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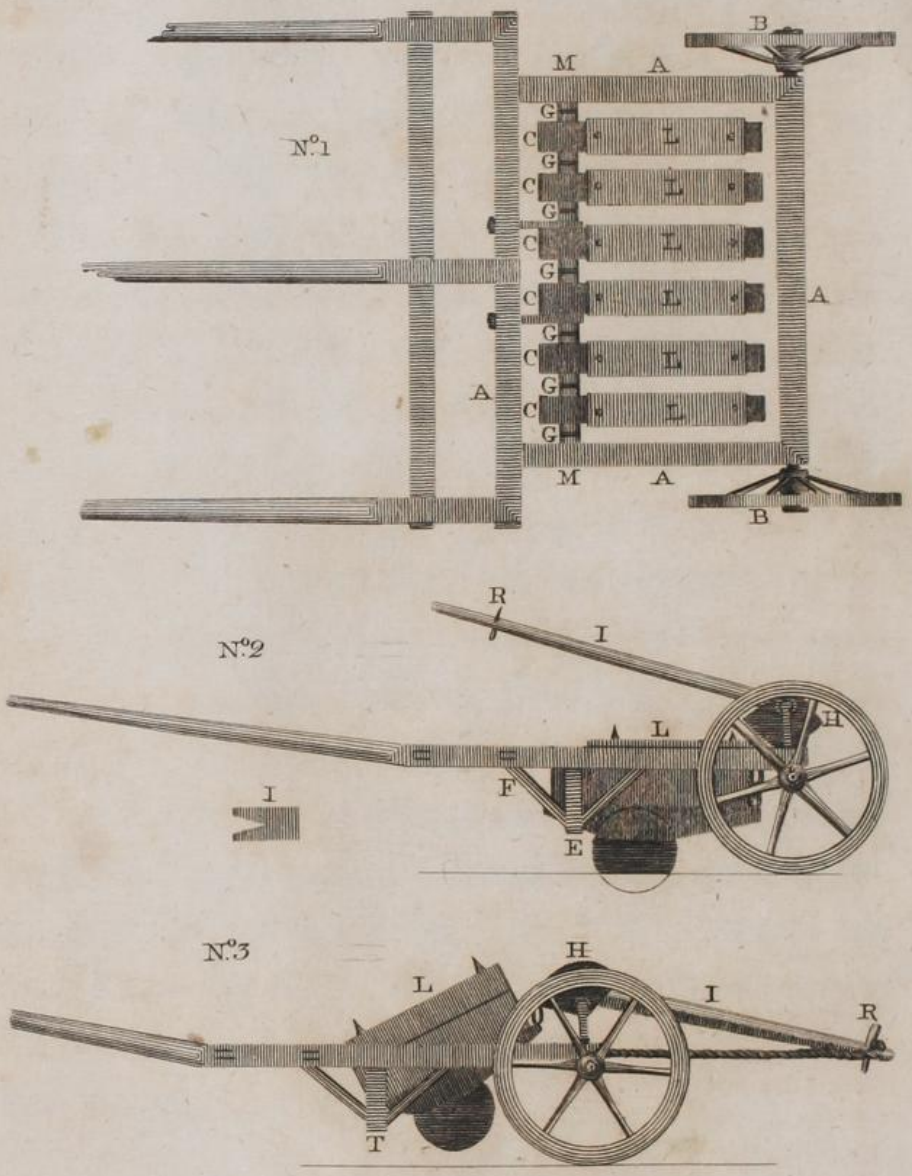
PREFACE.

ANOTHER Volume of this Publication is complete. Its Progreſs has been diſtinguiſhed by the ſame Liberality of Communication from eminent Farmers, Manufacturers, and Merchants, the ſame Preference by enlightened and inquiſitive Readers, the ſame humble Activity and Diligence on the Part of the Publiſher and his Aſſiſtants in the Compilation, which from its Commencement aſſerted to the COMMERCIAL MAGAZINE, the Character of reſpectable and intereſting *Uſefulneſs*. *Vires acquirit eundo.* In continued Publication, it has become ſtill more extenſively known. The Correſpondents, whoſe Contributions give it Value, cannot but be pleaſed to learn, that the Facts and Principles with which they have enriched it, are read as well on the Continent, and in America, as in Great Britain and Ireland; that, at Home and Abroad, they have introduced actual Improvements in not a few of the moſt indiſpenſible of the Arts of Life; that the Continuation of the ſame Series of Communications is deemed of Importance by ſome of the moſt diſcerning Judges in this Country, to the

general Advancement of that Induſtry, the Diffuſion of that Knowledge, and the Excitement of that inventive Ingenuity, upon which human Society depends for its moſt valuable Accommodations.

The Publiſher was extremely reluctant to aſk a higher Price from his Readers, than that for which the Numbers of this Magazine were, till the Commencement of this fourth Volume, ſold. But, the Public have liberally conſidered, that the new Duties upon Paper, the increaſing Dearneſs and Scarcity of Rags, the Riſe in the Wages of Workmen, and the Decreaſe in the relative Value of Money,—ought not to interrupt—ought rather to enliven—thoſe Enquiries, and that Circulation of Knowledge to which alone we are to truſt for the Reſtoration of Plenty and Cheapneſs. Hence, the riſe in the Price of the Commercial Magazine, has not hindered the Extenſion of its Sale. Grateful for ſuch Encouragement, the Publiſher will uſe every Means to render each ſucceſſive Volume more valuable than the laſt.



THE SWARD CUTTER.

Pub. by V. Griffiths, Paternoster Row, Feb.ʸ 1. 1801.

THE
Commercial and Agricultural Magazine.

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Cultivation conſiſts in the diviſion of the ſoil. Many of our readers muſt have experienced with vexation, that ſtiff ſoils are often ſo hardened by a dry ſeaſon, that the uſual implements of Huſbandry are of no avail, and a ſummer-fallow is of very imperfect effect. The immenſe clods which thus lie (the *opprobrium* of Agriculture) can neither be cut, or broken. We are hence induced to preſent to our readers a plate, and deſcription of a *Sward Cutter*, from the publications of the Bath Society. It will cut through the toughſt ſward, and conquer any ſoil; and with the further aid of Mr. Leſter's Patent Harrow (ſee Vol. I), is completely effectual. Mr. Tull's Four-Coultured Plough is apt to be furred up, and beſides can only act on *whole ground*. The clumſy expedient of a ſpiked, or hooped roller, only touches the largeſt clods, paſſing over the reſt. The ſharp wheels of this *Sward-Cutter*, riſing independent of each other, reduce a rugged unſeemly fallow at once to the ſtate of a garden plot.

E.

Deſcription of the Sward-Cutter, Invented by the Hon. Robert Sandilands.

NO. 1. A A, &c. a ſquare frame three feet four inches from the fore to the hind part, by four feet three inches, the breadth of the machine within ſide; the timber (when of fir) four inches ſquare, placed on two wheels B B, three feet diameter, a little more or leſs, (the old fore-wheels of a chaiſe may anſwer the purpoſe) to ſupport the hind part of the machine.

CC, &c. fix ſtrong pieces of wood, called bulls, three feet long, five inches and a half broad, the thickneſs ſix inches at E, No. 2, and tapering to 3 inches at F. Into theſe bulls are fixed the cutting wheels, which are iron, 13 inches diameter, three quarters of an inch thick at the centre (for about an inch diameter), for piercing holes to fix the iron axles in; from that they are to be of ſuch thickneſs, as to allow the edges to be well ſteeled. Theſe wheels are fixed by two bolts going through the bulls, with eyes on one end, for the axles of the wheels to run in, and nuts and ſcrews on the other, to make them very firm by, and ſunk in the bulls, to prevent their interfering with the weights L reſting on them.

GG, in No. 1, are hollow pieces of wood called *thorles*, each three inches and a half long, which incloſe the bolt M, and keep the bulls C C at their proper diſtances, but may be made longer or ſhorter at pleaſure, as the ſward requires to be cut in larger or ſmaller pieces. They are in two pieces, and bound together, and jointed by a ſtrap of leather or cord, which allows them to be readily changed, when the cutting wheels require to be kept at more or leſs diſtance.

The iron bolt, No. 1, goes through two pieces of wood or

iron, ſeven inches long, clear of the wood, ſupported by iron ſtays, fixed to the frame, and through all the bulls, as at T, No. 3. It requires to be ſtrong, as the draught of the horſes terminates there.

H H, No. 2 and 3, a cylinder or ſegment of wood, ſeven inches diameter, called a *rocking-tree*, which goes acroſs the frame, and moves on the pivots fixed into it, one at each end, ſupported by an iron bolt, or piece of wood morticed into the frame, eight inches high, as appears in No. 2 and 3, to which ſix chains or ropes are fixed by hooks, at different diſtances, as you want your cuts, at 9, 8, 7, or 6 inches from one another, and are joined to the end of each bull, in which the cutting wheels run; ſo that when the rocking tree is turned about by the lever I, fixed in the middle of it, all the bulls, with their cutting wheels, are raiſed out of the ground at once, as in No. 3, by which means the machine may be turned, or moved from place to place with great eaſe, without any danger of ſtraining the wheels.

N. B. The rocking-tree is not delineated in No. 1, in order that the plan of the frame may be more eaſily underſtood.

L L, No. 1, 2, 3, are weights of freeſtone, 26 inches long, ſix inches broad, the under one four inches thick, the upper one of the ſame dimenſions, and three inches thick, which will weigh (according to the gravity of the ſtone) about four ſtone the under, and three the upper, all of them having two holes in them, through which iron ſpikes, firmly fixed in the bulls, paſs, in order to keep them ſteady.

When the ground is eaſily cut, the under ſtone, of four ſtone weight may anſwer; when more difficult, the other ſtone of three ſtone weight may be added, ſo that every wheel may have ſeven ſtone weight upon it, which has been found ſufficient for the ſtiffeſt land and tougheſt ſward the machine has ever been tried on. Caſt iron weights will anſwer fully and better, but are more expenſive, which the inventor wiſhes by all means to avoid.

The lever I, No. 2, 3, which ought to be five feet long, muſt have a ſliding rope on it, fixed to the back part of the frame, ſo that when the cutting wheels are all taken out of the ground three or four inches, by the rocking tree's being turned partly round by the lever, the rope is then fixed to it, by putting a loop at the end of the rope over the pin R, No. 3, (it ought to be placed three feet or four inches from the extremity of the lever I,) which keeps all the cutting wheels out of the ground till the machine is turned, and then, by moving the loop of the pin, it ſlips back towards the frame, and the lever is gently let back to its place, as in No. 2, by which the cutting wheels are put into their former poſture, by the weights fixed on the bulls in which they run. The lever may be made of good tough aſh.

P, No. 1, a ſmall bolt of iron, with a hook on one end of it,

(one is ſufficient) to ſtrengthen the bolt M, to be hooked on the centre of it, and joined to the frame by a nut and ſcrew.

The grooves, in which the cutting wheels run, may be covered below at the hinder part with a plate of thin black iron, ſix inches long, three inches broad, having a ſlit in it where the wheels run, to prevent (if found neceſſary) any graſs, weeds, or ſmall ſtones, from filling the grooves, and clogging the wheels, the form of which is ſeen at the letter *i*.

To the frame, as ſeen at No. 1, are fixed (for a double-horſe ſward-cutter) three ſhafts, as in a waggon, of ſuch length, ſtrength, and diſtance from one another, as any workmen may think proper.

For a ſingle-horſe ſward-cutter (which has only four cutting wheels) a pair of ſhafts are uſed, and may make the two ſides of the frame without any joinings. The width of the frame, in proportion to the double-horſe ſward-cutter, is as four to ſix.

It is recommended for a double-horſe ſward-cutter to have eight bulls and wheels, that when it is uſed to reduce hard cloddy ſummer fallow, or land for barley, before the laſt furrow, or even after it, the whole weight, 42 ſtone, employed in ſward-cutting the ſtiffeſt land and tougheſt ſward, may be applied to the eight bulls then at ſix inches from one another: the four ſtone weights to be applied to ſix of the bulls, and two of the three ſtone weights to each of the additional bulls, which it is thought will prove a ſufficient weight for the purpoſe, and will effectually prevent a clod, at any time, of more than ſix inches broad, from eſcaping being broke to pieces.

In the ſame manner, a ſingle-horſe ſward-cutter may have ſix bulls for the above-mentioned purpoſe; the 28 ſtone belonging to it divided thus: the four ſtone weights to four of the bulls, and two of the three ſtone weights to each of the additional bulls. It was thought better to be rather minute here, than trouble the perſon employed in uſing the ſward-cutter with any calculations.

That the inſtrument may come as cheap as poſſible to the public, the inventor is of opinion, that the expence of the two wheels and the iron axle (which is conſiderable) may be ſaved, by joining ſtrongly to the frame at S, No. 3, a piece of wood with a little curve at the extremity of it, reſembling the foot of a ſledge, formerly much uſed in Scotland, to carry in the corn from the field; the part of it reſting on the ground being kept 18 inches (the half diameter of the wheels) from the frame, by a ſtrong ſupport of wood.

As the two outer bulls next the frame are apt to get under it, ſo as to prevent the cutting wheels from being taken out of the ground, a thin ſlip of iron fixed to the inſide of the frame, nearly oppoſite to the back end of the bulls, of convenient length, will b found neceſſary.

A ſhort Account of the Uſes of the Inſtrument called a Sward-Cutter; with the Advantages attending it, and the Manner of uſing it.

The original intention of this machine was to prepare old graſs ground for the plough, by cutting it acroſs the ridges, in the beginning of, or during winter, when the ground is ſoft, in order to anſwer all the purpoſes that Mr. Tull propoſed by his four-coulter plough, ſo ſtrongly recommended by him for bringing graſs ground that has been long reſted into tilth. This the ſward-cutter as been found to do, much more effectually and expeditiouſly, as Mr. Tull's plough, with four coulters, cut the ſward in the ſame direction with the plough, and is liable, from every ſtone, or other obſtruction any of the coulters meet with, to be thrown out of its work altogether, or the inſtrument broke, to which the ſward-cutter, conſiſting of four, ſix, or more cutting wheels, is never liable, from their being entirely independent of one another, cutting the ground acroſs the ridges before plowing, and rendering that operation eaſier to two horſes than it would be to three without its being cut. The furrow being cut acroſs, falls finely from the plough in ſquares of any ſize required, not under ſix inches, in place of long ſlips of tough ſward, ſeldom and imperfectly broke by the four-coultered plough.

Any perſon who reads Mr. Tull's deſcription of his four-coultered plough, and what he propoſed by it, will ſoon ſee the great advantage the ſward-cutter has over it, in producing the deſired effect of bringing old neſty graſs ground into tilth; an object univerſally allowed to be of no ſmall importance to agriculture.

This inſtrument is very fit for preparing ground for burnbating, as it will ſave much hand labour.

It may be properly uſed in croſs-cutting clover, of one or two years ſtanding, to prepare the ground for wheat, if the land be ſtiff and moiſt enough.

It may be applied to cutting and croſs-cutting paſture ground, intended to have manure of any kind put upon it to meliorate the graſs. In this it will far exceed the ſcarificator mentioned in one of Mr. Young's tours, as that inſtrument is liable, as well as the four-coultered plough, to be thrown out of its work when meeting with a ſtone or other interruption. This the ſward-cutter is proof againſt, which is looked on as its greateſt excellence.

In preparing for barley, the ſward-cutter excels a roller of any kind, in reducing the large hard clods in clay land, occaſioned by a ſudden drought, after its being plowed too wet; and it is likewiſe very proper for reducing ſuch clay land, when under a ſummer fallow. In this operation the ſward-cutter is greatly to be preferred to the cutting roller, likewiſe mentioned by Mr. Young in one of his tours, from its wheels being all dependent one on another, ſo that when one is thrown out by a ſtone,

three or four muſt ſhare the ſame fate: beſides, the cutting roller has but ſeven wheels in ſix feet, and the ſward-cutter has ſix in four feet three inches, at nine inches diſtant; and, if neceſſary, may have them ſo near as ſix inches.

After old graſs ground is cut acroſs with the ſward-cutter, and plowed, it has a very uncommon and worklike appearance, from each ſquare turned over by the plough, being raiſed up an inch or two at the ſide laſt moved by the earth-board; ſo that the field, when finiſhed, is all prettily waved, and reſembles a piece of water when blown on by a gentle breeze. By this means a very great deal of the land's ſurface is expoſed to the froſt, and other influences of the air, which cannot fail to have a good effect on it.

Two horſes are ſufficient for the draught of a double-horſe ſward-cutter, and one horſe for a ſingle-horſe one; one man manages the machine and drives the horſes. He begins his operation by firſt meaſuring off twenty or thirty paces from the machine, leſs or more, as he inclines, and there fixes a pole. He then cuts the field croſs, as near at right angles with ridges as he can. When the cutting wheels are paſt the laſt furrow about a yard or ſo, and the machine is upon the utmoſt ridge of the field on which it muſt turn, he muſt ſtop the horſes, then take hold of the lever I, fig. 1, No. 2, and by pulling it to him, he raiſes the cutting wheels out of the ground, which are kept ſo by the loop of the rope being put over the pin R. in the lever I, No. 3, till the machine is turned and brought to its proper place, which is done by meaſuring off the ſame diſtance formerly done on the oppoſite ſide of the field. When the cutting wheels are exactly over the outmoſt furrow, then, on the horſes being ſtopped, ſlip off the pin R, and the lever returned to its former place, as repreſented No. 2, which allows the weights L L, &c. to force the cutting wheels into the ground again. He then goes on till the interval between the firſt and ſecond ſtroke of the machine is all cut. In this manner the field is to be finiſhed, after which you may begin to plow when you pleaſe.——N. B. There muſt be a pole at each ſide of the field.

It is of no conſequence whether the land to be ſward-cut is in crooked ridges, or ſtrait in flat ridges, or in very high-raiſed ridges; ſuch as are frequently met with in Scotland. Be the ſurface ever ſo uneven, it does not ſignify, as the cutting wheels being all independent of one another, are forced by their weights into every furrow or hollow.

One ſward-cutter will cut as much in one day as ſix ploughs will plow.

The land may lie ſeveral months in winter after being ſward-cut when there is no vegetation to make the cuts grow together again before it is plowed; but the ſooner it is plowed after cutting the better, that it may have the benefit of all the winter's froſt, which makes it harrow better and eaſier at ſeed time.

When the ground is harrowed, the harrows ought to go with the waves that appear after plowing, not againſt them, as by that means they are leſs apt to tear up the furrows all cut into ſquares. This need only be attended reſpecting the firſt two *tines*, as they are called, of the harrowing.

Any common wright and ſmith may make the inſtrument. It is very ſtrong, very ſimple, and eaſily managed, and moved from place to place; and if put under cover will laſt many years.

Answer to the Petition of 500,000 Housekeepers.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

TO the jocoſe petition of 500,000 which appeared in your laſt Magazine, whether you may think its irony and arguments worthy of it or not, I beg leave to return a grave and ſober anſwer. This is not the only paper, that we have ſeen of late, which has expreſſed a dread and abhorrence of the object of the Smithfield Society, or of what is by your over-delicate petitioners very indelicately termed "a mania, or a folly-feeding ſyſtem." This ſyſtem they denounce, as an inſtrument of "utter ruin to them and twenty times their number beſides," not becauſe it has a tendency to increaſe the preſent ſcarcity, but as introductory of a "too great and overgrown" abundance of meat, not as cauſing any deficiency in the quantity, but as groſsly deteriorating the quality of our beef. I can aſſure ſuch ſhort ſighted and ungrateful alarmiſts, that all their apprehenſions are founded only on miſconception, and tend only towards evil.

There is much greater danger, at preſent, of our graziers perſevering in the oppoſite extreme, than of their falling into that exceſs which ſeems to excite ſo much the alarm of your petitioners. There is ſtill imminent danger of the London market being ſupplied with ſuch cattle as produce more bone than fat, yea even more bone than beef.

The London market conſumes, weekly, about 2000 fat cattle, (I ſay nothing of ſheep), and it is requiſite that each beaſt ſhall, taking the average, produce 100 ſtone of meat, or the whole number 200,000 ſtone. Whenever this number of cattle fails in giving the quantity of meat required, this deficiency muſt be made up by an addition to the number of cattle, which, of courſe, brings a certain number to market *prematurely*, and is always injurious to the conſumers, in proportion to its extent. When this deficiency is great, (as unfortunately it has been the greater part of every year ſince the year 1794), three oxen are conſtantly murdered in the place of two, and ſometimes the proportion is ſtill more deſtructive than this. Who, in this caſe, let me aſk, are the ſufferers?—Your blind petitioners moſt aſſuredly, with the reſt of the conſumers. The grazier certainly cannot ſuffer loſs, as long as he can receive a fat price for a lean beaſt.

And the breeder will have no good reaſon to complain, that the number of cattle are thus diminiſhed, for the demand for lean cattle, and his price will riſe in proportion to that diminution in number. And I aſſert, without fear of contradiction, that the high price of beef, which we have ſo long and ſo ſeverely felt, has been more owing to a want of lean cattle, than to any want of food to fatten them. What remedy then can we, in the moſt effectual manner, adopt, in order to remove the above evil, and to inſure a plentiful ſupply of meat? Not, ſurely, that of fixing a reſtrictive and deſtructive maximum on the back of every beaſt intended for the London market, as your petitioners require, but by giving to each a fair opportunity of collecting his full load, external and internal, as long as he evidently continues in a thriving ſtate. More than this, the Smithfield Society, I am perſuaded, could not intend or wiſh; and to effect this, nothing more direct and encouraging could be deviſed than the premiums of that Society. But, as your petitioners appear to be ignorant of the objects which it is evident that the ſaid ſociety has in view, I ſhall take the liberty of enumerating a few of the more prominent and valuable of them. The beaſt that appears before them as a candidate for a prize, muſt not be ſuch as is meant to be deſtroyed for the ſake of his bones and ſkin, but is expected to produce the greateſt quantity poſſible of meat, on the ſmalleſt proportion of bone. But it is not quantity merely, and a conſequent reduction of price, that falls under their conſideration, but the quality of the beef likewiſe. They pay due regard to the pleaſure, as well as to the profit, of your unthankful petitioners. They are not ſatisfied with adopting the beſt method to aſcertain what particular breed of cattle has the ſtrongeſt propenſity to fatten, what breed will collect the greateſt quantity of fat meat from the ſmalleſt and cheapeſt quantity of food, but it is their anxious wiſh likewiſe to give every encouragement to that ſpecies of cattle which ſhews the ſtrongeſt inclination to accumulate fat on thoſe particular parts that are in peculiar eſtimation in the London market. Can ſuch purſuits and ſuch inveſtigation merit obloquy or inſult, and from Londoners too? Would it not be more diſcreet and decent to inſure to themſelves quantity, before they venture to pour out pernicious complaints againſt the quality of their butchers' meat? But your petitioners talk to us about loſs of time, and waſte of food, in the proceſs of feeding, as if they were better judges of the value of both, than the grazier, whoſe living depends upon a prudent management of each. Aſk the grazier, and he will tell you, that a beaſt, that has been well fed for twelve months, will conſume ſcarcely half the quantity of food which he had required in his lean ſtate; and will, in his apparently complete condition, if carried on a few months longer, frequently collect more ſubſtance in one of thoſe months than he had accumulated in any two preceding months.

I am deſirous, Mr. Editor, of ſending into the country as powerful an antidote as I can, in order to counteract the dangerous doctrine of your petitioners: for if it is once generally propagated that fat is utterly loathed and cried down in our market, they, who ſupply us with food, and who are alike attentive to our taſte and to their own intereſt, will be ſure to accommodate us with food to our liking; will be ſure to ſend us the fleſhy and bony Lincolnſhire oxen, inſtead of the Hereford or Devonſhire. And I fear that this accommodation will ſoon be extended to other kinds of food, and that we ſhall preſently ſee our bacon arrive without fat; and the next ſtep will be, that even our veniſon will be ſent to us without one cheering ſpark of this ſubſtance.

Your petitioners aſk to be directed in the manner in which they are to uſe the aforeſaid extraordinarily fat beef. I anſwer, that if they will purchaſe meat that they know not how to uſe, and will not condeſcend to learn from their poor neighbours, I will, for once, take upon me the office of Mrs. Glaſſe, and give them directions equally profitable, though perhaps not quite ſo palatable as thoſe which ſhe has preſcribed. I tell them, that they ought to uſe this meat ſo as not to abuſe it; that they are not to devour it in their uſual way, but to take quality for quantity. They are not to take it by the pound, but by the ounce, and always to take it faſting, for this beef of high quality diſdains to intermix peaceably with common food. Let them take it, as they do their ſtrong beer, or their fat bacon. Fat bacon! I hear them exclaim, no gentleman, ſurely, is obliged to eat fat bacon. Neither, I anſwer, are they obliged to purchaſe this meat which they vow they cannot eat. They are under no compulſion though they are ſo full of complaints; they can always meet with abundance of meat as lean as they can wiſh. Whenever, therefore, they purchaſe the above luſcious meat, as they call it, knowing that they cannot uſe it without waſte, they, beſides raiſing the price, encroach upon, and become enemies to the poor, at the ſame time that they are no friends to themſelves, or to their country.

I do not mean to apply what I have ſaid to your fair correſpondent, Matilda Conyers; for ſhe only bought twenty pounds of this beef, and carried it forty-five miles in order to make ſome uſeful experiments upon it, to try whether or not the fat was combuſtible, and the dripping ſpoilable; ſhe, of courſe, gave what remained of the meat to the poor of Biggleſwade.

