſelf out of the pockets of his cuſtomers, reluctantly complies with the whim of the day.

In order to do this, he is firſt obliged to pare off vaſt quantities of fat, to be ſold at the tallow price; in the next place, he ſhoves off as much of this famous meat as poſſible, to thoſe of his high-bred and faſhionable cuſtomers, who have the folly to ſet meat upon their table, to be *admired* in the parlour, and waſted in the kitchen, at a moſt famous price; and laſtly, ſcrews up the poorer buyers, to the utmoſt, for the remainder. That the latter totally diſlike ſuch food, I have had occaſion to obſerve, in various inſtances, and particularly in London, of late.—Paſſing by a butcher's ſhop, celebrated for this high-priced and greaſy ware, on the ſtalls of which were expoſed ſhoulders and ſaddles of mutton, compoſed of ſolid tallow, I could hear nothing but the language of averſion and ridicule, in the ſurrounding and gaping crowd. There was a ſhoulder of great weight, which I really believe did not contain above two pounds of fleſh or lean meat.

I occaſionally reſide in town, for a few weeks. Chance lately led me to a tallow-chandler's ſhop, near Holborn. A cook from the neighbourhood was in the ſhop, on the buſineſs of ſelling the kitchen-ſtuff ſhe had amaſſed, and for which the chandler allowed her only twopence-halfpenny per pound. She remarked, that ſhe was ſelling that, at ſo low a price, which had doubtleſs coſt her maſter fourteen-pence a pound. The rage for fat meat has not only immenſely increaſed the perquiſite of kitchen-ſtuff, but, as avarice is never ſatisfied, has alſo amazingly enlarged the views of cooks, in that article. A friend of mine, with a middling eſtabliſhment, aware of this, obliged his cook to accept a guinea per year, in lieu of her perquiſite; but the cunning jade was ſoon after detected in throwing large quantities of fat and greaſe into the neceſſary, leſt her former emoluments ſhould be diſcovered, and with the view of bringing things back to their old train.

What deſcription of perſons, then, are benefited by theſe famous ſhew-cattle, excepting cooks and tallow-chandlers, unleſs indeed the latter conſcientiouſly lower the price of candles, in proportion? To the butcher, this affair is a riſk, at leaſt; offers a kind of flaſh and gambling ſpeculation, by which he is

induced to give five guineas extra for a beaſt, becauſe it chances to belong a great raree-ſhew feeder. The ſaleſman, in courſe, humours the buſineſs out of complaiſance to the great man, his *maſter*. As to the fancy-feeder, with what it coſts him to make up one prize beaſt, and at much leſs riſk, he might make wholeſome meat, of at leaſt four; be ſure of a fair profit on each, and, at the ſame time, do juſtice to the public. The plea of a neceſſity to prove what our cattle will do, in this way, is now become ſtale; we have already had a glut of experience of the poſſibility of converting good and uſeful beaſts into unprofitable monſters. But we have this conſolation; our great and truly patriotic huſbandman, Lord Somerville, who devotes ſo much of his time to the neareſt and deareſt concerns of the country, its agriculture and woollen manufacture, ſeems inclined to diſcourage this ſuperfluous feeding, as he hints in his account of the annual prizes for bullocks and ſheep, which he has offered with the moſt benevolent and enlightened views. You will doubtleſs oblige your country readers, Mr. Editor, and be inſtrumental in the public ſervice, by giving a copy of his Lordſhip's propoſals—they deſerve the moſt extenſive circulation.

The following account of the feeding ſix Welſh beaſts of the ſuperior kind, and one home-bred, I had from a pariſhioner and near neighbour of mine, a few years back, and previous to the exceſſive riſe in prices occaſioned by the general war in Europe. This account, although not perfectly, is ſufficiently preciſe for a guide to thoſe who may be in the ſame circumſtances. Great part of my neighbour's farm was naturally poor, and all of it, previouſly to his occupation, had been driven with corn crops, to the laſt extremity, and to the utter ruin of the former tenant. He had, however, ſome land good enough for any purpoſe, a few acres of which, on my earneſt perſuaſion, he planted with garden-crops, to be expended in fattening bullocks in the farm-yard, the following winter. It was a plan he had never before tried, having been chiefly confined to ſheep feeding, and if he had now and then fatted a bullock or two, it had been with the ſummer graſs. The ſucceſs of this ſmall beginning, however, was ſo much to his ſatisfaction, both as to profit on the beef, and more on the quantity of manure raiſed, that he has progreſſively increaſed his winter-feeding of bullocks, every ſucceeding ſeaſon, to the preſent. My neighbour would not at firſt believe, that oxen, fed in this way, would repay their keep, and I have good reaſon to ſuppoſe, it was the firſt calculation he ever made in his life.

	l.	*s.*	*d.*
Four Beaſts, at 9l. —	36	0	0
Two ditto, at 7l. 17s. 6d —	15	15	0
One home-bred, for which he was offered	7	0	0
Market expences —	0	2	9
Prime coſt -	58	17	9

Brought forward	58	17	9
Keep from Michaelmas to Nov. 2d, in good lattermath, at 1s. 6d. a head, ——	2	2	0
Ditto on cabbages and good hay, worth then 5l. per load, until the beginning of February, thirteen weeks, ——	20	9	6
Ditto on potatoes and hay until March 10,	12	12	0
Ditto, ditto, to April 13, ——	7	4	0
Coſt and expences of keep -	101	5	3

RETURN.

One (the home-bred) killed March 9th, made	13	15	9
Six ſold to a Butcher at home, April 10th, -	119	10	0
	133	5	9
Coſt and expences as above —	101	5	3
Profit, --	32	0	6

The maſter beaſt was judged to weigh 140 ſtone of beef, London weight, 8lb. to the ſtone, and the lot to average at nearly 120 ſtone, all of them remarkably clever, and handling well in the chief points; but the Butcher or Jobber, who ſent them to Smithfield, it ſeems, had a bad market, and loſt full fifteen ſhillings a head by them.

The cabbages, of which I am unable to aſcertain the exact quantity, but as I recollect, about an acre and a half, were eaten by the beaſts intirely, and charged in the uſual way, that is, for ſeed, labour, rent, &c. The hay was charged as above, and, contrary to the uſual cuſtom in ſtall-feeding, the oxen had plenty of it, or the cabbages would not have held out ſo long. The potatoes were charged at 5d. a buſhel, and were ſteamed, or rather partially baked, on the kiln of an old malt-houſe, and theſe, at the latter part of the time, running ſhort, I believe a moderate quantity of bean-meal was allowed. I rather ſuſpect the expence of fuel was not included, but it was not conſiderable. The beaſts did not go back on their food being changed, which I attribute to their being allowed, at that interval, plenty of hay. They had a ſhed with ſtalls made of temporary poſts and rails, where they were fed ſeparate, afterwards going out and in at their pleaſure.

I am, Sir,
Your moſt humble ſervant,

April 30. CLERICUS.

ON PRACTICAL AGRICULTURE,

IN ANSWER TO PRACTICUS, (*No.* 16, *page* 337).

To the Editor of the Commercial and Agricultural Magazine.

SIR,

LONG confinement to ſick quarters, with the frequent recurrence of indiſpenſable avocations, muſt be the apology for my apparent neglect of your Magazine, and want of attention to Practicus, one of its moſt able and valuable correſpondents. The reader will have the goodneſs to be referred as above, for the very ingenious and elegant eſſay of Practicus, to which the preſent offers itſelf, with due conſideration and deference, as a rejoinder.

During my ſmall correſpondence with the Magazine, I am not conſcious of having affected the character of a diſputant, far leſs of practiſing its logical and profeſſional arts, and the whole ſum of my acculation muſt fairly and impartially amount to this; I have propoſed queries both for my own and the general information, and have aſſumed my turn in the *reſpondent's chair*, for the legitimate purpoſe of ſtating ſuch objections, as may tend in the ultimate, to elicit truth. I think I have already given other than mere *authoritative negations*, but if otherwiſe, am not unprepared for the taſk; and with reſpect to throwing the whole *onus probandi* on the ſhoulders of *Practicus*, what greater advantage could ſo able a writer deſire, than the opportunity of defending his own poſitions? I will warrant, however, in the name of us both, that we do not deſire to occupy the pages of a moſt uſeful and important publication, with the vanity of private diſpute, any farther than that may tend to public utility.

Out of reſpect (purely ſo) to the opinion of *Practicus*, and the prevailing taſte of the times, I am very ready to concede my idea of the neceſſity of giving a political turn to certain queſtions of national economy: in doing this, however, I cannot help ſmiling at the ſtrong political complexion of the concluſion of a letter ſigned "*A Foreſter*," in No. 17. In all human, particularly ſtate affairs, one ſide of the queſtion, it ſeems, is ever fit for diſcuſſion and circulation.

After paying me a handſome compliment, which I ſhould be proud to deſerve from ſuch hands, my opponent engages, rather incautiouſly, as I conceive, to "cauſe it to be ſeen" how little I can ſay againſt thoſe vulgar doctrines, *the neceſſity of a ſummer fallow and a frequent change of ſeed.* How well this engagement has been kept, in point of argument or proof, forms the jet of the preſent buſineſs, and its beſt illuſtration will be found in the following ſummary.—An acknowledgment of the inutility of fallows, where manure and culture can be afforded. A challenge, where a preciſe and categorical anſwer was required. A defence of a reſpectable body of men, on points

where they had not been attacked; and on thoſe, where they really had ſuffered, mere general aſſertion, or ingenious ridicule in their favour. Laſtly, a general aſſertion, which may be oppoſed by a number of contra-aſſertions, in the moſt preciſe form.

Practicus not only invariably proves himſelf an adept at the carte and tierce of argumentation, but even occaſionally (for the joke's ſake, no doubt) will ſnatch at an illicit advantage. A writer ſo well ſkilled in the controverſials of agriculture, could not poſſibly be ignorant, that the moſt determined anti-fallowiſt, from Arthur Young to John Lawrence, far enough from rejecting the uſe of an occaſional fallow whether of ſummer or winter, invariably inculcates its neceſſity. The conſtant periodical recurrence of the naked fallow alone, forms the ſubject of diſpute.

Here we touch the main point.—A clean ſummer fallow once made, need not be repeated for years, or even at all, under the hoeing ſyſtem, cleanneſs only being brought in queſtion; can as much be predicated of the ancient practice? *Practicus* ſhall ſpeak for himſelf, as to the merits of his favourite ſyſtem, in this reſpect—"this repetition (of fallows) I am ſorry to aſſert, on the generality of land, will ever be called for in the courſe of a very few years." By way of anſwer I am *glad* to aſſert, that the beſt huſbandmen of Belgium and of Britain, our Ducketts, Cloſes, Exters, and numerous others, good practical men, although of leſs note, feel no need of regular fallowing, nor have I ever experienced the need of it myſelf, in the courſe of my own practice, or in the obſervation of many years, upon any ſpecies of ſoil which has come within my notice. Attached, however, to the drill-huſbandry, and thoroughly convinced of its ſuperiority, I do not confine myſelf to it, in this inſtance. In all our beſt cultivated counties, may be found men who keep their lands clean by a regular routine of hoed pulſe crops, in ſubſtitution for fallows; I have a long liſt of ſuch at my pen's end, would it not be ridiculous to make the parade of proving a notorious fact. I am ready enough to grant, that they who fallow moſt, have moſt occaſion for it, and leave *Practicus* to make the utmoſt of my conceſſion.

I gave a very ſtrong reaſon with my own opinion for the little danger to be apprehended, in the inſtruction to aboliſh fallows, and might have rendered it ſtill more ſtrong, by a record of the uninterrupted ſucceſs which has attended that meaſure wherever judiciouſly purſued. An Eſſex leaſe lies now open before me, in which the pulſe crops hoed were accepted in lieu of fallows. The tenant held the farm forty-nine years, it was for many years under my (at leaſt) annual inſpection, and I could

never discover, but it was to the full as clean, as any of those farms which were regularly fallowed.

To proceed to the exhaustion of land; it is promoted by fallows, inasmuch as they preclude the possibility of obtaining from the farm itself the needful quantity of superinduction, in the shape of animal manures; nor can such defect be recompensed by the pretended acquisition of the atmospheric influences, and of pulverization by the common fallowist, all which advantages, it is probable, are obtained in a superior degree by the hoeing husbandman. It is allowed by *Practicus*, that manure, in sufficient plenty, precludes the necessity of fallows; this and another concession, already noticed, nearly preclude also the necessity of argument. The gentleman, the inn-keeper, and the neighbour to a larger market town, in one sense, are inauspiciously introduced; for if fallowing be good, such can indeed afford to fallow, having no sort of necessity, like the farmer devoid of their peculiar advantages, to grow food for cattle. But why discourage these last from the attempt, at least, to produce that of which they confessedly stand so much in need, or seek to discourage the growth of flesh meat, in a country where it stands in an equal rank with bread-corn, as an article of the first necessity?

With poor land, or any land, inadequate capital, indolent, unambitious habits, and a mind circumscribed within the impassable pale of custom, it is conceded without the smallest hesitation, frequent summer fallows will ever be necessary. The frequency of white corn crops, with which cattle for slaughter have nothing to do, except to draw it off the land to market, will keep the land poor, and the want of hoe-tillage will keep it foul: when poor and foul, and the contention becomes pretty equal between the corn and the weeds, what can the *poor* farmer do, but make a full stop, or adopt the expedient of a fallow? and when a repetition of this lame expedient has rendered it totally ineffectual, and the crop no longer returns seed and charges, what farther can be done, but lay the land down for a crop of *grass* and *weeds*? I appeal to all men of candour and experience whether such be not a true picture of old British husbandry, and to the body of agents and surveyors, whether it be not too applicable in many parts of the country even at this day.

It will be naturally enough demanded, what ought a man to do, under the above discouraging circumstances? I answer, to have patience; and by degrees to approach, as near as possible, upon his farm, to his *garden-culture*; for the comparison between the garden and the farm, is far enough from being so preposterous, as usually represented by persons unacquainted with the vast advantages of the hoeing husbandry. If ameliorating crops "disdain poor soils," surely those of white corn are not less disdainful of such; and if poor land (as indeed is the fact) will not grow cabbages and carrots, whilst in its impoverished state, let

a beginning be made with clover, tares, brank, turnips, or rutabaga, as food for cattle and by way of ſtrict economy; and as the readieſt method of accumulating manure, let the cattle be fed as much as poſſible at home. By ſuch induſtrious, and now obvious means, I have a right to aſſert (for I have witneſſed the fact), poor and barren land may be made productive, even of cabbages and potatoes. As to the "down farmer," although I have formerly farmed within half an hour's ride of the downs, I never knew one of that deſcription, who, as far as my obſervation ſerved me for a proof, might not have raiſed more corn upon his land, by growing proviſion wherewith to winter-fold his ſheep, at home, than by ſummer-folding them on his fallows.

Although bred up among practical farmers, I will grant it ſtill poſſible, that I may be ignorant of their "*component parts*:" yet *Practicus* ſhould not have laid ſuch a heavy accuſation upon me, as that of ſlandering the whole body, as "heavy, ignorant, inſenſible, ſtubborn, or bigotted beings," without the ſmalleſt warrant, even by implication, from my text. His defence, however, of a reſpectable claſs of men, is generous, but would have been more impartial and more uſeful, had he recollected, that the "loud laugh" has been formerly, as well as at preſent, the uſual anſwer to every original recommendation of improvement, without even the exception of turnips and clover! Let *Practicus* adviſe a ſtrong-land farmer in Cheſhire, when at a loſs for a crop, to plant beans, or the farmers of many parts of England, to hoe or drill their turnips, and what anſwer muſt he expect—a horſe-laugh. For the notable agreement, or the worth, if he pleaſe, of *practical opinions*, I again refer him.

Reluctant as I am "to deny the whole proceſs" of a writer ſo reſpectable; on the change of ſeed, I am abſolutely compelled to it, and even leſs from theory, than practical experience. As a remarkable example, I refer, firſt, to the American practice of Mr. Cooper, publiſhed a few years ſince. Proofs of ſimilar and ſucceſsful practice are to be found in Marſhall's Tours. I have myſelf known wheat to be ſown and re-ſown for a great number of years, without change and without fallow, with preciſely the uſual ſucceſs of thoſe, who regularly changed and fallowed. I have this year a crop of beans, which have been planted five ſucceſſive years on the ſame land, and the preſent or fifth crop, according to appearance, promiſes to be more luxuriant than any of the preceding. I would recommend to *Practicus*, to re-conſider, and add ſomewhat more of preciſion to his definition of theory and practice. For an expoſition of common "magic deceptions" I muſt find another place.

If Mr. Marſhall has ever profeſſed *to read nothing on the ſubject of huſhandry*, I lament the circumſtance, as detracting from his great and well-earned reputation. Bating his *ſtacklets and*

cocklets, and other affected innovations on our language, too much in the ſtyle of true burleſque, with his wonderful berberry buſhel, his ſcalding the ſtomachs of living calves, to cure them of a looſeneſs, and his too great attention to trifles and mere opinions of place, he is an excellent and diligent writer, and has deſerved well of the agricultural intereſts of his country.

May 14. LEICESTRIENSIS.

A Poſtſcript, Mr. Editor, to the above letter, muſt ſerve by way of reply to a correſpondent of very different deſcription, calling himſelf a NORFOLK FARMER. All that I have to remark on what he ſays about fallows, turnips, theory, practice, and ſuch like things, good in their ſeaſon and their turn, no doubt, is, that I would adviſe him to a peruſal of ſome good practical books, and to a few Tours among our beſt cultivators, in various parts of the Iſland. I would farther adviſe him to purchaſe Cook's Cultivator, a moſt powerful tool, which has ſaved an immenſe deal of old-faſhioned bungling, in the preparation of turnip lands.

In the article of Hay, this Norfolk Farmer (See No. 16. page 324) has been ſtrikingly hard on my *want of practice*. Could any one have thought it neceſſary for me, in this caſe, to explain to *a farmer*, that I meant hay heated, diſcoloured, and clammy, from being ſtacked with its full quantity of crude juices, and before a ſufficient evaporation of them had taken place, in order to its being thoroughly cured; and not that ſapleſs ſtuff, which had turned mouldy from impoveriſhment by wet, in the field, or other cauſe.

A NEW METHOD OF BLEACHING COTTON AND WOOL BY STEAM.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

AS ſoon as Mr. Berthollet made public the method of bleaching Linens by the oxigenated muriatic acid, it was generally adopted. But the difficulties attending the uſe of it deterred many from continuing the practice. It required a knowledge of chemiſtry, and workmen are not generally chemiſts.

M. Chaptal has made public a proceſs for Bleaching, as ſimple as is economical, and which is in many reſpects ſuperior to Berthollet's. This proceſs was brought from the Levant, under the name of *Bleaching by Smoke*, and has been made known by Chaptal in a memoir addreſſed to the Philomatic Society. The following is the method:—

About a foot and a half from the grate of a common furnace, a round copper kettle, about a foot and half deep and a yard and

half diameter, is fixed. The ſides of the kettle reſting on the maſonry of the furnace. The reſt of the furnace ſhould be built of ſtone, and form an oval about two yards high. The upper part of the kettle ſhould have an opening of about half a yard diameter. This opening may be cloſed either by a ſtrong ſtone or a copper cover fitted to it. On the edge of the copper kettle, a grate, formed of wooden bars, ſhould be placed, ſo cloſe that the cotton placed on it cannot paſs through, and ſtrong enough to bear the weight laid on them. This apparatus, being prepared, the cotton ſhould be moiſtened with a diſſolution of pot-aſh, rendered cauſtic by time. This operation may be performed in a wooden or ſtone trough, in which the cotton may be trodden with wooden ſhoes to defend the feet. Thus prepared, the cotton ſhould be put into the kettle, and laid on the wooden grate; the exceſs of liquor will run through the bars into the kettle, and will form a quantity of liquor ſufficient to heat the maſs, without fear of damaging either the cotton or the metal. As ſoon as the cotton is placed in the kettle, the opening ſhould be cloſed, ſo as to permit little ſteam to go out, ſo that the vapour produced by the fire ſhouſd gain a more conſiderable degree of heat, and not with more effect on the cotton. As ſoon as this is done, the fire ſhould be lighted, and the lye kept ſimmering from twenty to thirty-ſix hours. Then letting it cool, the cotton ſhould be taken out, waſhed with care, and expoſed in the fields for two or three days, laying it on bars during the day, and on the ground at night. The cotton will then have acquired a beautiful whiteneſs, and if any portion is not ſufficiently bleached, it muſt be again put into the kettle, or laid for ſome days in the fields. When the lye is ſuppoſed to be nearly exhauſted by boiling, the kettle ſhould be opened, and the cotton moiſtened by an additional quantity of the ſolution. This has been found not only a cheap but a very expeditious method. This operation has been adopted in Ireland, and in ſome parts of Germany. P.

A NEW METHOD OF MENSURATION PROPOSED.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

THE uſeful Art of Menſuration is ſaid to have originated in Egypt; where the annual inundation of the Nile often obliterated the Land-marks, which were not ſo indelible as our modern Incloſures. Each * pariſh in Egypt had its pro-

* By a Pariſh I mean each diviſion of a country having a diſtinct police: by turning the word into various Engliſh, the population of ancient Nations has been exceſſively exaggerated. Sometimes *Town*, and even *City* ſtands for this meaning.

per officer, who annually determined the extent of each man's property for the next year. But there is no reaſon to ſuppoſe that Menſuration in Egypt was carried beyond the ſimple operation of the Pole and Chain; for the contrivance of *Thales* for aſcertaining the height of the Pyramids, could not have been thought worthy of record had ſcience been farther advanced. He merely ſet up a perpendicular pole, and at a convenient time noted the length of its ſhadow on the ground; at the ſame time meaſuring the ſhadow of the Pyramid. By the operation of the *Rule of Three* he thus eaſily obtained the height of the Pyramid ſought.

But previous to the invention of *Arabic Numerals* the power of Arithmetic was little underſtood; if *we* were required to multiply or divide any number beyond 100, what labour muſt be expected were *Roman Numerals* ſtill in uſe? Hence the ancients ſeem to have cultivated the more abſtract parts of *Geometry* with great ſucceſs; but have left no traces of practical accuracy in computations of *Arithmetic*. They laboured under another inconvenience in the total want of good inſtruments. The invention of the *Magnet* has ſince cauſed a bolder navigation, which requires the additional ſecurity of frequent celeſtial obſervations. Hence modern Artiſts have been encouraged to attain a degree of perfection, which future ages will find it difficult to ſurpaſs. Our own nation has been eminently aſſiduous in the ſucceſſive improvements of the *Teleſcope*, the *Quadrant*, and *Theodolite*.

Various ſeries of angles have been ſo accurately ſurveyed and calculated, that we not only know the circumference of the earth, but even the quantity of that minute difference from a Globe, which, flatting the Polar Region, renders our Planet an oblate ſpheroid.

However, it is not my intention at preſent to enumerate all the ſplendid efforts of the Art of Menſuration: the foregoing rapid ſketch ſtands only as a proof, that any novelty I may wiſh to introduce to the notice of your Readers and the Public, is not founded on a preſumed imperfection of the preſent method; which, when carefully performed (with good inſtruments), leaves no perceptible error. But the taſk is tedious and laborious; inſomuch that few countries can boaſt of an exact ſurvey.—France (till the reign of Lewis XIVth) was ſuppoſed to extend two hundred miles beyond the truth; and England to this day poſſeſſes not any authentic admeaſurement of her Provinces and Dependencies. Indeed *Captain Mudge* (and proper aſſiſtants) are now ſedulouſly engaged in this labour, under the direction of the *Board of Ordnance*, and ſome of the Southern and Eaſtern counties are compleated in the moſt accurate manner; but the neceſſary ſlowneſs of the progreſs proves, that, for practical pur-

poſes, a more compendious (though not quite ſo exact) method would be of important conſequence.

It has occurred to me, that the uniform velocity of *ſound* might be applied to the purpoſes of Menſuration with conſiderable ſucceſs; at leaſt, that the extreme facility of the thing, if found practicable, deſerves the conſideration and attention of thoſe Philoſophers, who imitate not *Archimedes* in his opinion, that knowledge is degraded, when it is converted to the purpoſes of utility in common life.

Sound travels at the rate of 1142 feet per ſecond of time; light or viſion at the rate of about ten millions of miles in the ſame ſpace of time. Therefore light may be conſidered as inſtantaneous in any diſtance within human perception. Taking a favourable ſituation and opportunity it is poſſible enough to ſee a flaſh, and hear the report of gunpowder as far as 20 miles; which the ſound would not travel in leſs than 92 ſeconds. The inſtruments for determining the time with accuracy would be few and ſimple. Experiment muſt firſt be made, what is the ſhorteſt ſpace of time perceptible to the human ſenſes; allowing that what at firſt appears ſhort, practice will ſoon lengthen to the obſerver. I ſuppoſe that a ſecond of time might be ſafely divided into 4 parts on a portable time-piece; in that caſe, a diſtance might be aſcertained within 300 feet, or 100 yards. At any concerted time (in a clear night) gunpowder muſt be exploded from ſome piece of artillery, or noiſy ſort of firework: and at a certain number of ſeconds afterwards a ſecond exploſion muſt be made at one of the two ſtations determined on. The ſurveyors muſt have previouſly fixed a tube to direct the ſight to the proper point; the firſt gun muſt be for preparation, and the ſecond for determining the diſtance. At the inſtant of the flaſh, the hand muſt put the time-piece (conſtructed as a *ſtop-watch*) in motion; at the inſtant of the ſound, muſt again ſtop it. The ſpace of time indicated would give the reſult in diſtance by an obvious calculation. The obſerver ſhould prove the truth by exhibiting in turn an exploſion to his aſſiſtant at the firſt ſtation, and the *medium* of the diſtance indicated muſt be ſufficiently near the truth. This is intended to obviate that objection, which would inſinuate, that the wind might ſomewhat retard or accelerate the ſound. At firſt, the obſervers might ſend backwards and forwards many ſignals of ſound for one diſtance; and practice would ſoon induce perfection.

The neceſſary elevation of our ſurveyors on lofty eminences would render it rather difficult and expenſive to tranſport braſs-field-pieces for their uſe: but the fireworks called *Maroons* would probably anſwer the purpoſe; or, at all events, the exploſion of a ſmall bomb-ſhell would be ſufficient. Indeed there is a farther reſource in the invention of ſcrewing on a kind of trumpet to the mouth of the fire-arms; by which the ſound of

a piſtol is augmented to that of cannon*. Flaſh enough, and ſound enough, may evidently be procured; and I rather expect the objection, that the inaccuracy is too great for any utility. It muſt indeed be granted, that one hundred yards is a conſiderable proportion of any ſhort diſtance; but when applied to 20 miles, it leſſens to a very moderate per centage of error: not above one part in 352. Under this ſuppoſition, I think it poſſible to prove, that this invention may become of conſiderable importance.