When you are told, Mr. Editor, that the whole number of theſe fat beaſts complained of did not exceed ſix, and that number ſure to decreaſe, in future, from the little encouragement given by the butchers at the laſt great market, I preſume you will allow me totally to reprobate the prayer of your petitioners.

I am, Sir, yours,

Piccadilly, Jan. 20, 1801. T. WESTON.

PHŒNICIAN COMMERCE.

MR. EDITOR,

January 8, 1801.

I TRUST you will not be diſpleaſed with a little *Biblical Literature*, when you conſider that the twenty-ſeventh chapter of Ezekiel, is the moſt authentic document of the ancient commerce of Phœnicia. The incloſed commentary on that chapter is at your ſervice.

Yours,

PHILOBIBLOS.

EZEKIEL, CHAP. XXVII.

v. 5. "THEY have made all thy ſhip-boards of fir-trees of Senir: they have taken cedars from Lebanon to make maſts for thee."

The mountainous country, Libanus and Antilibanus, lay immediately behind Phœnicia, and enabled her, by an abundance of fir-timber, to conſtruct better and cheaper ſhips than any other ancient nation.

v. 6. "Of the oaks of Baſhan have they made thy oars; the company of the Aſhurites have made thy benches of ivory, brought out of the iſles of Chittim."

If oak, theſe oars muſt have been a kind of Norway oak: ours is too heavy for the purpoſe. Perhaps the tranſlation here is not accurate.—Ship-building muſt have been in high perfection before they would uſe ſo coſtly an ornament as ivory. It may be obſerved that the Aſſyrians (Aſhurites), who imported that commodity from India, ſeem to have kept the ſecret of the manufacture of it in their own hands at Tyre.

v. 7. "Fine linen, with broidered work from Egypt, was that which thou ſpreadeſt forth to be thy ſail; blue and purple from the iſles of Eliſhah was that which covered thee."

Fine linen was always produced from the flax of Egypt. Purple from Greece or Elis (the uſual explanation of Eliſhah), ſeems to be very dubious; becauſe the Greek name of purple (φοινιξ) is evidently from Phœnicia, whence therefore they muſt have received it. How then can it be thought, that they poſſeſſed an overplus of it at home?

v. 8. "The inhabitants of Zidon and Arvad were thy mariners: thy wiſe men, O Tyrus, that were in thee, were thy pilots."

Sidon, Aradus (Arvad), Gabal, Tyrus, and Byblos, were towns all on the ſame coaſt, and connected together, as of common origin. Their connection ſeems to have been an ancient *Hanſeatic League.*

v. 10. "They of Perſia, and of Lud, and of Phut, were in thine army."

v. 11. "The men of Arvad were upon thy walls round about, and the Gammadims were in thy towers."

We may here obſerve the uſual practice of trading Republics: the uſe of mercenary troops inſtead of their own people.—Carthage Holland, Venice, and Tyre, are uniform inſtances.—The *many names* here enumerated, various nations of Perſia, of Africa, and of Aſia, ſeem to denote a large number, and a policy of hiring troops from unconnected nations, as ſome ſecurity againſt a general mutiny.

v. 12. "Tarſhiſh was thy merchant by reaſon of the multitude of all kind of riches: with ſilver, iron, tin and lead, they traded in thy fairs."

The old diſpute about the ſituation of Tarſhiſh ſeems beſt ſettled by fixing it in the ſouth of Spain. The ambiguity has much ariſen from the ancient cuſtom of calling all large ſhips (built for diſtant voyages), ſhips of Tarſhiſh: becauſe they were firſt uſed in the voyage thither.—From the commodities enumerated in this verſe, we may ſee that theſe veſſels ventured as far as Britain. Indeed, one of them (commanded by Pytheas) went as far as Iceland, as it was known from the length of day he deſcribes at *Thule*; and which has only been recorded by the ancients as the greateſt lie ever told.

v. 13. "Javan, Meſhech, and Tubal, were thy merchants; they traded the perſons of men, and veſſels of braſs in thy market."

Greece, and the nations on the Euxine ſea.—Here we ſee the high antiquity of the ſlave trade.—The Scythians are known to have poſſeſſed braſs, i. e. copper; as their arrow-heads and ſwords were made of it.

v. 14. "The houſe (i. e. family, or tribe) of Togarmah traded in thy fairs with horſes."

As the Tyrians could not want many horſes for their own uſe, they probably were merely dealers between the breeders (the Cappadocians of Togarmah) and the Arabians, who being much at Tyre with caravans on trade, led back theſe horſes into their own country. Thus were uſeful animals formerly ſpread over the earth.

v. 15. "The men of Dedan brought thee for a preſent horns of ivory, and ebony."

Some tribe of Arabia Felix muſt be intended here, by the commodities which certainly came through Arabia from the Perſian gulf—the iſle mentioned in this verſe was perhaps Ormus; ſince ſtill better known as a depoſit of merchandize.

v. 16. "Syria was thy merchant by reaſon of the multitude of the wares of thy making; they occupied in thy fairs with emeralds, purple and broidered work, and fine linen, and coral and agate."

To a Jew, the word Syria conveyed as vague an idea as the modern phraſe *Eaſt-Indies* does to us. All regions beyond his own knowledge eaſtward he called Aram, or Syria. Some of theſe precious ſtones muſt have come as far as from *Hindoſtan*.

v. 17. "Judah and the land of Iſrael traded in thy market wheat of Minnith, and Pannag; and honey, and oil, and balm."

Paleſtine ſupplied its own populous coaſt with wheat, oil, and balſam: and honey, a commodity of more conſequence than we (who procure ſugar, the modern ſubſtitute) can well conceive at this day.

v. 18. "Damaſcus was thy merchant—in the wine of Helbon and white wool."

Damaſcus paid for the luxuries ſhe procured at Tyre, in her native and ſtill famous wine and wool. The Tyrians in the laſt-mentioned commodity ſeem to have practiſed the modern policy of importing the raw material, and manufacturing it themſelves.—Witneſs the cloths, mentioned in verſe 24.

v. 19. "Dan and Javan going to and fro occupied (traded) in thy fairs."

Jews and Ionians ſeem here mentioned as the brokers and agents of that period: as now are the Armenians in Britiſh India.

v. 20 and 21. "Dedan in precious cloths for chariots: the princes of Kedar in lambs, and rams and goats."

The Arabians furniſhed water-proof cloth of goats-hair for great coats for riding; they ſeem alſo to have ſupplied the ſhambles of Tyre with mutton and goats-fleſh.

v. 22 and 23. "Sheba, Raamah, Haran, Canneh, Aſhur, and Chilmad."

Numerous tribes to the eaſt and ſouth-eaſt: ſituations not now to be diſtinguiſhed.

v. 24. "Theſe were thy merchants in all ſort of things, in blue cloths, and broidered work, and in cheſts of rich apparel, bound with cords, and made with cedar among thy merchandize."

The elegant idea of cedar packages for woollen cloths denotes much habit and refinement in the trade. No moth can exiſt in cedar.

v. 25. "The ſhips of Tarſhiſh did ſing of thee in thy market; and thou waſt repleniſhed and made very glorious in the midſt of the ſea."

The ſhips of Tarſhiſh, is merely a ſpecific name for a certain deſcription of ſhips. We are elſewhere told that the Tyrian navy was diſtinguiſhed into *long* and *round* ſhips. The firſt ſeem to have been theſe *ſhips of Tarſhiſh*; the others were coaſters which waited (like Dutch hoys, or Chineſe junks) for a fair wind. The *long ſhips*, navigated by oars and a numerous crew, were drawn up on ſhore in tempeſtuous weather, even in the midſt of a voyage: indeed they could not (without the compaſs) ever venture very far from ſhore.*

* They rode out ſtronger gales than we can well ſuppoſe: for when at anchor, the rowers ſate on their benches, and made a ſtroke at every coming

Solomon and Hiram (chief magiſtrate or king of Tyre) ſeem to have concerted a compact together for trading to Ophir. Solomon gave Hiram the uſe of a port in the Red-Sea, which courteſy Hiram returned by inſtructing the Jews in building and navigating ſhipping. Ophir is probably on the eaſt-ſide of Africa: at leaſt Mr. Bruce (the traveller) has made that probable. —See its commodities enumerated, in the Firſt Book of Kings, chap. 10. v. 22.

If we ſum up the trade and reſources of the Phœnician metropolis, Tyre, the moſt ancient of commercial powers, we ſhall not wonder at the ſcriptural appellation of *princes*, applied to its opulent merchants.—Previous to the diſcovery of America, Tyre was ſituated about the centre of the known world, on the greateſt inland-ſea on the globe.—Her agents or colonies (as indicated by the Phœnician origin of their names*) completely enveloped the whole coaſts of the Mediterranean.

The entire Eaſt-India trade paſſed through their hands, and though then conveyed in ſmaller quantities on the camel, ("the ſhip of the deſert," in Arabian phraſe) it was probably adequate to the confined demand of an uncivilized world.—In Arabia-Felix, their trade far exceeded—in Africa, more than equalled that of the moderns.—To the weſt, Britain furniſhed them with tin, and probably with wool; of which laſt the Tyrians conſumed much in their manufacture of blue cloth.—The remoteſt north from Tartary (ancient Scythia) to their own borders, traded with them. Indeed, while a kindred origin was recent in the memory of the young world, land-conveyance was probably more practicable than at preſent.

The manufactures of Tyre (beſides ſhip-building, common to every port) were glaſs and wool. The firſt they poſſeſſed ſo excluſively, that the ancients thought no ſand but that of Tyre could be melted. The woollen manufactures, they owed to the produce of the ſheep countries to the ſouth-eaſt; and the purple dye to ſhell-fiſh on their coaſt. This was ſo precious, that only princes were clothed in it, for ages: and it ſtill continues the colour attached to dignity.†

All this manufacture, and all this commerce, belonged to a ſtrip of coaſt 150 miles long, and of no breadth at all. Thus trifling in territory, the induſtry of Tyre firſt exhibited to mankind the powerful influence of commerce, and founded colonies with a judgment which inſured opulence to them all. Carthage, Gades (Cadiz), Maſſilia (Marſeilles), on the Mediterranean; and Tadmor (Palmyra), in the wilderneſs; the grand *entrepot* of the Eaſtern caravans from the Euphrates.

wave; thus eaſing the cable. This exerciſe ſometimes continued through whole days and nights.

* See Bochartus, paſſim.

† By *purple*, I mean (the bible always means) crimſon: the Cyanean (Κυανεος) dye of the antients, is at preſent called purple by the ladies.

In fine, it seems that in many of the resources of trade, they were not behind the moderns. Partnerships, bottomry, resident agents in foreign countries, they possessed. They made a road, quite to the Red-Sea (1 Kings, c. x. v. 29.), on which it appears a waggon might travel with four horse-loads on it. This is the first *turnpike* in history.—They indeed wanted canals, insurance, and bills of exchange; at least, ancient history (little interested in aught but the squabbles of barbarous tribes) has preserved no certain trace that Tyre had invented these resources of commerce: but enough is left to wonder at, when we consider that in 1300 years from the flood, commerce was raised to a height only exceeded by the moderns, and by them only by the discovery of the *polarity* of the magnet; without the knowledge and assistance of which, who would now (as they did) venture round the Cape of Good-Hope? * or from Palestine to Iceland?

ON PRESERVING CORN IN PUBLIC GRANARIES.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

A WORK, which, like your valuable Magazine, is calculated to promote the universal diffusion of agricultural knowledge, must meet with the approbation and support of every well-wisher to mankind. During the present awful visitation of Providence, when every rank in society is suffering from the extraordinary scarcity, and enormous price of provisions—it must be the duty of each citizen to step forward and submit to the judgment of the public, whatever method he may conceive adapted, either to diminish the pressure at the present moment, or to prevent its recurrence at any future period.

Actuated, as I am convinced, by these motives, J. K. has favoured your readers with an interesting communication concerning the public granaries, which were formerly established in the Imperial cities of Rome and Constantinople: a communication which cannot be perused without pleasure, and which ought to lead the Legislature of this country to the adoption of a similar measure. But J. K.'s candour will excuse me, if I consider his account as in some respect defective. No one can be ignorant, that to preserve, during a considerable time, so great a quantity of

* Herodotus says distinctly, that *Hanno* sailed from the *Red-Sea*, and returned by the *Pillars of Hercules* (the Straits of Gibralter) to *Tyre*. Eternal scepticism has doubted the truth of this: but it is incontrovertibly established by the diffident narrative of Herodotus, who relates, that on their return, these men *said* they had seen the Sun to the North! This (which Herodotus himself could not believe) establishes the fact, as strongly as (in the other instance) do the long days, (described by Pytheas) in *Iceland*. They were three years in coasting round Africa; landing for whole months to sow, and wait for harvest. Their vessels could not contain above six months provisions: and Africa being then uninhabited, they met no interruption on shore.

corn from the ravages of inſects, and the deſtructive effects of fermentation, muſt be a work of immenſe labour, and of very uncertain ſucceſs. That the ancients effected it, is certain: and an account of the method which they purſued, is the deſideratum to which I before alluded. The following obſervations, though they afford not the information in queſtion, bear an immediate relation to the ſubject, and will, I flatter myſelf, prove not unworthy the attention of your readers.

In the year 1550, a great quantity of wheat was depoſited by order of the Duc d'Eſpernon, in the citadel of Metz, for the ſupport of the garriſon of that city. There it remained untouched during the ſpace of 157 years; and when it was firſt opened in 1707, was found to be in a ſtate of the moſt perfect preſervation. Of the method adopted in the ſtowage of this corn, I am ignorant: but as it was covered with an external cruſt, ſufficiently hard to ſupport, without yielding the weight of thoſe who walked over it, I am inclined to believe that it was preſerved in the following manner, which is ſtill in uſe in ſeveral provinces of France.

The wheat, after being ſufficiently turned and cleaned, is covered with a ſtratum of pulverized quick-lime, four inches thick; and then, to prevent the admiſſion of air, and to give conſiſtency to the ſurface, it is moiſtened with a common watering-pot. After ſome time, the grains in contact with the lime, puſh forth a ſtalk about one foot in height; but this periſhes during the winter, and the remainder of the wheat is preſerved for years free from every injury.

Another method of preſerving wheat, is to ſubject it to a degree of heat ſufficient to deſtroy the principle of germination, and the inſects which may be harboured in it. This expedient may be ſucceſsfully tried, by placing any quantity of wheat in an oven after the bread has been drawn, and leaving it there till it become cool. By this torrefaction, the wheat is rendered unfit for the purpoſe of ſeed, but is effectually ſecured from all danger of fermentation, and may be preſerved for years, without any other precaution than that of depoſiting it in a dry ſituation. Another advantage reſulting from this method is, that it, in a great meaſure, reſtores ſuch corn as has been damaged by the humidity of the ſeaſon.

Perhaps, Mr. Editor, ſome of your correſpondents may be able to inform me, whether any corn is imported into this kingdom from the Mahometan ſtates, bordering upon the coaſts of the Mediterranean. It forms a principal article in the commerce of Tripoli, and particularly of Algiers. Thence the ſouthern provinces of France have long been ſupplied with corn; and the firſt Conſul has recently informed us, that by a new arrangement between the French Republic and the Dey of Algiers, the terrors of famine have been baniſhed from the coaſts of Liguria.

At preſent, when our fleet rides triumphant in the Mediterra-

nean, it would not be difficult to draw this branch of commerce towards our own country, and would prove no leſs beneficial to the public, than to individuals who might thus exchange, with advantage, the commodities of England for this neceſſary article of conſumption.

Brooms, Dec. 29, 1800. J. HEDLEY.

ON THE POOR LAWS.

For the Commercial and Agricultural Magazine.

SIR,

THOUGH I certainly had no intention of proclaiming a challenge to all gain-ſayers, when I ſent you a communication concerning the condition of the poor in England, I perceive that one of your correſpondents has imagined that he ſaw in my letter certain *pugnacious* ſymptoms, and has noticed it accordingly. His miſtake is trivial; and ſilence might beſt have anſwered it, had not ſome parts of his letter exhibited a mind acute, and ardent in benefiting mankind.

I am far from affirming or believing that our Poor Laws are *perfect*; that can ſcarcely be averred of any human inſtitution: I only contributed my beſt endeavour to make my countrymen ſenſible that the ſtate of the poor in England is much *better* than in moſt other countries. I am only *poſitive* that our Poor Laws are much better than no Poor Law; and that the preſent management is not ſo wretchedly defective as declaimers and projectors have depicted it for more than a century. I have read "The Account of the Shrewſbury Houſe of Induſtry," and am glad, that after ſome *rubs*, it is likely to be permanent. But ſo many lucky circumſtances muſt concur to ſuch a happy event, that it can ſeldom be expected to occur often; never (I think) to become general.

A populous town is neceſſary to aſſemble a ſufficient number for a profitable manufactory. If you collect the ſtraggling poor of many villages, the baniſhment from their parents and their home, is a real and deep-felt puniſhment for no crime. Zeal in individuals is alſo neceſſary: and a very extraordinary kind of zeal—*permanent* zeal. The love of novelty is often miſtaken for zeal, and the fruit of it is (accordingly) coeval with the novelty. Without the utmoſt vigilance, work-houſes become the ſource of profligacy among their inhabitants: and are perfect leiſure, unremitting vigilance, and a taſte for ſcrutinizing the minutiæ of a work-houſe, to be found conjoined in an individual of every *pariſh*, of every *hundred*, or even of every *county*?

The catalogue of employments for the poor is very valuable, and cannot be too generally read; perhaps the active ingenuity of Mr. J. C. may augment it. His thoughts would thus be moſt worthily employed.

Perhaps no better law can be paſſed than that of 43d Eliz. If

it were ſtrictly obſerved and enforced every where, we might wiſh for no other reform. By it (though unhappily not by cuſtom) the overſeers may ſet the poor to work, according to circumſtances. With the countenance of the magiſtrates, this would ſoon be done in moſt places. A ſingle overſeer, from ignorance or timidity, will never, unaided, commence the enforcement of this his legal power.

The note at the bottom of p. 343, has anſwered J. C.'s query; juſtly indeed, but perhaps too briefly, for general information. I will illuſtrate it by an example. The rentals of a pariſh not far from *Colcheſter*, are rated at only half the preſent value. Hence their poor-rates are ſaid to be 26s. in the pound. They are *really* but 13s. in the pound on the rack-rents. So far it is of no conſequence, ſince all are *equally* rated at the half-rental throughout the pariſh. But when the county-rate is to be paid, the caſe becomes widely different. This rate is laid equally throughout *a county* at ſo much in the pound. Therefore, ſuppoſe two pariſhes of 4000l. per annum rental each; the pariſh uſing this *fineſſe*, would pay but half the ſum the other muſt pay, if they have not oppoſed wile againſt wile, and lowered their oſtenſible rental accordingly. In this affair we muſt not too precipitately accuſe whole pariſhes of knavery. The fact is, not that they have deſignedly lowered a real eſtimate, but that they have ſuffered the old eſtimate of the whole pariſh to remain unaltered. Hence improving counties (as Eſſex) exhibit a great variation from the old rental: but throughout the county the improvement is not very irregular, ſo that no real injuſtice reſults in the end. It would certainly be an improvement to have the *real rental* rated. The ſenſation of any national uniformity is always pleaſant, and ſome points of political arithmetic might be better ſettled, if the rental of the whole kingdom could thus be aſcertained.

The many ſpeculations and opinions of J. C. require to be cooled down, by the conviction, that every body is not ſo ardent as himſelf in any dear favourite ſcheme. It is eaſy to create active and intelligent directors, careful ſtewards, &c. in the cloſet; but very difficult to realize theſe phantoms in the world.

Intereſting the poor to labour by reward, is an excellent idea, and I hope will be purſued to its full extent: I ſhall rejoice to hear, that your correſpondent J. C. has the *direction* of ſome numerous poor-houſe.—I have no doubt of *his* perſeverance in the good work; remaining his applauding well-wiſher, and your conſtant reader,

A COUNTRY MAGISTRATE.

P. S. I am ſorry that J. C. ſhould exhibit ſome ſymptoms of affecting the character of a *captator verborum*.—See top of p. 345. Verbal ſtrife is beneath me, and much more beneath him. If you know his real addreſs, hand this P. S. to him, without inſerting it in your Magazine.

ON TYNE KEELS.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

HAVING observed in a late number (p. 243) you have said something about the antiquity of the *Tyne Keels*, I forward to you a little more information on that subject, which I chanced on the other day in reading *Tacitus*. In his excellent Treatise, *De moribus Germanorum*, he thus expresses himself:—"Suionum civitates ipso in oceano præter viros armaque, classibus valent; forma navium eo differt, quod utrinque prora paratam semper appulsui frontem agit: nec velis ministrantur; nec remos in ordinem lateribus adjungunt. Solutum ut in quibusdam fluminibus, et mutabile (ut ut res poscit) hinc vel illinc remigium."

"Besides plenty of men and arms, the nations of the Suiones* are powerful on the very ocean, by their shipping. The form of their vessels is peculiar in this; that having a prow at each end, they are constantly ready to move either way. They use no sails, nor fix oars in a row upon the gunwales. Their (single) oar is loose (as in certain rivers), and is shifted here and there as occasion requires."

To this description it is only necessary to add, that the *Suiones* inhabited about the mouth of the Elbe, and northward of it; and thence under the altered name of *Saxons*, were many years a scourge to southern Europe by constant desultory invasion. In England and Normandy they acquired permanent establishment, and our frequent *Saxon* surnames prove, how many of us spring from this lineage.

The Saxons certainly called their vessels *Keeles*, and in Latin, *Kiulæ*; I, however, just hint, that some writers have written this name, *Cogiones*. Perhaps a minute difference (now forgotten) was designated by these different words.

Queen's College, Oxon. Dec. 10, 1800. H. J.

CAUSES OF THE GREAT DEARNESS IN HAMBURGH.

For the Commercial and Agricultural Magazine.

THE dearness comprises every necessary of life, from the roof which shelters us from the rain, down to the turf which warms the hand of the labourer, and to the morsel of bread which appeases the just call of hunger.

Since the last six years, the epocha of this growing calamity in every country, but which particularly during the last two years appears to have attained its summit, the price of houses is double and treble increased; this is especially the case with houses of the middling class, which have been sold at four and five times the sum they fetched during the former cheaper times. Materials

* The Suiones inhabited Holstein and Bremen. E.

for building having riſen conſiderably, has induced many to prefer buying houſes ready built, in order to ſave themſelves the trouble of building, and for which they of courſe pay dearer.

Houſe rent, however, has been from year to year on the increaſe in a far greater diſproportion. On the average, it may be computed to have riſen five-fold and ſix-fold, and ſtill continues riſing. Houſes which were formerly valued at three hundred marks, if not too remote for the city buſineſs, are now worth from 900 to 1500 marks, and ſo in proportion to their ſize and ſituation. Nor are rents at 4000 to 5000 marks per ann. uncommon; even a French* Reſtaurateur at a conſiderable diſtance from the Exchange pays that ſum, and that at a time when almoſt every ſtreet has its Reſtaurateurs. With reſpect to apartments for ſtrangers, this extortion (termed "*taking the advantage of the conjuncture*") is ſtill more conſiderable; a ready furniſhed room and bed chamber, or a couple of ſuch apartments, let at fifteen, twenty-five, to fifty dollars per month and upwards, according to the ſize and ſtory; cheaper rents are merely accidental, in conſequence of the diſagreeable ſituation of the apartment or houſe. Store cellars and lofts for warehouſing, which were formerly let at 200 marks, are at preſent raiſed to 1000 and 1200 marks, &c. Though the rents of the under ground floors, lodging houſes and ſtalls are not quite ſo diſproportioned, they ſtill far exceed the means of the working claſs of people. Some few honeſt landlords view this impoſition in its true light, others, however, are but too unconſcionable in this reſpect.

Nor are the common articles of life exempt from this riſe. Reſpecting the neceſſaries for fuel, theſe complaints are not confined to Hamburgh alone, but the price of wages is here at leaſt double, to what it is elſewhere. When fire wood increaſed from 12 and 15 to 24 and 30 marks per fathom, ſea coals were more reſorted to, turf having riſen from 9 to 12 and 14 dollars per load. At preſent however, the ton of ſea coals, which ten years ago coſt 3 marks, is more than treble that price, in proportion to the greater or ſmaller importation.

Proviſions are alſo conſiderably enhanced in price, the unfortunate failure of laſt year's crops having raiſed them to an uncommon degree. We do not here refer to articles of luxury uſually dear, of which only ſugar and coffee are exceptions, and the rapid importation and ſubſequent fall of which were laſt autumn, a co-operating cauſe of the calamity on our Change; nor that of wine, which being duty free, remains cheap, and has experienced but an inconſiderable riſe in the retail trade.

This is a ſimple ſtatement of the caſe, and the reſult is, that our houſekeeping at preſent, coſts double the ſum it did at the cloſe of the laſt decennium,† that the price of labour has riſen in

*A Cook, the keeper of an eating-houſe.

† The laſt ten years, from 1780, to 1790.

proportion, that the dearneſs but too frequently affords a pretext even to uſury, in a more extended as well as narrow compaſs, and to the exorbitant demands of the working claſſes; thus is the father of a family, whoſe ſituation hinders him in participating of the ſame advantages from theſe commercial conjunctures, &c. frequently under the neceſſity of retrenching, in order to ſecure neceſſary means of domeſtic happineſs, and for the education of his children. Much, however, depends here on prudent economy, and it would be proceeding too far to aſſert, that moderate houſekeeping, which coſt formerly from 5000 to 6000 marks, muſt now of courſe amount to 10,000 or 12,000 marks.