In the firſt place it is to be conſidered, that the hundred yards of error in each operation, is not the *conſtant* error, but the utmoſt poſſible error; and which it would ſeldom reach to. In the next place, that it would not be always on the ſame ſide, ſo that its exceſs on any one operation, would probably be balanced by its deficiency in the next: at leaſt, that in a ſeries of obſervations, the final error could be very ſmall.

To thoſe who are in the habit of examining various maps of the ſame country (of which ſometimes three or four pretend to be drawn from *actual ſurvey*) a practical variation of one part in 352, is known to be much leſs than common ſurveyors uſually err from the truth; and indeed, except ſome regular ſalary prevents hurry, work will never be performed with the minute care ſo indiſpenſable in the ſurveyor. Strictly ſpeaking, till the preſent laudable enterprize of the *Board of Ordnance*, all the Mapping of the Engliſh counties was done by men who felt themſelves employed on a ſpecies of laborious taſk-work, and hurried over their taſk in a ſlovenly manner, accordingly.

However, I am not to be informed, that it would be unworthy of our nation, to inſtitute any Menſuration of Great Britain, but that which produces mathematical accuracy; I am far from oppoſing a ſcheme, which promiſes only a tolerable approximation, to the ſcientific ſkill and unwearied diligence of Captain Mudge: but, *except* to the Iſlands of Great Britain and Ireland, I think the application of this new mode of Menſuration would be perfectly appoſite.

To give an idea of the facility and cheapneſs of the operation, I will ſuppoſe it adviſable to procure a chart of any coaſt frequented by our ſhipping. Even if poſſeſſed, hoſtile by ſavages, or incumbered with impaſſable foreſts, the operation is not at all prevented. From head-land to head-land the ſignal would be made; and if it ſhould be thought adviſable to paſs the mouth of a large Bay, without interior examination, a veſſel ſtationed between the oppoſite head-lands (ſuppoſing them inviſible from each other) might transfer the ſignal without impediment.

* An Invention of Mr. William Fitzgerald, for which a patent was taken out January 23, 1799.

But this expedient could be ſeldom requiſite, when it is conſidered, how ſmall would be the expence of time or labour in encompaſſing ſo extenſive a coaſt as that of Great Britain. Two ſtout boats (one for each party) would carry the ſurveyors a ſtation forward every day in ſummer time; ſo that 300 miles of coaſt (from head-land to head-land, without reckoning the interior curvatures) might at this eaſy rate be completed in a calendar month.

Inland Menſuration might evidently be performed in the ſame manner, which requires only the uſual *apparatus* for taking bearings in ſurveying a coaſt, but at land might go on the ſurer ground of a ſeries of angles. Even in the Mathematical Menſuration, I ſhould think a conſtant proof of the truth of the work not unacceptable: and this proof is offered by our new method. The original baſe-line muſt of courſe be aſcertained as uſual; but after that, the application of *ſound* for proving the actual length of every line from ſtation to ſtation, would conduce to an accuracy not yet attained. It would operate as a ſalutary check to the commencement of error, which ſo ſoon grows enormous, accumulating in numerous deductions.

If any of your ingenious readers, who have leiſure and opportunity, ſhould amuſe themſelves in trying this ſpeculation in any of the nights of the enſuing ſummer, I ſhall be glad to hear (through you) the reſult of their operations. Hereafter I hope to inſtitute the experiment myſelf. By trying *repeatedly* between the two ſame ſtations, the quantity of error, the quantity of improvement by practice, would ſoon be aſcertained.

Perhaps Captain Mudge may think this hint not unworthy of his notice: at all events, if the thought be ingenious or valuable, I ſhall preſerve the reputation of it to our inventive country, by ſending it for inſertion in your uſeful Magazine.

I remain, your conſtant Reader,

May 10, 1801. METRETES.

QUERIES.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I BEG leave to propoſe to the readers of your entertaining Magazine, the following QUERIES:

1. Why do animals prefer green food to that which is dry?

2. Why do ſheep more particularly ſelect the finer parts of hay, in preference to that which is coarſe?

3. Whether it is for their ſuperior quality of nutriment, or for the facility of maſtication?

4. If it is for the facility of maſtication, how far, and by what means may they be aſſiſted by art, whether by cutting or bruiſing, or both?

5. What engine or machine is beſt calculated for that purpoſe with regard to ſimplicity and diſpatch? for I preſume the perſons who have the care of feeding animals, are not generally endowed with mechanic abilities ſufficient to regulate and keep in order a complicated machine. My reaſon for this obſervation, is from ſeeing in different parts of the country a number of engines of various conſtructions (for the purpoſe of cutting food for animals) rendered uſeleſs, either by their complication, or the power required to work them.

And, 6. May not ſeveral thouſand tons of hay be annually ſaved to the country, by the univerſal introduction of the cutting proceſs which has been ſo much facilitated by ſucceſſive improvements?

A QUERIST.

A RELATION OF THE PEAK OF TENERIFFE, EXTRACTED FROM THE HISTORY OF THE ROYAL SOCIETY.

HAVING furniſhed ourſelves with a guide, ſervants, and horſes to carry our proviſions, we ſet out from Oratava, a port-town in the iſland of Teneriffe, ſituated on the north of it at two miles diſtant from the main ſea. We travelled from twelve at night till eight in the morning, by which time we got to the top of the firſt mountain towards the Pico de Terraira; here, under a very great and conſpicuous pine tree, we broke our faſt, dined and refreſhed ourſelves, till two in the afternoon; then we proceeded through much ſandy way, over many lofty mountains, but naked and bare, and not covered with any pine trees, as our firſt night's journey was; this expoſed us to exceſſive heat, till we arrived at the foot of the Peak, where found many huge ſtones, which ſeemed to have fallen down from ſome upper part.

About ſix o'clock the ſame evening, we began to aſcend up the Peak, but being now a mile advanced, and the way no more paſſable for our horſes, we quitted and left them with our ſervants: In this mile's aſcent ſome of our company grew very faint and ſick, diſordered by fluxes, vomitings, and aguiſh diſtempers, our horſes hair ſtanding upright like briſtles; but calling for ſome of our wine, which was carried in ſmall barrels on a horſe, we found it ſo wonderfully cold, that we could not drink it till we had kindled a fire and warmed it, though yet the temper of the air was very calm and moderate. But when the ſun was ſet, it began to blow with ſuch violence, and grew ſo cold, that taking up our lodging under certain great ſtones in the rocks, we were conſtrained to keep great fires before the mouths of them all night.

About four in the morning we began to mount again, and being got about a mile up, one of the company failed, and was able to proceed no farther. Here began the black rocks. The

reſt of us purſued our journey till we came to the Sugar-loaf, where we began to travel again in a white ſand, being fore-ſhod with ſhoes whoſe ſingle ſoles are made a finger broader than the upper leather, to encounter this difficult and unſtable paſſage; being aſcended as far as the Black Rocks, which are all flat, and lie like a pavement, we climbed within a mile of the top of the Peak, and at laſt gained the ſummit, where we found no ſuch ſmoke as appeared a little below, but a continual breathing of a hot and ſulphurous vapour, which made our faces extremely ſore.

In this paſſage we found no conſiderable alteration of air, and very little wind; but being at the top, it was ſo impetuous, that we had much ado to ſtand againſt it, whilſt we drank the king's health, and fired each of us a piece. Here we alſo broke faſt, but found our ſtrong water had quite loſt its force, and was become almoſt inſipid, whilſt our wine was rather more ſpirituous and briſk than it was before.

The top on which we ſtood, being not above a yard broad, is the brink of a pit called the *Caldera*, which we judged to be about a muſket-ſhot over, and near fourſcore yards deep, in ſhape like a cone, within hollow like a kettle or cauldron, and all over covered with ſmall looſe ſtones, mixed, with ſulphur and ſand, from amongſt which iſſue divers ſpiracles of ſmoke and heat, when ſtirred with any thing puffs and makes a noiſe, and ſo offenſive, that we were almoſt ſtifled with the ſudden emanation of vapours upon the removing of one of theſe ſtones, which are ſo hot that they are not eaſily to be handled. We deſcended not above four or five yards into the Caldera, in regard of its ſliding from our feet and the difficulty. But ſome have ventured to the bottom. Other obſervable materials we diſcovered none, beſides a clear ſort of ſulphur, which looks like ſalt upon the ſtones.

From this famous Peak we could ſee the Grand Canaria, fourteen leagues diſtant, Palma eighteen, and Gomera ſeven leagues, which interval of ſea ſeemed to us not much larger than the River Thames about London; we diſcerned alſo the Herro, being diſtant about twenty leagues, and ſo to the utmoſt limits of the ſea much farther.

So ſoon as the ſun appeared, the ſhadow of the Peak ſeemed to cover, not only the whole iſland, and the Grand Canaries, but the ſea to the very horizon, where the top of the Sugar-loaf or Peak viſibly appeared to turn up and caſt its ſhade into the air itſelf, at which we were much ſurprized; but the ſun was not far aſcended, when the clouds began to riſe ſo faſt, as intercepted our proſpect both of the ſea and the whole iſland, excepting only the tops of the ſubjacent mountains, which ſeemed to pierce them through: whether theſe clouds do ever ſurmount the Peak we cannot ſay, but to ſuch as are far beneath, they ſometimes ſeem to hang above it, or rather wrap themſelves about it, as con-

ſtantly when the north-weſt wind blows; this they call the Cappe, and is a certain prognoſtic of enſuing ſtorms.

One of our company, who made this journey again two years after, arriving at the top of the Peak before day, and creeping under a great ſtone, to ſhroud himſelf from the cold air (after a little ſpace) found himſelf all wet, and perceived it to come from a perpetual trickling of water from the rocks above him. Many excellent and exuberant ſprings we found iſſuing from the tops of moſt of the other mountains, guſhing out in great ſpouts, almoſt as far as the huge pine tree which we mentioned.

Having ſtayed ſome time upon the top, we all deſcended by the ſandy way till we came to the foot of the Sugar-loaf, which being ſteep, even to almoſt a perpendicular, we ſoon paſſed. And here we met a cave of about ten yards deep, and fifteen broad, being in ſhape like an oven or cupola, having a hole at the top which is near eight yards over; by this we deſcended by a rope, which our ſervants held at the top, whilſt the other end being faſtened about our middles, we ſwung ourſelves, till being over a bank of ſnow, we ſlid down and alighted upon it. We were forced to ſwing thus in the deſcent, becauſe in the middle of the bottom of this cave, oppoſite to the overture at the top, is a round pit of water, reſembling a well, the ſurface whereof is about a yard lower than the ſnow, but as wide as the mouth at top, and is about ſix fathom deep. We ſuppoſe this water not a ſpring, but diſſolved ſnow blown in, or water trickling through the rocks.

About the ſides of the grot, for ſome height, there is ice and iſicles hanging down to the ſnow. But being ſoon weary of this exceſſive cold place, and drawn up again, we continued our deſcent from the mountains by the ſame paſſages we went up the day before, and ſo about five in the evening arrived at Oratava, from whence we ſet forth, our faces ſo red and ſore, that, to cool them, we were forced to waſh and bathe them in whites of eggs, &c.

The whole height of the Peak in perpendicular is vulgarly eſteemed to be two miles and a half. No trees, herbs, or ſhrubs in all the paſſage but pines, and amongſt the whiter ſands a kind of broom, being a buſhy plant; and at the ſide where we lay all night, a kind of *coràon*, which hath ſtems of eight feet high, the trunk near half a foot thick, every ſtem growing in four ſquares, and emerging from the ground like tufts of ruſhes; upon the edges of theſe ſtems grow very ſmall red buttons of berries, which being ſqueezed, produce a poiſonous milk, which lighting upon any part of a horſe, or other beaſt, fetches off the hair from the ſkin immediately; of the dead part of this we made our fires all night. This plant is alſo univerſally ſpread over the iſland, and is perhaps a kind of *euphorbium*.

Of the iſland Teneriffe itſelf, this account was given by a judicious and inquiſitive man, who lived twenty years in it as a phyſician and merchant. His opinion is, that the whole iſland being a ground mightily impregnated with brimſtone, did in former times take fire, and blow up all, or near upon all at the ſame time, and that mountains of huge ſtones calcined and burnt, which appear every where about the iſland, eſpecially in the ſouth-weſt parts of it, were raiſed and heaved up out of the bowels of the earth, at the time of that general conflagration; and that the greateſt quantity of this ſulphur lying about the centre of the iſland, raiſed up the Peak to that height at which it is now ſeen. And he ſays, that any one upon the place that ſhall carefully note the ſituation, and manner of theſe calcined rocks, how they lie, will eaſily be of that mind: for he ſays, that they lie for three or four miles almoſt round the bottom of the Peak, and in ſuch order one above another almoſt to the very Sugar-loaf (as it is called) as if the whole ground ſwelling and riſing up together by the aſcenſion of the brimſtone, the torrents and rivers of it did with a ſudden eruption roll and tumble them down from the reſt of the rocks, eſpecially (as was ſaid before) to the ſouth-weſt; for on that ſide, from the very top of the Peak almoſt to the ſea-ſhore, lie huge heaps of theſe burnt rocks one under another. And there remain to this time the very tracts of the rivers of brimſtone, as they ran over all this quarter of the iſland, which hath ſo waſted the ground beyond recovery, that nothing can be made to grow there but broom; but on the north ſide of the Peak, few or none of theſe ſtones appear. And he concluded hence, that the volcano diſcharged itſelf chiefly to the ſouth-weſt. He adds further, that mines of ſeveral metals were broken and blown up at the ſame time. Theſe calcined rocks reſembling ſome of them iron-ore, ſome ſilver, and others copper. Particularly at a certain place in theſe ſouth-weſt parts, called the *Azuleios*, being very high mountains, where never any Engliſhman but himſelf (that ever he heard of) was. There are vaſt quantities of a looſe bluiſh earth intermixed with blue ſtones, which have on them yellow ruſt as that of copper and vitriol; and likewiſe many little ſprings of vitriolate waters, where he ſuppoſes was a copper mine. And he was told by a bell-founder of Oratava, that out of two horſe loads of this earth, he got as much gold as made two large rings. And a Portugueſe told him, who had been in the Weſt-Indies, that his opinion was, there were as good mines of gold and ſilver there as the beſt in the Indies. There are likewiſe hereabout nitrous waters, and ſtones covered with a deep ſaffron-coloured ruſt, and taſting of iron. And further, he mentions a friend of his, who out of two lumps of earth or ore, brought from the top of this ſide of the mountain, made two ſilver ſpoons. All this he confirms from the late inſtance of the Palm iſland, eighteen leagues from Teneriffe, where a volcano

was fired about twelve years ſince, the violence whereof made an earthquake in this iſland ſo great, that he and others ran out of their houſes, fearing they would have fallen upon their heads. They heard the noiſe of the torrents of flaming brimſtone like thunder, and ſaw the fire as plain by night, for about ſix weeks together, as a candle in the room; and ſo much of the ſand and aſhes, brought from thence by the wind with clouds, fell on his hat, as filled a ſand-box for his ink-horn.

In ſome part of this iſland there grows a crooked ſhrub which they call *legnan*, which they bring for England as a ſweet wood: There are likewiſe apricots, peaches, &c. in ſtandard, which bear twice a year, pear-trees alſo which are as pregnant; almonds of a tender ſhell; palms, plantains, oranges and lemons, eſpecially the *pregnadas*, which have ſmall ones in their bellies, from whence they are ſo denominated. They have alſo ſugar-canes, and a little cotton, *colloquintida*, &c. The roſes blow at Chriſtmas. There are good carnations, and very large; but tulips will not grow or thrive there: ſampier clothes the rocks in abundance, and a kind of clover the ground. Another graſs growing near the ſea, which is of a broader leaf, ſo luſcious and rank as it will kill a horſe that eats of it, but no other cattle. Eighty ears of wheat have been found to ſpring from one root, but it grows not very high. The corn of this is tranſparent and bright, like to the pureſt yellow amber, and one buſhel hath produced one hundred and thirty in a ſeaſonable year.

The Canary birds (which they bring to us in England) breed in the *barancos* or gills, which the water hath fretted away in the mountains, being places very cold. There are alſo quails, partridges, larger than ours, and exceedingly beautiful; great wood-pigeons, turtles at ſpring, crows, and ſometimes from the coaſt of Barbary appears the falcon. Bees are carried into the mountains, where they proſper exceedingly.

They have wild goats on the mountains, which climb to the very top of the Peak ſometimes; alſo hogs and multitudes of conies.

Of fiſh they have the cherna, a very large and excellent fiſh, better taſted than any we have in England; the mero, dolphin, ſhark, lobſters, without the great claws, muſcles, periwinkles, and the clacas, which is abſolutely the very beſt ſhell-fiſh in the world; they grow in the rocks five or ſix under one great ſhell, through the top holes whereof they peep out with their nebs, from whence (the ſhells being broken a little more open with a ſtone) they draw them forth. There is likewiſe another fiſh like an eel, which hath ſix or ſeven tails of a ſpan in length, united to one head and body, which is alſo as ſhort. Beſides theſe, they have turtles and cabridos, which are better than our trouts.

The iſland is full of ſprings of pure water taſting like milk. And in Lalaguna (where the water is not altogether ſo limpid

and clear) they percolate it through a kind of ſpongy ſtone cut in form of a baſon.

The vines which afford thoſe excellent wines, grow all about the iſland within a mile of of the ſea; ſuch as are planted farther up are nothing eſteemed, neither will they thrive in any of the other iſlands, for the *Guanchios* or ancient inhabitants he gives this full account:

September the third, about twelve years ſince, he took his journey from Guimar, (a town inhabited for the moſt part by ſuch as derive themſelves from the old *Guanchios)* in the company of ſome of them, to view their caves, and the bodies buried in them. This was a favour they ſeldom or never permit to any (having in great veneration the bodies of their anceſtors, and likewiſe being moſt extremely againſt any moleſtation of the dead) but he had done ſeveral eleemoſynary cures amongſt them (for they are generally very poor, yet the pooreſt thinks himſelf too good to marry with the beſt Spaniard), which endeared him to them exceedingly, otherwiſe it is death for any ſtranger to viſit theſe caves or bodies.

Theſe bodies are ſowed up in goat-ſkins, with thongs of the ſame, with very great curioſity, particularly in the incomparable exactneſs and evenneſs of the ſeams, and the ſkins are made very cloſe and fit to the body: moſt of theſe bodies are entire, the eyes cloſed, hair on the head, ears, noſe, teeth, lips, beard, all perfect, only diſcoloured and a little ſhrivelled, likewiſe the *pudenda* of both ſexes: He ſaw about three or four hundred in ſeveral caves, ſome of them are ſtanding, others lying on beds of wood, ſo hardened by an art they had (which the Spaniards call *curar*, to cure a piece of wood) as no iron can pierce or hurt it. He ſays, that one day, being hunting a ferret, which is much in uſe there, having a bell about its neck, ran after a coney into a hole, where they loſt the ſound of the bell; the owner, being afraid he ſhould loſe his ferret, ſeeking about the rocks and ſhrubs, found the mouth of a cave, and entering in, was ſo affrighted, that he cried out. It was at the ſight of one of theſe bodies, very tall and large, lying with his head on a great ſtone, his feet ſupported with a little wall of ſtone, the body reſting on a bed of wood (as was mentioned before). The fellow being now a little recovered of his fright, entered it, and cut off a great piece of the ſkin that lay on the breaſt of this body, which, the doctor ſays, was more flexible and pliant than ever he felt any kid's leather-glove, and yet ſo far from being rotten, that the man uſed it for his flail many years after.

Theſe bodies are very light, as if made up of ſtraw, and in ſome broken limbs he obſerved the nerves and tendons, and alſo ſome ſtrings of the veins and arteries very diſtinctly.

His great care was to enquire of theſe people what they had amongſt them of tradition concerning the embalming and pre-

ſervation of theſe bodies: from ſome of the eldeſt of them (above a hundred and ten years of age) he received this account,—that they had of old one particular tribe of men that had this art amongſt themſelves only, and kept it as a thing ſacred, and not to be communicated to the vulgar; theſe mixed not with the reſt of the inhabitants, nor married out of their own tribe, and were alſo their prieſts and miniſters of religion: that upon the conqueſt of the Spaniards, they were moſt of them deſtroyed, and the art loſt with them, only they held ſome traditions yet of a few ingredients, that were made uſe of in this buſineſs. They took butter of goats milk, ſome hogs greaſe was mingled with it, which they kept in the ſkins for this purpoſe, in this they boiled certain herbs: firſt a ſort of wild lavender, which grows there in great quantities on the rocks; ſecondly, an herb called *lara*, of a very gummy and glutinous conſiſtence, which now grows there under the tops of the mountains only; thirdly, a kind of cyclamen or ſow-bread; fourthly, wild ſage, growing plentifully in this iſland: theſe, with others, bruiſed and boiled in the butter, rendered it a perfect balſam. This prepared, they firſt unboweled the corps, and in the poorer ſort, to ſave expences, they took out the brain behind, and theſe poor were alſo ſewed up in ſkins with the hair on, whereas the richer ſort were (as was ſaid before) put up in ſkins ſo finely and exactly dreſſed, as they remain moſt rarely pliant and gentle to this day. After the body was thus ordered, they had in readineſs a lixivium made of the bark of pine trees, with which they waſhed the body, drying it in the ſun in ſummer, and in ſtoves in winter, this repeating very often. Afterwards they began their unction with the balſam, both without and within, drying it again as before. This they continued till the balſam had penetrated into the whole habit, and the muſcles in all parts appeared through the contracted ſkin, and the body became exceedingly light; they then ſewed them up in the goat-ſkins, as was mentioned already. He was told by theſe ancient people, that they have about twenty caves of their kings and great perſons, with their whole families, yet unknown to any but themſelves, and which they never will diſcover. Laſtly, he ſays, that bodies are found in the caves of the Grand *Canaria* in ſacks, and quite conſumed, not as theſe in Teneriffe. Thus far of the bodies and embalming.

Anciently, when they had no knowledge of iron, they made their lances of wood, hardened as before, ſome of which the doctor has ſeen. He has alſo ſeen ſome earthen pots ſo hard, that they could not be broken; of theſe ſome are found in the caves and old *bavances*, and uſed by the poorer people that find them to boil meat in. Likewiſe they did *curor* ſtone itſelf, that is to ſay, a kind of ſlate now called *tobona*, which they firſt formed to an edge or point, as they had occaſion to uſe it, either as knives or lancets to bleed with.

Their food is barley roaſted, and then ground with little mills, which they made of ſtone, and mixed with milk and honey; this they ſtill feed on, and carry it on their backs in goat-ſkins.

To this day they drink no wine, nor care for fleſh. They are generally very lean, tall, active and full of courage.

He himſelf hath ſeen them leap from rock to rock, from a very prodigious height, till they came to the bottom, ſometimes making ten fathom deep at one leap.

The manner is thus:

Firſt they *tertiate* their lance (which is about the bigneſs of a half pike) that is, they poiſe it in their hand, then they aim the point of it at any piece of a rock, upon which they intend to light, ſometimes not half a foot broad. At their going off they clap their feet cloſe to the lance, and ſo carry their bodies in the air. The point of the lance firſt comes to the place, which breaks the force of their fall; then they ſlide gently down by the ſtaff, and pitch with their feet upon the very place they firſt deſigned, and from rock to rock, till they come to the bottom. Their novices ſometimes break their necks in learning.

He added ſeveral ſtories to this effect of their great activity in leaping down rocks and cliffs. And how twenty-eight of them made an eſcape from the battlements of an extraordinary high caſtle in the iſland, when the governor thought he had made ſure of them.

He told alſo (and the ſame was ſeriouſly confirmed by a Spaniard, and another Canary merchant then in the company) that they whiſtle ſo loud as to be heard five miles off. And that to be in the ſame room with them when they whiſtle, were enough to endanger breaking the *tympanum* of the ear, and added, that he, being in company with one that whiſtled his loudeſt, could not hear perfectly for fifteen days after, the noiſe was ſo great.

He affirms alſo, that they throw ſtones with a force almoſt as great as that of a bullet, and now uſe ſtones in all their fights as they did anciently.

ON A GENERAL CANAL BILL, AND PARLIAMENTARY REWARDS FOR INLAND NAVIGATION.

To the Editor of the Commercial and Agricultural Magazine.

THE ſubject of our Canals, Mr. Editor, not being particularly mentioned in your very popular Miſcellany, I ſhall be much obliged to any of your Correſpondents who will favour me through it with accounts of any that may have been cut, or even Bills paſſed for, ſince Mr. Phillips's Hiſtory of them, in 1792.—I preſs this ſubject more particularly on *your* readers,

from the conſideration that even ſhould a general Incloſure Bill paſs (an event moſt ardently to be wiſhed for), there muſt of neceſſity remain many thouſand acres of waſte ground, even in the four counties of Durham, Weſtmoreland, Northumberland, and Cumberland, and how much more in Scotland, impoſſible to be cultivated, until CANALS are eſtabliſhed in the north of England and through Scotland.—Perhaps what may be termed a GENERAL CANAL BILL might be equally as uſeful as a GENERAL INCLOSURE BILL; would it, Mr. Editor, be too much condeſcenſion in our government to follow the example of China and Holland, and contribute a part at leaſt in ſuch undertakings? Our rulers have offered bounties on the importation of grain, or, in other words, for the inrceaſed cultivation of foreign countries; would it not be more effectual to transfer, at a proper period, and even now to declare ſuch an intention, thoſe bounties on foreign produce, and in effect on foreign cultivation, to one on every acre of ground at preſent uncultivated, that may be got under the plough, and for every freſh mile of inland navigation that may be effected in the united kingdom? By the firſt opportunity I ſhall ſend you objections with replies to them, againſt Canals, ſelected, arranged, and compreſſed from ſeveral publications on that ſubject; and happy ſhould I be if the Commercial Magazine may be the means of their univerſal eſtabliſhment.

Newcaſtle-upon-Tyne,
April 20, 1801.

Yours, with reſpect,
JOHN CLENNELL.

OBSERVATIONS ON THE ORCHESTON LONG GRASS.

BY WILLIAM GEORGE MATON, M.B. F.L.S.

(*Read before the Linnean Society December* 4, 1798.)

IT muſt have been a matter of much ſurpriſe to many beſides myſelf, reflecting how long the Orcheſton graſs has been known, and how frequent the opportunities have been for a full and accurate examination of it by botaniſts and agriculturiſts, that its hiſtory was ſo very contradictory and incomplete. It was not until I viſited the meadow, and paid conſiderable attention to its produce, that I diſcovered the cauſe of this. The fact is, that the graſs was examined by the different perſons who have written upon the ſubject of it at very different ſeaſons of the year, and each taking it for granted that it was a peculiar ſpecies, or at any rate a peculiar variety of ſome one ſpecies, made his report on that one only which chanced to be in its perfection at the period of his inſpection. Hence one gentleman, who viſited the ſpot about the latter end of July, pronounces the Orcheſton graſs to be excluſively *Agroſtis ſtolonifera**. Another, happening to obtain his ſpecimens earlier in the year, ſays, that *Poa trivialis*

* See *Memoirs of the Bath Society*, vol. i. p. 93.

is the ſpecies*. Another obſerver, bearing ſtedfaſtly in mind that it has been deſcribed as a *peculiar* graſs, increaſes the uncertainty, by declaring that, "by all the enquiries he has made, he has not found that this ſpecies of graſs grows in any other part of the kingdom†." This laſt opinion indeed has been moſt general, and it evidently originated from the account given of it in the *Indiculus Plantarum dub.* into which it was copied from Merret's *Pinax*, or at leaſt from How's *Phytologia Britannica*, (printed in 1650,) where is the earlieſt mention of this phenomenon in vegetation that I can find, and it is deſcribed as "*Gramen caninum, ſupinum, longiſſimum, non deſcriptum.*" Merret, however, remarked, in addition, that it was found in ſome parts of Wales. I apprehend that Ray never ſaw it. But I am at length ſatisfied that the long graſs of Orcheſton is not only not a ſpecies peculiar to the ſpot, but that it is compoſed of moſt of the ſpecies which grow in other meadows.

The meadow producing the graſs which has excited ſo much curioſity is ſituated in the loweſt part of a very narrow winding valley§, ſheltered on each ſide by gradual but by no means lofty acclivities of chalk. This valley forms a channel for the frequent floods which come down from Tilſhead (about three miles diſtant) in the Winter ſeaſon; and, from the meadow alluded to being the loweſt of the range, in regard to level, the water reſts there to ſome depth, if it does any where, and indeed the place is rarely otherwiſe than ſwampy throughout the year. There is one ſpring not half a mile diſtant, and therefore the water by which the meadow is often ſubmerged, may at firſt be of a higher temperature than the ſurrounding atmoſphere. The earlier the ſprings ſwell, the more plentiful is the ſucceeding crop of graſs. This circumſtance has conſtantly been remarked by the neighbouring inhabitants. A bed of ſmall looſe pebbles, which are all of a ſiliceous nature, with a ſcanty covering of mould formed from the decompoſed relics of former vegetable generations, conſtitutes the immediate ſoil.

My laſt viſit to Orcheſton St. Mary was on the 15th of Auguſt laſt. I at that time found the following graſſes growing in the meadow, viz. *Holcus lanatus*, *Lolium perenne*, and *Agroſtis ſtolonifera*. All theſe were pretty nearly of the ſame length, meaſuring about ſeven feet. They uſually riſe, I underſtand, about 16 or 17 inches before they fall and run along the ground in knots, which knots ſend forth ſhoots into the interſtices of the pebbles. Moſt meadow graſſes ſo circumſtanced with reſpect to ſoil would

* *Withering's Bot. Arr. of Britiſh Plants*, vol. ii. p. 144.

† *Memoirs of the Bath Society*, vol. i. p. 95.

§ Dr. Withering is incorrect in calling the diſtance of Orcheſton St. Mary from Saliſbury 19 miles; it is certainly not more than 11. The meadow is about half a mile from the village of Shrewton. It is at preſent rented by Farmer Sheats, of Orcheſton St. George.

probably become knotted. In June, *Triticum repens*, *Avena elatoir*, *Alopecurus pratenſis*, and *Poa trivialis* (*paluſtris*, of Hudſon), are ſeen thriving ſimilarly to thoſe ſpecies above mentioned. I have ſpecimens of the laſt, which meaſure nearly ten feet in length. Some of the ſpikes of *Triticum repens* have between forty and fifty *glumæ*. Even *Conium maculatum*, growing in the ſurrounding hedges, reaches the height of ſeven or eight feet. Beſides graſſes, I have found in this remarkable meadow *Symphytum officinale*, *Convolvulus arvenſis*, *Potentilla reptans*, *Ranunculus pratenſis*, and *Oenanthe crocata*, all unuſually ſtrong and ſucculent, and ſtrikingly tall.

The crops of the Orcheſton graſs within late years have not by any means equalled what they have heretofore been. Perhaps the gradual deepening of the mould may be the cauſe of this, as it muſt deprive the crop more and more of the advantage ariſing from the diſpoſition of the pebbles, which (if I might venture a conjecture) ſeems to be a very important peculiarity in the ſituation. It is certain that the ſpace of only two acres and an half *has* yielded as much as ten tons of hay in one year. The firſt crop has uſually been cut about the end of May, and the ſecond in July, or (which is rare) as late as the end of Auguſt. The tithes of the meadow have been rented more than once for 5*l.* the produce amounting to 25 hundred weight of hay.

The herbage of the adjoining meadows, I have remarked, is very exuberant; and this exuberance may be traced increaſing or declining according as the ſoil varies more or leſs from that of the principal meadow.

At the diſtance of a mile or two miles from Orcheſton, but in the ſame valley, ſome of the graſſes may be ſeen to put on an uncommon luxuriancy; and I have no doubt that, in proportion as meadows in other parts of the kingdom approach more nearly in circumſtances and ſituation to that of Orcheſton, the more ſimilar their produce will be found.

ON MANURE AND IMPROVEMENTS.

By a LAND SURVEYOR.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

PASSING through the capital, on my return from a tour of buſineſs into the eaſtern counties, the Commercial and Agricultural Magazine, No. 20, was put into my hands. Amongſt a variety of matter, highly intereſting to readers both of town and country, I was very forcibly ſtruck by a judicious and ſenſible letter, ſigned Practicus, p. 149. It is a ſingular coincidence that I lately had (as indeed ever has been my cuſtom) recommended the very ſpecies of manure, by the above writer called *Sea-ſludge*, but I muſt acknowledge myſelf behind him in reſpect of experience of this article, ſince I have never

known it uſed, nor have been able to prevail on thoſe to whom I have recommended it, to make a ſingle trial. I yet never entertained the leaſt doubt of its utility, from the materials, known to be of an highly fecundating nature, of which it is compoſed, and I think the above writer has done a very meritorious act in promulgating his experience on the ſubject. In the diſtrict where I have lately been, we called this earth *ſalt clod*, and *ſalting earth*, and one particular reaſon why I could not prevail with certain tenants ſituated near the ſea-ſhore to uſe it, ſubſiſted, I believe, in the conſideration that their land was already exceeding rich; ſo rich indeed, that of late much of it has been under repeated wheat crops, which have yielded well to the laſt, but the ſoil is poiſoned with weeds. It is yet more ſingular that a man upon a poor farm, formerly a warren, diſtant from the ſaltings only ſix miles of good road, refuſed alſo to cart this precious manure, which in my opinion would nearly double the worth of his land, when he knew alſo, that I muſt neceſſarily, as a part of my duty, report ſuch refuſal to his landlord, who may, in conſequence, be unwilling to renew his leaſe. Beſides the earth in queſtion, I have even thought the weeds which are ſo abundant in tide-rivers, would make an excellent article for the compoſt dunghill, and that it would be well worth while for the farmers, ſituated at ſome diſtance, to cart it home: as to thoſe upon whoſe lands it borders, from all the enquiry I could make, I did not hear of one, who thought it worth the trouble of loading and cartage.

The obſervations on long leaſes, and on the practicability of finding native and appropriate manure, in almoſt every farming ſituation of this country, are ſtrictly juſt, and ought to be repeated and generally inculcated. There are doubtleſs many gentlemen guilty of that ſtrange impolitic blunder of refuſing leaſes, unleſs for three, ſeven, or eleven years, and their family intereſts ſuffer ſeverely from it, however that may be balanced by the gratification of family, or feudal pride: but I muſt confeſs, in my connections, which at ſome periods, have been rather extenſive, I have not known one landlord refuſe a one and-twenty years leaſe, or even heſitate about it, and I ſincerely wiſh that improvement had held pace with ſuch liberal indulgence. If the late and preſent enormous profits on farming will not authorize and ſtimulate to improvements, I cannot gueſs what may probably have that effect.

As to natural and cheap manures, there are ſome diſtricts, and even ſome fields, ſo happily predicamented as to afford earth of oppoſite quality, or reciprocal manures; ſand and fat bog for example, within a very ſhort diſtance one of the other. Such is eminently the caſe in my neighbourhood, and yet, in the courſe of twenty years, I have never witneſſed one ſingle inſtance of a farmer taking the advantage of a circumſtance ſo fortunate, by carting the bog to mix with the ſand, or *vice verſa*; nor have I

known any upon the thinneſt ſoil, make uſe of ditch earth, either as mending, or with the view of gaining a deeper ſtaple, although thouſands of loads *might be had* for the cartage.

PUBLIC FUNDS.

To the Editor of the Commercial and Agricultural Magazine.

YOU may probably, Sir, think the following ſtatement of the higheſt and loweſt prices at which the Public Funds have been, deſerving a place in your Magazine.

	HIGHEST.	
3 per Cents. ——	June, 1737	—— £.107
4 per Cents. ——	11 Aug. 1791	—— 107⅛
5 per Cents. ——	Ditto	—— 122¾
Bank Stock ——	14 Feb. 1792	—— 219
South Sea Stock —	20 May, 1768	—— 111
India Stock ——	29 Dec. 1768	—— 276½
	LOWEST.	
3 per Cent. Conſols	25 Jan. 1798	—— 47⅞
3 per Cent. Reduced	1 June, 1797	—— 47
4 per Cents. ——	19 Jan. 1798	—— 59¼
5 per Cents. ——	23 Jan. 1798	—— 69⅛
Bank Stock ——	29 Jan. 1762	—— 91
South Sea Stock --	22 Feb. 1782	—— 62
India Stock ——	14 Jan. 1784	—— 118½

The loweſt price of 3 per Cents. during the American war, I believe, was 53⅜, and of 4 per Cents, 68½.

May 11, 1801. J. J. G.

For the Commercial and Agricultural Magazine.

ON THE ECONOMICAL USE OF THE RANUNCULUS AQUATILES, OR WATER CROWFOOT.

DR. Pultney, of Blandford, in Dorſetſhire, in a paper laid before the Linnean Society, obſerves, that ſeveral plants of the genus of Ranunculus are ſuppoſed to be of a poiſonous nature; thoſe which are common in England are the *R. Flammula*, or leſſer Spearwort; *R. bulboſus*, or bulbous-rooted Crowfoot; *R. acris*, or upright Crowfoot; *R. ſceleratus*, or Marſh Crowfoot; *R. aquatilis*, or Water Crowfoot; *R. arvenſis*, or Corn Crowfoot.

Yet the acrimony of theſe plants is of ſo volatile a nature, that their utmoſt virulence is diſſipated by drying, and in the form of hay, *they* are harmleſs and even nutritious to cattle. The avidity with which ſheep, horſes, and cows eat the *R. arvenſis*, or Corn Crowfoot, is, Dr. P. obſerves, an exception to the common received maxim that animals are by inſtinct led to reject what is noxious.

On the *Ranunculus aquatilis*, or Water Crowfoot, however, the Doctor says, the cottagers in the neighbourhood of Ringwood, on the borders of the moor, sustain their cows and horses almost wholly, since the remainder of their food is little more than a scanty pittance they get on the adjoining heath. It is usual to employ a man to collect every morning a quantity for the day, and bring it in a boat to the edge of the water, when the cattle eat it with so much avidity, that Dr. P. says, he was informed they were obliged to limit them to a certain quantity. The cows thus fed were in no mean condition, and gave a good quantity of milk; a person told the Doctor he had kept four cows and a horse almost entirely on this plant.

These experiments shew, Dr. Pulteney observes, how careful we should be before we attribute poisonous qualities to plants which are really useful, and he hopes this relation may induce such as are unacquainted with the same to adopt the use of this plant in similar situations, since it is one of the most frequent in many rivers, and this use will also tend to clear the streams of what is otherwise injurious to them.

DESCRIPTION *of the* SLIDING LEVER *invented by Mr.* JOHN SNART, *Optician, London, for the improvement of Carts, and relief of Horses, and which may be applied to all two-wheel Carriages. This invention he calls an* ALEXIPPOS. (See Plate II.)

(Communicated to the Society of Arts and Commerce.)

AS all librating bodies act in an exact and direct ratio to their elongations from the fulcra, considered in connexion with their proportion of weight, and *vice versâ*, (the first resistance by the inequality of their matter being excepted), it appears, that as is the solidity of the part resting on the fulcrum, to the solidity of its extremities, so is its resistance to be acted upon by a weight which is less than its disproportion; which inequality of power is to the weight added in an inverse ratio, but directly as the diminution.

It is evident that the construction of carts at present is very unfavourable to the relief of the fallen horse, who is intentionally placed at the longest arm of the lever (for the shafts act as a lever by supposing the axle-tree to be the quiescent fulcrum), that he may the better resist the weight of the load, should the equilibrium be by any means destroyed; for any given weight upon the hind part of the cart has less than half the power of resistance of the horse; so that, if such horse falls, this advantage is prejudicial to his being raised. The inventor, therefore, of the Alexippos, presumes that a plan, the basis of which is humanity, will sufficiently apologize for his offering to the public an invention which so obviously more than counteracts the be

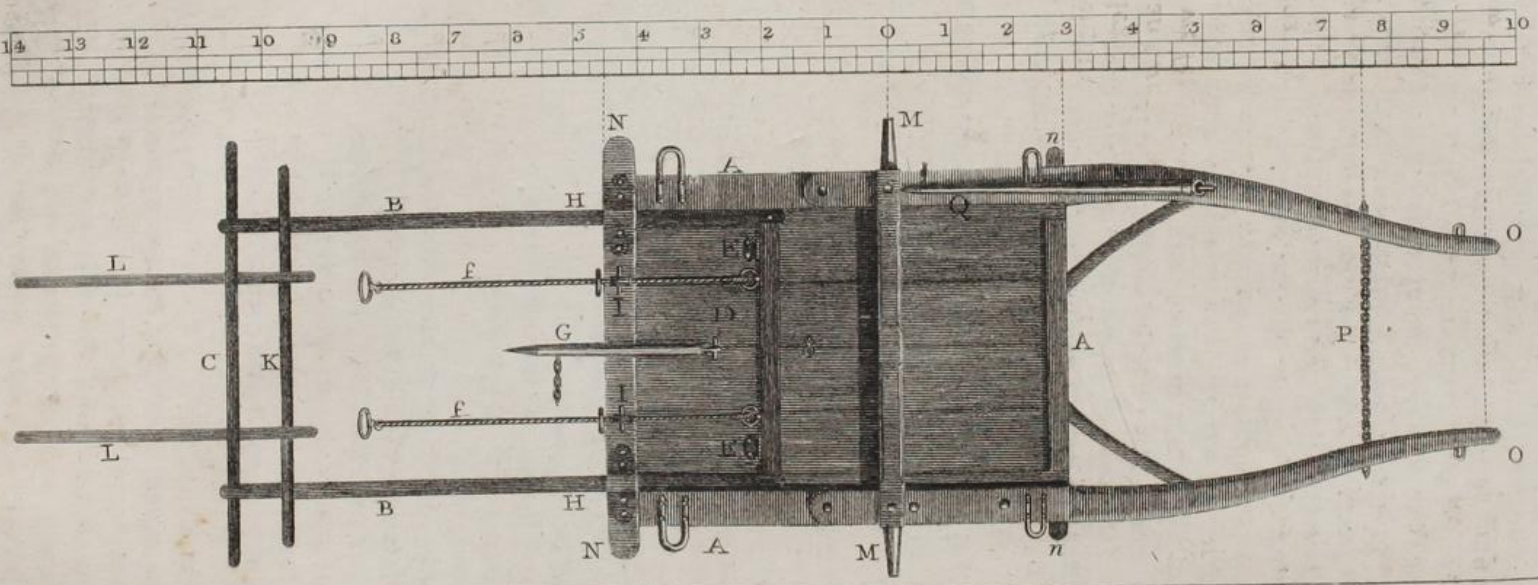
fore-mentioned disadvantages, as may be seen by inspecting the plan in connexion with its scale.

Let A A A (*Fig. I.*) be a plan of the common town cart, whose hind ear-bred, or ear-breadth, N N, projects from its fulcrum, or axle-tree, M M, 4 feet 7 inches, while the back chain P is 7 feet 6 inches; and the extremes of the shafts, O O, which press upon the tuggs in the horses collar, are 9 feet 6 inches. Now, admitting that the horse who falls weighs 15 cwt. and that his bearing is 1 cwt. which is 16 cwt. it is very evident that it will require 3316 lb. weight gross at the ear-breadth N N, (which is but 4 feet 7 inches from the fulcrum M M), to counteract such a weight; even admitting that the load had not slipped forward at all by the concussion and depression of the fore parts of the cart. The estimate, therefore, now will be nearly as follows: 4 feet 7 inches, or 55 inches, to 9 feet 6 inches, or 114 inches, will give for the weight 3316 lb. which is more than that of twenty-two men, at 150 lb. weight each, before a disabled horse can be raised from the ground: but we know that six men cannot bear their weight with advantage on one of our present-made carts, without endangering their persons or clothes, or both; so that the horse is left to struggle with three-fourths of the weight himself, and this in a very bad posture, as he is embarrassed by the shafts, &c. Hence, many horses, if not immediately killed, are at least ruined for ever.

The advantage of the Alexippos is in the proportion of 126 inches, the length of the levers at C, to 114 inches, the length of the shaft, viz. O O; and this without the addition of the handspikes L L, which gives a further advantage of one-fourth. Again, if 55 inches, the length of the lever, at N N, require 3316 $\frac{20}{55}$ lb. weight, what will 126 inches require? Answer, 1447 $\frac{580}{1260}$ lb. which is less than the weight of ten men, at 150 lb. weight each. This, however, is not half the advantage of the Alexippos, as it affords convenient accommodation for more than twenty men, without hazard to clothes or persons. And, if we suppose a sliding bar at K, one man, (if men are scarce, as in the country) by applying the two handspikes L L, may gain power sufficient to raise his horse himself, especially as it fortunately happens that country luggage very frequently consists of such articles as might be removed from the front of the cart, and placed on the bars C and K; such, for instance, as sacks of corn, seed, potatoes, bran, flour, peas, beans, &c. &c. which, by being taken from the front, and placed behind, would have more than double the advantage of its real weight; and, in town, where the luggage is different, assistance is always to be obtained from humanity.

Notwithstanding the statement of powers for relief which I have here given, it is plain, from daily observation, that less than

Mr. J. Snart's, Sliding Lever for Relief of Horses.



Mrs. S. Holmes's Family Oven.

Fig. 1.

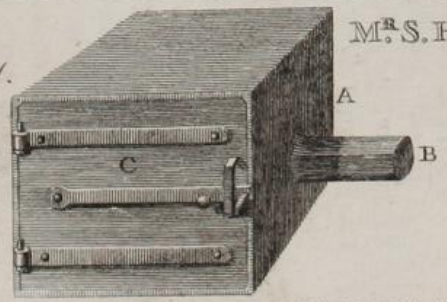
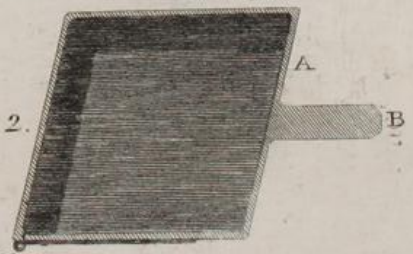


Fig. 2.



Pub. by V. Griffiths, Paternoster Row, June 1 1801.

the power here ſtated is only uſed in general, as eight or nine men can often (though with much danger and trouble) raiſe the fallen horſe. Hence, by uſing the Alexippos, three or four men, without danger, delay, or trouble, will be ſufficient.

I remain Sir, your obedient ſervant,

July, 1799. JOHN SNART.

A A A, plan of a common town cart inverted.
B B, Sliding bars or levers, *i. e.* the Alexippos.
C, Croſs-bar, or handle of the Alexippos.
D, the connecting bar to project the Alexippos.
E E, ſtops, to prevent over-drawing ditto.
f f, ropes and hand-rings to project ditto, which may be put under the ſliding bars B B.
G, prop to prevent hanging the horſe.
H H, the bearing plates of the Alexippos.
I I, the pulleys, or ſhivers.
K, the extra bar for country carts.
L L, the handſpikes for ditto.
M M, the axle-tree, or fulcrum.
N N n n, hind and fore ear-breadths.
O O, the extremities of the ſhafts.
P, the back chain.
Q, the prop.

ON THE MEANS OF EMPLOYING THE WHITE OF ZINC INSTEAD OF WHITE LEAD, IN PAINTING.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

IN the Annals of Art, Mr. Guyton Morveau deſcribed the proceſs of preparing a White from Zinc; he has now given to the public the manner of uſing it. He ſays it has been demonſtrated that the White of Zinc employed with oil in the interior of dwellings, will not produce any effluvia prejudicial to health, which muſt neceſſarily give it a preference to white lead, which is not only ſubject to blacken, but communicates diſorders to the workmen. The White of Zinc, on the contrary, remains unalterable, as has been confirmed by many trials; and is not unwholeſome. To uſe this paint, it is neceſſary to procure oil of the greateſt poſſible whiteneſs, which is eſſential to make it take a bright appearance; for as this paint has leſs body than white lead, coloured oil gives it a tint which hurt its whiteneſs; but if any thing of a yellow caſt is deſigned, that object is not ſo neceſſary: the beſt oil for the purpoſe is oil of poppies, which is uſed by the people of Flanders and Alſace, or in default of that, ſome other drying oil that is white. The

White of Zinc ſhould be broken to a fine powder, then collected in a heap and a hole made in the middle, into which the oil is to be poured in ſmall quantities, and mixed until it forms a kind of mortar, and mixed with as much oil as is neceſſary; in this ſtate, this White may be mingled with any other colour meant to be uſed, and it will agree with them as well as white lead paint does. The natural colour of the Zinc paint is a milk colour. It does not dry ſo quick as that extracted from lead. The bruſhes uſed muſt be ſoft, and a leſs quantity of this paint will go further than that of lead.

PARTICULARS *and* DESCRIPTION *of Mr.* S. HOLMES's CONDUCTING OVEN, *heated without Flues, for which the Inventor received a Bounty of Fifteen Guineas from the* SOCIETY *of* ARTS *and* MANUFACTURES. *(With a Plate.)*

I TAKE the liberty of preſenting, for the approbation of the Society, an Oven upon a new plan, which I call a Conducting Oven. The Ovens in general uſe are made with flues, which deſtroy a great quantity of fire in its paſſage through them, and much trouble is required to keep them heated. The fire which ſhould be employed in roaſting meat, is in a great meaſure diſſipated in the flue of the common Ovens, if uſed at the time of roaſting, or the common oven does not require ſufficient heat to anſwer the purpoſe, unleſs much coal is conſumed.

My invention conſiſts of a caſt-iron Oven, with a ſolid piece of iron projecting from its ſide into the fire, in which this piece conſtantly remains, and becoming red hot, communicates ſufficient heat for baking to the whole Oven, and even aſſiſts the fire in roaſting.

My Oven keeps continually at a baking-heat, without expence or trouble, as the common fire is ſufficient for the purpoſe. The firſt Oven, which I made for experiment, was fixed in my own houſe for uſe, eighteen months ago, and may be viewed at any time the Society think proper. Others are alſo in uſe at Mr. Blackmore's, in Brompton; Mr. Eſdale's, the Banker, in Clapham; Mr. Robinſon's, at Kenſington; Mr. Roe's, at Batterſea; and the Rev. Mr. Wiſe's, at Carlwood; all of which have even exceeded my expectations.

I have no doubt, if you think it neceſſary, that thoſe gentlemen will give me certificates of their utility.

I ſhould deſire you would excuſe my giving you this trouble; but as I know the liberality of the Society, where any improvement is made that may be of advantage to the public, I am emboldened to lay this invention before you, requeſting ſuch reward as it may be thought to deſerve.

I am, Sir, your moſt obedient ſervant,

Caſtle-Court, Strand, April 2, 1800. S. HOLMES, *Smith.*

In order to ascertain fully how the Oven answered, a Committee appointed by the Society, ordered, on the 17th of April last, two Ovens, of similar forms and dimensions, to be fixed to the sides of a fire grate, in the model-room of the Society, one of which ovens only differed from the other by the piece of cast-iron projecting from its side into the fire: both ovens were heated by the same fire, and fixed in mortar and brick work in a similar manner.

Two loaves, of equal size and quality, being prepared from the same dough, one was put into each oven: and after remaining therein three quarters of an hour, they were taken out at the same time, and examined. The loaf from Mr. Holmes's oven was in every respect well baked, but the other was dough-baked and imperfect. An Oven upon Mr. Holmes's construction has been since fitted up in the Register's kitchen, which appears to answer every purpose that could be expected from its size, which is 13¼ inches wide at the door, or in front, and 15 inches deep.

A reference to *Plate II. Fig.* 1 and 2, will explain more fully the construction of the Oven, and its principle of action.

Fig. 1. A perspective view of the Oven.
2. A horizontal section of the same.
A. That side of the Oven which is placed next the fire.
B. The projecting piece of iron which remains stationary in the fire, and communicates heat to the Oven.
C. The door of the Oven.

A PROPOSAL FOR REMOVING SMITHFIELD MARKET.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I AM informed that the Corporation of the City of London have it in contemplation to enlarge the Market-place of Smithfield. If, however, an obscure individual may be allowed to offer advice on this occasion, I shall venture to recommend, instead of an enlargement, an entire removal of this destructive, and, I will say, disgraceful market.

Your readers, after so novel and bold a proposal, will, at least, expect that I should give my reasons why I thus presume to interfere, and that I should point out a situation or situations more eligible for the purpose.