What are the ſources of this evil? there are ſeveral; ſuffice it here to mention a few in general.

1. One of the principal cauſes of the dearneſs will be found to conſiſt in the great influx of foreigners, who eſcaped the ſtorms of revolution, of *Frenchmen*, *Batavians*, *Belgians* and Swiſs, but particularly the former. The eſtimate of from 30,000 to 40,000 is certainly exaggerated, but they may be fairly computed at 8000 to 10,000. The number at Altona is ſuppoſed to be 4000. In this proportion has the number of conſumers increaſed, without any oſtenſible increaſe in the importation of the daily neceſſaries of life. Further, the number of Reſtaurateurs, theſe foreſtallers of all the prime ſorts of proviſions, which they only waſte in their kitchens, and retail to their cuſtomers at the moſt exorbitant prices. To this may be added the ignorance of theſe ſtrangers, of the former prices, the advantage derived from this ignorance by the venders, and the re-action of the ſame on the natives, from whom they extort theſe demands, ſo arbitrarily increaſed, with the remark, that they know how to obtain their price from the *French* (a term applied by the lower orders to all foreigners).

2. Another cauſe is the eaſy and great gain during the latter years, the increaſed expenditure in conſequence, and want of prudent economy—a want of that rigid frugality diſplayed by our anceſtors, and which has not fallen to the lot of their children and grand-children, educated in a more elegant ſtyle, and accuſtomed to greater luxury. From this the venders alſo know to derive their advantage, and the more frugal houſewife experiences its effects. At the ſame time it muſt be confeſſed, that according to the common courſe of things, the middle and lower claſſes of the people, incited by this very eaſy gain, and this example of luxury, have in proportion imitated the higher ranks, and now allow themſelves indulgencies, to which they were formerly ſtrangers, adding the remark; "we can afford it for once," thus we ſee the fowl (the ſtory of which is well known), which *Henry IV.* beheld on Sundays, in the pots of his good Pariſian *petits Bourgeois*, now ſtewing in the pots of the *petits Bourgeois* at *Hamburgh*, not only as in former times, on feſtivals, but likewiſe on Sundays, and

even in the week days; notwithſtanding at preſent both fowl and fuel are double, and even treble in price to what they then were.

3. The failure of the crops laſt year,* and the preceding ſevere winter. This unfortunate failure flatters us, at leaſt for the preſent, with the hopes of a return of cheaper times. From the calamity, which laſt autumn befel our Change, this extravagant luxury received a very ſerious warning, the effects of which are already in many points viſible. Proſpects appear to brighten in France, and the faint ray has already allured numbers nearer to the confines of their beloved native country. But that viſitation of Providence, far ſurpaſſing any artificial ſcarcity, ſtill fruſtrates all the hopes of men of moderate deſires, of middling and ſmall income, and bears inexpreſſibly hard on the poorer claſs.—Thanks to our inſtitution for the poor, which has dried up many a tear of the wretched, whoſe miſery it has ſoothed!—The price of meat, butter, vegetables of every kind is at preſent† higher than ever, and the decreaſe of that of ſugar, coffee, and tobacco forms no ſubſtitute for hunger.

4. The diſproportion of the prices and rent of houſes and apartments; this was in a conſiderable degree owing to the great influx of foreigners, but at the ſame time equally a conſequence of the flouriſhing ſtate of our commerce. A conſiderable number of foreign merchants ſettling among us, who bought houſes at high prices, or frequently hired them at enormous rents;—the great number of young Hamburghers, enticed to eſtabliſh themſelves by the facility of gain, and opulence ariſing from commerce; and who, not ſatisfied with a ſingle ſet of apartments for their accommodation (which were in fact inſufficient to ſtow their goods), rented whole houſes;—the converting of ſeveral private houſes into magazines and other warehouſes, in order to contain the enormous ſtock of goods flowing in, for which purpoſe in want of room on ſhore, even ſhips were engaged, and places hired at *Buxtehude* and *Haarburgh*;—further, the converting of a number of houſes and habitations (fitted up for ſeveral families of the working claſs, and known by the name of *Saele*, or lodging-houſes, of whom from 10 to 20 often reſide under one roof), into dwellings for ſingle, larger families, in which caſe the former numerous inhabitants were compelled to give way to one family:—all tended to produce this effect. To all theſe cauſes of ſcarcity and dearneſs of houſes muſt be added, the ſpeculations of individuals in buying up houſes, in order not only to live rent free by letting out the warehouſes and apartments ſingly, but likewiſe to gain a conſiderable ſurplus.—Finally, it cannot be denied, but that ſeveral proprietors of houſes have been guilty of great extortion by increaſing their rents in an unjuſtifiable manner in proportion to the general dearneſs of building materials, nor can it

*1799.

† In Dec. 1799, the time of the reviſion of this eſſay, written in autumn.

possibly be disguised under the milder appellation of "*the advantage taken from the conjuncture*," a phrase applied to it by the mercantile philosophy." *

This is a concise review of the causes of the high prices for houses and rent, an evil, which all the exertions neither of the state nor individuals have as yet been capable of removing, by increasing the number of habitations with new buildings in the waste grounds (which are far from being numerous) in this narrow built city, for people of all ranks, but particularly of the lower orders. Notwithstanding the number of these new houses, the separate habitations for families in the city, as well as suburbs, may be safely computed at several thousands. B.

* Has our Correspondent forgotten the foundation of all property? "May I not do what I will with my own." Ed.

ON PUMPS.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

IT does not occur to me that any of your correspondents, have yet written on the subject of Pumps. Will any *scientific* gentleman (who is acquainted with the many different constructions of these useful *engines*) give his opinion, which kind of them all is best calculated for the use of shipping. May we expect to have it pronounced in favour of the *common sucking pumps?*

As I am unacquainted with the improvements lately made in pumps, by gentlemen residing *in* and *near* the *metropolis*, I hope some well-wisher to improvements, will have the goodness to give an impartial answer to this enquiry, which farther extends to ask—if there is any pump yet extant, that has the *weight* of its rising *column of water* reduced without any *agent* of power being applied, except what is derived from the *permanent principles of Hydrostatics?*

If there is *in use* such apparatus, by which *when applied* to a ship's pump *the labour is reduced*, or in other words *the weight of the atmosphere* lessened, my further pursuits will be unnecessary; but should no such *power* be yet known or applied; which, I wish to ascertain through the channel of your useful publication; I will then venture to demonstrate the truth of this assertion; that very often *one half*, but never less then *one third*, of *manual labour* will be saved, by attaching a simple apparatus to a common ship's pump.

I am Sir,

Dec. 24th, 1800. Your most humble Servant,

A READER OF YOUR MAGAZINE.

The common sucking pump is now general among the shipping. We can assure our Correspondent that no such apparatus, as he mentions, is ever applied; and shall be flattered by receiving any communication from him illustrative of his projected improvement. E.

Mr. Hindmarsh's Account of Mr. Rowntree's Trial for Patent Property.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

OBSERVING in several of the daily and monthly publications, a very inaccurate account of the trial of a patent cause before Lord Eldon, and a special jury at Guildhall, *Rowntree v. Rust and others*, in which, among other mistakes, my deposition in favour of the Patentee is not only imperfectly but even untruly stated; I beg leave, through the channel of your Magazine, to communicate to the public more correct ideas of the subject. But I wish it to be previously understood, as the real truth is, that I have no interest whatever in the success of Mr. Rowntree's invention, being actuated solely by friendship to him, and a conviction of the great utility which is likely to result to manufacturers and others from the general use of his new invented method of setting Boilers, Coppers, &c.

In the first place, it has been inaccurately stated, that the plaintiff had invented an ingenious *Machine*; that he had taken out a patent for it; and that this *Machine* had been pirated by the defendants. Whereas instead of taking out a patent for any particular *Machine*, Mr. Rowntree took out a patent for a *new method* of applying fire for the purpose of heating boilers and other vessels; which method of constructing furnaces, &c. the defendants, after being employed by Mr. Rowntree, were stated by the counsel to have pirated from him. For this purpose the action was brought; and as it was a cause, in the decision of which the right of patentees is deeply involved, the trial excited a very considerable degree of interest in the court, and in the numerous spectators who were present on the occasion.

Without entering into all the particulars of evidence relative to the effect produced by Mr. Rowntree's furnaces, in heating the boilers, &c. and the great saving of fuel, which several of the witnesses, who had tried them, proved to be more than one third, and in some cases nearly one half, of what is usually consumed under the same sized boilers, in furnaces constructed in the old method, it will be sufficient to state that part of the evidence, which more immediately describes the invention of the patentee.

Being interrogated by the counsel for the defendants, "what I took to be the principle of Mr. Rowntree's invention, or in what his invention consisted?" I made answer to the following effect, *viz.* that in my opinion his invention consisted in the three following things: *first*, in the peculiar mode of constructing the furnace, or setting the boiler, and of placing the fire not immediately under, but a little in front or at one side of it, whereby the flame and hot air can get access to every part of the vessel, and not only impinge with force against its bottom, but also with

equal effect, reverberate againſt, and violently embrace its ſides, and whole external ſurface; unlike every former contrivance, the moſt perfect of which could only cauſe the flame and hot air to act *partially* upon the bottom and ſides of the veſſel.

2dly. I conceived that the invention further conſiſted in the elevated ſituation and ſmallneſs of the aperture, leading from the furnace towards the chimney; whereby the flame and hot air are impeded in their progreſs to the atmoſphere, and compelled to tarry in the cavity of the furnace, and occupy every part thereof much longer than they otherwiſe would do. This effect in ſtopping, checking, and as it were arreſting the flame and hot air in their attempt to eſcape into the atmoſphere, I conſidered as not only new, but ſingularly beneficial; for by this means the flame and hot air are detained in the very place where their preſence is wanted, and conſtrained to give forth their energies with an increaſed *impetus* againſt the bottom and ſides of the veſſel to be heated: whereas in none of the furnaces heretofore erected was any effectual ſtop interpoſed betwen the fire and the chimney, to cauſe the flame and hot air to dwell under and round the ſides of the veſſel; but they paſſed rapidly off into the atmoſphere, either by a direct communication through the chimney, or indirectly, but almoſt as ſpeedily, by flues, or elſe by a drain (as it is called), whoſe aperture is equal in dimenſions to that of the chimney itſelf.

3dly. I was of opinion, that the invention alſo conſiſted in an open ſpace between the furnace and chimney, called by the patentee a box, trap, or reſervoir, and intended as a receptacle of the flame, hot air, and ſmoke, after they have quitted the furnace, and paſſed through the ſmall aperture above deſcribed. This ſpace or reſervoir for the flame, hot air, and ſmoke, being cloſed at the top and external ſides, and open only at the bottom outwards, for the purpoſe of permitting the ſmoke, &c. to paſs off into the chimney, ſtill further checks and detains the flame and hot air, in the furnace; and being itſelf conſtantly full of warm air, ſmoke, &c. cauſes the heat to be reverberated againſt the ſides and bottom of the veſſel or boiler, and effectually prevents the admiſſion of the cold atmoſpheric air from the chimney, which on the old plans of conſtruction is found by experience to act the part of a thief, in robbing the furnace and veſſel of more than one half of the ſupply of heat, which any given quantity of fuel is capable of yielding. The valves, ſliders, and dampers, I did not conſider as eſſential parts of the invention, but merely as regulators, which in many caſes may be altogether omitted, without detriment to the operation of the fire.

In addition to the above advantages peculiar to Mr. Rowntree's invention, I ſhall here take the liberty to mention another of very conſiderable importance, which, though only ſlightly noticed by one of the witneſſes on the trial, would have been more

fully and decidedly proved by other witneſſes, had they been called upon to give their evidence: I mean the uniform and regular action of the flame and hot air upon all parts of the boiler, by which not only the contents of the veſſel are raiſed to, and preſerved in any required degree of heat, but alſo the veſſel itſelf ſuſtains incomparably leſs injury from the flame, then when ſet on any other plan. The ſaving to the manufacturer, in the preſervation of his veſſels, the continual eroſion of which by the fire heretofore ſubjected him to very heavy expences, is much greater than might be expected, being, I underſtand, nearly equal to the ſaving in the fuel itſelf; and if ſo, we may fairly eſtimate the ſum total of economy, in all caſes where Mr. Rowntree's furnaces are uſed, to be a ſaving of *full one half* of the fuel uſually conſumed under the boilers of the ſame dimenſions.

The counſel further aſked me, if I had read Count Rumford's Eſſays on the Combuſtion of Fuel, &c. to which I replied in the affirmative. He then quoted a paſſage from one of thoſe eſſays, and aſked if that did not clearly point out the principle of Mr. Rowntree's invention, inaſmuch as it made expreſs mention of detaining or ſtopping the flame and hot air, previouſly to their eſcape into the atmoſphere. I anſwered, that it did not appear to me by any means to point out Mr. Rowntree's invention; for in the firſt place it gives no diſtinct idea how that ſtoppage of flame and hot air is to be effected, as Mr. Rowntree has done, but leaves every thing undefined, and undetermined to any particular form; and it is well known, that a mere principle, ſo long as it remains unembodied, and before it is reduced to ſome certain form, amounts in fact to nothing, becauſe in the phyſical world it is neither an object nor a ſubject; but that it then firſt becomes a ſomething, when it has aſſumed to itſelf a *ſpecific, or diſtinct figure.* In the next place, I thought the paſſage quoted might with greater propriety be ſuppoſed to allude to thoſe forms or plans of furnaces, which were then in uſe, and which the Count has taken ſo much pains to deſcribe and recommend; in ſeveral of which, it is true, a trifling kind of ſtoppage is put to the progreſs of the flame and hot air, by giving them a circular or ſemicircular direction round the body of the veſſel to be heated, by means of flues or canals: but it is evident, that this kind of ſtoppage or impediment is merely in proportion to the length of the flues; that the velocity with which the flame and hot air neceſſarily paſſes through them is ſo great, and the time they occupy within the limits of the flues and furnace ſo ſhort, that their retardation is rather ideal than actual; while by far the greateſt part of the heat ariſing from the fuel in combuſtion is waſted in the atmoſphere, without having contributed its due portion to the purpoſe for which it was generated; conſequently, that all former methods of conſtructing furnaces are, in their two moſt eſſential points, *viz.* economy and effective operation, much inferior to Mr. Rowntree's.

I further added, that however penetrating and ſucceſsful Count Rumford had been in extending his reſearches to diſcover the moſt economical plans in the management of fire, and generation of heat, for culinary and other purpoſes, it does not appear from his writings, that he had a clear idea and diſtinct conception of any thing like Mr. Rowntree's invention, until after the enrollment of his ſpecification in May 1798. Nay, the Count evidently takes it for granted, page 73, vol. ii. and even reaſons on the fact, which he there ſuppoſes to be unavoidable, and beyond remedy, that the fire cannot be made to impinge againſt the ſides of a veſſel with the ſame force and effect as againſt the bottom: which is a plain proof, that at the time of writing that eſſay he was totally unacquainted with Mr. Rowntree's method of applying and managing the fire; in which the very effect which the Count conſiders as a *deſideratum* in ſcience, and which appears to have been one grand object of his philoſophical purſuits, is in fact completed and brought to perfection. But in the year 1799, being a twelvemonth after the enrollment of Mr. Rowntree's ſpecification, Count Rumford publiſhed his tenth eſſay, in the appendix to which, page 93, he ſpeaks, nearly in Mr. Rowntree's own words, of "the great importance of cauſing the ſmoke *to deſcend at leaſt as low as the bottom of the oven*, after it has paſſed round and over it, before it is permitted to riſe up freely and eſcape by the chimney into the atmoſphere." Indeed, I am informed, that the Count profeſſes himſelf to be no inventor, but that he avails himſelf of the diſcoveries of ingenious men; and having a talent for detailing and improving thoſe diſcoveries when known, he publiſhes them in more correct and more ſcientific language, than perhaps the inventor himſelf is capable of doing, and thus bears away the palm of public applauſe, even in ſight of the very man to whom the merit of the diſcovery alone belongs. This is not ſaid with a view to detract in the ſmalleſt degree from the *real merit* and *evident utility* of Count Rumford's writings, which are acknowledged on all hands to convey much uſeful information and inſtruction, and are deſervedly eſteemed a moſt valuable acquiſition to the public at large. But juſtice demands, that while we reſpect the talents of one individual in ſociety, we forget not the uſefulneſs of another; and by the laws of equity we are bound to aſcribe to every man the merit that really belongs to his ingenuity, his ability, or his integrity.

Being further interrogated by the counſel whether or not in my opinion an *ordinary tradeſman* could, from a ſight of Mr. Rowntree's ſpecification alone, have conſtructed a furnace on his principles. I anſwered (not as has been repreſented, that I thought *any ordinary* tradeſman was equal to the taſk, but on the contrary) that it was very probable, that there might be found ſeveral tradeſmen or bricklayers, who were of ſo *ordinary*

a capacity, as not to be able to conſtruct ſuch a furnace without perſonal and repeated inſtructions. But I was alſo of opinion, that an intelligent tradeſman could readily enough conſtruct ſuch a furnace as Mr. Rowntree has deſcribed, without any other inſtructions than ſuch as the ſpecification itſelf contains. In this latter ſentiment I was confirmed by the evidence of at leaſt one other witneſs, who declared, that he himſelf could have conſtructed ſuch a furnace, merely by the aſſiſtance of the ſpecification: and ſeveral other witneſſes, I underſtand, were in Court ready to make the ſame declaration. But it is no leſs true, that ſeveral of the witneſſes, who were examined even in favour of the plaintiff, declared themſelves incapable of underſtanding the ſpecification, or of conſtructing the furnace without further inſtructions, having never ſeen any thing of the kind before; although, what is ſingular enough, before they came into Court, it is ſaid they all profeſſed to underſtand it perfectly, and that they could have erected the furnace by the help of the ſpecification alone. And I am informed, that on behalf of the defendants, nearly fifty bricklayers were in waiting, all eager to prove upon oath the *incapacity* of their underſtandings, and their utter inability to comprehend the ſpecification. On this point the trial hinged: Lord Eldon laid down the law with preciſion and perſpicuity, that a patent is *ipſo facto* void, if the ſpecification do not ſo clearly and fully expreſs and deſcribe the invention, that an *ordinary tradeſman*, not a *philoſopher* or *man of ſcience*, can, from the inſtructions given in the ſpecification alone, conſtruct and bring into uſe the engine, machine, or other device diſcovered by the patentee. His Lordſhip then, after repeating that the law of patents does not hold in contemplation philoſophers and men of ſcience, but ordinary tradeſmen, only ſubmitted this previous queſtion to the jury, whether or not they were of opinion, that Mr. Rowntree's ſpecification was ſo clear and explicit, that by the help of it alone an ordinary tradeſman could conſtruct a furnace on the principles there laid down? the jury, after a ſhort conſultation, declaring their opinion to be, that the ſpecification was not ſufficiently clear for an ordinary tradeſman to act by, Lord Eldon obſerved, that the trial could not proceed any further, but that the plaintiff muſt be *called*, and *nonſuited*.—Thus the patent becomes the public property, or void as to the excluſive intereſt of the patentee.

Upon the whole, it appears to me, that the ingenuity of Mr. Rowntree, in diſcovering a method of applying *the whole quantity of heat* generated in the combuſtion of fuel to the purpoſe required, and detaining, ſifting, and torturing the flame and hot air until they have exhauſted their powers with a kind of ſpiteful reſentment againſt the ſides as well as bottom of the veſſel expoſed to their action, merits the decided approbation and ſupport of the public: and although by the late deciſion of Lord Eldon, that in

point of law the patent is void, in consequence of the obscurity of description in the specification; yet surely the public, whose interest it is to make use of that method of producing heat from the combustion of fuel, which is acknowledged by all to be the most economical and effectual hitherto discovered, must see the advantage of employing Mr. Rowntree himself in the erection of their furnaces, &c. in preference to any *ordinary tradesmen*, who have professed *themselves* incompetent to the task, and who are now by law *declared* to be so.—Thus, notwithstanding Mr. Rowntree is deserted by the patent law of the land, and his exclusive right to his own discovery prohibited him by the tenor of a statute, yet by all the laws of ingenuity, of philosophy, and of science, and even by the acknowledgment of *ordinary tradesmen* themselves, he remains perfect master of his invention, and the only tradesman whom the public on this occasion ought to patronize, or to whom they can apply with confidence and assurance of success.

ROBT. HINDMARSH.

Walworth, Nov. 17, 1800.

ON THE MANNERS AND TRADE OF PORTUGAL.

Lisbon, Sep. 19, 1800.

MR. EDITOR,

I forward to you from this place some corrections of my former communications, and what farther intelligence I have collected in objects not foreign to the commercial department of your useful publication.

I informed you in my last, that the mines of Brazil were nearly exhausted. This was incorrect. You know they are worked by adventurers, and that the King receives a fifth of the produce. They become annually less and less productive, because the Brasilians have found out, that it is more profitable to raise sugar, cotton, &c. near the coast, or within reach of exportation by water carriage, than to go mine-hunting among the savages. The profit of the planter is *all* his own; the King's deduction is too heavy for the prosperity of mining.

Brasil produces spices, inferior indeed to what the Dutch once monopolized, but good enough, I should think, to be profitably used in England. The Portuguese Merchants have improved so much, as to promise future wealth to their country; they will infallibly take the trade out of the hands of the English and Germans, who have so long enriched themselves here at the expence of the indolent natives. But this is the sole symptom of improvement. When the Portuguese merchant has acquired wealth, he knows not what to do with it. They have neither arts nor sciences to encourage. Country gentlemen are things unknown. The Nobleman visits his country house *perhaps* when the fruits are ripe; and squanders his income in dangling after the court;

of courſe he has no money for improvements, and diſtreſſes his tenants, who cannot improve, and dare not, if they could. Therefore the church-lands are the only well managed eſtates.

One of their wealthy men wanted ſome pictures; there happened to be a foreign artiſt at Liſbon of ſome merit; he ſent for him, mentioned the ſize of the pictures he wanted, and aſked at what price he would execute them. The painter ſaid, at 20 moidores each. "Twenty moidores!" replied this patron of the arts; "I can get a Portugueſe to do them for a ſix-and-thirty!"

The wealthieſt of the native merchants was lately at Cintra, and brought with him a whole tribe of acquaintance to enjoy that earthly paradiſe. How think you they ſpent their time? *at cards* from breakfaſt to ſupper! This laſted a fortnight: his tavern bill amounted to 200l. and then he returned to Liſbon.

Read they will not: indeed if they would, they have ſcarcely a book in their own language fit to be read. I would our novel-mongers, and Lane of Leaden hall-ſtreet with them, were tranſported hither, and condemned to manufacture traſh for the Portugueſe. Any thing that would teach them to read!—The Academy began a dictionary, a national work, and upon a large ſcale. A large folio contained the letter A; and beyond the letter A they have never proceeded, though ſix years have elapſed ſince that appeared. For all this, a century and a half ago, Portugal was not behind the reſt of Europe; her country towns poſſeſſed printing preſſes, and if what was done was not good, very little better was performed elſewhere.

There is now a man who carries on a ſort of contraband circulating library; but his ſubſcribers are chiefly Engliſh. I doubt whether he has a Portugueſe book, and do not doubt but that he will ſoon be impriſoned.

The idle tales of ſuperſtition would little intereſt your readers. Here however is a ſhort one. Portugal is infeſted with witches, who delight in killing infants. They kill them *always* in the night, and the murderers are aſcertained by the child being black in the face. This is believed; but it cannot be ſuperſtition on the part of the careleſs mothers or nurſes, who overlay the children.

You cannot imagine how theſe people ſleep. The driver whom we always uſe ſleeps on his mule, as he drives us. We wake him; the paſſers-by wake him; ſtill he more than once has endangered us: once he was driving us ſtrait into the Tagus. A ſervant of an Engliſhman caught his death lately thus; It rained into his room, and violently, without waking him; he ſlept in a bed half full of water till his uſual hour, and woke with a cold which killed him. I have often heard of ſervants, whom it was impoſſible to awaken by any noiſe; they muſt be pulled or ſhaken. Does your ſervant wait at the door while you make a morning viſit? in five minutes he is ſtretched on the ſtones and ſnoring. A dog does not ſlumber more readily. It is an act of

volition with them. The moment they ceaſe from animal action, it is the inſtant alternative amongſt them.

There is a ſort of general hoſpital board, of which hereafter I hope to learn the particulars; but you can hardly conceive how little the Engliſh know about this country they live in. Their contempt for the natives hinders any enquiry about them. I can therefore learn little of this inſtitution among my acquaintance: but I underſtand its funds are chiefly from legacies. They communicate with every diſtrict; and in every *town* a Phyſician, a Surgeon, and an Apothecary receive either from the funds of the corporation, or from this hoſpital-board a certain annuity; ſmall indeed, but ſtill enough to prevent a man from ſtarving, and to encourage him to ſettle there: for this annuity he attends paupers gratis.

Popery is a charitable religion, and begging muſt be a good trade, where alms-giving is an atonement. Every body whom I meet in the country begs. They affix no ignominy to it. The man who ſells you meat or poultry takes his money, and then *begs* for the love of God!

I can now explain to you the ſtate of the paper money. On iſſuing it, ſix per cent was promiſed, and this intereſt they ſtill profeſs to pay, but whoever applies for it, is ſure to be wearied out with the eternal evaſion—that it is not his turn—there are older bills—or prior applicants. In paying any ſum half may be tendered in paper; but the ſmalleſt bills (of half a moidore) are very ſcarce. The moſt uſually current are of thirty ſhillings—five milreas. They pay their officers and civil liſt *wholly* in paper: of courſe this muſt be negociated at a diſcount—a loſs of twenty per cent. Where then half paper is tendered, it goes at par: whole paper at the diſcount. But as this is variable and never for the better, every one puts a higher price on his goods, as an inſurance againſt riſk of loſs.

The wiſe financiers of this country are about to adopt another meaſure; to call in their copper coin; re-coin it, and iſſue the *ten-rea piece* at twenty: at double its value. Meantime a clumſy agriculture renders all proviſion ſcarce, and a hungry foreign ſoldiery are ready to pay any price, when the people of England diſcharge the bills drawn on London. When I tell you that through the ſummer nine ſhillings have been paid for the *daily* keep of a horſe at *Cintra*, after all allowances for tavern extortion, you will ſee the dearneſs and ſcarcity of fodder. The expences of the Engliſh troops are (for the ſame number of men) increaſed as 9 to 4, ſince they firſt arrived. This is roguery; for the price of proviſions has not quite *doubled*.—I ſhall take occaſion to forward further information as opportunity offers, remaining your obedient humble ſervant,

INDAGATOR.

ON SALT AS MANURE.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I Remember about thirty years ſince, an impudent German impoſter, duped the good credulous people of England out of ſome thouſands, by ſelling "a wonderful fertilizing compoſition." As a buſhel was ſufficient for an acre, he was very moderate in only charging twenty ſhillings for that quantity.

This folly had its day; and ſince that we have heard (from America) of equally wonderful effects from the uſe of a ſmall quantity of *Gypſum* (plaſter of Paris) in powder. There was no reaſon to ſuſpect the inventor of this manure of any culpable impoſition, ſince he could propoſe no gain from it. However, I believe, time demonſtrated that he attributed to the Gypſum, effects which really appeared in his meadows from an *irrigation* he beſtowed on them, for the ſake of waſhing in his favourite "eſſence of fertility." Repeated experiments in England have demonſtrated that *gypſum* cauſes no perceptible increment of fertility.

There is, however, another ſubſtance, which has evidently very *powerful* effects; and it has not yet been fairly tried whether theſe effects are not prodigiouſly *fertilizing*. I allude to common (marine) ſalt, which is produced in inexhauſtible quantity in Cheſhire, Worceſterſhire, &c. The neceſſities of all governments have made this ſubſtance a favourite object of taxation: an unjuſt one indeed, as (the poor man conſuming full as much ſalt as the rich man) it is eſſentially a *poll-tax* under another ſemblance. But this is not the preſent queſtion; while *lotteries* are avowedly continued merely on the plea of neceſſity, the much more important produce of the ſalt duty cannot bear diminution. However, I do not deſpair of finding a mode of conquering this difficulty, if it be proved (on certain experiments), that ſalt is beneficial in the degree attributed to it by many.

The moſt immediate and palpable effect of ſalt, is its conſtant attraction of the moiſt particles of the atmoſphere: inſomuch that the wall of any houſe, built and plaſtered with mortar, containing ſea-ſand, will be running down with drops of water during the hotteſt ſummer. Indeed the extreme dampneſs of ſuch houſes, has conſigned many decent manſions (ſo built through inadvertence), to the abode of the peaſant, inſtead of the landlord.—It ſeems fair then to conjecture on this foundation, that ſalt muſt be beneficial to all graſs lands, liable to being parched by the heat of the ſummer. It is true, on its application (in any large quantity at a time), it will deſtroy every "green herb:" but that is a great advantage in many predicaments.

Suppoſe for inſtance, a modern improver has drained a mea-

dow or paſture. Still he has to conquer the old growth of ruſhes and coarſe graſs. *Time* will do this for him *in ſome years* (if his drains are carefully attended to), *ſalt* will do it immediately: if theſe uſeleſs diſgraceful productions are moved, or by any means cut off as cloſe as poſſible in autumn, and about twelve buſhels of ſalt *per acre* immediately ſown on the diſeaſed land, vegetation will ceaſe before the winter, and in the next ſpring fine wholeſome graſs will ſpontaneouſly cover the ſalted places. So on any intended ſummer fallow, ſalt may be ſown at the rate of ſixteen buſhels *per acre*, ſafely; the weeds (of courſe) exterminated before ſpring, and the land clean for autumn ſowing. At all times it is ſafe to ſow ſalt *with the ſeed* as far as ten buſhels per acre—on potatoes at planting this is eminently beneficial: but to ſow the ſalt when the blade is up, is inſtant deſtruction. This caution is neceſſary.

I have not aſſumed any ſuppoſed *fertilizing* quality of ſalt, becauſe I wiſh that to be proved by experiment. Evidence is indeed not wanting: but in ſuch a momentous cauſe, I aſk the agricultural readers of your *Magazine* to try the eaſy familiar experiment. Salt is always at hand, and 4lb. 3oz. laid on a ſquare perch (five yards and a half each way), is at the propoſed rate of twelve buſhels per acre. Four ſtakes at the corners of ſuch a ſpace would ſoon exhibit as concluſive an experiment, as a trial on a whole acre. As ſalt is little more than 3d. per lb. about 15d. would be the whole expence, ſo that I venture to believe that few of your readers will neglect the trial.

For I think they cannot but be well aware of the incalculable importance of aſcertaining the benefit of a manure, which from its eaſy carriage, and eaſy price might be ſafely termed *univerſal*. For (taxes excepted) ſalt can be afforded at 14s. per ton, on the ſpot where it is made. As a ton contains 40 buſhels, it will manure two acres and a half in a perfect manner. Even if its coſt in ſome places be *doubled* by carriage, the full coſt would be comparatively trifling: about 11s. per acre: hence I doubt not but conſiderations of public good and individual benefit in increaſed production, will cauſe many of your readers to apply themſelves to aſcertain the effects of ſalt beyond contradiction—It is not an improper time (even at preſent) to ſow ſalt on ruſhy coarſe paſture land.

But in the event of *ſucceſsful* experiment, it will be urged, that the taxes muſt ever prevent its adoption as vulgar manure. In this they are deceived. Government has at leaſt as *much*, apparently *more* intereſt in general abundance, and conſequently in agricultural improvement, than any individual. The only difficulty in exonerating ſalt *intended for manure* from the preſent exciſe, is to find ſome offenſive ſubſtance which may ſo intimately combine with ſalt, that its ſeparation will certainly coſt more than the full worth of taxed ſalt. In ſuch a predica-

ment, ſmuggling would be abſurd; and ſalt has ſuch an aptitude to various combinations, ſuch a repugnance to ſeparate from many other ſubſtances, that ſucceſs in this attempt is hardly doubtful. A public *premium* of 1000l. would ſet all our Chemiſts to work. The greateſt fixity of combination, and the leaſt expence of labour and materials neceſſary, to be entitled to the *premium*.

Of the ſalubrious quality of ſalted-land, the high price of ſalt-marſh ſeed is ſufficient evidence. On the *alledged* benefit of ſalt, as *fertilizing* manure, I refer your readers to a pamphlet written by J. Hollinſhead, Eſq. of Chorley. He has adduced ſome ſtrong inſtances: at leaſt enough to induce to an unexpenſive experiment.

Dec. 29, 1800. SALINATOR.

ON THE PRACTICE OF DIBBLING CORN.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I Have lately become a purchaſer of your Magazine, from the peruſal of which I have derived much pleaſure, and no inconſiderable ſhare of uſeful information.—I wiſh to forward to you an obſervation on your critique on Mr. Dalrymple's Treatiſe on the Culture of Wheat, in your fourteenth number. You ſay, "the practice of ſteeping and liming of wheat may be ſet in the ſame page of wonders, as the more modern phenomenon of dibbling. Both are very troubleſome operations, both uſeleſs, and yet both have been adopted by many practical farmers."

On the practice of ſteeping, our ſentiments do not widely differ: It communicates no invigorating principle to the grain: It has, perhaps, one uſe; if the ſeed corn be immerſed in urine, and afterwards ſprinkled over with lime or aſhes, it renders it ſo nauſeous, that it becomes leſs liable to be purloined by ſlugs.

On the ſubject of dibbling, I muſt be more diffuſe. From your remark on that practice, I preſume you do not inhabit a part of the kingdom where it has been generally, or ſucceſsfully adopted. I have long lived in the county, and within ten miles of the ſpot which firſt gave it birth.—It has ſtood the teſt of experiment between twenty and thirty years. It has gradually gained ground amongſt a ſet of men who are by no means haſty in adopting novel ſyſtems. Throughout the counties of Norfolk and Suffolk it is very general; in the diſtrict whence I write, it may fairly be deemed the univerſal practice. Nine-tenths at leaſt of the wheat is put into the ground by dibbling; except upon wet ſtiff land it is very rare to ſee a field ſown. On a ſoil of that nature I do not think *wheat ſetting* eligible; it compreſſes it too much. Practice undoubtedly makes perfect.

You ſhould ſee dibbling conducted as it is in this county, and

more particularly as it is in this part of the county, where every husbandman is a dibbler, and every child above seven years of age a dropper.—Did you farther consider that the latter, instead of being confined all the day to the spinning wheel or other sedentary domestic employments, were by exertions in the field laying in a store of health and vigour, and no trifling addition, in a pecuniary point of view, to the comforts of their respective families, I am convinced you would neither esteem it a troublesome, or an useless operation. If to this you add the saving in seed corn, and the superiority of the sample to that of *sown wheat*, I am equally certain you will separate it from its unworthy associates, *liming* and *brining*, and place it in one of the brightest pages of your work,

I have the honour to be, Mr. Editor,
A sincere well-wisher to your undertaking,
And if not unacceptable a future contributor,
Near Norwich, Norfolk, Jan. 10, 1801. CASTOR.

We do not mean to compare the respective merits of dibbling, and broadcast: but till we have it clearly demonstrated that *dibbling* produces better crops than *drilling*, we must continue to esteem it an awkward substitute. The lines of drilled corn being more regular, are certainly *better* adapted to hoeing. A point of primary importance.

We shall be glad to learn from *Castor*, in what manner, or from what cause he conceives *dibbled crops*, to exceed *drilled crops*.—In the Critical Catalogue of this month he will see farther notice of dibbling. E.

ON TYTHES, BY D. LEVI.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

IN the 418th page of your last number is a promise of mine to give you a paper from my friend, D. Levi, on Tythes. As I think many of your readers will feel anxious to know how this important subject is treated by a Jew, I take the first opportunity to satisfy their curiosity.—My very estimable friend in the 98th page of his defence of the Old Testament in a series of letters addressed to Thomas Paine, thus expresses himself: "We shall now speak of those precepts that are more immediately connected with the land, when the divine origin of the Mosaic laws will be further demonstrated.—All the ancient nations looked upon the distribution of lands as a master-piece in politics.—The institutions of the famous Spartan Legislator so highly extolled by the Greek writers, must in this respect yield the palm to the Hebrew Legislator, for in the distribution appointed by him, every one out of the six hundred thousand men fit for war, was to have a portion of ground given him, sufficient to maintain him and his family in decent affluence; this inheritance Moses in-

formed them was given them by God; they held it immediately from him, and were to conſider him as the only Lord of the land. *Hence* it was that they were commanded to offer the *firſt fruits to Jehovah*, when they were to make confeſſion (*a*) of his goodneſs to them, in giving them the Promiſed Land, and in beſtowing his bountiful bleſſings on it. They were alſo commanded to give *tythes to the Levites*, (*b*) &c. and although you have been ſevere againſt chriſtian prieſts for *demanding* tythes, yet I think you cannot in reaſon have any objection to this inſtitution in the Moſaical law, as *the whole tribe of Levi had no inheritance in the land*; and were moreover ſet apart for the ſervice of God, it was but juſt that they ſhould have wherewithal to live. God *therfore ordered* that the other tribes ſhould give them tythes; and ſecondly, though the Iſraelites were commanded to give tythes, *yet was it not lawful for the Prieſt or Levite to come and demand it as their right*, but only to aſk for it as a *free gift* of the huſbandman (who might give it to whatever Prieſt or Levite he choſe), much leſs had they any power to take it *by force, or to inſtitute a proceſs by law againſt them for it*. No, Sir, THE GIVING OF TYTHES WAS A VOLUNTARY ACT; God had indeed commanded them to give tythes as an acknowledgment of their holding the land immediately from him, (and which, no doubt, every good Iſraelite would be very willing on that account to do; more eſpecially as they were promiſed an increaſed bleſſing in return); but he by no means authoriſed the Prieſts or Levites to force it from them, or in caſe of refuſal to haraſs them by law ſuits, &c. Hence, there were no ſuch quarrels between the Prieſts and people in the Jewiſh nation, as exiſts in many others, and which is a demonſtration of the divine wiſdom in the formation of this inſtitution."

Note (*a*) Deut. c. 26. v. 3. &c. Note (*b*) Numbers c. 18. v. 21. &c. and Deut. c. 26. v. 12. &c. Note (*c*) The *Prieſt* had the great tythe, which was the fiftieth part, and was ſeparated before the tenth part for the Levite—of the tenth which the Levite received he was obliged to give a tenth to the Prieſt, (ſee Numbers c. 18. v. 26. &c.) and which was called the title of tythes. Beſides, there was the ſecond tythe, which the owner was obliged to eat in Jeruſalem, or ſpend the value of it, thereby reducing it and adding a fifth part to it. In the third year it was eaten at home, being ſpent upon the Levites, the Poor, the Fatherleſs, and the Widow.

In page 341 of your Magazine for November, I obſerve your correſpondent *Homo Generoſus* relinquiſhes his opinion of the coal trade being a nurſery for ſeamen—it certainly may be ſo at preſent, but not the only great one that might be.—To what does Holland look to as her nurſery?—THE HERRING FISHERY. Why not let our Government put that under the ſame regulations as the Dutch have done; and work the mines

within view of London, *if any*: humanity demands it of them!* The groans of the people for the two firſt neceſſaries of life, fire, and food, call upon them for the change! A mode alſo adopted by the Dutch in ſalting that fiſh, make theirs confeſſedly ſuperior to ours.

I am, Sir, with great regard,

New-Caſtle, Jan. 6, 1801. J. C.

* Our correſpondent has not adverted to the ſequel of the ſubject. (See page 434.)

ON THE SACRED CUBIT.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I AM induced by juſtice as well as civility, to comply with the requeſt *of Philarithmus*; and therefore forward to you my reaſons for contradicting Dr. Arburthnot's eſtimate of the Sacred Cubit.

It will not be diſputed, that the builders of the Egyptian Pyramids were well acquainted with the Egyptian Cubit; if therefore the various accurate meaſures, which have been taken of the external and internal dimenſions of the great Pyramid, ſhould all appear diviſible in round numbers by any particular meaſure, it cannot be diſputed, that ſuch meaſure muſt have been the national ſtandard at that time. The early knowledge of arithmetic among the Egyptians made the ſquare and cube powers of a number familiar to them, and *decennary* numeration (that is, by tens), as with us, inclined in an indifferent matter to uſe either ſquare, cube, or round numbers (ending in a cypher). We ſhall now ſee how uniformly and nearly the meaſures of the Pyramid (taken by our countryman Greaves, with a ten-foot iron rod), fall into the Cubit of 1 f. 8 in. 628; or dropping the inches (for convenience of diviſion) into 1 f. .719 decimal of a foot.*

Suppoſe a ſide of the baſe of the pyramid to have been intended for an Egyptian Stadium, which was 400 cubits		Feet	Cubits.	Reſult. F. Dec.
- No.	1	693	400	1.7325
Breadth of the firſt paſſage - -	2	3.463	2	1.7315
of gallery - -	3	6.870	4	1.7175
Length of firſt gallery -	4	110	64	1.7187
ſecond gallery -	5	154	90	1.7111
Length of central apartment, in which ſtands the tomb -	6	34.380	20	1.7190
Breadth of central apartment	7	17.190	10	1.7190

* A decimal number may be read as a fraction, by placing under it, a ſufficient number of cyphers preceded by 1—thus 628; 719, &c. &c.

1000 1000

The figures of this table are thus to be underſtood; if the number of feet (firſt column) meaſured by Greaves, be ſuppoſed equal to a certain number of cubits (ſecond column), the third column gives the meaſure of the ſingle cubit. The firſt is the largeſt cubit; it is equal to 1 f. 8 in. 790 dec. The fifth is the ſhorteſt; it is equal to 1 f. 8 in. 533 dec. The difference only about a quarter of an inch. The average of all is 1 f. 8 in. 655 dec.

But I think your readers will agree with me, that the more exact Cubit is to be attained from the dimenſions of the central apartment; from its convenient ſituation for meaſurement; from its moderate ſize; and eſpecially from the elaborate finiſh of its architecture. As this room was 20 cubits by 10 cubits, I therefore ventured to aſſert that the Sacred Cubit was 1 f. 719 dec. equal in Engliſh meaſure to 1 f. 8 in. and ſix hundred twenty-eight thouſandth parts.

The ſixty-four cubits aſſumed (No. 4.) may appear an arbitrary number, till it is conſidered that it is the cube of 4, thus: $4 \bowtie 4 = 16 \bowtie 4 = 64$.

As an Egyptian *Aroura* (acre) was the ſquare of 100 cubits, the baſe of the pyramid covers 16 Egyptian acres, equal to more than 11 Engliſh acres and three quarters. Your London readers may familiariſe this area to their imaginations, by an inſpection of the Square called Lincoln's Inn Fields, which is exactly the ſame meaſure. The ſolid content of the pyramid is 2,845,920 cubic yards: reckoning marble at 24 cwt. per cubic yard, the weight of it muſt be 3,415,104 tons.

Perhaps an architect might hence be able to deduce what would be the expence at preſent of building ſuch a pyramid. It gives us a high idea of the population of ancient Egypt, and of the fertility, which could ſupport ſo many unproductive hands as muſt have been engaged in this ſtupendous, but uſeleſs monument, which was only 20 years in building.

As it is not recorded that the Egyptians knew the convenient artifice of anticipating future revenue by a funded debt, the annual expence muſt have been defrayed within the year, by the fifth of the produce of the country, which the artifice of Joſeph (ſee Geneſis, chap. 47. verſe 26.) ſecured to the Pharaohs after the ſeven years of famine.

When we have ſufficiently ſmiled at the childiſh and ſenſeleſs waſte of national property in conſtructing this and the other pyramids, it may be expedient to reflect, whether the national debt of a certain European Nation has been contracted for any better purpoſe?

Jan. 14, 1801. METRETES.

NOTE ON HAT MAKING.

For the Commercial and Agricultural Magazine.

MR. J. CLENNELL, of New Caſtle upon Tyne, having it in contemplation to publiſh a hiſtory of hat-making, from its commencement; and a detailed account of the moſt approved proceſs, and lately invented machinery in that manufacture, takes this mode of ſoliciting materials for the publication, from any who may have it in their power to communicate them.

Meſſrs. Bodley and Elley, 31, Lombard-Street, will take charge of any papers directed for Mr. Clennell, who will pay honourable and ſcrupulous attention to any wiſh of concealment or publicity expreſſed by his hoped for correſpondents.

Subjoined are ſome notices which may direct their reſearches.

"Being much intereſted in hat-making, I looked over that article in ſome of the Encyclopædiæ, and in Priſcilla Wakefield's little book, Mental Improvements; and I confeſs I think too much cenſure can ſcarcely be paſt on the ſpirit of plagiariſm diſplayed by all theſe authors, in that article. Chambers gave a very mangled account of that manufacture, and they have all implicitly followed him.—I ſhould have ſaid little about their plagiariſm, had the accounts been right, but the whole of them are *totally wrong*. The Editors of the Supplement to the Encyclopædia Britannica, have ſeen their error, and inſerted another, and a better account, though that is not without its errors in the practical part; but what is worſe, it leaves totally unregarded the reaſons for the erection of engines in Mr. Nicholſon's very ingenious paper on that ſubject in his Journal of the Arts, and replies to that ſame author's objections, together with freſh arguments in their favour, in a following number. What apology for ſuch remiſſneſs can theſe editors make to their ſubſcribers? when I read over the pretenſions of the editors of the Encyclopædiæ in their advertiſements, what muſt I think?

"Can any of your correſpondents inform me who was the firſt inventor of hat-making, or by what ſteps it roſe to its preſent ſtate?"

HISTORY OF THE WOOLLEN TRADE OF ENGLAND.

(*Continued from page* 425. *VOL. III.*)

THE price of ſheep now naturally roſe with the value of their wool; but ſtill their number made ſome occaſional variations. We read in *Thorn* of three ſhillings a piece being given for 300 ſheep; but it was at an inſtallation feaſt, 1309. The current price about that time was much leſs, as we find in the acts of the Common Council of London, and in *Dugdale*. In the year 1315 we find the price of ſheep eſtabliſhed in ſuch a manner

as to give us a fair inſight into the value of the wool at that period. The ſheep if delivered ſhorn, was fixed at fourteen pence; if unſhorn, at twenty pence;* but we muſt not extend this authority farther than to the value of the wool, for it was a time of famine.

From this period the woollen trade became more than ever an object of national concern. Perſons of all countries who could improve the manufacture of broad cloth, were encouraged to come over; and among numbers invited by great encouragements from Flanders, Brabant, and Zealand, there were ſome ſo worthy of the advantages they received, that they ſoon ſet the trade upon a moſt reſpectable footing abroad, and upon the moſt profitable foundation at home. In conſequence of the greater and more profitable traffic in this article, the price roſe: and the more aſſiſtance was drawn from it for the ſtate: In Edward the Third's reign, towards the end, we read of ſubſidy after ſubſidy upon wool; and in Richard the Second's reign more ſubſidies were demanded; the traders complained, and the matter being candidly examined, it appeared that though they were not wholly without reaſon of complaint, yet the trade could bear additional loads, and that they might raiſe fortunes.

In the reign of Henry the Fourth, the ſanction of Parliament granted to the King, for a limited time, a ſubſidy of fifty ſhillings upon every ſack of wool belonging to natives, and four pounds on thoſe of ſtrangers *exported*; and ſuch was the produce of wool in Britain at that period, and ſuch the foreign demand for it, that the quantity exported was not leſs than 130,000 ſacks in a year; and in Richard the Second's time, the ſubſidy had amounted to 160,000l. This is related by *Pryn*, and the other hiſtorians, and is ſupported on the beſt authorities. The ſame ſubſidy that had been granted to Henry the Fourth, was allowed for four years in Henry the Fifth's time.

In the reign of Henry the Sixth, we find thirty-three ſhillings and four-pence a ſack allowed to the King on the native property in this article of export; and forty-three and four-pence on that of ſtrangers. The woollen trade increaſed under all this tax; and Norwich about this time became eminent for it.

In the former reigns the large ſubſidies on wool had been granted only for two, three, or four years, in time of neceſſity; but in the reign of Edward the Fourth, the charge of thirty-three ſhillings and four-pence on the exported wool of natives, and of three pounds ſix and eight-pence on that of ſtrangers, even the naturalized, was granted to him for life. Even this proved no check to the traffic. Incloſures became more frequent; the land was more improved, the management of the cattle and their wool better underſtood; and England became juſtly famous for this article beyond all other nations.

*Equal to five ſhillings preſent coin.

In the reign of Richard the Third, though the traffic was encumbered with large ſubſidies, it increaſed continually. In the ſucceeding reign of Henry the Seventh, the greateſt regard was ſhewn to trade in every article, and in none more than this. The exportation of wool was limited, and the manufacture of cloths increaſed accordingly. In Henry the Eighth's reign, the produce of wool was greater than at any time before, and its price increaſed with the quantity, ſuch was the demand for it abroad, and ſuch was the conſumption of it at home. Farmers were laid under certain limitations, as to the number of ſheep they were allowed to keep; but theſe were very extenſive ones; and we may ſee by the account preſerved of this tranſaction, and of the price of things at that time, to what an advance the care of the animal, and the price of its fleſh and wool had riſen. No one was to have more than two thouſand, but this with many exceptions. The ſtatute by way of reaſon recites "The advanced price of all the native commodities in the kingdom. That ſome perſons had at that time vaſt numbers of ſheep, which for victual had riſen in price from two ſhillings and ſix-pence, or at moſt three ſhillings, to ſix ſhillings, or five ſhillings, or four ſhillings at the leaſt; and that a ſtone of clothing (wool) heretofore in ſome ſhires accuſtomed to be ſold for eighteen pence, or twenty pence, had riſen to four ſhillings or three ſhillings and ſix-pence at the leaſt. In others, where it had been ſold for two ſhillings and four-pence, or two and eight-pence, or three ſhillings at the moſt, it was then ſold for five ſhillings and four ſhillings and eight pence, at the leaſt."*

If we look back to the prices of wool in the thirteenth and fourteenth of Edward the Third, which was near 200 years before, the loweſt, viz. the wools of Cumberland and Weſtmorland, were ſold for above two ſhillings the ſtone excluſive of duty, which was ſomewhat more than one ſhilling and ſix-pence per ſtone; and thoſe of Salop (Shropſhire) at better than four ſhillings and ten-pence per ſtone, in like manner excluſive of duty. So that in fact, there ſeems to have been at this time, no advance in the price of wool from the period juſt mentioned; but very much the contrary, conſidering that the ſhilling was then 264 gr. and at this time, but 118 gr. Nor indeed was it any advance from the cheap price of which *H. Knighton* ſpeaks, becauſe the ſhilling was then 213 gr.† Much leſs was wool dearer at this time, than in the fourth of Henry the Sixth. The price being then not only nearly equal to the higheſt price mentioned in this act, but the ſhilling then contained at leaſt 24 gr. more than at the time of this act; and therefore we are to ſuppoſe the complaint then made concerning the dearneſs of wool to have had reſpect to ſome later intermediate times, in which the price of wool does not appear; and which was probably occaſioned by the monopoly

*Henry VIII. cauſed all this confuſion by debaſing the coin.