The chief argument that I have to bring forward in behalf of my daring innovation is, the immense loss which the public weekly sustains from a diminution in the substance of the cattle, which are exposed to the accumulated and extended tortures of this market. When a beast, after having travelled 80 or 90

miles, is arrived at one of the reſting places, which are found in the neighbourhood of London upon each great road, why force him upon further hardſhips? He is here ſufficiently within the reach of the London butchers, in an unbruiſed, cool ſtate, and fit to be immediately ſlaughtered; why, therefore, drive him into the hard neceſſity of ſuffering a further reduction from twenty-four hours of irritation, want, and cruel treatment? When his feet are already in too tender and raw a ſtate to tread the ſoft road without pain, why unneceſſarily compel him to experience the unyielding ſurface of the London ſtones? Only attend one of theſe weary beaſts on this laſt, needleſs, and waſteful ſtage of his journey. At ten o'clock on the Sunday evening he leaves Knightſbridge, and is compelled to hobble on through the ſtreets with unuſual ſpeed, to take his crowded ſtation at Smithfield, where he remains upon his legs in a perſecuted pining condition, till perhaps ten o'clock on the Monday, and is then purchaſed by a Kenſington butcher, and doomed to tread back, with increaſed anguiſh, his laſt night's painful ſteps. Surely this is an evil that loudly demands a remedy, for the above is no exaggeration, but a fair ſtatement of facts; and moſt of the oxen that are brought to the above market are liable to an equal, ſometimes a greater degree of ſuffering; the loſs, therefore, to which we are ſubject from the neceſſity of expoſing our fat beaſts for ſale in the Smithfield market is very conſiderable. I cannot help thinking, that every beaſt, (taking an average), between the time of his being driven to market, and the time of his arriving at the ſlaughter-houſe, ſuſtains a diminution of forty pounds in his weight; which, allowing the number of beaſts, according to the account of one of your correſpondents, to be 3000 per week, will amount to no leſs a quantity in the total loſs of beef than 120,000 lb. in every week. An equal waſte is occaſioned in the ſubſtance of ſheep and lambs brought to, and ſo long detained in this market; and probably, in wet weather, the loſs ſuſtained in mutton and lamb is much greater than that of beef. Thus, a certain quantity of animal food, ſufficient for the entire ſupport of no ſmall number of his Majeſty's ſubjects, is conſtantly waſted by a compliance with certain well-intended but abſolutely injurious parliamentary injunctions and reſtrictions.

Reſtrictive laws, in plentiful times, are wholly needleſs, and in days of ſcarcity, laws which tend to increaſe that ſcarcity, cannot, one would think, be founded on wiſdom.

The remedy, therefore, which I would propoſe for this evil, would be to grant and eſtabliſh, under neceſſary regulations, markets in the vicinity of London, that is, one upon every great road. Theſe markets would naturally draw the carcaſe butchers from the centre of the city to the outſkirts of London, which appears to me as the attainment of another very valuable

object. If there are any insuperable objections to this my projected improvement, I hope some one of your readers will be kind enough to point them out in some future Number of your Magazine.

I am, yours,

Piccadilly, May 24, 1801. T. WESTON.

REPORT PRESENTED BY THE MINISTER OF THE INTERIOR OF FRANCE TO THE CONSULS OF THE FRENCH REPUBLIC.

THE law of the 10th Vendemiaire of the fourth year of the Republic, assigns to the office of which I have the superintendance, the formation of the tables of the Balance of Commerce. These tables are founded on the journals of importation, exportation, and navigation, kept by the different Custom Houses, on the frontiers of the Republic, and collected together every month.

I have now the honour to submit to you, the result of the exterior commerce of the Republic for the year Eight.

The exterior commercial relations of France embrace three objects, 1. The Commerce of Europe. 2. That of the Colonies. And 3. The operations of Navigation.

First, of the Commerce of Europe.

Under this head, will be comprehended our connections with the Levant, the Barbary shores, and the Anglo Americans, because they all form part of the same commercial system adopted by modern nations.

The importations into France from the various States of Europe, and those abovementioned, amounted during the year Eight to 325,116,000 livres (equal to about thirteen millions and a half sterling), of which there were

In provisions, colonial productions, and liquors of all kinds — — —	114,190,000
In metals, as copper, iron, steel, pewter, tin, &c.	5,694,000
In raw materials for arts and manufactures, as cotton, woollen, potash, oil, indigo, and tobacco — — — — —	133,591,000
In Foreign manufactures, such as ribbons, cotton, cloth, straw-hats, mercery, skins, cutlery and soap — — — —	39,265,000
In registered gold and silver, especially in piasters from Spain — — —	28,487000
Other merchandize — — —	4,000,000

The exportations from France for the same countries, have amounted to 28,487,000 (about twelve milions sterling) of which are

Provisions and liquors of all kinds —	87,562,000

Metals — — —	4,530,000
Raw materials for manufactures —	33,694,000
In French manufactures, as hats and caps, drapery, ſtuffs of woollen and ſilk, linens, toys, mercery, cutlery, and furniture — —	140,854,000
In gold and ſilver — —	490,000
Other goods — — —	4,000,000

Let us now turn to the part which each nation takes in this double commerce by claſſing the powers in the ſtation they occupy, with reſpect to France, during the year Eight, that is, by diſtinguiſhing them, as armed and allied, neutral or belligerent powers.

Among the powers armed and allied we muſt place Spain, the Batavian Republic, Liguria, and Helvetia. The importation from theſe have amounted to 188,805,000, the exportations to 162,012,000 livres.

Among the neutral powers, among whom are the Northern States, as Denmark, Pruſſia, Sweden, and the Hans Towns, the importations have been 84,783,000, and we have ſold to them 33,527,000 livres.

Of the belligerent powers, ſuch as the Levant, Sardinia, Portugal, Naples, Sicily, Tuſcany, Rome, the States of the Emperor in Germany, a part of the Empire of Germany, and Ruſſia. The importations from them have amounted to 51,528,000 livres, and the exportation to 76,035,000.

II. Of the Colonial Commerce.

The diſaſters of our Weſtern Colonies, the maritime war, and the preſent weakneſs of our marine has almoſt annihilated our commerce to Aſia, Africa, and America. In fact, we have received directly from theſe countries to the value of 1,483,000 livres, only in coffee, ſpicery, India linen, gum from Senegal, &c. and we have ſent thither only the value of 282,000 livres, in proviſions and metals.

III. Navigation.

Maritime commerce does not only contribute to increaſe the riches of France, it alſo contributes to increaſe the public force intended to ſecure our external independence, by keeping, even in time of peace, our ſailors in activity.

In the courſe of the year Eight, the maritime connections between France and the different countries of Europe, have been effected, by the entry into our ports of 7,581 ſhips, making together 273,137 tons; and by the clearing of 8,636 ſhips, making 314,967 tons. Our ſtate of war has not permitted us to partake of this navigation, except for 98,304 tons inwards, and 104,687 tons outward. The other ſhips employed in this commerce were foreign.

On the other hand, our coaſting trade has employed 25,320 ſhips, meaſuring 723,694 tons.

Laſtly, the number of veſſels employed in the navigation to the colonies, to Aſia, Africa, and America, in foreign and domeſtic fiſheries are, inwards, 71 ſhips of 4,769 tons, and outwards, 296 ſhips of 10,000 tons burthen.

General Conſiderations.

The firſt conſideration which preſents itſelf in the examination of our ſtatement for the year Eight, ariſes from the difference between the importations and exportations. The importations have amounted to 325 millions, the exportations to 271 millions only—a difference of fifty three millions and a half.

It becomes neceſſary to analyze the cauſes of this difference.

As to the importation, we perceive that our purchaſes in ſugar and coffee have been much more conſiderable than in the preceding years. In the year Seven, we bought from foreigners only 16 millions weight of ſugar, and about 6 millions of coffee, but in the year Eight we purchaſed more than 32 millions of ſugar, and 15 millions of coffee. This increaſe is the firſt cauſe of the increaſe of our importations, and at the ſame time is a conſequence of the effect of the law of the 9th Floreal of the year Seven, which permits the introduction of refined ſugars until then prohibited, and which diminiſhed the duty on coffee.

On the other hand, we remark that raw materials, ſuch as cotton, woollen, hemp, flax, have been wanted by our manufacturers. The importation of theſe articles, which in the year Seven amounted to 96 millions; this year has ariſen to 133 millions. This ſecond cauſe of increaſe may be attributed to the greater activity of our manufactures, and may give us room to hope for an approaching exportation of theſe manufactures more conſiderable than in the preceding years.

As to the exportations, we obſerve in the year Eight a ſenſible diminution when compared with the year Seven, in the ſale of our brandy and wine, particularly of thoſe of Bourdeaux. Thoſe exportations which in the year Seven amounted to 60,000 (*muids*) meaſures of brandy, and 220,000 of Bourdeaux wine, are reduced to 45,000 *muids* of brandy, and 128,000 of wine. The diminution aroſe from the ſtores of thoſe commodities which foreigners had before laid in, and to the decreaſed demand which the maritime and continental war has occaſioned.

Before I conclude this report, I muſt obſerve, that the total value of the prizes made this year on the enemy, and brought into our ports, amounts to 29,210,000, for which value, being all clear gain, we have nothing to pay to foreigners; this ſum too, has been much inferior to that of the year Seven, and may be attributed to the abrogation of the law of 29 Nivoſe of the Sixth year, the proviſions of which are in favour of the cruizers, and detrimental to national commerce.

And laſtly, if theſe circumſtances which are owing to our political ſituation, have much influence on the ſtate of our commerce for the Eighth year, the return of continental peace will ſoon re-eſtabliſh the balance in our favour, and ſome economical diſpoſitions wiſely combined and appropriated to our new ſituation, will reſtore commerce to its ancient ſplendour, which has been loſt by the inevitable effects of the revolution.

ON VENTILATED GRANARIES. (*With a Plate.*)

To the Editor of the Commercial and Agricultural Magazine.

SIR,

AS I perceive you expect from me an Elevation and Plan of a Granary after the manner of Duhamel,—I have attempted to make a ſketch, which may be intelligible to your readers, though buſineſs has prevented me from ſending it in a more finiſhed ſtate. I do not therefore inſiſt on your inſerting it according to your promiſe; and if it be more agreeable to you to poſtpone it, will at more leiſure tranſmit you an amended ſketch. If, however, you preſent to your readers what I now ſend, you may print with it the following ſhort explanation:

At fig. 1. is repreſented the plan of the floor of a granary, 20 feet by 20. This floor is raiſed about eight feet from the ground, that there may be height enough under it to fetch out the corn on occaſion. I may juſt obſerve here, that if a paſſage were ſunk a few feet deep in the ground (ſo as to reach from the door to the centre) ſome expence in building might be ſaved, by lowering the floor of the granary accordingly. The floor is formed of deals, *edge-wiſe*, according to the preſent faſhion; theſe deals are repreſented as twenty in number, a foot each. Of this foot two inches is the breadth of the deal; ten inches, a ſpace left open for the air to reach the corn from under. Leſt the corn ſhould fall through, on this frame is ſuppoſed to be firmly nailed, a ſtout hair-cloth, or perhaps a braſs-wire netting, fine enough to ſecure the corn from falling through it. In practice, perhaps, the deals muſt be ſet nearer; but on theſe particulars it is needleſs to expatiate.

At A, is ſeen a trap-door, two feet by two feet. This before the corn is lodged in the granary muſt be firmly locked, and muſt open downwards, for the more eaſy acceſs to the corn, which will thus run down on the ground-floor, without any labour, into the very ſack in which it is to be carried out.

At fig. 2. is ſeen an elevation of a range of three granaries in one building. At B is a door by which the corn is to enter; over it is ſeen a convenience for hoiſting up the ſacks from a waggon, drawn up beneath. As it is not expedient that the corn ſhould have any covering but the roof, from this door a path of ſtout boards is extended over the corn-chambers, to the inner end of the building. By this means, corn may be eaſily *ſhot* into

any chamber required. The tyling or ſlating cannot be made ſo cloſe as to prevent the egreſs of air, nor perhaps the partial entrance of drift-ſnow. I would therefore adviſe, that no additional expence or care be exerted on the roof; let it be tolerably ſecure, and an occaſional cover of canvas may be ready to ſpread over the corn in caſe of drift-ſnow. The canvas and ſnow might eaſily be removed together when ſuch ſnow happened to penetrate. It is needleſs to ſay that the corn-chambers muſt be well plaſtered, and dried before the corn is lodged in them. The ſides of the ground-floor ſhould alſo be well plaſtered, to prevent the aſcent of vermin; if the floor is not paved with bricks, plaſter muſt be run on it in the Derbyſhire manner.—Hitherto there is nothing very peculiar in our granary, which would evidently ſtore away 800 quarters; the difficulty is to keep ſo large a bulk together without danger. This is propoſed to be done by ventilation; and I have ſubjoined two ſketches, which, if not very accurate, will ſuffice for giving a clear idea of the principle on which the reſpective machines act. Beyond this it is needleſs to particularize.

At fig. 3. is repreſented the Ventilating Machine of Dr. Hales, by which for many years the different wards of Newgate-Priſon were furniſhed with freſh air. Suppoſe A, B, C, D, the tranſverſe ſection of a wooden box divided into two at *e*, *e*; *f*, *f*, are wooden valves, moving on a wooden or iron pivot at *g*, *g*; at *h*, is ſeen an iron rod paſſing through a hole (exactly fitted to it) and from the top of the box extending indefinitely to any crank, worked by the motion of a wind-mill, or by any other power. When this rod is down (as in the figure) the quantity of air, by which the ſpace *i*, exceeds the ſpace *k*, is forced through the pipe *l*, into any place deſired: and when the riſing of the rod lifts the valve to *e*, the ſame quantity of air muſt be forced through the valve *m*. A continuance of this alternate ſtream of air, muſt evidently impel a vaſt quantity, and the entire materials of the apparatus being wood or iron, little or no repair can ever be required for this cheap but effectual machine. It is needleſs to add, that the air paſſing out of the different valves *l*, *l*, or *m*, *m*, muſt be collected by a continuation of tubes made of wood, or any more convenient material. The machine uſed at Newgate was on the roof of the priſon, and by a ſmall windmill-ſail furniſhed air enough for the purpoſe required.

At fig. 4, is ſeen another Ventilating Machine, of more modern invention, and uſed very generally to expel foul air from the *lower deck*, or *hold* of ſhipping. Fig. 4, repreſents a tranſverſe ſection of a kind of barrel, furniſhed in the inſide with an axis, to which is attached fly boards, as ſeen in the figure. This

being rapidly turned by any power (with the aid of a multiplying wheel) carries round with it the quantity of air contained in its reſpective diviſions. When this air reaches F, it has acquired a powerful centrifugal force, by which it is forcibly expelled, through the tube G: other air entering at the ſame time through valves for that purpoſe at the ends of the barrel, near the centre on which the axis turns. From the mouth G, (which extends the whole length of the barrel, narrowing as it extends farther from it) the air is conducted by any tube to the place deſired. I have repreſented this tube as very ſhort, to introduce the wooden-plug-end, which being driven into an orifice properly adapted, produces a current of air very ſurprizing to thoſe who have not conſidered the vaſt centrifugal force acquired by a rapid revolution.

At *Chelſea* is a manufacture of hempen tubes, ſo cloſely woven as to convey water ſafely, and doubtleſs would convey air as well, without waſte.

To apply either of theſe inventions to ventilate our granary it is only requiſite to have holes prepared in the doors for the proper plugs; and if a preparatory granary were uſed, ſuch a power of air might be forced into it by additional plug-holes, and a more powerful apparatus, that the fouleſt ſtinking wheat would be cured in a few days.

I could expatiate more at length on other modes of obtaining and applying air; but the want of time forbids. Hereafter I may dedicate an hour's leiſure to communicate my ideas on this ſubject more fully. At preſent you muſt allow me to conclude in haſte, ſubſcribing myſelf,

Yours,

May 20. 1801. J. K.

ENUMERATIONS OF PATENTS LATELY ENROLLED.

1801. THOMAS PARKER, of Bromward, near Glaſgow, *Feb.* 3. Eſq. and William Telfer and Alexander Afleck, of Glaſgow aforeſaid, Mathematical Inſtrument-makers; for their improvements in preparing and manufacturing of flax, hemp, ſilk, and other materials.

——— 5. Edmund Cartwright, of St. Mary-le-Bone, Middleſex, M. A.; for improvements in the framing, combining, and organizing, the parts and mechaniſm of ſteam-engines, ſo as to make them more commodious and portable, and alſo in the mode of regulating their velocities, and in leſſening the waſte of power.

——— 5. James Power, of St. Edmund's Bury, Suffolk; for a portable oven, on a new or improved conſtruction.

CRITICAL CATALOGUE.

I. *Tranſactions of the Society, inſtituted at London, for the encouragement of Arts, Manufactures and Commerce; with the Premiums offered in the Year* 1800. vol. 18. 9s.

A HAPPY proof of the ardent Spirit of our Nation for improvements in all the Arts uſeful to mankind, is exhibited in the Annals of the *Adelphi Society*, who have now preſented to the world *eighteen volumes* replete with information, and intereſting without a ſingle exception. The death of the late Secretary was rather ominous that laſt year's volume might falter a little, from the derangement inevitable on that lamented event; but it will be ſeen that the voluntary aſſiſtance of Mr. G. Wilſon of Bedford Street (ſince dead) and the attention of the under Secretary have been exerted with complete ſucceſs.

After the explanatory Preface (containing a neat Biography of Mr. Nettleton) follows the liſt of *Premiums* offered by the Society. The new ones are as much diſtinguiſhed by the preciſion of the Conditions required, as by the Liberality of the Reward propoſed.

As in importance, ſo in order, Agricultural Communications take the lead. The firſt deſcribes the exertions of the *Marquis of Titchfield* in planting Timber. We are glad to ſee that the Rank of the Applicant is not ſuffered to ſuperſede the neceſſity of the minute examination of facts. Mr. *T. Johnes*, of *Hafod*, in *Cardiganſhire*, has alſo ſet a uſeful example in a remote County, and has experienced the conſtant ſuperiority of the *Larch*.

The next Paper is about planting an Orchard in a careful manner. The ſituation is *Kent*, where the vicinity of London may make ſuch a ſpeculation ſucceſsful; otherwiſe we hold Orchards in no eſtimation; Cyder is *pleaſant* indeed, but very oppoſite to *nutritious*. It exaſperates the *Gaſtric juice* of the ſtomach to too great activity, and conduces to hunger rather than to wholeſome ſatiety. Nothing but the temptation of evading the Malt-Tax could have kept it ſo long in uſe in our Weſtern Counties. The military Beverage of the Roman Legions (*Poſca*, Vinegar and Water mixed) may be claſſed with all the various deſcriptions of Cyder. Theſe liquors are equally efficacious in quenching thirſt, and have at beſt (if they have it) only the farther negative merit of doing *no harm* in the ſtomach.

The Communication from Mr. *Cartwright* witneſſes the poſſibility of a ſucceſsful culture of Wheat after Beans.—It is very important to the intereſts of Agriculture, inaſmuch as it points out a Mode of eſcaping the neceſſity of Summer-fallowing in ſtiff Soils. As theſe Soils are not ſuſceptible of the improvements of the modern Turnip and Clover ſyſtem, every expedient for making their increaſe of fertility keep pace with that of lighter Soils, deſerves peculiar Notice.

It is known to the Readers of former Volumes, that Mr. *T Jones* of *Fiſh-Street Hill* has been zealous in the cultivation of *Rhubarb* in *England*. Having obtained the true Sort, and extended his plantation and his experiments, he now fully demonſtrates that *England* may no longer import this Drug. The firſt Schools of Medicine in the World, the London Hoſpitals, *Guy's*, *St. Thomas's* and *St. Bartholomew's* all uſe the Rhubarb grown by *Mr. Jones*: and a committee at *Apothecaries-Hall*

have given the moſt deciſive teſtimony of its equal excellence with the foreign Drug. We are the more gratified at learning this, as we confeſs we had formed an idea that our intemperate Climate would not carry it to this Perfection; therefore this information is pleaſing *beyond our hopes.*

Themerit of *Mr. Jones* is not confined to this Drug; a bolder effort at the production of *Opium* is alſo recorded in this Volume. An accidental obſervation in 1794 inſtigated *Mr. Jones* to make inciſion on the heads of *Poppies*, and he collected a ſpecimen of the pureſt *Opium*. He then reſolved to cultivate *Poppies* on a large ſcale, and at *Enfield* in 1798 ſowed five acres broad-caſt (in March) with the true ſeed of the *Papaver ſomniferum* (deſcribed more at length as *Papaver hortenſe ſemine albo.*) But Weeds choked the Crop; it was conſequently plowed in, and the land ſummer-fallowed. An Autumn-ſowing with the drill was ventured on; but the winter was ſevere, and the plants unpromiſing in March; again they were plowed in, and ſeed again drilled. The weeds came up, and were eradicated with accurate attention; the *Poppies* proſpered, till the cold weather of 1799 throughout *May* and *June*, injured them exceſſively. In ſpite of their partial deſtruction, M. J. procured twenty-one pounds of *Opium* from the ſurviving Plants, and has obtained abundant teſtimony of the ſuperior quality of the ſample. Much expence, much ingenuity, and final ſucceſs, claim, the thanks of the public to Mr. Jones; his perſeverance againſt all difficulties is peculiarly admirable.

A Plan of an improved Moor in *Pembrokeſhire* is minutely explained by Mr. *J. Mirehouſe*. The details will be peruſed with intereſt by all who can participate in the indeſcribable pleaſure of ſeeing a new Creation, the work one's own hands. The aſpect of this Moor was unuſually unpromiſing, and the ſucceſs unuſually great. The ſum of 500*l.* has reclaimed 274 acres from a noiſome Bog, to valuable paſture and productive Arable.

The Reverend *H. B. Dudley* has purſued his operations of encroaching on the frontiers of *Neptune's* watry domain; by a Sea-Wall at *Tillingham* (extending almoſt a mile) he has gained 206 acres from the Sea. His improvements in the practice conſiſt of forming the Embankment more ſloping for the leſs turbulent aſcent of the waves; and in connecting it more firmly with the ſoil on which it reſts, by firſt ſtriking a ſpit-deep trench (twelve-feet wide) along the centre of the poſition of the intended Embankment, Finally, he has added a ſecurity to his out-fall Aqueducts, by inſerting a ſecond valve in the middle of them, out of the reach of accidental, or intentional impediment.

From the firſt article in *Mechanics*, we rejoice to find that for the neceſſary article of *Burr-ſtones* we are no longer dependant on *France*. Our fortunate Iſland daily diſcovers additional reſources to encourage the farther ſearch of its enterpriſing Inhabitants. The Author of this diſcovery has unfortunately died in the midſt of his operations near *Conway* in *North-Wales*; but not till many hundred tons of his *Burrs* had been manufactured into Mill-Stones in various places, and their equality with foreign *Burrs* well eſtabliſhed. With an intereſting melancholy we read the relation of the activity of the late *Mr. Bowes*; his was a vigorous mind, like *Cæſar's*; "*Nil actum reputans, dum quid ſupereſſet agendum.*" We quote his letter as follows; "I came into poſſeſſion of the intended Quarry on a Wedneſday in Auguſt, 1797;

I ſet hands to work the remainder of the day.—I had a quantity ſhipped on Saturday—it arrived in *Liverpool* on the Sunday, and was under manufacture on the Monday Morning."—The widow and children of ſuch a man as this, ought not to be ruined by his death; nor will they, if the example of the Society has any influence.

The Hand-Mill of Mr. *Ruſtall* our Readers ſaw in our laſt; in our preſent Number, the invention of Mr. *Snart* for "aiding fallen horſes in Dray-Carts," is inſerted. It has merit in ſpite of its pedantic name, which is to be ſure a bad ſymptom. We wiſh Greek Derivatives to be left to *French Inventions*, and *Quack Medicines*. To ſolid merit plain Engliſh ſuffices.

A ſhort paper, concerning *a perpetual Oven*, we have alſo inſerted; chiefly in that it ſeems to receive additional recommendation from the letter of a correſpondent in our third Vol. p. 357.

Two ingenious improvements of *Door-Locks* have received Rewards; but as hitherto more ingenious Roguery has conquered ſuch ſecurities, we cannot give decided, or final applauſe. Thoſe who are drawn in Carriages by pampered horſes, have a ſecurity againſt the danger of their ſituation in an invention of Mr. *Davis*, which diſengages the horſes inſtantaneouſly from the Carriage. We cannot praiſe the laſt part of this improvement, for alſo ſtopping the Carriage *inſtantaneouſly*. It had much better be carried on twenty yards by its acquired *Impetus*. than ſtop at a Jerk; which we conceive muſt drive the Paſſengers' faces through the front glaſſes.

The Gold-Medal has been given to *A. Mackenzie, Eſq.* for penetrating from *Upper Canada* to the *South Sea*. We are aſtoniſhed to learn that he returned in a *Month* from that Sea, to the place of his departure.

A novelty in *Horticulture* (by *ſteaming* Plants) is narrated by Mr. *Wakefield* of *Northwich*. A very pretty experiment, followed up with all requiſite attention. It is another proof that we are not yet fully acquainted with the affections of the vegetable Creation. The plants thus treated exhibited unuſual luxuriancy; and the quantity of water expended is a perſpicuous regulator of the quantity of ſteam applied.

There is no part of this Volume, which we read with more pleaſure, than where it is ſaid (p. 11.) that "the Series of Paintings by Mr. *Barry*, and the Model Room are open to public inſpection gratis." We had heard with ſorrow, that the Society had much contracted its liberality in this reſpect, when their new Secretary came into office. We rejoice that their utility has not ſuffered this rumoured diminution.

We cannot but think this Volume the beſt hitherto publiſhed by the Adelphi Society; but, in a ſeries of good Books, perhaps this opinion is naturally attached to the Volume *laſt read*; ſure however we are, it is not unworthy of its fellows.

II. *General View of the Agriculture of Nottinghamſhire.* *By* ROBERT LOWE, ESQ. 1798. 4s.

The extent of *Nottinghamſhire* is very moderately eſtimated at 480,000 acres; perhaps not above four-fifths of its real area. The characteriſtic of its climate is *Dryneſs*. The clouds from the Weſtern ocean breaking on the hills of *Derbyſhire* and *Yorkſhire* are exhauſted before they reach *Nottinghamſhire*; even thoſe from the *German Ocean* may be ſuppoſed not unfrequently to ſkim over this more level conutry,

and break firſt on the hills before mentioned; however, the greateſt rains fall with Eaſterly winds.

The general face of the county is uneven, though not mountainous. The Trent interſects it from the South-Weſt; and forms a valuable ſtrip of low, flat land, called *Trent-Bank-Land*. There are many other rivers and ſtreamlets. Here we muſt note an imperfection in the Map fronting the title page: though it marks out the various ſoils and diſtricts very diſtinctly, the rivers are neglected. Not only from their phyſical importance, but from the various levels they indicate, they ſhould never be omitted in any Map. Beſides them, we would always wiſh to find the names of places *mentioned in the Volume*; without this, the various names can only convey information to thoſe who know them before; that is, who do not want it.