†Since the time of Elizabeth the ſhilling has weighed only 93 gr.

granted at times by the neceſſities of the crown to the merchants of the ſtaple, and the manufacturers.

As to the price of victual it will not be amiſs to inſert here a little piece of hiſtory (which is taken from *Stow*) in the year 1533. It was that year enacted, "that butchers ſhould ſell their beef and mutton *by weight*: beef for a half-penny per lb. mutton for three farthings; which being deviſed for the commodity of the realm (as it was thought) proved far otherwiſe. For at that time, 1533, fat oxen were ſold at twenty-ſix ſhillings and eight-pence, fat weathers for three and four-pence, fat calves at the ſame price; and a fat lamb for twelve-pence. The butchers ſold penny pieces of beef for the relief of the poor; every piece two pounds and a half, ſometimes three pounds. And thirteen, ſometimes fourteen of theſe pieces for twelve-pence—mutton eight pence the quarter, and a hundred weight of beef for four ſhillings and eight pence. What price it hath grown to ſince (Stow wrote in) needs not to be ſet down. At this time alſo, and not before, were foreign butchers permitted to ſell their fleſh at Leadenhall Market." By foreign butchers, Stow means ſuch as had not obtained by apprenticeſhip the freedom of the City of London.

We have ſeen what a prodigious advance the wool of England made in the ſeveral preceding reigns, and we ſhall find it from this time ſtill continue on the increaſe. Huſbandry had been in early times but very little underſtood in England; but the regard to this commodity, the demand for which was ſo conſiderable, and the price ſo large, gave a ſpirit to the people concerned in it at that time, which we wiſh had been continued to the preſent. In Edward the Sixth's time we ſeem to have had farmers in England who underſtood the management of paſture grounds ſo well, that it were happy if books had been written on the ſubject, to perpetuate their improvements. The great benefit of incloſures was before underſtood fully, and they increaſed in the reign of Edward the Sixth. The care of the paſturage grew with the number of incloſures, and the thriving of ſheep; and the price of wool with it. That commodity ſold in this reign dearer than in any of the preceding;—ſtatutes were made from time to time, to encourage the manufacture of cloths, and marts were eſtabliſhed by authority in different places.

In the reign of Philip and Mary the ſubſidies granted to Edward the Sixth were continued, only with a limitation in favour of naturalized ſtrangers, or ſuch as ſhould be naturalized. Many good ſtatutes were enacted in favour of the Woollen Manufacture in this reign; and it throve greatly under the prudent regulations that were eſtabliſhed, and extended itſelf to many parts of the kingdom. In Queen Elizabeth's time a ſubſidy was granted for life on this article, included in tonnage and poundage; many good ſtatutes were enacted in that reign, and numbers of the French and Flemiſh engaged in the Cloth Trade, leaving their

native country becauſe of proſecution, brought over their ſecrets, and increaſed our credit. In this reign wool unmanufactured roſe from its former price, which might be called thirteen and four-pence, to two and twenty ſhillings per tod.*

We may ſafely eſtabliſh the period from the end of Edward the Sixth, to the end of Elizabeth's reign, as the moſt flouriſhing of all times for the Wool Trade of England. It has never riſen much higher ſince, and it has very often been much lower; in general, conſiderably below that ſtandard. Yet even in that time, we were far from ſupplying all the world, or all Europe with cloth; for there were many other countries very eminent in the ſame manufacture; this therefore is an imaginary notion; and it is altogether erroneous to ſuppoſe we ever did, or ever ſhall have that vaſt trade to ourſelves. It is enough if we can get the ſuperiority in the manufacture, which doubtleſs we may; and may be very proud of our ſucceſs, if we can yearly bring in ſuch ſums as it then produced; which were, moderately ſpeaking, three millions a year.

In the time of James the Firſt, wool afforded ſubſidies, and that largely. New regulations were made, and ſtatutes enacted, but the clamours of the people got the better of them, and of the monopoly, granted by Elizabeth to ſome of her favourites. But the deſire of growing rich too faſt became general among the woollen dealers, and hurt the trade extremely: abuſes were committed in the making cloth; and our credit in conſequence declined, during this reign, in foreign markets. Proclamations were publiſhed to prevent the exportation of wool, and ſearch was made into the nature of the abuſes; but in vain. The manufacture dwindled, and the price of wool fell from thirty-three, to eighteen ſhillings a tod. The firſt years of King Charles the Firſt promiſed the revival of the Woollen Trade; but the diſputes ſucceeding reduced it lower than ever. Proclamations now took the place of ſtatutes; and the exportation of wool was prohibited by ſeveral of them. In 1640 wool again advanced to twenty-four ſhillings the tod. In 1670 many attempts were made to reſtore theſe manufactures to their former glory. The bad conſequences of ſuffering our wool to be exported unmanufactured were ſhewn; and propoſitions made for gaining many hundred thouſand pounds a year, by throwing that trade into a better method; but theſe were times in which men better knew what ſhould be done, than how to do it.

In 1685, the French began to ſupply foreign markets with what they called Engliſh cloths. Theſe had been made of Engliſh Wool; and while that was ſuffered to be exported,

* A tod was originally a quarter of a cwt. It now varies from that weight up to 33lb. according to the cuſtom of various counties.

and ſo many diſadvantages laid on our manufactures at home, it was no wonder they could under-ſell us in the ſame articles. The public attention was awaked by this; the exportation of wool was abſolutely prohibited, and great encouragements were given for the produce of wool, and for the working it here into marketable manufactures. This raiſed the ſpirits of the people, and the advantage was ſoon ſeen; happy had it been if the meaſures ſo projected had been as properly continued.

When wool (except in woollen manufactures) was prohibited exportation from England, the French, and other neighbouring countries got it from Ireland; and this was ſoon ſeen, and its diſadvantages; and laws were enacted againſt it.

(*To be continued.*)

QUERIES, BY J. C.

To the Editor of the Agricultural and Commercial Magazine.

SIR,

IS it in the power of any of your correſpondents to favour me with receipts for making yeaſt? Or an article that ſhall anſwer all or moſt of its purpoſes? I have ſeen it in ſome periodical prints recommended as a certain cure for a putrid fever—Pity that if it is ſo a proper mode of uſing it is not generally known. I hope your Magazine will be the means of regulating the exhibition of a medicine ſo eaſily to be procured, and to combat ſo dreadful a malady.

Can I alſo be favoured with ſome recipes for taking *greaſe* out of the leaves of books?

How is Engliſh Verdigreaſe manufactured?

What is the proceſs in making German Steel?

I ſhall conclude this letter with a query addreſſed to Magiſtrates, and eſpecially to that indefatigable one Mr. Colquhoun, of the metropolis. Would it not be more efficacious for the patroles and watchmen to walk with dark lanthorns, and not to call the hour?* Yours, with reſpect,

New-Caſtle, Jan. 8, 1801. J. C.

* In this caſe the watchmen would ſoon ceaſe to *walk* at all. Their boxes would ſoon become *dormitories* inſtead of occaſional ſhelters.

E.

METHOD OF PRESERVING CREAM.

TAKE twelve ounces of white ſugar, and diſſolve it in water, over a moderate fire. After the ſugar is diſſolved, boil it for about two minutes in an earthen veſſel, after which, add immediately twelve ounces of freſh cream, and mix the whole uniformly over the fire; then ſuffer it to cool; pour it into a quart bottle, and cork it carefully. Keep it in a cool place, and it will continue fit for uſe for ſeveral weeks, and even months.

CRITICAL CATALOGUE.

I.—*Reports of the Society for Bettering the Condition and Increaſing the Comfort of the Poor. Vol. 2. In two parts.* Price 1s. each. Hatchard, 1799, 1800.

THE preface to this volume, by Mr. Bernard, is full of weighty conſiderations, on the ſerious, though unheeded effects of the increaſing poor-rate on the property of the land owner; of the abſurdity of compulſive labour, and of the general morals of the poor. In this laſt diſcuſſion Mr. B. proves that he is no ſanguine viſionary philanthropiſt. He does not aſſert the exiſtence of much virtue in the poor, but contents himſelf with the ſafe, but ſufficient propoſition, that, in their ſituation of ignorance and penury, the rich would act no better. When the efforts of this Society ſhall have inſured comfort and reſpectability as the ſure reward of good behaviour, we doubt not of immediate reform in the great majority of the poor.

This volume begins with an account of the reformed management of the poor at *Hamburgh*. In the year 1788, there were in that town 7000 perſons in want of regular relief, beſides 2500 in the hoſpitals. The town was divided into ſixty diſtricts, each under three overſeers; and their operations ſo well directed, that after ſtruggling a ſhort time with the difficulties of a new arrangement, they gave opportunity of induſtry to all the poor, and, in eight months, were able to give public notice, that, "in future, no deſerving poor perſon *could*, or *would*, remain unnoticed." From 1793 to 1796, the average annual expence of the poor has been only 6111.; and the mortality of the hoſpitals has been leſſened more than one half. Thus, by good management, the poor of this populous city * coſt leſs than thoſe of a moderate Engliſh country pariſh.

A pleaſing inſtance of the exertions of maternal affection is narrated in No. 41. A widow, with fourteen ſmall children, ſtrenuouſly refuſed to ſend any to the workhouſe, and, with the aid of fourteen acres of land (at a fair rent) and two cows, ſhe educated all her children till they were fit to go out to ſervice. Many a fictitious tale has leſs *pathos* than this ſimple narrative, which few will read without emotion, whoſe minds have not been ſophiſticated by novel reading; and are thence become ſenſitive plants when they read of the diſappointment of ſome idle whining lover, and forget the *nobler* afflictions and *real* diſtreſſes of mankind.

In No. 42. is an account of a Friendly Society applying part of their common purſe to ſupply flour to themſelves and their neighbours at a fair price. A judicious and effectual benefit. At Liverpool is eſtabliſhed a charity (No. 44.) as new as it is beneficial: "A ſchool for the inſtruction of the blind." Since the year 1794 about forty have been conſtantly on this eſtabliſhment; they have there earned (though only learners) above 500l. per annum. Whip making, baſket-making, lobby-cloths, and even ſheeting, furniſh them employment. Neither is muſic (the ſolace of the blind) forgotten.

* Containing 110,000 inhabitants.

A Society for aſſiſting convaleſcents from the London hoſpitals, and a Female Friendly Society at Lymington, in Hampſhire, furniſh th two next articles. Rev. T. Burgeſs has founded a Sunday Society of aged poor, in his pariſh of Winſton. It has a double tendency, religious and comfortable. The pariſh windmill at Chiſlehurſt anſwers its purpoſe: but the unexpected coſt of its erection may teach all ſocieties in future to *contract* for ſuch large jobs. The improvements of the Dublin workhouſe are deſcribed in No. 49. It ſeems greatly to conſiſt in forming a claſs of merit, to which all the reſidents eagerly aſpire.

The Agricultural Societies of Dublin and Suſſex (No. 43, 51.) are deſcribed; they are of good tendency, and are now imitated in miniature in many places. Powerful patronage has imparted unuſual power of benefit to the Suſſex Society. A virtuous, induſtrious poor man, cannot there be long without honourable notice and reward. The details of this article will be uſeful information for ſimilar inſtitutions.

The charity for the ſick and lying-in women at Tottenham-high-croſs, combines much facility of execution, and very acceptable benefit to the poor. The account of the Charitable Society at Cork is very conſoling. The conjunction of the Proteſtant and Roman Catholic clergy in this good work, is a pleaſing trait of genuine Chriſtianity, which has loftier views than the paltry conſideration of various *dogmas* of theology.

The inſtitution in London (ſince the obtainment of a charter) called *Royal*, is next conſidered, in as far as it may affect the poor. The ſubſcriptions were very liberal; but, we are ſorry to hear, have been much exhauſted by an ill-judged profuſion. Reform is, however, poſſible, and indeed likely. The firſt part of the ſecond volume cloſes with ſome additional information about improvement in the Dublin Workhouſe, and in the Houſe of Recovery at Mancheſter.

The account of a ſociety at Wendover commences the ſecond part. It was intended to imitate that at Winſton; but local circumſtances prevented its complete adoption. At preſent, whatever money is depoſited weekly throughout the year by the poor, is returned at Chriſtmas, with an addition of one ſhilling to every three ſo depoſited. So popular is this among the poor, that more than ſixty join in it; and their patrons have the ſatisfaction of increaſing their benefaction in the beſt manner—by the induſtry and frugality of the poor themſelves. Next, we have a detailed account of the advantages of cottagers keeping cows. Its author does not ſeem to inſiſt that this meaſure is *always* practicable. Landlords, however, and farmers, have a conſiderable intereſt in making it ſo; ſince the poor-rate in the pariſhes here quoted, does not average ſo high as one ſhilling in the pound. No. 61. relates a conſiderable improvement in the arrangement of the charity ſchool at Cheſter. The admiſſion into it is made a point of conſequence in an inferior ſchool, in which many more receive ſome education. The female children have alſo been as well provided for. Almoſt three hundred children are educated, ſelected from the moſt deſerving of the Sunday ſchools. Mr. Bernard has added to this narrative ſome ſtrong obſervations on the abominable, degrading policy, of keeping the poor ignorant. Morality

and order flouriſh moſt where they are beſt informed; in Scotland, in the north of England, and in Switzerland.

A church has been built at *Bath*, through the exertions of the Rev. Mr. Daubeny (No. 63.) for the accommodation of the poor. The galleries are *let* to defray the annual expences of ſalaries and repairs; and the area is left clear for the accommodation of a thouſand poor. Since this the Biſhop of London has patronized a ſimilar undertaking in St. Giles's; the moſt populous, perhaps the moſt flagitious pariſh in the metropolis. Till a facility of attending divine ſervice is afforded to all who wiſh to attend, it is a diſgrace to be called a Chriſtian country. Religion, in populous towns, is only permitted to the opulent. What wonder if diſſenters increaſe? This ſource of proſelytiſm ſhould at leaſt be denied them.

The Mendip Schools, in Somerſetſhire, occupy the 64th Report. Miſs H. More (known in the literary world) and her worthy ſiſters, co-operate to educate, and even to reform, twelve extenſive pariſhes. Ten years have matured this eſtabliſhment, which, though inimitable by common exertions, or uſual abilities, exhibits a point of beneficence to which all may aſpire, with various opportunity of ſucceſs. The poſſibility aſcertained is valuable.

From Bath appears an account of a repoſitory for ſelling the work of the poor. It is the faſhion for young ladies to make donations of fancy work, drawings, &c. which are thus converted to the purpoſes of beneficence. A cuſtom uſeful to both parties, the giver and the receiver. The Friendly Society of Cork differs from uſual ſocieties in permitting no ſtated meetings of the members. If this do not deſtroy a ſtrong inducement of the poor, it is clearly beneficial. The other rules of this Society are the beſt we have ſeen. The mode of ſupplying fuel to the poor at Lower Winchendon, is judicious and ſalutary. Without affording a reaſonable facility of obtaining fuel for the poor, can we in conſcience puniſh them for ſtealing wood in a hard winter? Real frugality would reſult, if the overſeers every where furniſhed coal at an eaſy price. Coal is no where ſo dear, but that it remains the cheapeſt of fuel. No. 68. An offspring of the Society (publiſhing theſe volumes) is eſtabliſhed with great ſucceſs at Clapham. Their various exertions are fully encouraged and repaid by diffuſive good. The Society meet at each other's houſes, and have apportioned the pariſh ſo, that each is vigilant in the allotted diſtrict. This is copied from Hamburgh. A pleaſing narrative of Mr. Dale's cotton manufactory at New Lanerk is given in 69. The contrary effect of theſe manufactories in general is feelingly and juſtly deſcribed by Mr. Bernard, who even proceeds to wiſh no cotton mill had ever been introduced. Though we think this ſentiment rather indicative of *outrageous* philanthropy, we heartily join in the wiſh, and the manner of melioration ſuggeſted in his obſervations: "That ſome legiſlative regulations be made for inſuring a reform in the too uſual conduct of thoſe manufactories."

The Appendix contains many uſeful papers. A circular letter from the Biſhop of Durham, proves that the ample revenue of that See is in good hands: another Biſhop (of London) evidences both humanity and judgment in his public opinions on the preſent ſcarcity. No. 3. contains a method of preſerving potatoes, by ſimple preſſure. No. 6.

twelve old golden rules, ſtriking from their quaintneſs, and well compiled from Dr. Franklin & Co. The calculation of benefits to the poor and to the community at Hamburgh, from the eſtabliſhment (detailed in the beginning of this volume), is what all calculations ſhould be, concluſive; we hope much from the emulation of our countrymen: Clapham has led the way. (See No. 68.)

The maſter chimney-ſweepers have formed a Society for the protection and inſtruction of their apprentices: ſo that theſe ſooty boys will not for the future ſeem marked by deſtiny for the moſt wretched, and moſt degraded of mankind. The detail of Britton Abbot's eſtabliſhment is doubly uſeful; it proves the effect of a large garden to be comfortable to the cottager: of a ſmall farm, certain ruin to the moſt induſtrious occupier *. On this point, we particularly wiſh to guard our readers againſt injurious benevolence.

Some additional obſervations on the various papers, a liſt of Subſcribers, and a general Index, cloſe the volume. We ſee, with pleaſure, more than 2000 guineas ſubſcribed for the purpoſes of this Society within four years. As theſe volumes are publiſhed for its benefit, we can be ſuſpected of no intereſted motives in recommending them to our readers: no one can ever repent the purchaſe.

Mr. Bernard's preface will indicate to whom it will be particularly pleaſing: "If there ſhould be among my readers any one whoſe "views are directed to himſelf only, I could eaſily ſatisfy him, that "his means of ſelf-indulgence would be increaſed, his repoſe would "be more tranquil, his waking hours leſs languid, his eſtate im-"proved, and the enjoyment of it permanently ſecured, by his ac-"tivity in the melioration of the condition, the morals, and the "attachment, of a very numerous and very uſeful part of his fellow-"ſubjects. To the patriot, who wiſhes to deſerve well of his coun-"try, I could prove, that from the increaſe of the reſources and "virtues of the poor, the kingdom would derive proſperity—the "different claſſes of ſociety, union—and the conſtitution, ſtability. "To the rich, who have leiſure, and have unſucceſsfully attempted "to fill up their time with other objects, I could offer a permanent "ſource of amuſement;—that of encouraging the virtues and in-"duſtry of the poor, with whom, by property, reſidence, or occu-"pation, they are connected;—that of aſſiſting the poor in the means "of life, and in placing out their children in the world, ſo as to "attach them by an indiſſoluble tie, *by a common intereſt*, to their "country; not only as the ſanctuary of liberty, but as an aſylum "where happineſs and domeſtic comfort are diffuſed with a liberal and "equal hand, through every claſs of ſociety."

II.—*General View of the Agriculture of the County of Norfolk.* By NATHANIEL KENT. *Nicol.* 1796. Price 5s.

Norfolk is bounded on the north and eaſt by the German Ocean. Thus it enjoys the advantage of eighty miles of coaſt, and four conſiderable ports; Yarmouth, Lynn, Wells, and Cley. Norwich, the capital of this county, is a large city, containing 40,000 inhabitants. The whole population of the county is eſtimated at 220,000. It is

* See vol. ii. p. 428.

ſaid to contain 1,094,400 acres; but as the Note (*a*) ſufficiently informs us, that Mr. Kent has no knowledge of menſuration, his ſtatement is of no authority *. The arable land is computed at two-thirds of the whole; the unimproved waſte lands at 80,000 acres. From an expoſure to the north and eaſt the winter is ſevere, and vegetation rather backward in the ſpring. But theſe inconveniences are probably more than repaid by the fertilizing influence of the froſt.

The ſurface is moſtly a dead flat; the ſoil every where inclining to ſand. The roads of courſe are good, and the communication by water carriage (beſides the coaſting trade) very extenſive on the various rivers. About the year 1790, a plan was in agitation for connecting Lynn and London by a canal: but private intereſt oppoſed this uſeful meaſure too effectually. The moſt valuable foſſil of this county is marl, which is no where more excellent; twelve cart loads are eſteemed ſufficient manure for an acre. Sea ſand, in favourable ſituations, is often uſed to bed the ſtables and yards; this is an excellent practice, as ſaving other litter, and adding ſaline particles to the compoſt without expence. Mr. Kent recommends, from his own practice, an extenſion of this method, by a permanent fold for ſheep through the winter: it were well if this were generally adopted for all cattle, even for hogs; thus the evaporation of the dung would be ſaved.

The tenures in this county are moſtly freehold; our author profeſſes more partiality than we expected for copy-hold tenures: but he thinks they oppoſe the *monopoly* † of land. We think, that for the common good of the country, and of the individual (uſually inſeparable), a fair leaſe, at rack rent, is preferable; exertion is then compelled by neceſſity, and encouraged by a fair proſpect of gain. In Norfolk, however, the leaſes are reprehenſible; as uſually regulating the courſe of cropping; thus going on the abſurd ſuppoſition, that the landlord is better acquainted with agriculture than the tenant, and that the circumſtances of differing ſea ons are of no moment. A very laudable courſe of cropping for light ſoils is incidentally mentioned in page 33; wheat, turnips, barley, clover.

The ploughs appear tolerably well conſtructed, and are drawn by two horſes, who, at two *journies*, plough an acre at leaſt *per diem*, working from eight to ten hours. Norfolk has been long famous for the firſt introduction, and excellent management of turnips. Lord Viſcount Townſend is ſaid (we believe erroneouſly) to have introduced this root about the year 1720. We are ſorry to learn, that "the ground does not reliſh them ſo well as formerly;" we hope, and believe this a vulgar error. The rent of this county (incluſive of poor-rate and tythes) appears to average at 30s. per acre. The 13th ſection is entitled, "Fallowing Exploded." It is a pity this queſtion is ſo often diſcuſſed without regard to circumſtances; on light

* He ſuppoſes Templeman to have meaſured the counties by multiplying the mean length and breadth, "as I do," ſays Mr. Kent. Mr. Templeman was not ſo inaccurate, or ſo ignorant.

† This word is ſurely in danger of loſing its meaning: See vol. ii. page 249.

land, fully ſtocked, fallowing may be unneceſſary; but on ſtiffer ſoils is abſolutely indiſpenſable.

Incloſure, inſtead of common field, has made an increaſe of population (in the pariſh of Felbrig) as three to two, in thirty years. Hence is juſtly argued the expedience of general incloſure. There are many young plantations of timber; the Spaniſh cheſnut, and the pinaſter (or larch) are deſervedly recommended: no trees equal them for uſe or profit. The neat cattle are ſeldom bred in the country: the ſheep are good meat, and long legged, with fine ſhort wool. Innovation in the breed of theſe animals is now attempted, againſt the approbation of our author. The farm yards ſeem to contain too many barns: expenſive to the landlord in repairs; to the tenant, in feeding vermin at his coſt.

The ſize of farms, and the queſtion of working oxen, occupy the two next ſections: diſcuſſions theſe not ſuited to the intellect of Mr. Kent, who, on theſe ſubjects, and fallowing, repeatedly (by implication) contradicts *himſelf*. According to him, a road horſe devours the produce of *five acres*: but this exaggeration does not hinder the propriety of taxing pleaſure horſes very ſeverely.

The export of grain from Norfolk is very ample; more ſo, it is ſaid (by four times), than from any other country. The fact ſeems to be, that being exported by water, a more obvious account of the quantity is eaſily obtained; for Mr. Kent ſtates its export as ſufficient ſuſtenance for only 127,000 perſons. If London contain 800,000, ſome of the neighbouring counties muſt ſend as much. Eſſex and Kent, we ſuppoſe, rather more, as they are generally fertile, and have leſs manufacturing population to ſupport. A three years average exhibits an account of exported grain from Norfolk, amounting to 901,000l.; of other food, 370,000l. But a conſiderable doubt is thrown on this, and all other Cuſtom-houſe accounts of exported grain, in a note on this ſection by Lord Roſeberry. Calculations, even for the uſe of Parliament, are always (it ſeems) made from the *entries* inſtead of the *debentures*. A ſtrange overſight this. In America, formerly, it added a third of the reported amount.

Tythes are ſeldom taken up in kind; they are compounded at about 3s. 6d. per acre. Poor rates are heavy, and increaſing. But we hope this evil is at its height; the abſurdity of the preſent management is at length daily more and more developed. The ſcience of human nature is about to be applied effectually to this ſubject. Mr. Kent ſhews his humanity in the recommendation and praiſe of benefit clubs, and a reduced price of wheat to labourers.