Nottinghamſhire abounds in Stone, Coal, and Gypſum (Plaſter). Of this laſt material ſuch ſuperior ſpecimens are found near *Newark*, that the princely columns at *Brokleſby* in *Lincolnſhire*, and at *Kedleſton* in *Derbyſhire* have been formed of it. The ſhades and veins of the latter are eminently beautiful.

Landed property in this county is from 12000l. per ann. downwards; in all the varieties of Freehold, Leaſehold, and Copyhold. The Farm-houſes and Offices improve at every new erection; and in new incloſures are inſulated by their reſpective allotment. Corn is preſerved till threſhing, in Ricks, on Steddle-Stones or Brick-Pillars; to the great ſaving of the Landlord's purſe in building and repairing Barns, and probably benefiting the Tenant in preventing the injuries of Vermin.

A method of laying Barn-floors to *eternity* by Mr. *Chambers* is related. He fills the ſpace between the beams with mortar and rubbiſh ſtone. To this practice he was firſt induced by the prevalence of the dry-rot in one of his floors.—In the implements of huſbandry, the occaſional extenſion of their waggons for harveſt-work appears peculiar: ſtaples are affixed, into which enter *Stays*, ſupporting boards in the manner of a ledge all round: thus the waggons become 24 feet long by 8 wide.

Incloſure is going on rapidly in this county. The benefit of it is ſo well underſtood, that even the enormous *Vails* exacted by the Servants of Parliament, do not prevent a Bill or two for this County paſſing every Seſſion. The Foreſt land is thus diminiſhed rapidly; the cuſtom of temporary *Breaks* always prevented the utter waſte of ſurface ſuſtained in moſt other Foreſts. Many capital incloſures have been made by a Nobleman of the higheſt rank, whoſe intelligent Agents have ſet an example of Turnip-Huſbandry univerſally followed. The Swediſh turnip (*Roota Baga*) comes into faſhion; it ſtands all weathers, is as nutritious as the Carrot, and has been produced to the bulk of 16lb. The only precaution neceſſary, is to ſow it about a month before other Turnips.

For Plantations this county ſtands firſt in the Kingdom; hence Mr. *Lowe* with appropriate exactneſs, enumerates the various improvements. In this line of Agriculture we have never ſeen a large maſs of practical information drawn together. We cannot pretend to find room for a ſummary of it; thoſe who reſolve to plant ſhould read it entire more than once. For their advantage we notice a dangerous error in p. 50.

Mr. *Marſon* (the Duke of Newcaſtle's Agent) there ſays, "they are not particular in the choice of Acorns for ſeed." There is the authority of *Ray* and *Miller*, and of all Ship-Builders, that there is a ſort of oak, near *London*, called the *Norwood Oak*, in the *New-Foreſt* the *Durmaſt Oak*, which is not ſo large, nor half ſo durable as the other ſpecies. This inferior Tree is diſtinguiſhed by the acorns, ſet in a *cluſter* cloſe to the twig, the leaves having ſoot ſtalks: in the true Engliſh oak the acorns are uſually ſingle, at moſt double, and the leaves are cloſe to the twig *without* foot-ſtalks. About *Newbury* the ſpurious ſort is called the *Bay Oak*.

The value of the *Larch* and the *Birch* is well underſtood in *Nottinghamſhire*, and the *Huntingdon willow* is ſaid to ſurpaſs the beſt Fir-Timber for all its purpoſes. It certainly ſurpaſſes *Fir*, and all other wood for *Profit*, if no error has been made in ſtating Mr. *Lowe's* plantation to have ſold at 214l. per acre at 8 years growth. This is the higheſt gain we have ever heard of from planting; doubtleſs he has ſince extended his operations.

Lime is much uſed as a manure; but with very uncertain ſucceſs. The ſame complaint we ſee in the ſurvey of almoſt every county; and have ſuggeſted the cauſe of failure to conſiſt in the action of lime as a chemical combination, rather than an immediate manure.—We lament to find that Dove-Manure, and conſequently Dove-Cotes are common in this county; becauſe there is no probability that any Dove-houſe pays for a fifth part of the grain conſumed, and damage done by its feathered inhabitants. Half a pint of corn at a time may ſometimes be taken from a pigeon's crop.

The Neat-Cattle of this county are not of any particular fame; they have lately been aided by an admixture of Mr. *Bakewell's Diſhley* Breed. But the amateurs in Sheep have been more ſedulous; and a catalogue of reſpectable names is given, who have ſpent much time and money on this ſpeculation; nor have they failed of ſucceſs. The Cart Horſes in this county are not large or ſtrong; uſually black. About ſeven Ox-Teams are kept in Nottinghamſhire; enough to propagate the practice, if finally it appear valuable.

The Stocking-Manufacture is antient in this county, and very extenſive. All the improvements of the Cotton-Mill are here in activity. Dying, Lace-making, Pottery, Sail-Cloth, Iron, and Artificial Marble alſo employ many people. Hence the population has rapidly increaſed of late years. The labours of *Sir R. Sutton* have been arduous in enquiries into this fact; no pariſh has eſcaped his enquiry: he thinks the county contains 115,000 ſouls. Nottingham itſelf is ſuppoſed to have 25,000 inhabitants.

The improvements of Agriculture are well underſtood, and vigorouſly practiſed by many intelligent men in this county: incloſure and draining are well underſtood, and there ſeems little to deſire, and nothing to deſpair of in the cultivation of *Nottinghamſhire*.

The Appendix contains many valuable papers. A Table of the quantity of rain fallen in three years, proves that *Nottingham* is not much wetter than *London*, and twice as dry as *Lancaſter* or *Weſtmoreland*.—A ſpecies of coarſe Oat, called *Skegs*, is perhaps peculiar to this county. Their price is two-thirds that of other oats, which in produce (on poor ground) they far ſurpaſs. They are ſometimes cut

in the ſtraw, and ſo given to horſes. A Plan of a Cultivator of no bad conſtruction (the invention of Mr. BOWER, is inſerted.—The inland Navigation of this county, is very extenſive. The *Trent* pervades it from South-Weſt to North-Eaſt. The *Cheſterfield Canal* joins this majeſtic river of *Stockwith*; the *Erwaſh and Nottingham Canals* furniſh Coal at a reaſonable rate, and more recently the *Cromford Canal* brings lime from *Crich* and other places in *Derbyſhire*.

But above all other information contained in this valuable report, we would call the attention of our readers to the details of planting communicated by practical men in that line. On no ſubject has the wretched modern art of *Book-making* been exerciſed more unmercifully; we have reaſon to believe that the majority of Authors on this ſubject have ſcarce ever ſeen a Tree planted in their lives. Here the improvement of old Woods is minutely deſcribed, as well as the formation of new plantations; and we doubt not, more may be learnt from this report about the management of Timber-property, than from any treatiſe ſince the date of *Evelyn's Sylva*.

It is evident that much of the value of this publication is due to the various exertions of *Sir R. Sutton*; a man who with leſs oſtentation, has collected more important knowledge of *ſtatiſtical* enquiries, than any of his contemporaries. We cannot ſuppreſs the wiſh, that this worthy Baronet would make a ſelection, and publiſh it for the benefit of mankind. The various departments of Agriculture are his peculiar care, and he is certainly one who collects materials of the moſt valuable nature. In him *England* may reckon one of her beſt patriots.

The county of *Nottinghamſhire* is one which may be contemplated with peculiar pleaſure by all who feel a lively intereſt in the improvements of their country, and we ſhould be guilty of the groſſeſt injuſtice not to expreſs a decided opinion, that Mr. *Lowe* has performed his taſk with the proper deſcrimination and requiſite ſedulity, which always accompanies real talents. We meet with no idle opinions of the individual in this Volume; in the ſurvey of a county, facts only are appropriate; and the knowledge of this truth is a much better pledge of intellect, than the interpolation of favourite Themes, or the diſſemination of perſonal opinions out of their proper place.

III. *Inquiry into the Cauſes and Remedies of the late and preſent Scarcity. In a Letter to R. H. Earl Spencer.* WRIGHT, 1800. 2s.

As the Author of this Pamphlet is evidently a fellow-labourer with ourſelves in the taſk of counteracting the dangerous doctrines, which have threatened univerſal deſolation, it would be indecorous in us to praiſe his intentions. He begins with obſerving that no abſolute famine has been experienced in England ſince the year 1438, though the Population is probably four-fold. This reſults from the improvements of Agriculture, and extenſion of Tillage. The antient laws againſt exporting Corn from the *county*, the badneſs of the roads, and the non-exiſtence of middle men, ſometimes cauſed a famine in the North, and plenty in the South at the ſame time. For the laſt century the Corn Trade has been left free, except in ſome late deciſions, to which our Author imputes a greater miſchief, than we can ſuppoſe real. To the aſſize of Bread he is alſo violently inimical; we invite him to apply his *own* principles more carefully to this object. We imagine he is not now indiſpoſed to allow his error about white and

brown Bread. Experience has refuted him in this point. The relative quantity of brown and white Flour, produced from 40 B. of Wheat, is only as 33 to 30 B. He ſpeaks of a general Incloſure Bill with proper feeling; and denies any important increaſe of conſumption from the War. On theſe points we fully agree with him.

The Stale-Bread-Act is now generally neglected; the Legiſlature is probably become *too* diffident ſince the ill-effect of the Brown Bread-Act; for ſtale bread has always been a known œconomy in all Farm houſes.

The importation of Wheat from Sept. 26, 1799 to Sept. 26, 1800 was 1,146,000 quarters. The food of about 1,500,000 ſouls! We know not how the Parliamentary Committees have been enabled to ſpeak ſo decidedly upon the annual conſumption of Great Britain, which they fix at 8,000,000 quarters. They muſt have been miſled by the impudent aſſertions of ſome *Charlatan*. What can be known of this when the population is wholly unkown?

The indemnifying Bounty cannot be praiſed too much. It was indeed judicious.

Thoſe who chuſe to believe in monopoly, would do well to define it. Let them read the difficulty in this Pamphlet. We only differ from its Author in the quantity of miſchief, which he aſcribes to the proſecution of Monopoliſts, and the aſſize of bread. That both theſe things are *evils*, we have ever been careful to declare moſt unequivocally.

IV. *Financial Facts of the Eighteenth Century. A curſory View of the Revenue, Expenditure, Debts, Manufactures, and Commerce of Great Britain.* WRIGHT, 1801, 2s. 6d.

This production is announced as originally a Sketch for the Writer's private uſe; as ſuch, it is certainly reſpectable, but we cannot deem it ſufficiently finiſhed for any uſe to the public. Indeed what can be hoped from a *Pamphlet* on diſcuſſions which might uſefully fill more than a *Folio*, without violating the limits of the title.

The author appears a temperate friend to Mr. *Pitt*, and echoes ſome of his parliamentay harangues with conſiderable accuracy. To political Writers, he yields far too implicit faith, taking moſt dubious aſſumptions as rational foundation of ſolid argument. On the Income-Tax he is copious; calculating that its injuſtice on the annuitant of 200l. per annum is as ſix to one, compared with the Land-holder to that amount of Rental. He concedes therefore that it reqires *ſome* modification and amendments! Gentle reproach of the enormons ignorance or injuſtice of its Projectors!

On the delay of general Incloſure, he ſpeaks in the tone of the national wiſh. If the preſent ſcarcity induce not to this meaſure, we ſhall have little hopes hereafter though "we aroſe from the dead" to enforce its neceſſity. The miſeries of future ſcarcities will form a dreadful account againſt the oppoſers of this only remedy of calamity. But we truſt the legiſlature will pity a patient long-ſuffering people, and no longer trifle with their woes.

In p. 65 is an explication of the French Funds, from which we have not derived the information we eagerly expected. If two-thirds of the national debt in France has been ſpunged off, we do not ſee why the preſent *Stock* ſhould be altered by it. But on this we await

further information. We apprehend indeed the phraſe *Tiers Conſolidé* has no reference to *three* per cent.

Mr. *Pitt's* adminiſtration is juſtly praiſed for effectuating many plans of œconomy; there is however great fallacy in the amount of that œconomy. An increaſed tax does not always increaſe the expence of collection; ſo that the *per centage* expence may be (and unhappily has been *thus* lowered) without any merit to the cares of the late Miniſter. Our author (with many others) is duped by the pitiful fallacy of the Sinking Fund. What is it to the public, whether twenty five millions be borrowed, and five paid off; or only twenty millions borrowed? Except that the double transfer is troubleſome and expenſive, the public is not a party concerned in this trick.

The labour of compilation is this Pamphlet is meritorious; but ſome years of ſtudy are neceſſary to its author, before he can hope to ſhine on his extenſive theme. We adviſe him to diſcuſs one thing at a time, ſo ſhall he and his readers be hereafter more beneficially inſtructed.

V. *The Effect of Paper Money on the Price of Proviſions.* *By* WILLIAM FREND. *London.* 1801. 1s 6*d*.

We notice this ſmall pamphlet becauſe it ſtates in perſpicuous terms two opinions equally erroneous. The firſt is that of Sir Francis Baring, who confounds the amount of the national debt, with the amount of the currency exiſting in the kingdom. Theſe things have not the ſmalleſt connection. Does the debt of one individual to another, affect the quantity of currency in the Country where both live? It is clearly indifferent to the public in whoſe hands the money is found, ſo that it is ſomewhere. Therefore the Debt of all (of the Nation) to the Stockholder has not the moſt diſtant relation to the circulating medium.

The other error is the want of diſtinction between the BANK, formerly paying in *Specie* on demand; and the BANK refuſing ſuch payment. The iſſue of *Notes* in the firſt caſe only ſtood for the ſame quantity of *Specie*, by their intervention enabled to ſeek profit abroad. The currency in that caſe remaining is no greater in paper and ſpecie together, than otherwiſe it muſt have been in *Specie* only. But when the Notes are not payable on demand, they may, and have increaſed to an unnatural quantity of currency remaining in the kingdom without poſſibility of egreſs. Thence the advanced price of every thing, according to the exceſs of that unnatural *Plethora* of a circulating medium.

Two elegant vols. on *Perſpective*, by *Meſſrs. Maltons*, have been ſent to us for Review. We are ſorry that it is inconſiſtent with our plan to explain to the Public the merit of theſe publications. We can only ſay (as briefly as poſſible) that they are far the beſt that have appeared in the Science of *Perſpective*; and that every *Artiſt* ſhould be in poſſeſſion of the quarto, intitled, "The young Painter's Maulſtick."

HISTORY.

National Transactions,

CIVIL AND MILITARY.

EAST INDIES and CHINA.—Our East India poſſeſſions do not ſeem tranquil, the Senaſſees, a people of the internal part of Bengal, have broke out and plundered the country.

A report has reached England that a battle had taken place between the Seiks and Mahrattas, in which the latter had been defeated.

Of the Engliſh forces, ſaid to be preparing for the conqueſt of Egypt, we hear ſuch contradictory accounts, that nothing can be depended on; at one time we are told that ten thouſand men had actually ſailed; at another that none could be ſpared; and the laſt report was, that five thouſand, under General Baird, were on their paſſage.

They write from Bombay, that the plague has raged in the neighbourhood of Muſſul for ſome time, but had began to ſubſide. Every precaution had been taken to prevent its ſpreading.

TURKEY and EGYPT.—The Turks ſeem to co-operate but ſlowly with the Engliſh in the reduction of Egypt; when Sir R. Abercromby arrived at Rhodes, little or nothing was done by them towards haſtening the armament, and the Engliſh had to collect every thing they wanted by their own exertions. At laſt the army ſailed from Macri, according to the General's account, deficient in many articles. They a rived on the coaſt of Aboukir the firſt of March, but did not land until the eighth, when the troops ſuffered ſeverely, as they did in an action on the 13th of March. They had, however, taken Aboukir, which will ſerve as a place of arms, and ſecure a communication with the fleet. The loſs of the Engliſh army in the actions of the 8th and 13th was upwards of two thouſand men, In an attack made by the French on the Engliſh lines on the 21ſt of March, another dreadful ſlaughter was made of the two armies, in which the Engliſh loſt ſixteen hundred men, and the French many more. What will be the fate of Egypt remains ſtill in ſuſpence. If our countrymen can ſecure their footing in Egypt until reinforcements arrive, they may at length ſucceed, but it may be attended with immenſe loſs, either by the climate or the ſword, eſpecially if the French diſpute every inch of ground as they have hitherto done.

NAPLES and other Parts of ITALY.—Although peace is made between the French Republic and Naples, the French are too prudent to truſt to any agreement made with that Monarch, whoſe cruelty and bad faith are ſo notorious, but have marched troops to occupy Calabria; this will not only keep him to his engagements, and the people in awe, but alſo enable them from the parts of that country to ſend reinforcements to Egypt by a ſhorter courſe, and with much leſs danger than from Toulon.

The Pope's dominions are at peace, and there is much reaſon to hope that from the prudence of the preſent Pontiff, and an amendment in the government of the country, the condition of the people will be much amended.

The late Duke of Parma was preparing to ſet out from Spain for his new government, the duchy of Tuſcany, which remains in peace.

Piedmont is ſtill under the direction of the French proviſionary government, and its future ſtate ſtill undetermined.

The French are embarking a large number of troops at Ancona, with what view is uncertain; ſome think for Greece, to deliver that country from its preſent oppreſſed ſtate; others, that theſe troops are deſigned to ſlip down the Adriatic for Egypt.

SPAIN and PORTUGAL.—A delay on the part of France and Spain ſeemed to have poſtponed the conqueſt of Portugal for ſome time, and has allowed time for treaty; but we find by later accounts that the French army is actually advancing through Spain, and has reached Burgos. Letters from the ſame place adviſe, that ſome of the Spaniſh troops had entered Portugal, and that ſkirmiſhes had taken place between the troops of the two nations, but this needs confirmation. Indeed many people here conjecture that theſe troops are not for Portugal, but to be embarked on board Spaniſh ſhips for Egypt, to the relief of which place it is ſuppoſed the French Conſul now turns all his attention.

FRANCE.—The execution of the great projects of this government are for a time ſuſpended. The 10,000 men who were deſtined to act againſt Portugal, are, however, on their march, but will moſt probably not begin their operations till the fall.

French troops are preparing at Ancona, and tranſports are ſecured for their embarkation. By ſome theſe are ſaid to be deſigned for Egypt, but, if we might hazard a conjecture, they are for Greece with a view to raiſe inſurrections in that country, and to compel the Turks to a peace.

Meantime the Grand Conſul is ſending truſty negociatiors to the Northern Courts. Duroc, his favourite Aid de Camp, is ſent to Peterſburg. By ſome means the French have been able to alter the politics of the Court of Conſtantinople, and they ſeem not ſo hoſtile to the republic as formerly. Indeed a paragraph has appeared, intimating that Lord Elgin was preparing to quit Conſtantinople; but as much will depend on the ſucceſs of the French or Engliſh in Egypt, we muſt wait to know the events there, before we can judge of the Court of Conſtantinople.

GERMANY.—The world are anxious to know how the country will be divided. That the chief of the eccleſiaſtical ſtates will be given as indemnification to ſuch Princes as have loſt territory by the treaties between France, the Emperor, and King of Pruſſia, is certain, but the proportion remains to be determined, or at leaſt to be made public. Meantime the Emperor ſeems impatient, and has written to the Diet at Ratiſbon to haſten their determination. The King of Pruſſia ſtill h lds Hanover, Oſnabrug, Bremen, Verden and Hamburg, and indeed is in poſſeſſion of almoſt the whole of the North of Europe from the Ruſſian trritories to the ſea.

NORTHERN POWERS.—The death of the emperor Paul ſeems by no means to have wrought the change in the ſyſtem of the northern courts that was expected by many. A report has lately been current, that this Emperor did not die by a natural death, but we muſt wait for further and more authentic intelligence to enable us to ſpeak with preciſion. On better authority we may aſſert that the Emperor Alexander has aſſured the Swediſh ambaſſador, Baron de Stedingk, that the friendſhip and all the treaties exiſting with Sweden, particularly that relative to the armed neutrality, ſhould be preſerved inviolate.

Letters from St. Peterſburgh mention, that the new emperor has already iſſued thirteen Ukaſes, of which the following is the ſubſtance:—

1. All ſtate-priſoners are ſet at liberty.—2. All decrees concerning contraband trade are revoked.—3. The regulations of 1782, reſpecting tolls, are to be in force again.—4. The Engliſh ſailors, that had been on board of the Engliſh ſhips, under an embargo, and impriſoned, are reſtored to liberty.—5. All kinds of ſocieties are permitted.—6. The Order of Malta ceaſes.—7. The order of Wladimir is reſtored.—8. Every body is at liberty to dreſs as he likes, but with decency.—9. The importation of all kinds of books is permitted.—10. The regiments ſhall reſume their former denominations.—11. The ancient guards are to be re-eſtabliſhed.—12. Every body ſhall be allowed to enter into and to quit the empire.—The 13th is as follows: "Our manufactories not having yet arrived at the neceſſary degree of perfection, and not being adequate to ſupply the wants of our empire; it is hereby ordered, that the decree prohibiting the importation of porcelain, earthen-ware, glaſs, inſtruments, made of ſteel and iron, ſilk, cotton, and linen goods, be annulled,

and that, for the preſent year, the regulations of 1797, ſhall be in force."—The embargo has not yet been taken off, but trade is reſtored to the footing of 1797.

We ſince learn that the Emperor has ordered Manifeſtoes or Decrees to be read to the following purport: 1. Confirmation and reſtitution of all the privileges of the nobility.—2. The reſtitution of the city and town charters, to ſecure the rights of citizens, and revive commerce and induſtry.—3. Pardon of all perſons under trial, except robbers, murderers, and uſurers.—4. Mitigation of ſentence of death and hard labour into tranſportation to different parts as coloniſts.—5. Total ſuppreſſion of the State Inquiſition. All proceedings of the tribunal on record are to be conſigned to eternal oblivion.—6. An aſſurance that from this day (April 14.), no new taxes ſhall be laid on the people.

The capture of the Swediſh and Daniſh iſlands is a very extraordinary circumſtance; it is now clear that orders were ſent from hence to ſeize them at the time we were at peace with that country. Their importance will appear by the following account:—

SANTA CRUZ—conſidered in all its points, is ſcarcely inferior to any iſland in the Weſt Indies. Its affluence is immenſe, producing annually about 20,000 hhds. of ſugar (the laſt crop was 36,000 hhds. 10 cwt. each), each hhd. of 1500 lb. weight—10,000 hhds. of rum—and 3000 bales of cotton, 300 lb. to the bale. The riches of this iſland catch the eye of the obſerver immediately on his landing. The houſes, or rather palaces, exceed in appearance thoſe of any other iſland, as much as the ſtyle of living of the inhabitants. The number of carriages conſtantly paſſing and repaſſing, drawn by capital horſes, on roads by no means inferior to thoſe in the vicinity of London, beſpeak the wealth of the poſſeſſors. The gardens too, are highly luxuriant. To give ſome proof that the value of Santa Cruz is more than viſionary, we ſhall only further obſerve, that the eſtates of four gentlemen of that iſle, now in London, collectively, export 3000 hhds. of ſugar, and 1500 hhds. of rum.

ST. THOMAS and ST. JOHN—make each about 4000 hhds. of ſugar, 2000 hhds. of rum, and 500 bales of cotton; but the iſland of St. John is of the higheſt importance to Great Britain, from poſſeſſing one of the fineſt harbours in that quarter, fully capable of riding fifty ſail of the line, in ſafety, during the moſt violent hurricane.—So much for the Daniſh captures.

ST. BARTHOLOMEW—which belonged to Sweden, is not of great conſequence, except for its commerce. It has, however, a good harbour for veſſels, of 300 tons burthen.

ST. MARTINS—though a fine iſland, is ſuſceptible of very conſiderable improvement, and may one day rank, not among the leaſt in value. It now makes about 23,000 hhds. of ſugar and rum.

From Berlin they write, the buſineſs of occupying the Electorate of Hanover is now fully completed; our troops are in poſſeſſion of all the forts, fortreſſes, ports, harbours, &c. The miniſter of ſtate, Count de Schulemberg, charged with organizing the new adminiſtration of that country, is on the eve of terminating that work, and we expect without delay. The conduct of the prince is as firm as it is wiſe, and that we do not depart from the principles of the Peterſburgh Convention.—Lord Carysfort, after having frequently mentioned his approaching departure, is now ſilent reſpecting his journey to Saxony, and endeavours, it is ſaid, to win us back to an accommodation with his court. But his Majeſty remains ſtedfaſt in his reſolutions, and in his adherence to the defenſive neutrality. The new Emperor, in conſequence of his renouncing his claim to the title of Grand Maſter of Malta, has taken off the embargo, which from that motive had been laid upon Engliſh property in his dominions: but he ordered it to be laid on anew, purſuant to the baſis and ſtipulations of the convention of Peterſburgh, to which he appears invariably to adhere. Upon the repreſentation of the Ruſ-

ſian merchants, the Emperor Alexander has alſo prohibited the ſequeſtration and ſale, which were to take place in favour of the creditors of the Engliſh merchants, of the Engliſh merchandize, ſhips, and magazines, which, for the moſt part, were falling into decay, and the ſequeſtration of which had occaſioned a ſtagnation of trade highly prejudicial to the national commerce.

The following intelligence has been received from Denmark:

Workmen are employed to put the batteries on the coaſt in the beſt ſtate of defence, and the Prince Royal has written to the Magiſtrates the following letter:

"As it is indiſpenſable that the works which defend the Road ſhould be repaired and carried to perfection; it cannot be done without land-carriages, and I cannot doubt that the worthy inhabitants of Copenhagen will lend their aſſiſtance, when I aſſure them that nothing is more neceſſary for the defence of the city.

"I know that the intrepid citizens of the capital, who are entirely devoted to the king, my father, are deſirous of ſeizing every occaſion to teſtify their zeal, to co-operate in all that may be neceſſary to the good of the State. I invite, in conſequence, all the inhabitants of the city who have horſes and carts, to make them bring, during the period of ſix weeks or two months, from forty to ſixty loads of earth per day, to the places where the erection of batteries are neceſſary. The drivers ſhall be paid for their trouble. Workmen at trades muſt tranſport earth in boats and on rafts, and if they want aſſiſtance they muſt apply to the Officer of the Marine.

April 26. (Signed) FREDERIC, Prince Royal."

IMPERIAL PARLIAMENT.

HOUSE OF LORDS.

MONDAY, April 20.—Several bills were received from the Commons and read.

TUESDAY, 21.—Lord Moira withdrew his Inſolvent Bill, and introduced another to the ſame effect, but diveſted of the matter objected to by the Law Lords.