The report of this county is unuſually ſhort; for the volume (thin as it is) is moſtly filled with certain opinions of the reporter, not always very pertinent; for inſtance, he ſays, that great farmers and millers get together and enhance the price of corn, and thus quite *ruin the little farmer*. A very extraordinary effect of high price, ſurely! But his greateſt fault is, the very unſeemly aſperity with which he treats the notes which have been handed to him (no doubt) with civil intentions, and are, many of them, valuable. He can bear with no difference of opinion: proof enough of a weak mind. We expected much pleaſure and information from peruſing the

Report of a county ſo eminent for its agriculture; and, therefore, feel the more chagrined at the preſumptuous incompetence of Mr. Kent.

Among the communications in the Appendix, is a very valuable one on burning lime with peat, by Dr. Hinton. It is aſtoniſhing that the value of *dry* peat-aſh is not known in Norfolk; near Newberry it is thought to pay well as a ſurface dreſſing for ſeeds, though it there coſts above ſix-pence per buſhel: ten buſhels per acre is there deemed better than a larger quantity.

We are alſo glad to find a letter from Mr. C. Varlo, the father (it ſeems) of dibbling. We had much curioſity to ſee what could poſſibly be advanced for this expenſive operation in preference to drilling. Now we have peruſed this higheſt ſource of information with ſome attention, we are fully convinced of the folly of the practice. It ſeems it has been extant from 1764. We remember the ſuperſtition of the Romans concerning the averſion of Lucern to iron!

III.—*A Letter to J. Whitemore, Eſq. M. P. on the Cauſes of the High Price of Coal, &c. &c.* By HENRY GREY MACNAB, M. D. —*Griffiths.* 1801. 5s.

This letter, which, from the immediate preſſure of the diſcuſſion, has every claim of apology for haſty publication, endeavours to inform the public mind on the important ſubject of coals. The late reſearches of the Committee of the Houſe of Commons have furniſhed moſt of the materials, and cauſed the obſervations thus addreſſed to one of its members. The anxiety manifeſted to ſecure *by ſome means* a regular ſupply for the metropolis, is perhaps of dangerous tendency; inaſmuch as the preſent ſcarcity of miners in the midland coal counties has already rendered their wages ſo high, as to abſolve them from the neceſſity of conſtant work. It is argued, therefore, that if coals were to any amount brought up by inland navigation, the manufactures of iron, copper, and ſalt, muſt be immediately ruined by the want of ſupply.

The various operations of the Northern coal trade have been minutely traced, and the reſult has been honourable to all the parties concerned. It does not appear that any thing except the duty (ſo oppreſſive on London) could have been better arranged for the permanent and reaſonable ſupply of the market. Indeed it has been generally obſerved by the beſt judges, that all adventures of *caſual high profit*, are always engaged in with more ardour than the average profit juſtifies; and this has conſtantly been the caſe in the Northern coal mines, whoſe owners have always ſuffered much from too great production;—the collieries always being able to furniſh more than the demand. Hence has ariſen the uſual agreement among the coal owners to apportion a certain *Vend* to each colliery; by which means many inferior collieries are ſtill worked which had otherwiſe been long ſince abandoned, and the ſupply thrown into fewer hands, to the certain detriment of the public. Thus the agreement has operated as a kind of amicable inſurance among the various coal owners, and the letter of the law has been violated the better to enforce its ſpirit.

The price of coal in London is thus conſtituted:—the duty is 9s. 4d; the value of the coal when put into the veſſel from 8s. to 11s.

per London chalder; the freight from 18s. to 25s.; and the uſual charge for profit of the coal buyer, for river craft, and land carriage, about 8s. more to the conſumer. Of theſe charges the freight is very variable, from the plenty or ſcarcity of ſeamen in peace and war, and ſtill more from the neceſſities of the tranſport ſervice. The freight of the ſuperior coal is ſtill more enhanced, by the waiting of the ſhipping for it; this is ſometimes no leſs than ſix weeks demurrage.

The increaſed price of labour, of timber, of iron, in ſhort, of every neceſſary, ſince the commencement of the war, has alſo operated as a ſtrong law of neceſſity to augment the coſt of the coals in the rivers Wear and Tyne. On theſe rivers, in the mines, and neceſſary ſhipping, no leſs than 64,000 ſouls are maintained by the coal trade. The capital employed is upwards of three millions. The coal raiſed annually about 1,800,000 London chalders.

Dr. Macnab argues, with every appearance of truth, that nothing but the tax (in every view impolitic and unjuſt) can be ſubtracted from the preſent prices. He profeſſes an opinion, that this can only be replaced to Government by an extenſion of the income tax; on this point, our conviction cannot follow him; he himſelf muſt be ſenſible of the inconvenience and hazard of aſſerting a negative. Is it impoſſible, to tax all coals equally at the pit's mouth? The bulkineſs of the commodity would prevent ſmuggling.

It is to be underſtood in this diſcuſſion, that the advocates for inland coal always ſuppoſe it excluſively *duty free*; a moſt unjuſt aſſumption againſt the property engaged in the Northern mines. But without it, they do not even pretend that they could ſupply the metropolis at a cheaper rate. Be the tax aboliſhed on *all*, or equalized on *all*, and the conſumer will be ſufficiently certain of paying the loweſt poſſible price.

The ſale of coal by *weight*, 84 lb. to the buſhel, or 28 cwt. to the London chalder, is the only apparent reform poſſible. The vague meaſures at preſent in uſe are a conſtant diſadvantage to the conſumer, and a certain profit to perſons, by their ſituations, tempted to become the baſeſt of mankind.

Dr. Macnab announces an addition to this his enlarged view of the policy of the coal trade; if we gain as much information from it as from the preſent publication, we ſhall then have little more to deſire on the ſubject. Knowledge will not be wanting to the Legiſlature; for their application of it, be they anſwerable to God and to their country.

HISTORY.

National Transactions,

CIVIL AND MILITARY.

EAST INDIES and CHINA.—The preponderating power of England in the affairs of this country is now more apparent every day.—Ooadiver Khan, the new ſovereign of Myſore, is tributary to the India Company, for the dominion granted to him. A ſmall advance has been

made in the ſum which he paid laſt year: and "after the expiration of the year 1802, it is concluded the full ſubſidy may be realiſed, without any preſſure upon the cultivators of the country, or inconvenience to the Rajah." In his treaty with the Company, he has undertaken not only to exclude all foreigners from his civil and military ſervices, but alſo to apprehend and deliver up all foreigners found in his dominions, without an Engliſh paſſport.

By the laſt accounts from Buſſora, we learn, that vaſt bodies of the Weſtern Tartars had for ſome time been in motion, and were approaching the borders of the Caſpian Sea, and that a formidable Ruſſian force was aſſembled at Aſtrabad, where they were conſtructing fortifications. Some popular commotions had taken place in Perſia, of which it is probable the court of Peterſburg mean to avail themſelves.

By the lately ratified treaty between Saadut Ally Khan, the reigning Nabob of Oude and the Eaſt India Company, in conſideration of their exertions to maintain him on the Muſnud, and to defend him not only from external but internal enemies, he agrees, in addition to the annual ſubſidy paid by his predeceſſor Aſolph ud Dowlah (being rupees 5,677,638), to pay in perpetuity the further ſum of rupees 1,922,362: and beſides having made over to their excluſive poſſeſſion the fort of Ahallabad, with the ghauts immediately dependant upon it, he is to advance ſuch further ſums as may from time to time be neceſſary for ſtrengthening and improving the fortifications: and for the internal ſecurity of the capital, ſome new regulations have taken place in the diſpoſition of the troops, and as many as can, conſiſtent with ſafety be ſpared from the frontiers, have been drawn towards the capital. The territory of Oude is however very unquiet; the depreſſed viceroy ſeems to have many friends; nor are the dominions of the Mahrattas in a tranquil ſtate.

We alſo learn, that a very conſiderable body of men have been embarked in India for an expedition, ſuppoſed by ſome for the Manillas; by others for Batavia; and by others, with more probability, for the Red Sea, to co-operate in the attack on Egypt, with the army which has ſailed from Malta, under the command of Sir Ralph Abercrombie.

The peace with the Mahrattas and the Eaſt India Company is now firmly ſettled.

EGYPT and TURKEY.—All the letters from the army under the command of General Abercrombie, ſpeak in the moſt poſitive terms of their proceeding to Egypt. Of the thirty thouſand Britiſh troops which were lately in the Mediterranean, a part have come down to Liſbon, under the command of Sir J. M. Pulteney, others are left for garriſon, and the remainder, ſaid to be about 18,000 men, are gone for Egypt. Independent of this force, a very conſiderable number of Engliſh troops and ſepoys are, as we have juſt obſerved, coming from Bombay, under the convoy of Admiral Blanket, to attack that country on the ſide of Suez. Even with this co-operation, we doubt the event, ſo ſtrongly do the French appear to have entrenched themſelves.

The Turkiſh empire is now in a more dangerous ſtate than ever. If they incline to the Engliſh, the Emperor Paul will infallibly fall on them; if, on the contrary, they afford any aſſiſtance to the Ruſſians, the Engliſh miniſtry will immediately reſent it. Rebellions in more than one province; another in the hands of the French, and diſcontents in all, ſeem to portend a ſpeedy diſſolution. Large reinforcements are ſending conſtantly to the grand vizier's army, but they deſert in ſuch numbers that few of them reach the place of their deſtination.

NAPLES and ECCLESIASTICAL STATE.—If Sir Ralph Abercrombie, as is now generally believed, is gone to Egypt, Naples and the Pope's dominions are left at the mercy of the French. With reſpect to Naples, there needs only the appearance of a French force near it, to effect a conqueſt with the co-operation of its inhabitants; for the brutal cruelties of the court, on

their return to Naples, have diſguſted every perſon who is not totally diveſted of humanity. Perſons who had capitulated, on condition of perſonal ſafety, and to be ſent to Toulon, were kept on board ſhips in the Bay of Naples, in worſe condition than on board ſlave ſhips, and, after a long confinement, were taken out and puniſhed; ſeveral were executed. If we are to believe a late publication, which is indeed corroborated by many other circumſtances, the cruelties exerciſed at Naples exceed any thing under Robeſpierre. The capitulation entered into, and in which our brave countrymen, captains Trowbridge and Foote, were guarantees, was ſhamefully broken, not however without proper notice taken by thoſe gentlemen, who had it not in their power to remedy it.

The Pope is ſtill on good terms with France, although ſeveral of the enthuſiaſts of his council ſeem inclined to riſk every thing rather than part with their beloved bigotry and power. Cardinal Maury has written to ſome of the French biſhops, that the congreſs of Cardinals, appointed by the Pope to examine the queſtion reſpecting the promiſe of fidelity required of the French clergy, had unanimouſly reſolved, that ſuch promiſe ſhould be made.

SPAIN and PORTUGAL.—An account from Spain mentions, the diſmiſſion of Irquiejo, the prime miniſter, the great friend of France, and opponent of England; and that he has been appointed miniſter from the court of Spain to the Batavian republic; but others ſay he has been ſent into exile. If this news ſhould be confirmed, and a friend of the Prince of Peace, as is ſaid, appointed in his ſtead, we may expect ſoon to hear of ſome very eſſential alteration in the politics of the Spaniſh court. The French, however, have one good ſecurity for their friendſhip, or, at the leaſt, neutrality of the Spaniſh court, and that is the poſſeſſion of the Spaniſh fleet, which is nearly all ſafe at anchor in Breſt harbour; nor can it dare to ſtir from thence, for fear of being captured by the Engliſh. This change muſt alſo have a great effect on the conduct of Spain towards Portugal, which we think may now diſmiſs all fear of an invaſion, as the friends of the Prince of Peace have never ſhewn any determined hoſtility to that country. It is however ſaid, in private, that Portugal has ſecured her ſafety from France and Spain, by the moſt powerful of all arguments, a monthly ſubſidy to a very conſiderable amount; a much ſafer way than paying foreign troops to fight her battles.

FRANCE.—From hence we have received an account of a moſt extraordinary ſcheme to deſtroy the Grand Conſul, by blowing him up, with a machine, called an *Infernal*, as he paſſed to the oratorio. There ſeems ſtrong evidence that this was a real plot, and not one of thoſe mean ſubterfuges which governments ſometimes uſe to carry ſome particular purpoſe. For our parts, we are well informed, that the hatred of the violent Jacobins to Bonaparte is ſo great, that it will be almoſt a miracle if he eſcapes them.

The French army continues its ſucceſsful progreſs, and with a rapidity unexampled. In twenty-ſix days only, ſince the opening of the laſt campaign, the French troops have driven the Auſtrians before them for near an hundred miles; have taken from them twenty-five thouſand priſoners, among whom are ſeveral general officers, one hundred and forty pieces of cannon, and near a thouſand baggage waggons, with moſt of their magazines. In Italy they have alſo loſt 12,000 men, in killed, wounded, and priſoners, and have been driven from the line of the Mincio. Theſe ſucceſſes have been publicly announced by the Grand Conſul, to the Tribunate and Legiſlative Body; and at the ſame time the Conſul has made a declaration, that he does not mean to inſiſt on any other terms of peace than what were ſettled in the preliminaries ſigned by Count St. Julian, which bounded the French pretenſions to the Rhine, and thoſe of the Emperor to the Adige.

Near an hundred perſons, ſaid to have been concerned in the attempt againſt the Conſul's life, have, without trial, been tranſported.

DENMARK and SWEDEN.—The arrival of a miniſter from the latter court in London, to enquire into the ſeizure of the Spaniſh ſhips at Barce-

lona, was noticed in our laſt: he ſtill continues here; and we preſume, if he does not ſoon receive the ſatisfaction he requires, that he will ſet out for Spain, to which place he is appointed ambaſſador from his court.

The refuſal of a Daniſh frigate, ſo long ſince as laſt December, to permit a Britiſh ſquadron to examine ſome merchant veſſels under her convoy, together with her having fired into a boat, and the whole having been conveyed by our ſhips into Girbralter, have been long before the public. The particulars of this extraordinary tranſaction are related through the laſt German papers, in a letter from Mr. Merry, his majeſty's *charge d'affaires* at the court of Denmark, to the ſecretary of ſtate Count Bernſtorff, dated Copenhagen, April 10, confirming the moderation with which our officers acted upon that occaſion, and repeating the aſſurance of the Daniſh captain Van Dockum, upon his honour, that he acted by expreſs orders from his government.

The dates of theſe tranſactions particularly point for conſideration ſome matters of great magnitude, by aſcertaining, that the late conduct of the Freya, in the Channel, did not originate in her commander, or in the ſudden caprice of his court, but in a ſyſtem acted upon eight months before. This circumſtance, therefore, by ſhewing the diſpoſition of Denmark, almoſt demonſtrates, that her recent conceſſions proceeded from her fears; and as, conſequently, there was reaſon to apprehend, that, when ſupported by the preparing fleets of Ruſſia and Sweden, ſhe would evince her unfavourable diſpoſition.

That the northern confederacy is now ſtrongly cemented, we have ſufficient proofs. How they will act to bring their deſigns to bear, we muſt wait till the opening of the Baltic to know. Mean time the three great northern powers are indefatigable in fitting out their fleets, which we have no doubt will be very numerous.

Reſpecting the affair at Barcelona, we have refrained from comment in the hope of official information; but we regret that the national character is thus long allowed to be ſtigmatized, by charges moſt injurious. If our officers, in the warmth of that zeal to whoſe good management we owe our glory and our power, have infringed upon the laws of nations, by gaining acceſs into the port of, and attacking an enemy under a neutral flag, we owe it to our own high honour to make every poſſible reparation; but if the Spaniſh frigates were captured by the boats of an Engliſh ſquadron, the avowal and juſtification ought to be as general, though more dignified than the charge.

An order of council has been iſſued in London, directing, that all Ruſſian, Swediſh, and Daniſh ſhips, ſhould be laid under an embargo. It is alſo ſaid, that orders have been given to our cruizers to ſtop all the ſhips of theſe powers that they ſhall meet with at ſea.

Russia.—We wait with impatience for news from this country. The ſeizure of our ſhips, and impriſonment of our countrymen, is confirmed; and what renders their ſituation the worſe, is, that we have neither miniſter or conſul to exert themſelves in their behalf. The Britiſh adminiſtration, we are told, have cauſed a memorial to be preſented by the Britiſh envoy at Berlin to the emperor's reſident here, which may have ſome effect. The emperor ſeems to be daily more and more irritated againſt our ſovereign, and report ſays, that he has demanded a paſſage through the dominions of Pruſſia for troops, with a view, as is ſuppoſed, to attack Hanover.

At this period, we cannot help adverting to the imprudent policy of this country, in ſuffering the Ruſſians to form a navy by the aſſiſtance of Britiſh officers. The following remarks are ſo applicable to this circumſtance, that we cannot avoid inſerting them:

The embargo for ſome time laid on the Britiſh ſhips by the court of Peterſburg, with the conduct of Ruſſia on other occaſions, manifeſts the impolicy of foſtering that infant Hercules, whoſe friendſhip is fickle, and whoſe

policy is universal domination, and to extend to every other counti y the des-
potism, by which itself has been and continues to be degraded.

During the late eventful war, the merit of numerous gentlemen o r casioned
them to be promoted by the admirals under whom they served, fron a the post
of midshipmen to that of Lieutenants, in which latter they contin ued during
the years they remained abroad; notwithstanding which, not being con-
firmed lieutenants, they now returned into the body of the other c lass, where,
when they ceased to be wanted, set, with the rest, adrift, witho t a chance of
employment from their country in the only avocation to wh ich they were
competent, and too old to seek another.

Thus, forced to emigrate for food, many of them entered into the service
of the northern nations, particularly Russia, whose arms v ere opened to re-
ceive them; the Russian minister at the court of London, with the approval
of the British cabinet, sending away ship loads of them a a time.

To this circumstance may be attributed the rapid improvement in the
navy of Russia. The emperor, however, was desirous to obtain practice for
that navy, without paying for it, and the consister cy of the ministers of
Britain, who had starved the men that kept them in their places, or rather
that kept places for them to occupy, gratified his utmost wish, by hiring
from him, and repairing twelve crazy ships of the li ne, besides frigates, at a
rate that afforded the means to support more than d uble that number.

AUSTRIA, and the GERMAN EMPIRE.—T e fate of the House of
Austria, or a speedy settlement with the Grand Consul of France, has been
looked for by many; but the event has been ac complished in a much more
speedy manner than was expected. In conseque ace of the brilliant victories
obtained by the French over the Austrians, nea t the Danube and in Italy, an
armistice has been signed between General More u and the Archduke Charles
(who had just taken the command of the Emp r or's army), by which hosti-
lities are to cease for forty-five days, and a lin e of demarcation is settled, by
which the French troops are to take post withi fifty miles of Vienna, and to
have possession of the passes, and the greater p art of the Tyrol,

Since the signing these terms, the Emp ero r's minister at Luneville, has
given notice, that he has received orders fr om his court to negociate a peace
independent of England. We congratulate ou r countrymen on having thus
got rid of an ally which has hitherto been s ch a load upon us, and which,
if the war and the alliance had continued, pr omised to drain England of all
her specie. The terms on which the Grand Consul has given notice that he
will make peace with the Emperor, are so v ery advantageous to the House
of Austria, that we should conclude that business as good as done, did we
not still see the detested Thugut as the head of the councils; and while
he is suffered to remain, we confess we have great doubts of a final ad-
justment.

SWISSERLAND, and the NORTH of ITALY.—In the message from the
Grand Consul of France to the councils of that country, respecting the terms
of peace, he tells them he is determined to support the independence of the
Helvetian and Batavian republics, bu t does not drop the least hint respect-
ing the Cisalpine or Ligurian states. A question therefore very naturally
arises, what he intends to do with th em. Will he basely desert their cause,
or does he mean to alter their present destination? Whatever may be his de-
signs, it is a melancholy circumstan ce, that the fate of so many men should
be in the breast of such an upstart tyrant. He has, it is true, in a former
letter to the provisional council of Milan, hinted to them, that the Cisal-
pine republic, the Ligurian repu blic, and the states of Piedmont, was all
that could at present form the Ita lian republic. Does he by this hold him-
self bound to support such a state ?

AMERICA.—The fate of thi s country seems to hang on the election for
president and vice-president. If Adams, the head of the English faction, is
elected, America will be to all intents and purposes a colony of this country;

if, on the other hand, Jefferson, the friend of France, should be successful, America may look for a war with this country.

IRELAND.—The union with this country taking place on the first of this month, we must hereafter look on it as one kingdom with ourselves. This great event causes alterations in many circumstances of public concern.

The title of the king is changed, and now his title is to be, *Of the united kingdoms of Great Britain and Ireland, King, Defender of the Faith.*

The representation in the parliament from Ireland is to consist of thirty lords, four of whom are to be ecclesiastical in rotation, and one hundred commoners, which will make the whole representation of the commons for the Imperial Parliament consist of 658.

The colours and armorial bearings are changed. In the union flag, a stripe of red is introduced into the white, and the royal arms are thus altered.—The arms of France are omitted—England and Scotland, which were before impaled, are to be borne quarterly; England to occupy the first and fourth quarter; Scotland the second quarter, in which France formerly stood, and Ireland the third. The king's German arms are in future to be borne in an escutcheon of pretence.

Commercial Affairs.

HOWEVER the advantage of the India Company may be promoted by the capture of the Dutch spice island, the people here have reaped little benefit; and we learn, that, of this small advantage, we shall soon be deprived, as a market has been opened in Columbo, to which place great quantities are now sending.

In the reign of Edward the First, corn was first sold by weight; before this time it was sold by measure.

In the reign of Henry the Seventh, A. D. 1494, wheat was sold for sixpence the bushel; and in the same king's reign, 1533, beef and mutton were first ordered to be sold by weight; beef at a halfpenny per pound, and mutton at three farthings.

Several forged bank notes have lately been discovered at Glasgow, from whence three suspected persons have absconded.

The intended improvements in the port of London will ultimately obviate the complaints of delay and expence in unloading ships; but, in the mean time, some attention to this business becomes necessary. Colliers have been known to lay a month and six weeks, before they can get discharged. This has, among other things, raised the price of freight, in five years, from 14s. 6d. per ton to 1l.

The court of directors of the East India Company have it in contemplation to grant greater facilities to private trade.

At Bussora the copper-trade has greatly declined; the market for drugs were, however, particularly well supplied during the last season. European goods were likewise more abundant than heretofore, and at more moderate prices; but many articles, English watches and broadcloths more especially, secure to the merchant a profit of cent per cent.

A plan has for some time been in contemplation for clearing the bar of the port, and of thereby rendering it competent to the reception of the largest vessel navigating these seas.

The embargo laid by government on all the Swedish, Danish, and Russian ships, has caused great alarm. Should the Prussian flag be molested, there will not remain one neutral flag in Europe.

The herring fishery in the Frith of the Forth is productive beyond expectation; but some ruffians have lately cut the nets, and set adrift the buoys of the fishermen. Rewards have been offered for their discovery, and it is to be hoped the evil will in future be prevented by their punishment.

We are happy to ſtate that a herring fiſhery has been opened in the Frith of Tay, with even increaſed proſpects of advantage. The herrings are as abundant, and much larger than in the Forth.

Value in rubles of the merchandiſes imported and exported by merchants, and other perſons of different nations, at St. Peterſburgh and Cronſtadt, in 1797.

	Imported.	*Exported.*		*Imported.*	*Exported.*
Ruſſians	12,359,005	11,827,209	Lubeckers -	32,943	19,623
Engliſh	4,936,851	19,749,180	Hamburghers	203,416	,603
Auſtrians	580,350	370,131	Italians -	14,099	———
Swedes -	9,314	1,870	Swiſs -	40,364	———
Danes -	148,288	13,125	French -	306,602	10,831
Hollanders	1,300	———	Merchants of other Nations and Paſſengers	284,563	19,893
Spaniards -	41,451	66,327			
Portugueſe	260,769	205,460			
Pruſſians -	14,709	290	Capts. of Ships	131,855	154,369
			Total	19,366,059	32,450,911

Thus the exportation exceeds the importation by - 13,084,852

The ruble, at a medium, is 2s. 6d. ſterling.

The following remarks incontrovertibly ſhew, that an enormous increaſe of wealth is never to be deſired by any nation:

The moſt obvious effect of the increaſe of money, or what paſſes for money, is the decreaſe of its value, like that of all other commodities; for money being but a commodity, its value muſt be relative, that is, dependant on its quantity, and the quantity of the things which it will purchaſe.

The value of money at the time of the Conqueſt was more than twenty times greater than at preſent, and it has been gradually decreaſing from that period, in proportion as our riches have increaſed. This reduction in the value of money within a few years, could it be exactly computed, would probably be found in proportion to the increaſe of its quantity, whether in real or fictitious caſh, and that the price of proviſions in general is advanced in the ſame ratio.

Beſt coals are now ſelling in the Pool at 48s. per chaldron, and are delivered at 56s. Sunderland—in the Pool, 44s. and delivered at 53s.

The market for proviſions in Ireland has been lately rather dull, and the prices on the decline.

The ſeizure of the Engliſh ſhips in Ruſſia has not only been a great prejudice to a number of merchants, but promiſes to be productive of great altercation, and will probably produce many lawſuits. The merchants who have a property in thoſe ſhips and their cargoes, have called on the under-writers to pay their loſſes, which has been reſiſted by thoſe gentlemen, on the principle that the ſhips have not been condemned. In conſequence of this demand and refuſal, the underwriters have had a general meeting on the ſubject, and have appointed a committee of ſeventeen to act for them, and by whoſe determination they declare their readineſs to abide, at the ſame time inviting the claimants to appoint a committee to treat with theirs on the ſubject.

Government have iſſued a proclamation, directing, that no bills drawn from Ruſſia, after a certain day, ſhall be either accepted or paid.