WEDNESDAY, 22.—The bills on the table were forwarded in their reſpective ſtages.

THURSDAY, 23.—The Houſe engaged in hearing counſel in a Scotch Appeal, and other routine buſineſs.

MONDAY, 27.—The further conſideration of Mrs. Addiſon's Divorce Bill deferred for a fortnight.—The Committee of Secrecy made their ſecond report: it ſtated, that a number of perſons, under pretence of aſſociating as Benefit Clubs, met at different houſes for ſeditious and treaſonable purpoſes: That they called themſelves *United Britons*; that every meeting ſent a delegate to repreſent it, who communicated with the delegates of other meetings, and made regular reports; that they all took one common oath, in which they declared their determination to perſevere until they obtained thoſe rights which by nature they were entitled to. The report then recommended the neceſſity of adopting, as ſpeedily as poſſible, ſuch meaſures as ſhould put a ſtop to practices of this kind.—Lord Roſſelyn (late Loughborough) urged the early adoption of decided meaſures, obſerving, he had no doubt but that it was the intention of many wicked perſons to provoke a general inſurrection throughout the country; and he was warranted in ſaying ſo from circumſtances which came to the knowledge of the Committee that very day, but which they had not time to make a part of their report. Even ſince he came down to the Houſe, he was informed that a meeting of perſons conſiderably above the number of 50, had very recently taken place for the moſt dangerous purpoſes; and that on the common where they met, they diſtributed and poſted up the moſt ſeditious and inflammatory hand-bills.—After ſome obſervations from Lord Suffolk and the Duke of Bedford, who deprecated the preſſing a meaſure of ſuch magnitude through the Houſe without ſufficient

evidence or diſcuſſion, and from Lords Moira and Hobart, who, in giving credit to the Committee through their report to juſtify the bill, it went through a Committee.

TUESDAY, 28.—The Bill to prevent Seditious Meetings was read a third time, and paſſed.

THURSDAY, 30.—The Royal aſſent was given, by commiſſion, to the Lottery, Seditious Mutiny, Inkeepers Relief, Duckworth's and Taylor's Divorce, and ſeveral Revenue and private Bills.

FRIDAY, May 1.—Lord Roſſelyn's Bill for relieving Debtors from Impriſonment, went through a Committee.—Lord Moira's Inſolvent Debtors Bill was poſtponed till Wedneſday.

TUESDAY, 5.—In the appeal cauſe M'Michan *v.* Hutchinſon, the Houſe reverſed the interlocutor of the Court of Seſſions.—Lord Warwick, after ſtating ſome inſtances of the vaſt increaſe of the poor, particularly in the pariſh adjoining his reſidence, where in the laſt year the poor increaſed 1700l. beyond the year preceding, and in order to juſtify the meaſures he had adopted, his lordſhip obſerved, that in compliance with the wiſhes of Miniſters, who propoſed to adopt his views, he withdrew his motion for a Committee.

FRIDAY, 8.—Heard counſel in Scotch Appeals.—Campbell's Divorce Bill was poſtponed till Tueſday, on the motion of Lord Auckland; who gave notice, that in conſideration of the aggravated miſconduct of the adultreſs, he would then ſubmit a clauſe to prevent her marrying with the adulterer.—The Inſolvent Debtors' Bill paſſed a Committee; when it was agreed that the bill ſhould extend to perſons in execution previous to the 25th March, whoſe debt did not exceed 1500l.

WEDNESDAY, 13.—On the third reading of Dr. Campbell's Divorce Bill, Lord Auckland moved a clauſe prohibiting the marriage of Mrs. Campbell during the life of Dr. Campbell; and Lord Elden moved another clauſe prohibiting her marriage with her paramour and brother-in-law, Mr. Addiſon, which, after ſome oppoſition from the Duke of Clarence and Lord Mulgrave, were agreed to, and the bill was paſſed.—The further conſideration of Mrs. Addiſon's Divorce Bill was poſtponed till Monday.—Adjourned till Friday.

FRIDAY, 15.—The Duke of Athol preſented a report from the Proviſion Scarcity Committee, recommending as the heſt means to prevent a recurrence of the evil, that the waſte lands generally, but more particularly bogs and marſhes, be encloſed and cultivated; and a bill to this effect was introduced by Lord Carrington, and read a firſt time.—A Meſſage from the King reſpecting a ſubſidy to Portugal was preſented by Lord Hobart, and ordered for conſideration on Monday.

HOUSE OF COMMONS.

MONDAY, April 20.—The Habeas Corpus Suſpenſion, Iriſh Permanent Service, Iriſh Corn Bounty, Lottery, and Cuſtom-Duty Bills, were read a third time, and paſſed.

TUESDAY, 21.—After a deſultory converſation on the Bill for preventing Forgery of Bank Notes, the Houſe was counted out.

WEDNESDAY, 22.—Mr. Tierney moved that the Letter dated the 28th of February, 1800, from the Duke of York to Mr. Dundas, part of which had been read by the latter in his juſtification of the delay in ſending troops to Italy, he produced, in order that he might found thereon a Motion for an Inquiry into the Conduct of the Right Honourable Gentleman, who, he contended, had groſsly deceived and abuſed the Houſe in his repreſentations as to the ſtate of our army.—Meſſrs. Whitbread, Grey, &c. ſpoke to the ſame effect: Meſſrs. Addington, Pitt, Dundas, and Lord Hawkeſbury oppoſed the motion, alledging that it did not furniſh matter for inquiry, and that at the preſent period it might be inexpedient to produce a document of that nature. On a diviſion the numbers were, ayes 45, noes 151.

THURSDAY, 23.—The Iriſh Tea Duty and Coal Bills, and the Malt Damage Bill, were read a third time, and paſſed.

FRIDAY, 24.—The Houſe in a Committee of Supply voted the following ſums, being for half a year's ſervice, namely, from June to December, 1801, excepting the Secret Service-money, of which 35,000l. had been already provided out of 50,000l. the ſum neceſſary for the current year:—

For the Civil Eſtabliſhment of Upper Canada, 7950l. Nova Scotia, 2915l. New Brunſwick in America, 2420l. The Civil Eſtabliſhment of St. John's in America, commonly called Prince Edward's Iſland, 1900l. Cape Breton, 957l. Newfoundland, 1641l. The Bahama Iſlands, 4100l. The Bermudas, or Summer Iſlands, 301l. The Iſland of Dominica, 600l. New South Wales, 7146l. The Superintendance of Aliens for the year 1801, 7620l. Extraordinary Proſecutions relative to Coinage, 2270l. Convicts at New South Wales for three Months, 37,317l. Printing the Journals. Votes, and Bills of the Houſe of Commons, 10,000l. Keeping in repair the Military Roads and Bridges in North Britain, 5000l. The probable amounts of Bills for New South Wales for the current year, 25,000l. The Commiſſions, &c. under the 7th Article of the American Treaty, 3570l. Advances from the Civil Liſt, purſuant to Addreſſes of the Houſe, 21,808l. French Emigrants, Domingo Sufferers, and American Loyaliſts, 28,702l. Secret Service Money, 15,000l. Additional Allowance to the Clerks in Office for Auditing the Public Accounts, 2483l. Other Services, 500l. A Plan for the Improvement of the Port of London, 253l. Continuing an Index to the Journals of the Houſe of Lords, 116l. Allowances, diſcharging the Advances to Clerks in Public Offices, 3,560l. Expences incurred in the Parliamentary Office, for the Seſſions 1800, 374l. Bills on account of New South Wales, for the year 1800, 6756l. Ditto, for the year 1801, 7901l. Payment of Artificers and Workmen employed in both Houſes of Parliament, 2000l. The Expences attendant on the Committee appointed to inquire into the State of the Priſon in Coldbath-Fields, 175l. Medicines ſent to New South Wales, 895l. Payment of Intereſt on Exchequer Bills, 354,846l. Diſcount allowed on Prompt Payment of the Loan, 177,330l. Intereſt of Advances made by the Bank of England, 17,518. Fees to the Clerks and Officers of the Commiſſioners for the Reduction of the National Debt, 902l. Compenſation for extra trouble to the Clerks employed in making out Exchequer Bills, 1000l. References made by John Wilmot, Eſq. relative to a Maritime Clauſe, 132l. The Board of Agriculture for 1801, 3000l. Veterinary College, 1500l. Britiſh Forts and Settlements on the Coaſt of Africa, 20,000l. Additional Field Officers of Militia in Ireland, 11,167l.

Theſe Reſolutions were ſeverally carried, as alſo the pay and clothing of the Militia, and likewiſe for an allowance to Subalterns of the Militia in time of peace, and to Adjutants, Serjeant-majors, and Serjeants of diſembodied Militia regiments.

MONDAY, 27.—The Houſe, in a Committee of Ways and Means, reſolved to allow a drawback of 4s. 5d. Iriſh, per gallon, on the exportation of ſpirits diſtilled from ſugar in Ireland. The Houſe, in a Committee on the Iriſh Importation Bill, reſolved that a bounty of 1¼d. per pound be allowed on all Britiſh and foreign hops imported into Ireland.—The bill authorzing the importation of Rice into Ireland, direct from India, was read a third time and paſſed.

TUESDAY, 28.—Several reports were received and orders made for the production of papers relative to the finances of Ireland, and its courts of law: and a private Committee was appointed to conſider a Petition preſented by the planters of Grenada for indemnification for the damage they ſuſtained during the inſurrection in that iſland.

WEDNESDAY, 29.—Mr. Corry propoſed a countervailing duty of 2s. per gallon on ſpirits extracted from ſugar imported into this country from Ire-

land.—Leave given to Sir W. Scott to bring in a bill to regulate the Prize Courts in the Weſt Indies and America.

THURSDAY, 30.—The report of the Committee of Ways and Means was received and agreed to, and bills ordered.—The Bill for preventing Forgery on the Bank of England, after a deſultory converſation of ſome length, paſſed a Committee, as did the Sea Elephant, Oil, and Iriſh Hop Duty Bills.

FRIDAY, May 1.—Several motions made by Mr. Jones for the production of more papers relating to the Convention of El Ariſch were negatived. The Chancellor of the Exchequer, obſerving on the hardſhips of Members o Parliament from Ireland, being ſubject to their proportion of the taxes in both countries, obtained leave to bring in a bill to exempt them from the payment of all ſuch taxes in this country, during the Seſſions of Parliament, and for twenty days after, as could be ſeparated from the ſeveral articles of conſumption, as the duties on ſervants, horſes, hair-powder, carriages, armorial bearings and income; as alſo that their plate, books, &c. at preſent ſubject to duties, ſhould be allowed to paſs free.—Mr. Addington hoped that all diſtinction between the two conntries, in regard to their inhabitants in general, may ſhortly be done away; but conceived the objects in queſtion, whoſe reſidence here was not altogether optional, moſt deſerving conſideration.—The Iriſh Diſtillery, Corn Importation, and Hop Importation Bills, were ſeverally committed.

MONDAY 4.—Lord Temple brought forward his motion reſpecting the ineligibility of perſons in holy orders ſitting in that Houſe. His lordſhip, with great perſpicuity, detailed the ſeveral documents collected by the Committee referring to this point; and moved, that a new writ be iſſued for Old Sarum, in the room of the Rev. J. H. Tooke.—The Chancellor of the Exchequer thought, from the difference of opinion which ſubſiſted on the preſent queſtion, that inſtead of proſecuting it, a bill ſhould be brought in declaratory of the principle which was by all admitted, that perſons in holy orders ſhould not ſit in that Houſe. He entered into the hiſtory of the convocations, from whence this ineligibility aroſe; and though this aſſembly had ceaſed, yet from the circumſtance of one kind of the livings in the kingdom being in the gift of the Crown, it might obtain an undue an influence in Parliament if clergymen, looking forward to its patronage, ſhould be eligible to ſeats in that Houſe. He moved the previous queſtion.—Mr. H. Tooke, Mr. Fox, and Mr. Grey replied to the arguments of Lord Temple and Mr. Addington, and after a debate of conſiderable length, the Houſe divided, for the previous queſtion 94, againſt it 53; majority 41: conſequently, Mr. Tooke retains his ſeat during the preſent parliament.

TUESDAY, 5.—Leave granted for Bills making it neceſſary that a Notary Public in future ſhould ſerve on articled clerkſhip for five years; and for exempting the Iriſh Members attending the Imperial Parliament from the payment of certain duties.

WEDNESDAY, 6.—Leave given for the introduction of a Bill declaring Perſons in Holy Orders ineligible to a Seat in the Commons Houſe of Parliament.—The Sea Elephant Oil Bill was paſſed.

THURSDAY, 7.—The Bill for preventing Perſons in Holy Orders from ſitting in that Houſe was read a firſt time, and ordered to be printed.—Several notices of motions were given, and reports of Committees made.

FRIDAY, 8.—After ſome obſervations from Sir F. Burdett, Mr. H. Tooke, and Mr. Harcourt, the Clergy's Excluſion Bill was read a ſecond time.—The Bill for preventing Forgery of Country Bank Notes was introduced and read: and the Militia Pay and Cloathing, Bank of England Forgery, and Clergy Horſe Duty Exemption Bills were ſeverally paſſed.

MONDAY, 11.—After a deſultory converſation, Mr. Dickenſon withdrew his bill for relieving the Clergy from the penalties of non-reſidence, it being underſtood that the Biſhops had ſome effectual regulations on the ſubject in

contemplation.—The Report of the Committee relative to Encloſures was agreed to.—The Subaltern Officers' Allowance Bill was read a third time and paſſed, and in a Committeee of the Houſe it was reſolved, that the collection of the duties on wearing hair-powder and armorial bearings be tranſferred from the Commiſſioners of Stamps to thoſe of Taxes.

TUESDAY, 12.—The Houſe, in a Committee, reſolved, that Portugal wines ſhould be permitted to be landed in this kingdom previous to the duty being paid, and that they ſhould be bonded.—On the motion of Sir W. Yonge, a Bill for obtaining a Return of the Monies aſſeſſed for the Relief of the Poor throughout the Kingdom for ten years ending Eaſter 1801, was ordered to be prepared.

WEDNESDAY, 13.—The Militia Serjeant-major's Allowance Bill was read a third time and paſſed.—Mr. Corry, in a Committee of Iriſh Ways and Means, moved the following Stamp Duties, to terminate on the 25th of March, 1802, to ſupply the intereſt, &c. on the late loan:—Firſt, an Additional Duty on Bonds, not exceeding 100l. 1s. 6d.—above 100l. and not exceeding 200l. 2s. 6d.—above 200l and not exceeding 500l. 5s.—above 500l. and not exceeding 1000l. 10s.—above 1000l. and not exceeding 2000l. an additional duty of 15s.—above 2000l. and not exceeding 5000l. 1l.—and above 5000l. an additional duty of 2l.—Secondly, on Bills of Exchange above 20l. and not exceeding 30l. 3d.—above 30l. and not exceeding 100l. 6d.—exceeding 100l. 1s.—to be paid in Iriſh currency. And, thirdly, on Policies of Inſurance, a duty of 3s. 6d. on thoſe above 100l. The Clergy Ineligibility Bill paſſed the Committee, after a converſation of ſome length, during which the Chancellor of the Exchequer propoſed that the new Bill ſhould not hold reference to the ſeat of any Member at preſent in that Houſe.

THURSDAY, 16.—The Bills for allowing the Royal Exchange and London Aſſurance Companies to inſure Property on Rivers and Canals, were read a third time and paſſed.—The Bill for preventing Forgery on Country Banks was withdrawn, in order to correct ſome inaccuracies in its preamble.—Meſſrs. Dent, Jones, Buxton, and Robſon oppoſed the Bill, as giving encouragement to a ſyſtem of private ſpeculation, which was productive of the moſt miſchievous conſequences.—Mr. Corry, alluding to the country bankers in Ireland, obſerved that they had gone to ſuch extent that ſomething muſt be done for that part of the empire, as he was ſure they would not be able to pay the notes they had iſſued. He promiſed in the next Seſſion of Parliament, to bring forward ſome meaſure to correct the evil: and in the interim hoped that the bankers would get in as much of their floating paper as poſſible, and leave was given to bring in one amended.

MESSAGE from the KING.—Lord Hawkeſbury brought up the following meſſage from the King:

"G. R.—His Majeſty, taking into conſideration the danger with which his faithful ally, the Queen of Portugal, is now threatened by a formidable invaſion on the part of France, and conſidering the very great advantages which the commerce of this country derives from its connection with Portugal, and relying upon the zeal and attachment of his faithful Commons, his Majeſty recommends to that Houſe to conſider the propriety of granting an aid to the Queen of Portugal, to enable her to defend her dominions againſt the threatened invaſion."

Lord Hawkeſbury ſaid, he ſhould not take up the time of the Houſe on the ſubject at preſent; he ſhould ſimply move, "That it be referred to a Committee of Supply on Monday next, to conſider of granting to his Majeſty the ſum of 300,000l. to be given to the Queen of Portugal, by way of ſubſidy, to be paid by ſuch inſtalments as circumſtances may require."

The Chancellor of the Exchequer moved for a Committee to conſider the the expediency of aboliſhing the duty on ſalt, and for ſubſtituting ſome other tax its ſtead.—The Committee is to report from time to time, although Mr. Addington apprehended that nothing could be done on the ſubject till the

next Seſſion of Parliament.—The Clergy Ineligibility Bill paſſed the Committeee.

FRIDAY, 17.—The Chancellor of the Exchequer gave notice, that on Monday he ſhould move an Addreſs of Thanks to General Hutchinſon and the Army in Egypt, and a Monument to Sir A. Abercromby.—Mr. Addington likewiſe preſented to the Houſe certain papers relative to the detention of Ruſſian, Swediſh, and Daniſh ſhips, and expreſſed his intention to move for a Bill of indemnity for the inferior agents who had ſeized thoſe veſſels; and in reply to ſome inquiries from Meſſrs. Nicholls and Jones, reſpecting the ſtate of his Majeſty's health, he declared that from his own obſervation, and from the teſtimony of others, he was enabled to pronounce the rumours which had prevailed on the ſubject, to have been ſcandalous and falſe.

Commercial Affairs.

THE tin mines lately opened on Prince of Wales's Iſland have been uncommonly productive, and great quantities of ore have been exported to the Continent of India.

The produce of the Income Tax for the year ended 5th April, 1801, was, by Commiſſioners for general Purpoſes and Commiſſioners of Appeal, 4,348,313l.—by Commercial Commiſſioners, 1,394,830l.—amount of voluntary contributions in lieu of the duty, 79,591l. 19s. 4d.—Total 5,822,741l. 19s. 4d.—About one fifth of the ſum aſſeſſed by the Commercial Commiſſioners ariſes from property not derived from trade.

Letters from Peterſburgh of the 7th, and others from the Ruſſian frontiers of the 16th, happily confirm the removal of the ſequeſtration on Britiſh property, and the diſmiſſal of the commiſſion of liquidation.

The Iriſh linen trade, which, in a material degree, in conſequence of the rapacity of ſome of the principal dealers in that article, was on the decline, is again ſtarting forward. It appears by the late Cuſtom-houſe returns that the houſe of Richard Darling, of Dublin, in one day, entered thirty thouſand pieces of linen for exportation. This article, which, from having yielded 75 per cent. profit, could not, a few months ſince, obtain a market at prime coſt, is likely again to give food to the moſt populous part of the ſiſter country.

The following has been preſented to the Houſe of Commons, of the value of all exports from Great Britain, for three years, ending the 5th of Jan. 1801; diſtinguiſhing the value of Britiſh produce and manufactures from the value of Foreign articles exported:—

	Britiſh Manufactures			Foreign Articles.			Total.		
Year ending	£.	s.	d.	£.	s.	d.	£.	s.	d.
Jan. 5, 1799 -	19,672,503	0	9	13,719,274	13	10	33,591,777	14	8
——— 1800 -	24,0 4,213	0	10	11,907,116	3	11	35,991,329	4	9
——— 1801 -	24,411,067	12	8	17,106,145	11	3	41,577,217	3	11

In conſequence of the repreſentations of the Supercargoes at Canton, ſome ſevere examples have been made of thoſe perſons who appear to have been in the habits of impoſing on the Company, by filling their cheſts with duſt and rubbiſh inſtead of good teas, a practice which they had carried to great exceſs.

The price of hams has lately experienced a ſingular depreſſion; fine Weſtphalia hams, a few days ſince, ſold to the retailers at 8d. per lb. and at Blandford, and many towns in the Weſt, the beſt hams are now ſelling at 6d. per lb.

Admiral Parker has directed that all ſhips carrying corn and proviſions for Norway, ſhall be permitted to go even without paſſes.

A large importation of an article intended as a ſubſtitute for hemp is expected in the Eaſt India ſhips which are to return this ſeaſon. If it anſwers

it is ſaid the province of Bengal is capable of ſupplying our whole marine cordage, little inferior to that grown in Ruſſia.

The public houſes within the Bills of Mortality are 5,200, of which 900 are in Surry. The conſumption of ale and porter in theſe houſes is 1,134,147 barrels, value 2,495,961l. Three millions of gallons of gin are alſo conſumed, which coſts nearly 1,000,000l. in all about 3,500,000l. — of which 3,000,000 at leaſt comes out of the pockets of the poor, and which has been eſtimated at about 28l. for each family.

The exchange between London and Dublin at preſent amounts to 14 per cent. which makes a loſs of between 5 and 6 per cent. on every 100l. remitted from Ireland to this country.

The revenue of the Poſt Office has increaſed in the following manner:— 1761, 36,400; 1764, 46,400; 1765, 88,100; 1766, 101,400; 1773, 149,400; 1776, 165,000. It then ſunk till 1784, when it was 177,400; in 1789 it was 360,000; 1790, 361,000; 1791, 325,000; 1792, 340,000; 1793, 384,000; 1794, 392,000; 1795, 421,000; 1796, 442,000; 1797, 500,000; 1798, 632,000; 1799, 683,000; 1800, 699,000l.

CANALS.—The advantages of Canal Navigation have contributed to advance the trade of Great Britain ſcarcely leſs than the uſe of mill-machinery, in ſpinning and weaving, to the improvement of its ſtaple manufactures.

The CANAL between the THAMES and MEDWAY is already, in great part, cut. Of its important utility no one can fail to be ſenſible, who reflects, that, for freights between the one and the other of theſe rivers, the difficulties and delay of the circuitous navigation by the Nore will, in conſequence of its formation, be avoided.

The GRAND SURRY CANAL BILL received laſt week the ſanction of Parliament. Perhaps a more important undertaking of this nature was never attempted in theſe kingdoms. By a cut from the river Thames, at Vauxhall, to Deptford, it peninſulates the ſouth part of the metropolis; collateral cuts extend to Rotherhithe. Peckham, Horſemonger-lane, and Blackman-ſtreet. His Majeſty's Dock-yards and Victualling-office at Deptford will alſo have the advantage of communications with this Grand Canal. The upper part of the Canal, nearly in a ſouth-weſt direction from Kennington Common, paſſes by Stockwell, Clapham, Upper and Lower Tooting, to Mitcham. It will be, hereafter, continued to Portſmouth. The Navy and Admiralty Boards, aware of the great utility of this Canal towards the moſt eſſential conveniences of the equipments of the Navy, no leſs than to the commerce of the metropolis, have given it their moſt zealous encouragement. It will now be ſpeedily executed, under the direction of that very able Civil Engineer who was the author of the plan.

We have, at the ſame time, the pleaſure to ſtate, that the works for the Tunnel under the Thames are now in ſucceſsful progreſs. The foundation for the Engine-houſe was laſt week happily laid.

Agriculture.

AGRICULTURAL REPORT, *for* MAY, 1801.

THE very dry weather has rather injured the late ſown grain on all ſtrong clays and burning ſoils, but the wheats on all lands, where the ſoil is rich, look very well, and are likely to prove good crops, but where the land is weak, the crops, we fear, will prove rather light. However, all kinds of grain in the fens look at preſent particularly well, and ſhould we be favoured with only a few ſeaſonable ſhowers, the crops muſt prove extremely good, where they are uninjured by the wire-worm.

Both natural and artificial graſſes grow very ſlowly on almoſt all high lands, and except we are favoured with plentiful ſhowers the crops of hay muſt prove very light, as muſt alſo cheeſe, butter, beef, and mutton.

Through the immenſe importation grain has been lower in the London and moſt country markets for ſeveral weeks, but has again rather advanced in price, and except the importation prove prodigious, we fear it will not be lower ſoon.

Immenſe quantities of potatoes are planted in every diſtrict, and are likely in general to be good crops.

The dry ſeaſon has been very favourable for cleaning the fallows for wheat and turnips, and will enable the fen farmers (if it continues) to burn as much land for coleſeed as they deſire. The dry weather cauſes the gardens in general to yield but light crops, and the froſty nights and dry days have greatly injured the early fruit, but ſhould we have ſome ſeaſonable ſhowers of rain, the cyder orchards will yield good crops.

The hops appear rather favourable, but ſhould the dry weather continue, the crops in general, we fear, will be very light.

Butchers meat has varied but little in price for ſeveral weeks, but if the weather continue dry we fear it will ultimately advance in price.

Chatteris, May 25, 1801. J. SCOTT.

Since this Report has been written, every unfavourable obſtacle is removed, by the moſt ſeaſonable ſhowers we ever remember. EDITORS.

By an account publiſhed by Lord Somerville, it appears, that between the year 1700 and the year 1773 only eight hundred and thirty-one Bills for Incloſure paſſed the Houſes of Parliament; but ſo great was the ſpirit of improvement in the next ſeven years, that twelve hundred and eighty paſſed.

At Lincoln fair laſt week, good horſes were ſcarce and dear; beaſts were abundant, but the ſale heavy, at very reduced prices.

A Farmer at Wem, in Herefordſhire, on Tueſday undertook for a wager of ſix guineas to ſow 4370 quarts of oats on 23 acres of land, in a huſbandman like manner in twelve hours.

A great ploughing match took place on the 3d of April, in Clackmannonſhire. The Farmers' Club there met in a field of forty-two acres, having a ſlope to the north and ſouth. Having caſt lots for the ſeveral pieces of ground, and each man taken his ſtation, on a ſignal all the ploughs, to the number of 108, ſtarted from the ſummit of the line, one half going ſouth, the other north. The ploughing was executed in the beſt manner, and premiums were adjudged for the beſt performance. After the match the Society dined together, and after the dinner, among others, gave the following appropriate toaſt, "To that happy day when the deſolating ſword ſhall be beat into a plough-ſhare."

The Board of Agriculture came laſt week to the following very important reſolution:

Reſolved, "That it is the opinion of the Board that every acre of waſte and uncultivated land ſhould be brought as ſoon as may be into a ſtate of cultivation, and that every impediment ſhould be removed in the beſt manner poſſible."