Peterſburg, Riga, Dantzic, Memel, Hamburgh, &c. the commercial ſeaports and emporia, of the North, ſupply corn, coffee, flax, hemp, hides, quills, rags, ſilk, ſtarch, Rheniſh wines, and timber, in very large quantities, to the importation into the port of London, between the 2d and the 16th of January. The prices of moſt of theſe, and other imports from the North, found in the mean time only ſlight fluctuations in the market, without any remarkable or ſteady riſe or fall. The ſubſequent menaces of

hoſtility from the Northern Powers, have tended, within theſe few day, to heighten the prices of ſome of our ſtaple northern imports. The prices of grain, among other articles, may riſe.

From the Elbe to the Mediterranean Sea, we are, in a great meaſure, ſhut out from direct intercourſe with the ports of the Middle Coaſts of Europe. Beef, cheeſe, brandy, butter, gin, hides, madder, pork, rags, and wheat, were, however, imported into the Thames from Holland, by the intervention of neutral ſhips, and in quantities not inconſiderable, during the firſt fortnight of January. From France, by way of Guernſey, we have had in the ſame time, an importation of ſome quantities of brandies, melaſſes and wines.

From Spain have been brought lemons, raiſins, wines, and wool, to no large amount. Cork, cotton, gum arabic, India rubbers, oranges, ſaffron, ſkins, tapioca, wines, to a great value, have been introduced from Portugal, which, at this time, enjoys alſo great advantage by its intervention in our trade with Spain. Of theſe articles, brandy, gin, melaſſes, have been lately riſing in price.

From the ports of Italy and the Mediterranean Sea were entered in the port of London, during the firſt fortnight of 1801, cream of tartar, currants, galls, gum arabic, oil of olives, lamb-ſkins, coral beads, cotton, and a few other articles.

The Weſt India Iſles have ſent great quantities of the imports entered within the ſame time. Coffee, cotton, fuſtic, copal, indigo, logwood, caſtor-oil, pimento, rum, ſarſaparilla, ſugars, tamarinds, tortoiſe-ſhell, Madeira wine, are the chief articles of this importation. The price of ſugars, in general, has riſen. Coffee, after a tranſient riſe, has lately fallen ſomewhat. Indigoes have, not very recently, riſen.

The Britiſh American Colonies of Canada, Nova Scotia, &c. are rich ſources for the ſupply of the ſame commodities we have been in uſe to obtain from the North of the Continent of Europe. Pearl and pot-aſhes, ſo valuable to our ſoap-boilers and bleachers, eſſence of ſpruce, mahogany, furs and ſkins to a great value, have been entered, chiefly from Quebec.

From the ports of the Anglo American States, our imports, during the ſame time, have been principally cotton, ſugar, tobacco, ſkins, and furs, ſtaves, logwood, coffee, jalap; theſe to a great amount.

The South Sea Whale Fiſhery becomes continually more important. It will ſhortly prove a ſource of conſiderable wealth to the Britiſh Colony at Botany Bay. Forty tons of train oil, and as many cwt. of whale fins, the produce of that fiſhery, were lately entered in the port of London.

The Eaſt India Company are to put up at their ſales on the 5th of March 7,000,000 lbs of tea. More than 100 French traders, now in London, await to make purchaſes at thoſe ſales.

A voyage of diſcovery, to explore the Southern Coaſt of New South-Wales is determined upon by government, and is to be under the direction of *Sir Joſeph Banks*.

Jute, a ſpecies of *Indian yarn*, has been brought in conſiderable quantities from Bengal, in expectation of its proving a good ſubſtitute for rags in the manufacturing of paper.

A new company for the *coral fiſhery* on the coaſt of Africa, was inſtituted in France by an order of the Conſuls, on the 17th of January inſtant.

The exportation of corn, during the years 1744, 1745, 1746, 1747, and 1748, as appears by the bounties paid, amounted on the average to 8,007,948l. Our preſent import exceeds ten millions ſterling, making a balance againſt the Nation to the amount of eighteen millions. The current prices in the above five years were 35s. to 50s. per quarter; the preſent averaged price is 130s. making an additional expence to the public of at leaſt fifty millions ſterling a year.

Agriculture.

Monthly Report of Agriculture, for Jan. 1801.

IN moſt parts of the highland diſtricts, where the ſoil is rich, the fine winter weather had cauſed the young wheat plants to thrive too luxuriouſly, but the froſts of late have rather checked their growth, and will improve the crop. To remedy the deficiency of the ſmall breadth of wheat that was ſown in the fens, as well as the injury that ſome of the crops have received through defective drainage, we hope that a greater breadth than uſual will be ſown or planted this ſpring.

As dibbling, if properly performed, ſaves nearly half the ſeed, we truſt, that every exertion will be uſed to encourage ſuch an economic mode of planting all kinds of grain, at this period of dearth and ſcarcity; for dibbling, not only ſaves a large portion of the ſeed, but alſo provides abundance of employment for the poor, as well as generally improves the crop. Therefore dibbling all kinds of grain this ſpring, ſhould be encouraged as much as poſſible both by premiums and patriotic exertions.

The crops of Graſs, Coleſeed, Turnips, and winter tares, &c. have proſpered amazingly; and therefore the markets have been ſupplied with beef and mutton more plentifully than could have been expected. Nevertheleſs, as bread is ſo extremely dear, butchers' meat riſes in price, and is not likely to be lower at preſent.

Through the favourable weather hay is more plentiful and leſs dear than might have been expected. And hence ſtore ſtock keeps high in price.

The country corn markets, as well as thoſe in the metropolis, have continued to riſe in price, and we fear will not be lower at preſent.

Potatoes are ſtill very dear, and the quality of them very inferior.

This ſpring has been remarkably favourable for ploughing up the land deſigned to be ſown with grain, and ſome has already been ſown in the ſouthern diſtricts, and on ſoils ſubject to burn in hot ſummers. Grain can hardly be ſown too early at ſpring; but on ſtrong clays and all cold ſoils it generally proſpers much the beſt, when ſown late in the ſpring.

Chatteris, Jan. 26, 1801. J. SCOTT.

The Board of Agriculture have written through all parts of the country, offering a premium of 200l. on the beſt means of converting certain portions of graſs land into tillage without exhauſting the ſoil, and of returning the ſame into graſs at a certain period, in an improved ſtate or at leaſt without injury.—For the ſecond beſt 100l.—For the third beſt 50l.

Within the laſt twenty-ſeven years, 1280 bills of incloſure have paſſed Parliament, and, by many of theſe, land, now amongſt the beſt in the kingdom, has been reclaimed. During the ſeventy-three years preceding, there were only 851 incloſure bills, being of late years an increaſe in the proportion of 47 to 11. This increaſe of cultivation has greatly exceeded any poſſible increaſe of population; and yet, inſtead of a ſurplus ſtock of grain, our exportation thereof has not only ceaſed, but we are rendered dependant on fortuitous and impoveriſhing ſupplies from abroad. Surely the cauſe of this extraordinary effect deſerves inveſtigation.

A new Farming Society has been eſtabliſhed in Hampſhire, under the patronage and by ſubſcriptions of Lord Hood, and ſeveral gentlemen of that county, with a view to eſtabliſh an experimental farm in Hampſhire, on the general plan propoſed ſome time ſince, by Sir John Sinclair.

In addition to the communications publiſhed by the Board of Agriculture, Lord Somerville has alſo ſent out a work, in which his Lordſhip obſerves, that on a ſtatement of comparative expence, between 65 horſes and 107 oxen, uſed by his Majeſty, in agricultural labour in 1797, there was a balance of 513l. 15s. 6d. in favour of the oxen; or on the ſame comparative average

ſtatement of each animal ſingly, the horſe at 20l. 9s. per ann. the ox at 7l. 18s. 6d. per ann. there appears a balance in favour of the ox, of 12l. 10s. 6d; not to mention the difference in favour of the oxen in the prime coſt, the caſualties and ailments to which horſes are more peculiarly liable, the little attendance required by the ox; and the conſideration, that if an accident happens to the horſe, he is worth no more than his ſkin; whereas in this caſe, the ox, in any tolerable working order, is ever worth half his former value.

The King having procured ſome Marino ſheep from Spain, has formed them into a flock in Oatland Park, where they have produced wool of the firſt quality.—The clip of 1796, was ſold at 2s. per pound, and that of 1797, at 2s. 2d.—In 1798, eighty-nine ſheep produced in wool ſecured 203lb. which produced 47l. 8s.—In 1799 the flock was increaſed to one hundred and one, the wool of which produced 63l. 14s. 6d. The King has alſo given away above a hundred rams and ewes, to croſs other breeds of ſheep.

The Rev. Mr. Lucas, of Bloomfield Parſonage in Eſſex, adviſed the following improvement of the plough, which is only a double ſwilyard, and double foot chain, to the common plough uſed in that county, which he ſays affords ſo much additional ſteadiment, as it is called, that it will turn a ſtraight deep furrow, forty yards long, without being touched by the ploughman.

Peaſe have attained a price hitherto unknown in the annals of agriculture. The current charge in many counties has been from 14s. to 17s. per buſhel; but in Worceſterſhire they have ſold as high as 20s. At Worceſter, however, the buſhel generally contains nine gallons inſtead of eight, and at Tewkeſbury nine gallons and a half.

The Agricultural Society has made ſome progreſs in aſcertaining the population of England, and the number of acres cultivated.

The following table is in ſome inſtances formed from actual enumeration, and in others from eſtimates of births, of houſes, &c. and includes cities, towns, &c.

Counties.	Inhabitants.	Acres cultivated.	Proportion to one Inhabitant.
Berks - -	115,000	436,430	3 3-4th Acres
Derby - -	185,000	720,640	5 8-10th do.
Durham - -	80,000	610,000	8th do.
Stafford - -	250,000	780,800	3 1-10th do.
Hereford - -	90,000	781,440	8 7-10th do.
Lancaſhire -	425,000	1,129,600	2 6-10th do.
Kent - -	200,000	893,600	4 ½ do.
Norfolk - -	220,000	1,094,400	5 do.
Eſſex - -	320,000	1,240,000	4 do.
Cambridge -	83,000	443,300	5 3-10th do.
Rutland - -	20,000	105,000	5 2-10th do.
Huntingdon -	50,000	210,000	5 do.
Northampton -	167,600	582,400	3 ½ do.
Hants - -	200,000	1,212,000	6 do.
Weſt York -	400,000	1,568,000	4 do.
Devon - -	400,000	1,600,000	4 do.
Somerſet -	350,000	1,000,000	3 do.
Dorſet - -	89,000	775,000	8 7-10th do.
	3,614,600	15,994,100	4 3-10th Acres
Middleſex -	648,000	179,200	one Acre to 3 6-10th Inhabitants.

The cultivated land in England exceeds thirty-nine millions of acres, which, at the foregoing rate of 4 3-10th acres to each perſon, makes the

total number of inhabitants 8,960,141, to which adding 643,833, the excefs of Middlefex, beyond the above proportion, gives a population of 9,603,974, exclufive of failors, foldiers, and the inhabitants of the Britifh Iflands.

The following ftatement of the cows kept in the vicinity of London, may, we believe, be depended on.

There are about 8,500 cows employed in the neighbourhood of the metropolis, for its fupply of milk, viz. Tothill Fields and Knightfbridge 205, Edgeware Road 550, Paddington, Tottenham Court Road, Battle Bridge, Gray's-inn-lane, Bagnigge Wells and Iflington, 3,950, Hoxton 150, Ratcliff 205, Mile-End 406, Limehouse 180, Poplar 70, Bethnal Green 200, Hackney 600, Bromley 160, Bow 100, Shoreditch and Kingfland 200, Deptford, Rotherhithe, Greenland Dock, New Crofs, and Bermondfey, 681, Lambeth, Kennington, Cold Harbour, Peckham, and Rye, Newington, and Camberwell, 619; odd cows in different places 224. Thefe cows are the property of a very few individuals, who have hitherto, at the loweft eftimated profit, divided amongft them an annual profit of 95,200l. but by the advance in queftion, their profit was to be increafed from 11l. 4s. to 31l. 14s. 6½d. per cow, making a *further annual gain of* 174,710l.

Mr. Maule, of Marazion, in Cornwall, has tranfmitted to the Board of Agriculture, an account of an embankment, by which he gained a confiderable portion of land from the fea. The mode he purfued to improve the land afterwards, was—he pared and burned the furface, and after repeated ploughings for two years, large bodies of clay with manure were laid on its furface, and a flight crop of white oats, with ever-grafs, common and Dutch clover, were fown in the fpring. The faltnefs for three years was fo powerful as to deftroy every crop, the fourth year the land began to vegetate, but on the fifth every vegetable flourifhed with luxuriancy.

Mr. Jobfon, of Turvilaws, has likewife fent to the Board fome intereffting experiments on the various modes of raifing turnips; the fix modes which he purfued, were 1ft, drilling, on one bout, ridges at 27 inches diftance—2d, drilling with Mr. Bailey's machine, on a level furface at 21 inches diftance—3d, broad caft—4th, drillings as in the firft cafe—5th and 6th, broad cafts when the firft and fourth feem to have anfwered far beyond the others.

A correfpondent has fent us the following recipe for feeding horfes, milch cows, and calves, and for fattening cattle—he obferves, that Lint-feed for any of the above purpofes is at prefent 300l. per cent. cheaper than oats or any other grain; when oats were 21s. per quarter, he found an advantage in grinding Lint-feed with them at four guineas per quarter, which will weigh upwards of thirty-two ftone, and at prefent may be purchafed from three pounds ten fhillings, to four guineas per quarter.—There is a confiderable quantity in the kingdom, and may be imported. Its nutritious qualities contrafted with oats, barley, and beans, he confiders it a faving of three-fourths; it is notorious to every one who has tried experiments in feeding with Lint-feed the fmall quantity they ufe in proportion to any grain, very feldom one-fourth, mixed with ground oats, bran, or chaff—it cannot be ground in the common mills, without oats, barley, or beans, but afterwards may be mixed with two thirds of bran, or chaff.—The Lint-feed duft, or cake (when the oil is taken from it) is at prefent felling for 15s. per cwt. to fatten cattle, breed calves, &c. the *genuine Seed* may be bought from 18s. to 21s. per cwt.——At a time when the economy of grain is of fuch infinite importance, he hopes the above hints will prove a benefit to the community.

Another correfpondent advifes that oats, given to horfes, fhould be previoufly bruifed. The preffure of the times has fince induced feveral experiments, even to grinding the oats into meal, which it is ftated is the beft mode of fupplying horfes, on account of the increafed bulk which the food thus acquires. Without going quite fo far, we are induced to advife half

breaking the oats, and mixing with them a ſmall quantity of cut ſtraw, for the purpoſe of compelling maſtication, by which means at leaſt one third of the general ſupply may be reduced, without injury to the animal. Horſes, from the avidity with which they feed, particularly when eating out of the ſame manger with others, ſwallow vaſt quantities of oats without chewing them, the greater part of which, paſſing the ſtomach undigeſted, is in no wiſe beneficial; whilſt, by the propoſed mode, even the ſmalleſt part does not go to waſte.

A national farm for Spaniſh Sheep, is now eſtabliſhing at Perpignan.

Manufactures and uſeful Arts.

WE are happy to hear that the cultivation of hemp is likely to ſucceed in India, from whence it is probable we ſhall derive a ſupply adequate to our conſumption, and at leſs expence than at preſent. Several experiments were lately made, by order of the Supreme Government, with hemp, the growth and manufacture of Chittagong, on board ſome ſmall veſſels trading in thoſe ſeas, and the reſult has been ſuch as to confirm the Company in the project of greatly extending the culture of this article.

The Chineſe tallow-tree has been carried to Bengal, where it is cultivating with every proſpect of ſucceſs.

By the Acts for regulating the new mode of manufacturing flour and bread, it is enacted that from the 17th of January, no meal ſhall be dreſſed within London, or forty miles round, otherwiſe than by cloths which have not more than thirteen threads in an inch ſquare, nor beyond forty miles after the 24th.

That a week after ſuch dates no flour ſhall be ſold, but ſo dreſſed, unleſs imported from abroad; and a week after the ſecond dates no bread muſt be made either for ſale or private uſe unleſs made of ſuch flour. This act to be in force to the 6th of November, 1801.

Fine Arts, Science and Literature.

The great Botanical Garden in the vicinity of Columbo, eſtabliſhed many years ſince by the celebrated botaniſt J. Gideon Loten, of Utrecht, has particularly attracted the notice of the Medical Board, and been recommended in the ſtrongeſt manner to the attention of government: in conſequence of which, every improvement is attempting therein, and collections are making in every part of India, and on the adjacent iſlands, in order to make experiments, and to ſtore it with the greateſt variety of curious and valuable productions. The eſtabliſhment of the Sumalcotta Botanical Garden, which has of late been much neglected, is ordered to be totally aboliſhed, and the ground applied to more advantageous purpoſes.

A variety of new literary works are now on hand: Dr. Barrow's account of his Travels in the Interior of Africa, will ſoon appear. Mrs. Piozzi's Retroſpection, or View of Hiſtory, for the late 1800 years, is publiſhed, and a tranſlation of a very old Hiſtory of the Conqueſt of Mexico, has been lately tranſlated and publiſhed.

A new work is alſo in the preſs, which is to be continued annually, and which promiſes to be equally uſeful to the philoſopher, the literary man, and the man of buſineſs; it is to be called *Annals of Philoſophy, Natural Hiſtory, Chemiſtry, Literature, and the Arts.*

Mr. Robertſon, of Stockwell, has left the greater part of his large fortune ſaid to amount to 80,000l. to truſtees, for the ſupport of his fine botanic garden at Stockwell. Seven gentlemen are nominated to this truſt, ſome of whom were ſcarcely known to him; and it is ſtill more remarkable, that he was not himſelf any thing of a botaniſt.

Reports of Law Cases.

COURT OF KING'S BENCH.

January 23.—Mr. Raine obtained a Mandamus to be directed to two Magiſtrates for Sunderland, commanding them to reſtore a perſon, of the name of Fortune, to his ſituation of Inſpector of Raw Hides at that port. He ſaid that, by the 39th Geo 3. the appointment of Inſpector was inveſted in the perſons of two Magiſtrates. A Butcher at that place had applied to Mr. Fortune to come and inſpect ſome hides at his ſlaughtering-houſe; he had very properly refuſed, there being a place ſet apart for them to be inſpected; in conſequence of this refuſal complaint had been made to the Magiſtrates, and Mr. Fortune was removed.

January 26.—William Garrow was ſentenced to be impriſoned ſix months in Newgate, for having left the ſhip Iris, without performing quarantine.

January 28.—The King *v.* Waddington.—Mr. Waddington having been found guilty of foreſtalling the Hop-markets, was brought up to receive ſentence, which is a fine of 500l. and one month's impriſonment.

Natural Phenomena.

A PEAR tree belonging to Mr. Drake, of Greſham, in Norfolk, which bore fruit in the ſummer, bloſſomed again ſince Michaelmas, and has now ſix pears on it the ſize of walnuts.

Such immenſe ſhoals of ſtuttles (a ſmall oily fiſh), have been caught during the laſt week on the coaſt, between Lynn and Downham, that many poor men have earned 10 guineas a night, by retailing them at 8d. per buſhel; four fiſhermen of St. Germain's made, in one week, 130l. by retailing them at 4d. and 6d. per buſhel. The ſtuttle is about the ſize of a ſprat, but ſo oily as to be unfit for human food; they are uſed as manure, and for turnips, followed by barley, amply repay the farmer; 30 to 50 buſhels are ſown per acre.

A ſevere ſhock of an earthquake had occaſioned conſiderable damage at Palambang.

A very ſevere inundation has lately taken place in the plain of St. Marc's, St. Domingo, by the overflowing of the river Artibonite, in which upwards of fourteen hundred perſons periſhed, ſeveral valuable plantations were entirely deſtroyed.

On the firſt and ſecond of November, the iſland of Jamaica experienced a moſt ſevere ſtorm or hurricane, accompanied by rain. On the north ſide great damage has been done to the ſhipping, along the whole coaſt near Anotta Bay, ſcarce a veſſel is afloat, and many are totally loſt. A Spaniſh privateer was driven on ſhore, and a French privateer in another part, from St. Jago de la Viga, they write that the wind blew from the N. W. with little or no intermiſſion for upwards of twenty-four hours, and has done conſiderable damage to the canes, corn, and plantains, on the properties extending from this town towards Kingſton, and Old Harbour. The rain having continued almoſt inceſſantly for ſome time before and during the continuance of the ſtorm, the Rio Cobre ſwelled to ſo immenſe a height as to be within a few feet of the top of the bridge leading to Kingſton, and has conſiderably damaged that leading to St. Thomas in the Vale, rendering the road impaſſable to horſes and carriages. About three o'clock on Sunday afternoon it blew with the greateſt ſtrength in this town, and created much alarm from its ſuddenly ſhifting a few points to the weſtward, where it happily remained ſteady, until it ſubſided, and became perfectly calm towards evening. In the mountains in this vicinity, the woods in many parts had the appearance of being underwooded; very large trees were thrown down, the whole of the plantain walks deſtroyed, and many coffee-trees torn up by the roots.

PRICES OF COALS AT THE COAL EXCHANGE, LONDON, For JANUARY, 1801.

Names of Coals.	Frid. 2d. S. D.	Wed. 7th. S. D.	Frid. 9th S. D.	Mon. 12th. S. D	Wed. 14th. S. D.	Frid. 16th. S. D.	Mon. 19th. S. D	Wed 21st. S. D.	Frid 23d. S. D.	Mon. 26th. S. D	Wed. 28th. S. D.
Benton				43	43 6		43			42 6	
Byker				42 6		42 6	42 6		42 3	42 3	
Blyth							44		43	43 3	
Brandling				42				42	42		
Bladon Main											
Biggs's Main			44	44 6		45	45 3			44 6	43 6
Baker's Main											
Benwell											
Greenwich Moor					39 6						
Gate's-head Park					44 3			43 3	43 3	43 9	42 9
Hartley											
Holywell Main	41 6		40				42			40 9	
Howard's Main											
Montague Main				42	42 6				43	42 3	41 6
										43 9	
Pontop Windsor's					38 6						
Pontop Simpson's					40						
Pontop Silvertop											
South Moor	41			39 6	39 6		41			41	
Sheriff Hill							40 9				
Pill's Tanf. Moor								44		44	42
Adair's Main						42					41 6
Bowes's Main					44 6						
Team					40		40 3				
Walker				44 6		45		44	44 6	44 3	
Willington		45	44 6	44 6	44 6		45	43 9	44 3	44 6	43 6
Wall's End			45 3		46 6	46 6	47 3	46	45 9	46	45
Walbottle Moor											
Wylam Moor	41				40 9					41	
Heaton Main				44 6	45	44 6				44	
Hebburn Main				44 6	45	44 6		44	44 6	44 6	44
SUNDERLAND											
Boundry					40						
Bourn Moor			41	41	47		42	41 3		42	41 6
Biddick new Main											
Newbott. Bo. Moor									40 6		
Rectory		36 6	36								
Ruffell's Main										41 6	
Wharton Main											
Washington											

LONDON, PRICES of GRAIN for *Jan.* 1801.

MARK-LANE, *Monday, Jan.* 5.

Our arrivals of Wheat from Eſſex and Kent were rather ſhort, but the quantity unſold from laſt week's ſales, made the ſupply tolerably large. Very fine ſamples were not materially lower than laſt week, but any Wheat under the firſt quality was conſiderably lower in price; indeed, Grain of every kind ſeems rapidly declining in price.

Price of Grain, on board Ship, as under:

Wheat	90s to 110s	Malt	60s to 76s	Horſe Beans	70s to 74s
Fine	112s to 120s	Fine	78s to 88s	Old -	to —s
Superfine	122s to 142s	Superfine -	to —s	Ticks	68s to 72s
Rye	80s to 95s	Hog Peaſe	70s to 80s	Old - -	to —s
Old —	to —s	Boilers -	82s to 92s	Oats -	40s to 44s
Stained Barley	60s to 70s	Suffolks	95s to 110s	Fine -	45s to 48s
Malting	72s to 86s	Pearl Peaſe	to 114s	Polands	50s to 52s
Superfine -	to —s				

Monday, January 12.

The ſupply of Grain from Eſſex was rather ſhort; from Kent nearly the ſame as uſual; we had many buyers from different parts of the country, which has occaſioned a riſe on fine ſamples, of nearly 8s. per quarter. Cold coarſe ſamples; a dull ſale. Very fine ſamples of Barley have advanced, being chiefly bought for the purpoſe of mealing. Peas and Oats have both advanced. Horſe and Tick Beans remain much as laſt week.

Price of Grain, on board Ship, as under:

Wheat		90s to 115s	Hog Peaſe	-	70s to 80s
Fine		118s to 125s	Boilers	—	82s to 96s
Superfine	—	128s to 150s	Suffolks		96s to 105s
Rye	—	80s to 100s	Pearl Peaſe		to 110s
Old		to—s	Horſe Beans		70s to 78s
Coarſe Barley		54s to 62s	Old	—	to —s
Fine ditto		64s to 86s	Ticks		70s to 74s
Superfine		to —s	Old		to —s
Malt		60s to 76s	Oats	—	44s to 48s
Fine		78s to 84s	Fine	———	50s to 52s
Superfine		to —s	Polands		53s to 56s

Monday, January 19.