An ewe, belonging to Mr. Patrick, of Borough Fen, in Lincolnſhire, about a month ſince yeaned four lambs, all of which ſhe has reared; and a ewe, belonging to Mr. T. Sherlock, of Redbuan, early in the preſent ſeaſon yeaned a lamb, and exactly a month after yeaned another: both are now living.

A Scotch ewe, belonging to Mr. J. Aſquith, of Steeton, Yorkſhire, has yeaned two lambs this ſeaſon, the one a fortnight after the other: they are both alive.

Potatoes were laſt weeſt ſold at Warrington, at half a guinea the load of 240lb.

In Devonſhire, Worceſterſhire, and Herefordſhire, the apple-trees are of uncommon promiſe, and cyder has fallen to two guineas per hogſhead.

The Dumfries Paper of Wedneſday ſays, "On Thurſday laſt a ſtack of wheat was pulled on the farm of Ross-hall, in this neighbourhood, which had the ear fully formed. Such an inſtance of early vegetation is not remembered in the memory of the oldeſt perſon living. The wheat and other crops look remarkably well."

Manufactures and Useful Arts.

BY the annual returns of Magiſtrates of the Pontefract ſeſſions, it appears that in the Weſt Riding of Yorkſhire, during the laſt year, 85,851 pieces, or 9,263,966 yards of broad cloth, and 169,262 pieces, or 6,014,420 yards of narrow cloth, were milled, being an increaſe of 457,278 yards of broad, and a decreaſe of 362,857 yards of narrow cloths within the years.

In France they have eſtabliſhed a grand hydraulic machine for ſpinning cotton; above two hundred ſpindles are put in motion by a water wheel. A proof that our machines will ſoon be in full activity on the Continent.

Mr. Greatrex, of Mancheſter, has obtained a patent for a new invented proceſs of dying and ſtaining colours on cloth. For black he takes tar and iron liquor, and adds to each gallon three quarters of a pound of fine flour, which he forms into a paſte. This he puts into a tub, forming part of a rolling preſs machine, and paſſes the goods through the paſte between two rollers, which diffuſes it equally and completely over the whole piece. The goods are then dried in a hot-houſe, waſhed in a bath of cow dung and water, ſcalding hot, and then waſhed in clean water. Afterwards they are dried in a bath of ſumach madder, and other common dying materials. The improvement conſiſts in fixing the mordant by means of a rolling preſs.

Mr. Whitby, of Collumpton, has obtained a patent for a bark mill of a new conſtruction, which will grind bark without drying, at all times of the year, and of any fineneſs.

Mr. Tickle, of Whitechaple, Brewer, has alſo obtained a patent for a method of more effectually diſſolving and extracting the virtues of hops, malt, and other vegetable ſubſtances.

Fine Arts, Sciences, and Literature.

THE Eaſt India Company have received twelve bricks from Hella, the ſpot on which the ancient geographers tell us Babylon was ſituated. Theſe bricks have characters engraven on them ſimilar to thoſe called *Perſepolitan*. The Eaſt India Company propoſe having theſe characters engraved.

Editions of Strabo's Geography, Polybius, Pocock's Hiſtory of the Arabs, Homer, Eſchines, Demoſthenes, Herodotus, and ſome other ancient authors, are now printing at the Clarendon Preſs.

The following is the number of objects diſtributed by the Muſeum of Natural Hiſtory at Paris among the central ſchools of France, being moſtly duplicates:—Live vegetables, 16,408; Packets of Seeds, 98,412; Dried Vegetables, 15,211; Birds, Quadrupeds, Fiſhes, 2,297; Shells, Madrefores, and Inſects, 27,396; Minerals, 12,056; Petrefactions and Foſſils, 1,277.

Natural Phoenomena.

A Letter from Hartford, America, 23d March, says, "The rains have been so heavy that Connecticut River swelled higher than it has been since the year 1692, and swept away many bridges, mills, dwelling-houses, &c. several families were taken by boats from the widows of the upper stories of their houses, and every thing wears the appearance of horror and desolation.

Some severe shocks of an earthquake was lately felt at Arcot.

The wife of A. Gilmore, of Pill, in Gloucestershire, was brought to bed of a daughter on the 28th of April, and on the 1st of May was delivered of two more daughters, all of whom, with the mother, are likely to do well.

An hen, the property of Mr. Staveley, of Thormanby, Yorkshire, last week laid three eggs within an hour and a quarter; they were each perfect, but varied in size, one being of ordinary dimensions, the other as large as a magpie's, and the third no larger than a bullfinch's egg.

There is now living in Tharston, near Wymondham, in Norfolk, a woman named Jane Rolp, who is 107 years of age, and retains the use of all her faculties. On Monday se'nnight she walked two miles to dine with an old friend.

On Wednesday, during a thunder storm, the lightning set fire to a barn at Bulwick, in Northamptonshire, and a large oak-tree was rent to pieces, and parts thrown a considerable distance.

Commercial Law Cases,

EXCHEQUER.

MORRIS and OTHERS, *v.* THE WARDEN and CANONS of ST. PAUL's. The question was, whether the inhabitants of the parish of St. Gregory were to pay 2s. 9d. or a less sum in the pound, on the rent of their houses, in lieu of tythes.

KING's BENCH.

HOLLOWAY, *v.* WHALEY.—A motion had been made to set aside the proceedings in this cause. It was an action brought against the defendant as a gambler, for the penalties for gaming against the statute. The Court ordered the proceedings to be set aside for irregularity, but did not order that the writ should be set aside. The Defendant's Counsel insisted that the writ had not been properly served, and therefore should be set aside also. The writ had been given to his servant, after her admitting the defendant to have been at home. The plaintiff's Counsel, Mr. Garrow, observed, that the defendant had acknowledged the service of the writ, by tampering with the person who served it, and bribing him with money and a suit of cloaths, not to swear to the service, as in that case it could not be proved at all, for that his servant could neither read or write. Lord Kenyon said, as the defendant was one of those shy birds whom it was difficult to serve personally, the service upon his servant, under the circumstances of the case, was sufficient.

CAREY, *v.* REES.—This was a motion for a new trial in an action brought by the plaintiff against Rees and Longman, for pirating a Book of Roads; the facts had been proved upon the trial, and a verdict had been given for the plaintiff.—The argument on which it was moved to be set aside, was, that the plaintiff's was not an original work, but compiled from Mr. Paterson's Book of Roads. It however appeared, that Carey's book

contained ſuch improvements, that the Court felt itſelf bound to protect him in his copy-right—The rule was refuſed.

A criminal information was moved for againſt Mr. Warren and Mr. Dunn, two Juſtices of Lynn, for conſpiring, with one George Smith, to divert the courſe of juſtice. It appeaaed that an Exciſe Officer, of the name of Rowland, had made a very conſiderable ſeizure of ſmuggled goods in the houſe of one Cooke, a Publican. In conſequence of this, Mr. Clement, Agent for the Commiſſioners of Exciſe, laid a regular information before Mr. Warren and Mr. Dunn, and attended on the day appointed for hearing and determining the ſame, but was much ſurprized at learning from Smith, the Juſtice's Clerk, that he was Attorney for the defendant. Conceiving it extraordinary that the Juſtice's Clerk ſhould be the defendant's Attorney, he deſired the hearing might be deferred; but the Juſtices refuſed, and proceeded to examine the Exciſe Officer, and, upon no other ground than his ſtating that he expected ſome remuneration for his vigilance, they refuſed to admit his evidence, and diſcharged the defendant. Lord Kenyon cenſured the conduct of the Juſtices, and granted a rule to ſhew cauſe againſt them.

A motion was made for a criminal information againſt Lord ———, for detaining a perſon who had been improperly taken up in the ſtreets of Portſmouth as a ſailor, and afterwards, at a late hour, conveying him to the Mayor's houſe, and inſulting the Mayor, Sir John Carter, becauſe he refuſed to get out of bed to take charge of the perſon ſo detained, whom he knew to be an inhabitant of the place.—A rule to ſhew cauſe was granted againſt his Lordſhip.

APPRENTICE.—It was determined, after argument, that an apprentice to a Keeler on the river Tyne was not protected from being impreſſed.

LEE, *v.* LINGUARD.—A motion was made to ſet aſide an execution as illegally made, but the Judges were of opinion that the levy was legal.

WRIT of INQUIRY.—The holder of a bill of exchange brought an action againſt Mr. Taylor, of the Opera houſe, and on an execution the Sheriff returned *nulla bona*. An action was brought on this as a falſe return againſt the Sheriff, and judgment was allowed to go by default. The Jury gave a ſhilling damages. The caſe was this, the Sheriffs conceived the boxes of the Opera-houſe to be merely a parcel of boards, but the plaintiff contended as they were let for a conſiderable ſum, that ſum ought to have been ſecured them. Lord Kenyon thought a new writ of inquiry ſhould be granted.

BANKRUPTCIES AND DIVIDENDS,

Announced between the 20th of April and the 20th of May 1801.

BAKRUPTCIES,

ALDRIGDE, R. Nailſworth, clothier. (Vizard, Gray's Inn
Ashcroft, W. Knowſley, earthen-ware manufacturer. (Leigh, New Bridge ſtreet
Allgood, J. Gloucester, mercer. (Williams, Sion College
Albers, J. T. Green Lettuce lane, merchant. (Willett and Annesley, Finſbury ſquare
Andrews, J. Manchester, and T. Maſon, Swithin's lane, merchants. (S. Edge, Manchester
Bennett, R. S. Houndſditch, hatter. (Williams, Sion College
Bellamy, T. and J. Birmingham, Japanners. (Devon and Tooke, Gray's inn
Baron, J. Blackley, manufacturer. (Vandercom and Light, Bush lane
Birkby, W. Brookhouſes, card maker. (Battye, Chancery lane
Briſtow, F. Haymarket, ſhoemaker. (Mangnall, Warwick ſquare
Bull, E. Groveſnor mews, hackney woman. (Illingworth, Frith ſtreet
Berriman, J. Brewer ſtreet, florift. (Evans, Lime ſtreet
Barnes, T. Fleet ſtreet, ſtationer. (Pugh, Bartlett's buildings
Budde, W. Jun. Chennies ſtreet, carpenter. (Swain and Stevens, Old Jewry
Beck, R. Glouceſter, innkeeper. (Shephard, Bath
Chatterton, T. and E. Wells, Brenchley, hat manufacturers. (Smith, Barber's hall
Cooper, T. Sharpleſs, ſhopkeeper. (Meddowcroft, Gray's inn
Cooper, H. Sandwich, linen draper. (Brown, Little Friday ſtreet
Collier, J. Chorley, cotton manufacturer. (Windle, Bartlett's buildings
Clark, J. Shoe lane, carpenter. (Taylor, Gray's inn
Clay, B. Huddersfield, linen draper. (Sykes, New inn
Cortis, T. and J. Grimſby, grocers. (Ellis, Curſitor ſtreet
Comper, J. Chicheſter, linen draper. (Darby, Chicheſter
Coveney, E. St. Mary hill, victualler. (Vandercom and Light, Bush lane
Chown, W. Higham Mills, miller. (Maule and Sweeting, Huntingdon
Dacre, G. Huſſelbury, dealer. (Alcock, Canterbury ſquare
Dunſterville, T. Eaſtfinehouſe, ſhipwright. (Kelly, Plymouth
Dowbiggen, W. Lancaſter, merchant. (Maſon and Wilſon, Lancaſter
D'Oliveira, V. Princes ſtreet, merchant. (Vandercom and Light, Bush lane
Dale, H. Leeds, grocer. (Barber and Browne, Ferter lane
Farrow, T. York, dealer in ſpirits. (Jackſon, Kingſton
Fenner, T. Weſt Wycombe, ſhopkeeper. (Edmunds, Lincon's inn
Fincham, W. Tottenham Court road, glaſs ſeller. (Flaſhman, and Pringle, Ely place
Gidden, T. Abingdon, currier. (Blagrave, Saliſbury ſtreet
Garbers, J. C. H. Liverpool, merchant. (Norris, Liverpool
Gazeley, S. Great Queen ſtreet, merchant. (Illingworth, Frith ſtreet

Griffiths, J. Fleetmarket, vintner. (Rhodes, Cooke, and Handly, St. James's Walk
Hodgſon, J. New Road St. George's in the Eaſt, merchant. (Leverſedge, Fore ſtreet
Hudſon, J. Derby, wine merchant. [Ward and Locket, Derby
Healy, J. Layſtall ſtreet, brewer. [Pearce and Dixon, Paternoſter Row
Hancock, T. Kingſwood, clothier. [Lewis and James, Gray's inn
Holmes, W. Pudſey, dryſalter. (Battye, Chancery lane
Hook, J. and W. Turner, Bridgefoot, Weſtminſter, coal merchants. (Blunt, Old Pay Office
Haxhall, R. Eton, corn dealer. (Kent and Mears, Clifford's Inn
Marriſon, J. Sunderland, ſhip owner. (Grey, Gray's inn
Holden, R. Birmingham, gun maker. [Hore and Care, Eſſex ſtreet
Ibbett, J. Crown ſtreet, ſhoemaker. (Glynes and Robinſon, Burr ſtreet
Iſrael, R. Heneage lane, butcher. (Bexwill, Little George ſtreet
Julian, T. Old Brentford, ſcrivener. (Saunders, Brentford Butts
Jackſon, J. Manchester, muſlin manufacturer. (Cheſhyre and Walker, Manchester
Jackſon, N. M. and G. Bartlet, Gerard ſtreet, ironmonger. [Jackſon, Fenchurch Buildings
Kemp, W. Knareſborough, flax dreſſer. (Lyon and Collyer, Bedford Row
Kayill, J. Great St. Helen's, ſcrivener. (Chelton, Greenville ſtreet
Lincker, J. Liverpool, woollen draper. (Smart, Stapler's Inn
Lloyd, D. Oxford ſtreet, ſilverſmith. [Deſſe, Bream's Buildings
Lloyd, Audlem, grocer. [Philpot, Red Lion ſquare
Lazard F. Manchester, liquor merchant (Ellis, Curſitor ſtreet
Metcalf, S. and J. Golden Leg court, hoſier. (Jones, Salisbury ſquare
Medd, R. Kingſton on Hull, timber merchant. (Allen and Exley, Furnival's inn
Marks, H. High ſtreet, St. Giles's, ſilverſmith. Freame, Little St. Martin's lane
Maſon, J. Holborn, hoſier. (Dyne, Serjeant's inn
Morville, G. Lancaſter, merchant. [Maſon and Wilſon, Lancaſter
Moorhouſe, jun. J. Bolton le Moors, cotton manufacturer. [Windle, Bartlett's Buildings
Partington, J. Fen court, merchant. (Thomas, Fen court
Phillips, D. Oxford ſtreet, ſtable keeper. (Burgoyne and Fielder, Duke ſtreet, Groſvenor ſquare
Porter, W. Kidderminſter, baker. (Lisle and Robins, Hatton Garden
Perrins, W. Bedworth, maltſter. (Nicholls, Great Ruſſel ſtreet
Parker, R. Argyle ſtreet, fiſhmonger. (Johnſon, Southampton court
Patience, T. New Bond ſtreet. ſtone maſon. (Gatty, Angel court,
Robinſon, G. Hunſleet, cloth merchant. [Sykes, New inn
Redward, W. Walworth, carpenter. [Williams, Blackman ſtreet
Robins, F. Deretend, merchant. (Kinderly and Long, Symond's inn
Riley, G. London Road, Southwark, printer. (Brewer, Cow lane
Rencher, D. Carey lane, ribbon and fancy hat manufacturer. (Lee, Addle ſtreet
Scoffield, W. Portſea, taylor.
Scoffield, J. Baſinghall ſtreet, factor. (Foy, Glouceſter ſtreet, Whitechapel
Stonehewer, W. and W. Davies, Manchester, fuſtian manufacturers. [Duckworth and Chippendale, Manchester
Thompſon, W. Alton, ſilk weaver. (Twynham, Temple
Thompſon, W. Great Portland ſtreet, coal merchant. (Rearſon, Temple
Trath, S. Oxford ſtreet, grocer. [Young, Mitten, and Pewnall, Doctor's Commons
Williams, J. Quebec ſtreet, baker. [Wilthew, Lower Seymour ſtreet.
Webb, A. Great Tower ſtreet, and St. Mary Axe, merchant. (Noy and Templer, Minciing lane
Winterbourn, T. and C. Gardner, Carey ſtreet, taylors. (Jennings, Great Shire lane
Wood, J. Manchester, machine maker. (Swale, Temple
Wienholt, J. B. London, merchant. (Blunt, Old Pay Office
Went. S. jun. Liverpool, merchant. [Braindreth, Liverpool
Wilks, Jos. formerly of Crutchedfriars, now of Hamburgh, merchant. Smith and Son, Baſinghall ſtreet.

DIVIDENDS ANNOUNCED.

Ayton, J. Charing Croſs, Staffordſhire, warehouſeman, May 23
Adamſon, J. Cateaton ſtreet, linen draper, June 2
Ainſworth, J. Turton, Whitſter, June 9
Bradbury, S. Baſinghall ſtreet, broker. June 1
Birkitt, W. Liverpool, builder, May 18
Bamer, T. P. New court, merchant, May 23
Bethman, S. M. Turnwheel lane, merchant, June 6
Beumont, T. Wakefield, ironmonger, June 1
Biggs, P. ſen. Fiſh ſtreet hill, undertaker, June 6
Betſon, R. Birmingham, factor, June 1
Burford, J. Holborn Bridge, linen draper, June 26
Coutts, J. Liverpool, merchant, May 18
Cox, J. ſen. Shoe lane, jeweller, May 23
Caſe, R. Bury, banker, May 19
Cheſter, N. Butcher Row, Ratcliffe, carpenter, May 23
Coles, J. jun. Fenton ſtreet, brandy merchant, June 9
Carlels, J. Bow lane, warehouſeman, May 16
Coope, H. Preſtwich, carpenter, June 9
Culliford, T. and G. Barrow, Strand, muſical inſtrument makers, June 9
Drury, T. and R. Gilbert, Bread ſtreet, ribbon weaver, June 9
Elkrick, J. Great Bolton, cotton manufacturer, June 10
Fielder, J. and H. Railton, Newgate ſtreet, linen draper, June 2
Faulkner, S. L. Dillon, and J. Hurt, Bolton le Moors, cotton ſpinners, May 27
Flitch, J. Elbow lane, wine merchant, June 6
Friend, J. Bermondſey ſtreet, fellmonger, June 9
Fearon, H. St. Mary Axe, factor, June 6
French, D. Wellingborough, mercer, June 9
Groom, J. Brentford, baker, May 23
Gueſt, H. Blackman ſtreet, oilman, June 6
Grigg, W. Wickham Market, linen draper, June 6
Gosford, R. H. Pitfield ſtreet, baker, June 9
Gowan, G. Great Ormond ſtreet, merchant, June 30
Holmes, R. Little Bampton, dealer, May 19
Holmes, E. Foſter lane, jeweller, June 6
Harper, W. and J. Willon, Budge Row, merchants, May 16
Hare, M. Kingſton, grocer, May 28
Hawkins, J. ſen. and jun. Rotherhithe Wall, boat builders, June 3
Higgens, S. Strand, Pocket-book maker, June 6.
Hedenburgh, E. C. and D. Bolleau, Kingſton, merchants, June 10
Johnſon, M. and J. Angmering, ſhopkeeper, May 19
Johnſon, R. Old City Chambers, merchant, June 6
Johnſon, H Purley, merchant, June 9
Jones, E. Sharrard ſtreet, victualler, June 9
Jacob, J. Eye, brewer, June 9
Lawſon, S. Rotherhithe, ſhip carver, May 16
Liveſley, S. Liverpool, bricklayer, May 22
Longman J. and F. F. Broderip, Cheapſide, muſical inſtrument makers, May 23
Law, J. Strand, tallow chandler, May 23
Lewis, T. Abingdon, hemp manufacturer, June 2
Lane, J. T. Fraſer, and T. Boylſton, Nicholas lane, merchants, June 2
Long, G. Malden, ſhopkeeper, June 20
Martin, R. Briſtol, mariner, May 18
Mills, T. Saddleworth, clothier, May 20
Morris, D. Burſlem, potter, May 28
Mead, H. South Brixham, dealer, May 28
Maſon, W. jun. Richmond, grocer, June 1
Morrell, N. Newton on Ouſe, dealer, May 20
Mullett, T. St. Pancras, vintner, June 9
Maſon, H. Baldock, baker, June 1
Miller, W. Burr ſtreet, merchant, June 13 (final)
Nutt, J. Leiceſter, grocer, May 12
Newton, W. Tideſwell, vintner, June 1
Plaſtons, J. Worceſter, dealer, May 29
Pomier, J. Berner's ſtreet, jeweller, June 2
Pacey, T. Church ſtreet, Rotherhithe, mariner, June 13
Parken P. Farnham, brandy merchant, June 1
Poole, J. E. and T. Shrigley, Burſlem, potters, June 6
Priddle, T. G. Snowhill, cheeſemonger, June 13. (final)
Payne, T. Hounſlow, butcher, June 9. (final)
Roſeyeare, J. Lincombe and Widcombe, maſon, May 18
Richardſon, J. Holborn, linen draper, July 4
Richards, J. Goſport, baker, June 3
Sweatman, W. Briſtol, linen draper, May 23
Sharman, J. and J. Hotham, Cannon ſtreet, grocer, May 19
Sikes, S. Huddersfield, and A. Hide, Aſhton under Line, Bankers, May 23
Sikes, S. Huddersfield, banker. May 20 and 21
Strahan, J. Ipſwich, corn merchant, 21
Slater, G. Liverpool, merchant, May 28
Schramm, T. Rochdale, merchant, June 4
Smith, J. Bartholomew Cloſe, drug grinder, June 6
Smith, J. and S. King, Newgate ſtreet, woollen drapers, June 9
Sprange, J. Tunbridge Wells, bookſeller, June 6
Trelegon, J. Strand, ſilverſmith. May 23
Towſey, G. Litcomb Regis, miller, June 6
Tankard, J. Birmingham, factor, June 1
Tankard, J. and R. Birmingham, factors, June 1
Tate, W. ſen. and jun. Findon, timber merchants, June 26
Vine, J. Holborn, linen draper, May 23
Vaughan, T. G. Briſtol, timber merchant, June 3
Wimpenny, J. Honley, clothier, May 18
Willon, T. Cheſhunt, maltſter, May 16
Wells, S. Cheltenham, linen drapers, May 23
White, H. Witham, taylor, May 16
Watkins, C. Monmouth, breeches maker, May 25
Whitchurch, R. Cambridge, brewer May 30
Webſter, H. Fleet ſtreet, ſtationer, May 12
Whalley, T. and J. W. Whalley, Friday ſtreet, warehouſemen, June 9
Wallis, W. Fore ſtreet, Limehouſe, grocer, June 23
Wilkinſon, E. and W. Dudley, Charing Croſs, vintners, June 2
Weſton, J. Chamberwell, bricklayer, June 13
Watſon, S. Cleadon, merchant, June 12 (final)
Watſon, W. Oxford ſtreet, ſilk mercer, June 9
Youdan, S. Brook's Market, corn chandler, June 9
Young, J. Stow Market, grocer, June 2
Young, G. and G. Glennie, Budge Row, merchants June 27.

LONDON PRICES of GRAIN for *May* 1801.

MARK-LANE, *Monday, May* 4.

We had a pretty good ſupply of Engliſh Corn, with a further arrival of Foreigners, which cauſed our market for Wheat to be exceeding dull in ſale, and about 15s. per quarter cheaper than laſt Monday.—Fine runs from Kent, Eſſex, and Suffolk, went off from 115s. to 120s. and fine foreign from 95s. to 100s.—Rye is rather cheaper.—Their being a good deal of Barley, cauſed that article to be full 3s. per quarter lower.—Malt is ſomething cheaper, 75s. being the top price.—Oats are 2s. per quarter cheaper from laſt Monday.—White and Grey Peas are very dull in ſale, and cheaper.—Flour is 10s. per ſack cheaper ſince laſt Monday.

Price of Grain, on board Ship, as under:

Wheat	90s to 115s	Superfine	—s	Short Small Oats	20s to 30s
Fine ditto	120s to 0s	Norfolk Barley	20s to 58s	Fine ditto	38s to —s
Dantzic	89s to 100s	Fine	60s to —s	Polands ditto	22s to 32s
Rye	67s to 78s	Malt	60s to 75s	Fine	40s to —s
Suffolk Barley	30s to 60s	White Peas	90s to 92s	Small Beans	48s to 54s
Fine ditto	to 66s	Grey ditto	56s to 58s	Fine	46s to 50s

Monday, May 11.

We had a pretty good arrival of Wheat this day at market, with a great deal of the old ſtock left laſt week, which cauſed our market to decline in price full 15s. per quarter ſince this day ſe'nnight. Fine runs from Eſſex and Suffolk went off from 100s. to 105s. per quarter, and foreign from 80s. to 90s.—Rye is 2s. per quarter lower.—Barley is full 3s. per qr. cheaper, 64s. being the beſt price.—Malt the ſame as laſt week.—Oats the ſame as laſt Monday, but briſker ſale.—White and Grey Peaſe are full 10s. per quarter lower.—Tick and Small Beans are 2s. per quarter cheaper.—Flour is 10s. per ſack cheaper ſince laſt Monday.

Price of Grain, on board Ship, as under:

Wheat	85s to 90s	Superfine	—s.	Short ſmall Oats	20s to 30s
Fine ditto	105s to 0s	Norfolk Barley	29s to 59s	Fine ditto	37s to —s
Dantzic	80s to 60s	Fine	59s to —s	Polands ditto	22s to 33s
Rye	50s to 70s	Malt	63s to 75s	Fine	38s to —s
Suffolk Barley	30s to 60s	White Peas	75s to 80s	Small Beans	50s to 56s
Fine ditto	64s	Grey Peas	44as to 8s	Tick ditto	42s to 48s

Monday, May 18.

Notwithſtanding we had a very large arrival of Wheat laſt week, there being a great quantity of buyers from all parts of the kingdom on Friday and this day, cauſed that article to advance full 15s. per quarter ſince this day ſe'nnight. Fine runs from Kent, Eſſex, and Suffolk, went off from 115s. to 120s. and fine Dantzic from 100s. to 110s.—Rye the ſame as laſt week.—Barley is full 3s. per quarter dearer than this day ſe'nnight.—Malt is much the ſame as laſt week.—Oats are full 4s. per quarter dearer.—In White Peaſe no alteration.—Grey ditto, are 2s. per quarter dearer. In Tick and Small Beans, no alteration.—Flour is 10s. per ſack dearer.

Price of Grain, on board Ship, as under:

Wheat	80s. to 95s.	Norfolk Barley	29s. to 58s.	Fine ditto	38s. to —s.
Fine ditto	120s. to —s.	Fine	59s. to —s.	Poland ditto	26s. to 33s.
Dantzic	90s to 100s	Malt	63s. to 70s.	Fine	42s. to —s.
Rye	65s. to 67s.	White Peas	75s. to 80s.	Small Beans	50s to 56s.
Suffolk Barley	36s. to 60s.	Grey ditto	44s. to 48s.	Tick ditto	40s to 48s
Fine ditto	to 64s.	Fine	to 50s.	Fine	—s. to 50s.
Superfine	67s.	Short Small Oats	20s. to 30s.		

Monday, May 25.

We had a good ſupply of Foreign Corn as well as Engliſh, which cauſed our Wheat Market to be full 10s. per quarter lower ſince this day ſe'nnight.—Rye is full 4s.—Barley and Malt full 3s. per quarter lower.—Oats of very fine quality retained laſt Monday's prices.—In White and Grey Peaſe no alteration.—Tick and Small Beans 1s. per quarter dearer.—Flour the ſame as laſt week.

Price of Grain, on board Ship, as under:

Wheat	85s to 95s	Norfolk Barley	29s to 58s	Fine ditto	38s to —s
Prime ditto	100s to 120s	Fine	59s to —s	Polands ditto	22s to 33s
Dantzic	100s to 110s	Malt	63s to 70s	Fine	42s to —s
Rye	50s to 66s	White Peaſe	75s to 80s	Small Beans	50s to 57s
Suffolk Barley	30s to 60s	Grey do.	44s to 48s	Tick do.	42s to 48s
Fine do.	—s to 64s	Fine	50	Fine	51s
Superfine	65s	Short Small Oats	20s to 30s		

Return of Wheat in Mark-lane, from April 20th to April 25th inclusive.
Total, 5368 quarters.—— Average, 139s. 4¼d.—5s. 9¾d. lower than last return.

Return of the Prices of Flour, from 18th to April 24th inclusive.
Total, 9720 sacks.——Average, 120s. 10¾d.—4s. 3¼d. lower than last return.
Hence results the Price of BREAD.
Eighty Quartern loaves at 1s 8d———In favour of the Baker 5¼d.

Imports of Grain last Week.
Wheat 17,440—Rye 120—Rye 1,350—Barley 2,980 qrs.—Clover Seed 350 cwt.
Oats 14570—Peaſe 1280—Beans 600 qrs.

Price of Hops.

	Bags.		Pockets.
Kent —	9l —s to 11l 11s	Kent —	10l 10s to 13l 10s.
Suſſex —	8l 15s to 10l 10s	Suſſex —	10l —s to 12l 10s.
Eſſex —	9l —s to 11l —s	Farnham —	8l —s to 18l —s.

Seeds.

Red Clover (per cwt.)	20s to 112s	Cinque Foil, ditto	50s to 60s
White Clover, ditto	30s to 105s	White Muſtard Seed (p. b.)	12s to 14s
Trefoil, ditto	5s to 48s	Brown do. do.	14s to 14s 6d
Turnip, (per buſhel)	2os to 42s	Canary Seed do. do.	10s to 12s
Rye Graſs, (per quarter)	15s to 50s	Rape Seed, (per laſt)	45l to 52l

Meat. Smithfield, Monday, May 4. (*To ſink the offal. per ſtone of 8lb.*

Beef —	4s 8d to 6s 4d	Veal —	5s od to 7s 6d
Mutton —	5s 8d to 6s 6d	Pork —	6s od to 6s 6d

Lamb 6s to 8s
Head of Cattle this day)—Beaſts about 2,200—Sheep and Lambs 7,000.

Price of Leather.

Butts, 50 to 56lb. each	16½d to 18½d	Calf Skins, 50 to 70lb. *p.* doz.	22d to 26d
Ditto, 60 to 64lb. each	19d to 23d	Ditto, 70 to 80lb. do.	22d to 25d
Merchants Backs	17d to 17½d	Ditto, 30 to 40lb. do.	18d to 20d
Dreſſing Hides —	13d to 14½d	Sm. Seals (Greenland)	30d to 34d *p.* lb.
Fine Coach Hides	15½d to 17d	Large do.	100s to 140s *p.* doz.
Crop Hides for cutting	17d to 19d	Tanned Horſe Hides	15s to 26s *p.* hide.
Flat Ordinary —	15d to 16½d	Goat Skins	21s to 66s *p.* doz.

Raw Hides.

Hides (per ſtone)	3s od to 3s 2d	Heavy Calf —	10s 6d each
Middling —	2s 4d to 2s 8d	Light Calf —	7d lb.
Ordinary —	2s od to 2s 2d	Sheep Skins (Shearlings —	6d
	Lamb Skins 2s od to 3s od		

Price of Tallow.

St. James's Market —	3s 9d	Ruſſia ditto (Soap) —	os to os
Clare Market —	3s 10d	Melting Stuff —	56s to 57s
Whitechapel Market —	3s 9d	Ditto rough —	35s to 36s
Per ſtone of 8lb.—Average	3s 9½d	Graves — —	19s
Town Tallow —	65s 6d	Good Dregs	12s
Ruſſia ditto (Candles) —	os os	YellowSoap, 80s--Mottled, 88s.--Curd, 92s	

Prices of Hay and Straw on Saturday, May 2.

St. James's—Hay	5l 5s to 6l 6s	Average 5l 15s 6d
Straw	2l 8s to 3l 3s	—— 2l 15s od
Whitech.—Hay	4l 4s to 5l 16s	—— 5l os od
Clover	6l os to 6l 16s	—— 6l 8s od
Straw	1l 10s to 2l 10s	—— 2l os od

Newbury, April 30.

Wheat —— ——	100s to 148s	Oats —— ——	23s to 47s
Barley —— ——	54s to 78s	Beans —— ——	74s to 78

Return of Wheat in Mark-lane, from 27th of April to May 2d inclusive.
Total 8,226 Quarters—Average 118s 7½d —20s. 8¾d. lower than last return.

Return of the Prices of Flour, from April 25th, to May 1st inclusive.
Total 9225 Sacks——Average 109s 8d.——11s 2¾d lower than last return.

Hence results the Price of BREAD.
Quartern loaf 1s 6¼d 12½ 8d

Imports of Grain last Week.

Wheat 42,560—Rye 2810—Barley 4420 qrs.—Clover Seed 3000 cwt.—Oats 13,620—Peaſe 1190—Beans 110 qrs.

Price of Hops.

	Bags.		Pockets.	
Kent —	9l —s to 12l —s	Kent —	11l —s to 14l 14s	
Suſſex	9l —s to 11l —s	Suſſex —	10l —s to 12l —s	
Eſſex —	9l —s to 12l —s	Farnham	8l —s to 18l —s	

Seeds.

Red Clover, (per cwt.)	30s to 100s	Cinque Foil, (per quarter)	50s to 60s
White Clover, ditto	30s to 105s	White Muſtard-ſeed, p. bu.	12s to 14s
Trefoil, ditto	5s to 40s	Brown, ditto do.	14s to 14s 6d
Turnip, (per buſhel)	28s to 42s	Canary ſeed do.	10s to 12s
Rye Graſs (per quarter)	18s to 45s	Rapeſeed, per laſt	45l to 52l

Meat. Smithfield. Monday, May 11. (To ſink the offal. per ſtone of 8lb.

Beef	4s od to 6s od	Veal . .	5s 4d to 7s od
Mutton	5s 4d to 6s od	Pork . .	6s od to 6s 6d
	Lamb, -	5s 4d to 7s 6d	

Head of Cattle this day)——Beaſts about 2000—Sheep and Lambs 8,500.

Price of Leather.

Butts, 50 to 56lb. each	17d to 19d	Calf Skins. 50 to 70lb. *p.* doz.	21d to 26d
Ditto, 60 to 66lb. each	20d to 22d	Ditto, 70 to 80lb. do.	22d to 25d
Merchants' Backs	17½ to 18½d	Ditto, 30 to 40lb. do.	18d to 21d
Dreſſing Hides	13d to 15d	Sm. Seals (Greenland)	30d to 34d *p.* lb.
Fine Coach Hides	15d to 16½d	Large do	100s to 140s *p.* doz.
Crop Hides for cutting	17d to 19d	Tanned Horſe Hides	15s to 26s *p.* hide.
Flat Ordinary . .	15d to 17d	Goat Skins	21s to 66s *p.* doz.

Raw Hides.

Hides (per ſtone)	3s od to 0s od	Heavy Calf —	10s 6d each
Middling —	2s 4d to 2s 6d	Light Calf —	7d per lb.
Ordinary —	2s od to 2s 2d	Sheep Skins (Shearlings)	7d
	Lamb ſkins —	1s 9d to 2s 9s	

Price of Tallow.

St. James's Market —	3s 7½d	Ruſſia ditto (Soap) .	62s —s
Clare Market — —	0s od	Melting ſtuff . .	56s —s
Whitechapel Market —	3s 7d	Ditto rough . .	—s —s
Per ſtone of 8lb.—Average	3s 7	Graves . .	19s —s
Town Tallow .	62s —s	Good Dregs . .	13s —s
Ruſſia ditto (Candles)	65s —s	Yellow Soap, 76s-Mottled 84s—Curd 88s	

Candles, per dozen, 12s—Molds, 13s

Prices of Hay and Straw on Sat. May 9.

St. James's—Hay	4l 14s to 6l 6s	Average	5l 10s 3d
Straw	1l 16s to 3l 0s	——	2l 8s 0d
Whitechapel—Hay	4l 4s to 5l 16s	——	5l 0s 0d
Clover	6l 6s to 6l 10s	——	6l 5s 0d
Straw	2l 2s to 2l 14s	——	2l 8s 0d

Return of Wheat in Mark-lane, from 4th of May, to the 9th of May, inclusive.

Total 9834 Quarters——Average 100s. 9½d.——17s. 10d. lower than last return.

Return of the Price of Flour, from 2d May, to 8th May, inclusive:

Total 11514 Sacks.———Average 99s 6¼d.—10s 1¾d lower than last return.

Hence results the Price of BREAD.

Eighty Quartern loaves 1s 3¾d———In favour of the Baker 1¾d.

Imports of Grain last Week.

Wheat 39840 qrs.—Rye 30—Barley 2290—Clover seed 402 cwt.—Oats 4650—Peaſe 695 qrs.

Price of Hops.

		Bags			Pockets
Kent	—	91 9s to 121 —s	Kent	—	101 15s to 141 14s
Suſſex	—	91 —s to 111 —s	Suſſex	—	101 10s to 131 13s
Eſſex	—	91 —s to 101 10s	Farnham	—	161 —s to 201 —s

Seeds.

Red Clover, (per cwt.)	20s	to 95s	Cinque Foil, ditto	50s	to 60s
White Clover, ditto	20s	to 100s	White Muſtard Seed, p. bu.	12s	to 14s
Trefoil, ditto	5s	to 36s	Brown, ditto do.	14s	to 14s 6d
Turnip, (per buſhel)	30s	to 42s	Canary Seed, do.	10s	to 12s
Rye Graſs, (per quarter)	25s	to 40s	Rape Seed, (per laſt)	40l	to 44l

Meat. Smithfield. Monday, May 18. (To ſink the offal. per ſtone of 8lb.)

Beef	—	4s 8d to 6s od	Veal	—	4s 6d to 6s 4d
Mutton	—	5s 4d to 6s od	Pork	—	5s 8d to 6s 8d

Lamb 6s od to 7s 6d

Head of Cattle this day——Beaſts about 2,200—Sheep and Lambs 8,000

Price of Leather.

Butts, 50 to 56lb. each	17d to 19d	Calf Skins, 50 to 70lb. p. doz.	21d to 26d
Ditto, 60 to 66lb. each	21d to 22d	Ditto, 70 to 80lb. do.	22d to 25d
Merchants Backs	17½d to 18d	Ditto, 30 to 40lb. do.	18d to 21d
Dreſſing Hides —	13d to 15d	Sm. Seals (Greenland)	30d to 33d per lb.
Fine Coach Hides	15d to 17d	Large ditto	90s to 110s doz.
Crop Hides for cutting	17d to 19d	Tanned Horſe Hides	15s to 26s p. hide.
Flat Ordinary —	15½d to 16½d	Goat Skins	21s to 66s p. doz.

Raw Hides.

Hides (per ſt.) ——	3s	od	to	0s	od	Heavy Calf ——	10s 6d each
Middling ——	2s	4d	to	2s	6d	Light Calf ——	7d per lb
Ordinary ——	2s	od	to	2s	2d		

Sheep Skins (Shearlings) 7d

Lamb Skins —— 2s od to 2s 9d

Price of Tallow.

St. James's Market —	3s 6d	Ruſſia ditto (Soap) —	62s to —s
Clare Market —	3s 5d	Melting Stuff —	56s —
Whitechapel Market —	3s 6d	Ditto rough —	—s —
Per ſtone of 8lb.—Average	3s 5½d	Graves —	19s —
Town Tallow —	61s	Good Dregs —	13s —
Ruſſia ditto (Candles)	5s to —s od	Yellow Soap, 76s.-Mottled 84s.--Curd 88s.	

Candles, *p.* doz. 12s—Molds, 13s.

Prices of Hay and Straw on Saturday, May 16.

St. James's—Hay	5l —s od to 6l os	Average	5l 10s od
Straw	2l 8s od to 2l 17s	——	2l 12s 6d
White-ch.—Hay	4l 10s to 5l 18s	——	5l 4s od
Clover	6l os to 6l 14s	——	6l 7s od
Straw	1l 14s to 2l 8s	——	2l 1s od

Return of Wheat in Mark-lane, from the 11th May to 16th inclusive.

Total 23 102 Quarters——Average 91s. 4d.——9s 5½d. lower than last return.

Return of the Prices of Flour, from 9th May to 15th inclusive.

Total 12693 Sacks———Average 89s 6¼d——10s 0d lower than last return.

Hence results the Price of BREAD.

Quartern loaf 1s 3½d.—In favour of the Baker—1s 9¾d.

Imports of Grain last Week.

Wheat - - -	10620 qrs.	Oats - -	11 qrs
Barley - -	30	Peas - - - -	470
Clover-seed - -	44 cwt	Flour - - 20	19836

Price of Hops.

	Bags.		Pockets	
Kent	10l 0s to 12l 12s	Kent	11l —s to 15l 15s	
Suffex -	9l 10s to 11l 18s	Suffex -	11l —s to 14l 10s	
Eſſex -	0l 0s to 10l 0s	Farnham ——	14l —s to 18l 18s	

Seeds.

Red Clover, (per cwt.)	20s to 95s	Cinque Foil, ditto	50s to 60s
White Clover, ditto	20s to 100s	White Muſtard Seed, p. bu.	12s to 14s 0d
Trefoil ditto	5s to 36s	Brown, ditto do.	14s to 14s 6d
Turnip, (per buſhel)	30s to 42s	Canary Seed do.	10s to 12s
Rye Graſs, (per quarter)	25s to 40s	Rape-ſeed, (per laſt)	40l to 44l

Meat. Smithfield, Monday, May 25, (To ſink the offal—per ſtone of 8lb.)

Beef ——	4s 4d to 5s 6d	Veal ——	5s 0d to 6s 4d
Mutton ——	4s 8d to 5s 4d	Pork ——	5s 4d to 6s 0d
Lamb ——	5s 8d to 7s		

Head of Cattle this day—Beaſts about 2,000—Sheep and Lambs 9,500.

Price of Leather.

Butts, 50 to 56lb. each	17d to 19d	Calf Skins, 50 to 70lb. *p.* doz.	21d to 26d
Ditto, 60 to 66lb. each	21d to 22d	Ditto, 70 to 80lb. do.	22d to 25d
Merchants Backs	17½d to 18½d	Ditto, 30 to 40lb. do.	18d to 21d
Dreſſing Hides	13½d to 15½d	Sm. Seals (Greenland)	30d to 33d *p.* lb.
Fine Coach Hides	15½d to 17d	Large do.	84s to 140s doz.
Crop Hides for cutting	17½d to 19½d	Tanned Horſe Hides	15s to 26s *p.* hide.
Flat Ordinary	16d to 17d	Goat Skins	21s to 63s *p.* doz.

Price of Bark, per Load, —l. 0s. to —l. —s.

Raw Hides.

Hides (per ſt.) ——	2s 10d to 3s 0d	Heavy Calf ——	10s 6d each
Middling ——	2s 4d to 2s 6d	Light Calf ——	7d per lb.
Ordinary ——	2s 0d to 0s 0d		

Sheep Skins (Shearlings) - 8d

Lamb Skins 2s 0d - to 2s. 9d

Price of Tallow.

St. James's Market —	3s 6d	Ruſſia ditto (Soap) —	62s to —s
Clare Market —	3s 6d	Melting Stuff	52s —s
Whitechapel Market —	3s 5½d	Ditto rough ——	36s —s
Per ſtone of 8lb —Average	3s 6d	Graves	19s to—s
Town Tallow —	61s 0d	Good Dregs —	13s
Ruſſia ditto (Candles)	64s to —s	Yellow Soap 76s Mottled 84s Curd 88s	

Candles per Doz. 11s.—Molds, 12s

Prices of Hay and Straw on Saturday May 23.

St. James's—Hay	5l 0s to 6l 6s	Average	5l 13s 0d
Straw	1l 19s to 2l 17s 0d	——	2l 8s 0d
Whitechap.—Hay	4l 10s to 5l 12s 0d	——	5l 1s
Clover	6l 0s to 6l 10s 0d	——	6l 5s 0d
Straw	2l 2s to 2l 12s	——	2l 1s

Reading, May 2

Wheat —	98s 0d to 160s 0d	Oats —	24s 0d to 46s 0d
New —	—s 0d to —s 0d	Beans —	47s 0d to 64s 0d
Barley —	36s 0d to 72s 0d	Peſe —	46s 0d to 58s 0d

AVERAGE PRICES OF CORN, by the quarter of eight Winchester bushels: And of OATMEAL, per boll, of 140 pounds avoirdupois.

From the Returns received in the Week, ending MAY 16, 1801.

COUNTIES INLAND.

COUNTIES.	Wheat.		Rye.		Barley.		Oats.		Beans.		Peaſe.		Oatmeal.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
Middleſex	110	8	90	0	55	0	36	1	49	11	63	9		
Surry	130	6			57	6	36	4	56	0	50	0		
Hertford	97	0			52	6	37	6	67	6	66	3		
Bedford	107	1			55	6	34	0	56	0				
Huntingdon	113	11			67	10	31	6	51	11				
Northampton	97	10			62	8	29	4	50	0	55	0		
Rutland	100	0			70	0	40	0	70	0			76	4
Leiceſter	111	2	94	0	73	10	35	11	70	7	110	0	73	2
Nottingham	114	8	90	0	73	0	38	10	95	0				
Derby	129	8			72	0	41	2	77	2			64	0
Stafford	139	11			80	6	48	3	87	6			69	2
Salop	148	7			92	0	45	5			87	1	110	3
Hereford	152	5	108	8	87	4	46	4	83	2	81	6	118	8
Worceſter	144	5			91	7	45	7	82	7	88	5		
Warwick	144	0			93	1	47	11	80	8	99	0	87	11
Wilts	127	1			70	8	37	10	74	3	78	0		
Berks	109	6			53	6	39	10	62	0	71	0		
Oxford	115	8			68	5	40	0	63	9	71	0		
Bucks	114	4			67	6	38	9	65	6	68	0		
Montgomery	164	9	128	0	107	2	40	0					89	1
Brecon	153	7			96	1	41	3					89	1
Radnor	147	4			96	10	40	3					125	0

Maritime Counties.

Eſſex	100	8	70	6	52	8	34	4	54	0	39	6		
Kent	106	6			39	6	30	9	48	3	65	0		
Suſſex	112	7			56	0	34	6						
Suffolk	114	0			42	10	30	6	46	0	62	10	103	4
Cambridge	119	7			43	9	21	1	42	0				
Norfolk	104	8			35	6	27	10	44	0				
Lincoln	104	8	72	0	69	4	28	2	58	0				
York	111	5			67	11	34	3	72	7			84	0
Durham	131	7	75	2			40	7						
Northumberland	108	8	92	0	64	4	36	2						
Cumberland	136	6	98	2	83	9	55	2						
Weſtmorland	131	3	118	0	87	2	48	9					42	5
Lancaſter	125	7			71	8	48	11	75	6			38	4
Cheſter	115	7					47	2					36	5
Flint														
Denbigh	147	9			109	3	50	1					71	4
Angleſea					80	0	40	0						
Carnarvon	133	4			80	0	50	0			120	0	95	5
Merioneth	143	6			100	5	50	0					86	7
Cardigan	125	7			90	11								
Pembroke	134	0			95	4								
Carmarthen	140	6			120	0	33	4						
Glamorgan	153	9					44	10						
Glouceſter	147	5			74	2			72	0	69	4		
Somerſet	159	3			60	0	34	0						
Monmouth	171	1			111	4								
Devon	137	7			58	2	32	7						
Cornwall	119	1			71	4	32	4						
Dorſet	137	1			78	6	40	0						
Hants	122	3			66	10	39	7	74	4				

A TABLE of the Prices of STOCKS in *May*, 1801.

Days	Bank Stock.	3perCt. Red.	3perCt. Consols.	4per Ct. Consol.	5perCt. Navy.	5perCt. Loyalty	Long Ann.	Short Ann.	Imp. 3pCt	Imperial Ann.	Irish 5pCt	Omn	Eng. Lott. Tickets.	Irish Tick.	Consols Acct.
29	165 164	58 3/8 5/8	59 3/8 60 1/8	77 5/8 1/2	95 3/4 1/4	93 3/8	181-16	51-16				6 3/4 8			59 1/2 60 3/8
30		59 1/4 60 1/4	60 1/4 61 1/4	78 3/8 79	96 1/4 96	94 1/4 94	181-1618	51-16 4/8				8 1/2 10			60 1/2 61 1/2
2	168 169 1/4	60 1/4 1/8	61 1/4 61	79 5/8	96 3/4 7/8	95 6/8 94 7/8	181-16	51-16 4/8	59ed	111-16ed	92 1/2	10			
4		60 7/8	61 3/4	79 1/4	96 3/4 7/8	94 5/8 7/8	18 3/4 4 5-16	51-16 4/8		111-16		109 1/2 1/4		8 8 0	61 3/8 61
5	166	59 1/2 3/8	60 1/4	79 7/8	96 1/2 1/8	94 1/2 1/8	18 1/4 8					98 1/4 1/2		8 8 0	60 5/8 1/4
6	167 3/4	59 3/8	60 3/8 1/2	78 3/4 5/8	96 1/8	94 1/4 1/8	183-16	51-16 4/8		111-16 4/8		8 1/2 3/4		8 8 0	60 1/2 3/4
7	168 1/2 169	59 1/2 3/4	60 1/2 1/4	79 7/8	96 1/4 1/2	94 1/4 1/8	18 4/5-16		58 3/8 1/2	11 4/8 3-16	91 1/4	8 3/4 9		8 8 0	
8		59 5/8 3/4	60 5/8 3/4	78 7/8 3/4	96 3/8 1/2	94 3/8 1/4	183-16 1/4	51-16 1/8				9 1/4			60 7/8 61
9		59 3/4 59 7/8	60 3/4 1/8	78 7/8 3/4			18 1/4 5-16		58 3/4	11 1/4	91 3/4	9 1/2		8 8 0	61 1/8
11		59 7/8 3/4	60 7/8 3/4	78 3/4 1/2	96 5/8 3/8	94 3/8 93 7/8	18 3/8 3-16	51-16 1/8				9 1/4		8 8 0	61
12	168 1/4 168	59 3/4 1/2 5/8	60 1/4 1/2 5/8	78 1/4	96 1/2 1/8		183-16	51-16 4/8		11 7/8 3-16		9 3/4		8 8 0	60 5/8 61
13	167 1/2 168	59 1/2 5/8	60 1/2 1/4 5/8	77 1/4	96 1/2 3/4	93 5/8 94	181-16 4/8	51-16 4/8	58 5/8			8 3/4 9		8 8 0	
15	167 1/2 166 1/2	59 1/2 5/8 1/2	60 1/2 1/4 5/8	78 1/4	96 3/4	93 2/8 7/8	181-16 4/8	51-16 4/8	58 5/8 5/8	113-16		8 1/4 8 3/4	15 12 0	8 8 0	
16		59 5/8 1/2 1/4	60 7/8 3/4 1/4	78 1/2 1/8	96 3/4 1/2	94 1/4 94	18 4/8 1/8	51-16 4/8	58 5/8	11 1/4 5-16		9 1/4 8 3/4	15 12 0	8 8 0	60 7/8 3/4
19		60 1/8 60	60 7/8 3/4	78 1/4	96 5/8 7/8	94 1/8 1/4	183-16 1/4	51-16 4/8		115-16 4/8	91 1/4	9 1/4 9	15 12 0	8 8 0	
20		59 7/8 5/8	60 3/4 1/4	78 3/8 1/4	96 1/2 7/8	94 4/8 7/8	18 4/8 18	51-16 4/8	58 5/8 1/8	115-16		98 1/2	15 12 0	8 8 0	61 1/2
21		59 3/4	60 3/4 1/4 5/8	78 3/4 1/4	96 5/8 7/8	93 7/8 94	181-16		58 3/8 1/4 5/8	11 1/4 8		98 3/4	15 12 0	8 8 0	61 1/2
22		59 3/4 7/8	60 3/4 1/4 5/8 7/8	78 3/4 1/2	96 3/4 1/2	93 3/4 94	181-16 4/8	51-16 4/8	58 5/8 3/4 1/4 5/8	11 1/4 5-16		8 3/4 9	15 12 0	8 8 0	
23		59 7/8 60	60 3/4 7/8	78 1/2	96 5/8 1/2	94 4/8 94	18-16 4/8	51-16 4/8	58 5/8 3/4 1/4	11 5/8		9 1/4	15 12 0	8 8 0	61 1/2 3/4
27		59 7/8 60	60 3/4 7/8	78 1/4 3/8	96 3/8 1/2 3/4	94 4/8	181-16 4/8	51-16 4/8	58 5/8 3/4	11 3/8		9	15 12 0	8 8 0	61 3/4
28	167 1/4 167 1/2	60 1/8	60 5/8 61	78 1/4 1/8	96 1/2	94 4/8 94	181-16 4/8		58 5/8 7/8	115-16 3/4		9 1/4 9	15 12 0	8 8 0	

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