Our market for Wheat was rather thinly ſupplied to day, and very fine runs were nearly three ſhillings dearer than laſt Monday, while inferior ſamples have experienced no advance in price; but, on the contrary, are exceedingly heavy in ſale. Rye is much the ſame as of late. Barleys obtained rather higher prices, but Malts are dull. Peaſe and Beans have likewiſe a heavy ſale at laſt week's prices.

Prices of Grain on board Ship, as under:

Wheat	—	100s to 115s	Hog Peaſe	- -	76s to 80s
Fine	. .	118s to 125s	Boilers	. .	84s to 100s
Superfine	— —	128s to 152s	Suffolks	. .	100s to 105s
Rye	— —	80s to 100s	Pearl Peaſe	- -	to 110s
Old	— —	to—s	Horſe Beans	- -	74s to 82s
Coarſe Barley		56s to 66s	Old	- -	to —s
Malting	-	68s to 86s	Ticks	. .	70s to 78s
Superfine	—	— to —s	Old	- - -	to —s
Malt	. . .	60s to 70s	Oats	. . -	44s to 48s
Fine	. . .	74s to 84s	Fine	. -	50s to 52s
Superfine	- - -	to—s	Polands	. . .	53s to 56s

Monday, January 26.

The ſupply of Wheat from Eſſex was ſhort; but from Kent, Suffolk, and Norfolk, tolerably large; notwithſtanding which, choice prime runs have advanced in price full three ſhillings per quarter. Rye continues nearly the ſame. Very fine ſamples of Barley have a quick ſale, at rather higher prices. Peaſe and Beans, of which there was a large ſupply, had a heavy ſale at reduced prices. Oats were alſo a large ſupply, and declining in price.

Price of Grain, on board Ship, as under:

Wheat	—	105s to 120s	Suffolks	———	100s to 108s
Fine	———	124s to 136s	Pearl Peaſe	- -	to 112s
Superfine	—	140s to 158s	Horſe Beans	- -	70s to 78s
Rye	- -	80s to 100s	Old	- -	—s
Old	- - a	to—s	Ticks	- -	68s to 72s
Coarſe Barley	—	58s to 68s	Old	- - -	to—s
Malting	—	70s to 88s 90s	Oats	— -	42s to 46s
Hog Peaſe	- -	70s to 80s	Fine	———	46s to 50s
Boilers	—	84s to 96s	Polands	- -	50s to 55s

Return of Wheat in Mark-lane, from Dec. 20th to Dec. 28th inclusive.
Total, 14,166 quarters.—— Average, 129s. 11¼d.—5s 6¾d higher than laſt return.

Return of the Prices of Flour, from Dec. 20th to Dec. 28th inclusive.
Total, 14,166 qrs.——Average, 129s. 11¼d.——5s. 6¾d. higher than laſt return.
Hence reſults the Price of BREAD.
Quartern loaf at 1s 9d———In favour of the Baker 5¾d.

Imports of Grain laſt Week.
Wheat 22,155 qrs.—Barley 10,016 qrs.—Peaſe 1,830 qrs.—Oats 12,540 qrs.—Clover ſeed 203 cwt.

Price of Hops.

	Bags.		Pockets.
Kent —	15l 11s to 16l 12s	Kent —	14l 17s to 18l 3s.
Suſſex —	15l 11s to 16l 12s	Suſſex —	14l 17s to 18l 3s
Eſſex —	15l 11s to 16l 12s	Farnham —	14l 17s to 18l 3s

Seeds.

Red Clover (per cwt.)	21s to 132s	Cinque Foil, ditto	20s to 40s
White Clover, ditto	22s to 125s	White Muſtard Seed (p. b.)	13s to 20s
Trefoil, ditto	7s to 45s	Brown do. do.	12s to 17s
Turnip, (per buſhel)	14s to 43s	Canary Seed do. do.	16s to 24s
Rye Graſs, (per quarter)	20s to 50s	Rape Seed, (per laſt)	45l to 51l

Meat. Smithfield, Monday, Dec. 29th. (To ſink the offal. per ſtone of 8lb.)

Beef —	3s 8d to 5s 8d	Veal —	5s 8d to 7s 0d
Mutton —	4s 4d to 6s 0d	Pork —	5s 8d to 6s 6

Head of Cattle this day)—Beaſts about 2,000—Sheep 7,500.

Raw Hides.

Hides (per ſtone)	3s 6d to 3s 8d	Heavy Calf —	11s 0d each
Middling —	3s 0d to 3s 2d	Light Calf —	7d lb.
Ordinary —	2s 8d to 2s 10d	Sheep Skins —	1s 9d to 5s

Price of Leather.

Butts, 50 to 161b.	25d to 26d	Calf Skins, 40 to 50lb. *p.*doz.	26d to 28d
Ditto, 60 to 90lb.	27d to 28d	Ditto, 60 to 80lb. do.	26d to 29d
Merchants Backs	24d to 25d	Ditto, 80 to 120lb. do.	21d to 26d
Dreſſing Hides —	19d to 20d	Sm. Seals (Greenland)	60s to 70s *p.* doz.
Fine Coach Hides	19d to 21d	Large do.	120s to 140s do.
Crop Hides for cutting	21d to 23d	Tanned Horſe Hides	16s to 26s *p.* hide.
Flat Ordinary —	18d to 21d	Goat Skins	30s to 70s *p.* doz.

Price of Bark per Load, 19l 10s to 20l 0s.

Price of Tallow.

St. James's Market —	4s 5d	Ruſſia ditto (Soap) —	61 to 63s
Clare Market —	4s 1d	Melting Stuff —	54s to 56s
Whitechapel Market —	4s 0½d	Ditto rough -	36s to —s
Per ſtone of 8lb.—Average	4s 2d	Graves — —	16s
Town Tallow —	72s 77s	Good Dregs	8s
Ruſſia ditto (Candles) —	65s 69s	YellowSoap,78s.--Mottled,85s.--Curd,88s	

Prices of Hay and Straw on Saturday, Dec. 27

St. James'—Hay	4l 18s 0d to 6l 10s	Average 5l 14s 0d
Straw	1l 19s to 2l 8s 0d	——— 2l 3s 6d
Whitech.—Hay	4l 12s to 6l 8s	——— 5l 10s
Clover	6l 10s to 7l 4s	——— 6l 17s 0d
Straw	1l 18s to 2l 8s	——— 2l 3s

Newbury, Dec. 25.		*Northampton, Dec. 27.*	
Wheat —— ——	109s to 167s	Wheat —— ——	144s to 168
Barley —— ——	70s to 84s	Rye - - —	80s to 96
Oats —— ——	33s to 48s	Barley - - -	60s to 100
Beans —— ——	74s to 80s	Oats - - -	28s to 42
		Beans - - -	44s to 80

s
s

Return of Wheat in Mark-lane, from 22d Dec. to 27th Dec. inclusive.
Total 13,115 Quarters—Average 141s 5d.— 11s 5¼d higher than last return.

Return of the Prices of Flour, from Dec. 20th to Dec. 26th inclusive.
Total 8719 Sacks——Average 129s 6¾d.——2s 0½d higher than last return.

Hence results the Price of BREAD.
Quartern loaf 1s 9¼d————In favour of the Baker 1⅝d.

Imports of Grain last Week.

Wheat 17,200 qrs.—Barley 6892 qrs.—Oats 16,390 qrs.—Peafe 2565 qrs.
Beans 330 qrs.—Clover Seed 110 cwt.

Price of Hops.

	Bags.		Pockets.	
Kent —	15l 10s to 16l 10s	Kent —	16l —s to 18l —	
Suffex	15l —s to 16l —s	Suffex —	16l —s to 17l 10s	
Eſſex —	15l —s to 16l —s	Farnham —	14l to 19l	

Seeds.

Red Clover, (per cwt.)	30s to 160s	Cinque Foil, (per quarter)	20s to 40s
White Clover, ditto	40s to 147s	White Muſtard-ſeed, p. bu.	13s to 20s
Trefoil, ditto	10s to 66s	Brown, ditto do.	12s to 17s
Turnip, (per buſhel)	14s to 43s	Canary ſeed do.	16s to 24s
Rye Graſs (per quarter)	20s to 50s	Rapeſeed, per laſt	45l to 51l

Meat. *Smithfield. Monday, Jan. 5.* *(To ſink the offal. per ſtone of* 8lb.

Beef	3s 8d to 5s 8d	Veal . .	4s 8d to 6s 8d
Mutton	4s 6d to 6s 0d	Pork . .	5s 4d to 6s 0d

Head of Cattle this day)——Beaſts about 2000—Sheep 6000.

Price of Leather.

Butts, 50 to 60lb.	21d to 22d	Calf Skins. 40 to 50lb. *p.* doz.	26d to 28d
Ditto, 60 to 90lb.	22d to 23d	Ditto, 60 to 80lb. do.	26d to 29d
Merchants' Backs	20d to 22d	Ditto, 80 to 120lb. do.	21d to 26d
Dreſſing Hides	18d to 19d	Sm. Seals (Greenland)	60s to 70s *p.* doz.
Fine Coach Hides	19d to 20d	Large do	120s to 140s do.
Crop Hides for cutting	21d to 24d	Tanned Horſe Hides	16s to 26s *p.* hide.
Flat Ordinary .	18d to 21d	Goat Skins	30s to 70s *p.* doz.

Price of Bark, per load, 19l. 10s. to 20l.

Price of Tallow.

St. James's Market —	4s 2d	Ruſſia ditto (Soap) . .	66s
Clare Market — —	4s 1½d	Melting ſtuff . .	56s
Whitechapel Market —	4s 1½d	Ditto rough . .	37s
Per ſtone of 8lb.—Average	4s 1½d	Graves . . .	16s
Town Tallow .	70s 76s	Good Dregs . .	11s
Ruſſia ditto (Candles)	67s 69s	Yellow Soap, 78s—Mottled 85s—Curd 88s	

Prices of Hay and Straw on Saturday Jan. 3.

St. James's— Hay	4l 18s to 6l 8s	Average	5l 13s 0d
Straw	2l 2s to 2l 12s 6d	———	2l 7s 3d
Whitechap.—Hay	4l 12s to 6l 12s 0d	———	5l 12s
Clover	6l 10s to 7l 4s 7d	———	6l 18s 6d
Straw	2l 4s to 2l 12s	———	2l 8s

Newbury, Jan. 1.		*Reading, Jan.* 3.		*Warminſter, Jan.* 3.	
Wheat	120s to 165s	Wheat	80s to 153s	Wheat	140s to 168s
Barley	70s to 88s	Barley	53s to 80s	Barley	79s to 81s
Beans	75s to 82s	Oats	30s to 43s	Oats	42s to 52s
Oats	38s to 46s	Beans	67s to 83s	Beans	80s to 94s
		Peaſe	72s to 81s		

Devizes, Jan. 1.			*Saliſbury, Dec.* 30.	
Wheat	———	126s to 164s	Wheat —	138s to 160s
Barley	—	68s to 88s	Barley —	60s to 84s
Oats	—	42s to 46s	Beans —	80s to 88s
Beans	—	74s to 88s	Oats —	38s to 50s

Return of Wheat in Mark-lane, from 29th Dec. to the 3d Jan. inclusive.
Total 11,670 Quarters——Average 142s 5¾d.——1s 0¾d higher than laſt return.

Return of the Prices of Flour, from Dec. 27th to Jan. 2d inclusive.
Total 8276 Sacks.———Average 129s 1d.—0s 5¼d lower than laſt return.

Hence reſults the Price of BREAD.
Quartern loaf 1s 9¼d———In favour of the Baker 7d.

Imports of Grain laſt Week.
Wheat 5560 qrs.—Barley 2970 qrs.—Peaſe 1490 qrs.—Clover-ſeed 210 cwt.
Hops 9000 lb.

Price of Hops.

	Bags		Pockets
Kent —	15l 10s to 16l 10s	Kent —	16l —s to 18l —s
Suſſex —	15l —s to 16l —s	Suſſex —	16l —s to 17l 10s
Eſſex —	15l —s to 16l —s	Farnham —	14l to 19l

Seeds.

Red Clover, (per cwt.)	30s to 161s	Cinque Foil, ditto	20s to 40s
White Clover, ditto	40s to 148s	White Muſtard Seed, p. bu.	13s to 20s
Trefoil, ditto	10s to 67s	Brown, ditto do.	12s to 18s
Turnip, (per buſhel)	14s to 44s	Canary Seed, do.	16s to 24s
Rye Graſs, (per quarter)	20s to 50s	Rape Seed, (per laſt)	45l to 51l

Meat. Smithfield. Monday, Jan. 12. (To ſink the offal. per ſtone of 8lb.)

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

Head of Cattle this day)——Beaſts about 2000—Sheep 6500.

Price of Leather.

Butts, 50 to 60lb.	24d to 25d	Calf Skins, 40 to 50lb. *p.* doz.	26d to 28d
Ditto, 60 to 90lb	24d to 26d	Ditto, 60 to 80lb. do.	26d to 29d
Merchants Backs	20d to 22d	Ditto, 80 to 120lb. do.	21d to 26d
Dreſſing Hides —	18d to 20d	Sm. Seals (Greenland)	60s to 70s *p.* doz.
Fine Coach Hides	19d to 20d	Large ditto	120s to 140s doz.
Crop Hides for cutting	21d to 24d	Tanned Horſe Hides	16s to 26s *p.* hide.
Flat Ordinary —	18d to 21d	Goat Skins	30s to 70s *p.* doz.

Price of Bark, per Load, 19l. 10s. to 20l. 0s.

Price of Tallow.

St. James's Market —	4s 1d	Ruſſia ditto (Soap) —	66s to —s
Clare Market —	4s 1d	Melting Stuff —	56s to —s
Whitechapel Market —	4s 1d	Ditto rough —	37s
Per ſtone of 8lb.—Average	4s 1d	Graves —	16s
Town Tallow —	70s 77s	Good Dregs —	14s
Ruſſia ditto (Candles)	67s to 70s od	Yellow Soap, 78s-Mottled 85s-Curd 88s	

Prices of Hay and Straw on Saturday, Jan. 10

St. James's—	Hay 5l 5s to 6l 12s	Average	5l 18s 6d
	Straw 2l 0s 6d to 2l 14s	———	2l 7s 3d
White-ch.—	Hay 4l 10s to 6l 6s	———	5l 8s od
	Clover 6l 6s to 7l 4s	———	6l 15s od
	Straw 2l 4s to 2l 10s	———	2l 7s od

Newbury. Jan. 8.		*Reading, Jan.* 10.		*Warminſter, Jan.* 10.	
Wheat	126s to 156s	Wheat	118s to 152s	Wheat	136s to 164s
Barley	58s to 88s	Barley	59s to 78s	Barley	79s to 81s
Oats	31s to 44s	Oats	28s to 48s	Oats	42s to 52s
Beans	72s to 87s	Beans	78s to 81s	Beans	80s to 94s
		Peaſe	80s to 81s		

Devizes, January 8.

Wheat ———	118s to 156s	Oats — —	38s to 42s
arley — —	64s to 84s	Beans —	74s to 88s

Return of Wheat in Mark-lane, from the 5th Jan. to 10th inclusive.
Total 12,745 Quarters——Average 137s 6d.——4s 11¼d. lower than laſt return.

Return of the Prices of Flour, from 3d Jan. to Jan. 9th, inclusive.
Total 8790 Sacks———Average 120s 0¼d——9s 0½d lower than laſt return.

Hence reſults the Price of BREAD.
Quartern loaf 1s 8d.— In favour of the baker 1s 3¼d.

Imports of Grain laſt Week.
Wheat 7763 qrs.——Barley 2541 qrs.——Oats 2100 qrs.——Clover-ſeed 820 cwt.

Price of Hops.

	Bags		Pockets	
Kent	15l 11s to 16l —s	Kent	—	16l —s to 18l 1s
Suſſex	15l —s to 16l 2s	Suſſex		16l —s to 17l 0s
Eſſex	15l —s to 16l —s	Farnham	———	14l —s to 19l —s

Seeds.

Red Clover, (per cwt.)	30s to 161s	Cinque Foil, ditto	20s to 40s
White Clover, ditto	40s to 148s	White Muſtard Seed, p. bu.	13s to 21s
Trefoil ditto	10s to 67s	Brown, ditto do.	13s to 18s
Turnip, (per buſhel)	14s to 44s	Canary Seed do.	18s to 25s
Rye Graſs, (per quarter)	20s to 50s	Rape-ſeed, (per laſt)	45l to 51l

Raw Hides.

Hides (per ſtone)	3s 4d to 3s 8d	Heavy Calf —	11s 0d each
Middling —	3s to 3s 2d	Light Calf —	7d per lb.
Ordinary —	2s 6d to 2s 10d		
Sheep Skins —	2s. 6d. to 6s.		

Price of Leather.

Butts, 50 to 60lb.	21d to 22d	Calf Skins. 40 to 50lb. *p.* doz.	26d to 28d
Ditto, 60 to 90lb.	22d to 23d	Ditto, 60 to 80lb. do.	27d to 28d
Merchants Backs	20d to 22d	Ditto, 80 to 120lb. do.	21d to 26d
Dreſſing Hides	18d to 19d	Sm. Seals (Greenland)	60s to 70s *p.* do.
Fine Coach Hides	19d to 20d	Large do.	120s to 140s doz.
Crop Hides for cutting	21d to 23d	Tanned Horſe Hides	16s to 27s *p.* hide.
Flat Ordinary	18d to 21d	Goat Skins	30s to 72s *p.* doz.
Price of Bark, per Load,	19l. 0s. to 19l. 11s.		

Price of Tallow.

St. James's Market —	4s 4d	Ruſſia ditto (Soap) —	60s —s
Clare Market —	4s 4d	Melting Stuff	58s 60s
Whitechapel Market —	4s 4d	Ditto rough ———	39s 42s
Per ſtone of 8lb —Average	4s 4d	Graves ——	16s —s
Town Tallow —	74s —s	Good Dregs —	8?s —s
Ruſſia ditto (Candles)	70s to 76s	Yellow Soap 78s—Mottled 85s—Curd 88s	

Newbury, Jan. 15.		*Reading, Jan.* 17.		*Henley, Jan.* 17.	
Wheat	100s to 170s	Wheat	150s to 168s 6d	Wheat	125s to 167s
Barley	63s to 88s	Barley	60s to 86s	Barley	55s to 91s
Beans	75s to 89s	Oats	32s to 50s	Oats	32s to 54s
Oats	36s to 50s	Beans	80s to 82s	Beans	70s to 81s
		Peaſe	80s to 83s	Peaſe	79s to 84s

Devizes, Jan. 15.		*Warminſter, Jan.* 17.	
Wheat ———	128s to 170s	Wheat —	140s to 172s
Barley ———	73s to 96s	Barley ———	75s to 94s
Oats ———	44s to 50s	Oats ———	42s to 52s
Beans ———	78s to 86s	Beans ———	80s to 94s

Return of Wheat in Mark-lane, from Jan. 12 to the 17th inclusive.

Total 11,622 quarters.—Average 136s. 6d.——1s. lower than last return.

Return of the Prices of Flour, from Jan. 10th to the 16th inclusive.

Total 15,291 sacks.——Average 123s. 0¾d.——3s 0¾d higher than last return.

Hence results the Price of BREAD!

Quartern loaf 1s. 8d.——Against the Baker 1s 8¾d.

Imports of Grain last Week.

Wheat 1355 qrs.——Barley 430 qrs.——Oats 2270 qrs—Beans 300 qrs——
Clover Seed 179 cwt.—Hops 4360 lb.—Flour 1400 cwt.

Price of Hops.

	Bags.		Pockets.	
ent —	15l 11s to 16l 0s	Kent —	16l 0s to 18l 1	
Suſſex —	15l 0s to 16l 2s	Suſſex —	16l 0s to 17l 0	
Eſſex	15l 0s to 16l 0s	Farnham	14l 0s to 16l 0s	

Seeds.

Red Clover (per cwt.)	30s to 164s	Cinque Foil, do.	20s to 49s
White Clover, do.	40s to 149s	White Muſtard Seed (p. buſh.)	13s to 21s
Trefoil, do.	11s to 68s	Brown do. do.	13s to 19s
Turnip (per buſhel)	14s to 45s	Canary Seed do.	16 to 25s
Rye Graſs (per quarter)	20s to 50s	Ripe Seed (per laſt)	45l to 51

Meat. Smithfield. Monday, Jan. 26. (To ſink the offal. per ſtone of 8lb.)

Beef —	3s 8d to 5s 8d.	Veal —	6s 0d to 7s 6d
Mutton —	5s to 7s 0d	Pork —	5s 8d to 6s 8d

Head of Cattle this day)—Beaſts about 2,000—Sheep 7,000.

Raw Hides.

Hides (per ſtone) —	3s 4d to 3s 8d	Heavy Calf	——11s 0d each.
Middling —	3s 0d to 3s 2d	Light Calf —	7d per lb.
Ordinary—	2s 6d to 2s 10d	Sheep Skins ——	2s 6d to 6s 6d

Price of Leather.

Butts, 50 to 60lb.	22d to 23d	Calf Skins, 40 to 50lb. *p.* doz.	26l to 29d
Ditto, 60lb. to 90lb -	23d to 24d	Ditto, 60 to 80lb do.	26d to 29d
Merchants Backs	21d to 22d	Ditto, 80 to 120lb. do.	21d to 27d
Dreſſing Hides	18d to 19d	Sm. Seals (Greenland)	60s to 70s *p.* doz.
Fine Coach Hides	19d to 20d	Large do.	120s to 142s do.
Crop Hides for cutting	21d to 23d	Tanned Horſe Hides	16s to 26s *p.* hide.
Flat Ordinary	18d to 21d	Goat Skins	30s to 70s *p.* doz.

Price of Bark, per Load 19l. 10s to 20l.

Price of Tallow.

St. James's Market —	4s 7d	Ruſſia ditto (Soap) —	72s to 73s
Clare Market —	4s 8d	Melting Stuff —	60s 64s
Whitechapel Market —	4s 8d	Ditto rough —	40s 45s
Per ſtone of 8lb.—Average 4s 7½d.		Graves —	16s
Town Tallow	80s 86s	Good Dregs —	8s
Ruſſia ditto (Candles)	74s 77s	Yellow Soap 78s. Mottled 85s.	Curd 88s

Prices of Hay and Straw on Sat. Jan. 24.

St. James's—Hay	4l 16s to 6l 8s	Average 5l 12s 0d
Straw	2l 5s to 2l 14s	—— 2l 9s 6d

Newbury, Jan. 22.		*Reading, Jan. 24.*	
Wheat	168s to 175s	Wheat	150s 0d to 180s 6d
Barley	66s 6d to 90s	Barley	60s 0d to 94s 0d
Beans	80s to 87s	Oats	37s 0d to 50s 0d
Oats	31s 6d to 52s	Beans	79s 0d to 80s 0d
Peas	79s to 87s	Peas	80s 0d to 83s 0d

Devizes, an. 22.		*Northampton, Jan. 24*	
Wheat	128s 0d to 170 0d	Wheat	132s 0d to 152s 0d
Barley	73s 0d to 96s 0d	Rye	80s 0d to 96s 6d
Oats	44s 0d to 50s 0d	Barley	60s 0d to 1000s 0d
Beans	78s 0d to 80s 0d	Oats	28s to 42s
		Beans	44s to 80s

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 JAN. 17, 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	138	5	93	8	70	7	46	11	69	3	84	1		
Surry	138	8			74	8	44	4	73	0	74	0		
Hertford	131	6			72	8	44	10	67	4	68	1		
Bedford	137	10			82	0	43	5	64	10	72	0		
Huntingdon	144	6			87	0	35	8	57	8				
Northampton	131	2	88	0	80	2	37	0	78	0	62	0		
Rutland	125	0			83	0	43	0	74	0			74	9
Leiceſter	131	3			85	4	43	8	84	8			76	4
Nottingham	130	6			81	4	44	8	82	6	82	0		
Derby	132	0			79	2	46	0	90	2	85	0	70	4
Stafford	154	0			99	1	58	9	87	11			78	5
Salop	147	3	114	6	106	1	50	7			95	4	99	1
Hereford	145	0	96	0	92	9	44	3	87	4	86	10	111	10
Worceſter	169	4	96	0	106	9	48	7	99	8	99	9		
Warwick	160	9			109	4	56	0	93	10	108	8	96	2
Wilts	146	8			80	4	45	4	83	4	79	0		
Berks	140	11			71	3	40	6	80	0	77	4		
Oxford	139	2			78	8	44	3	79	4	86	2		
Bucks	136	4			75	0	40	6	71	1	68	0		
Brecon	136	0	99	2	87	11	40	0			72	0	95	5
Montgomery	128	0			89	7	41	2			87	11	89	1
Radnor	136	4			97	8	37	8			85	11	110	8

Maritime Counties.

Eſſex	138	0	75	0	69	4	41	8	69	6	65	0		
Kent	133	8			70	8	46	6	67	4	92	6		
Suſſex	137	4			64	10	41	6	56	0	70	4		
Suffolk	136	6	105	6	65	5	42	5	68	3	75	11	86	5
Cambridge	131	0			68	1	34	9	61	7				
Norfolk	125	1	95	0	67	5	45	9	69	10	80	4		
Lincoln	123	7	100	0	74	7	40	9			140	0		
York	121	4	95	7	72	1	42	11	87	2	114	8	86	3
Durham	121	6	90	11	75	2	39	5						
Northumberland	123	7	86	0	66	10	44	4	90	0			41	4
Cumberland	129	3	89	7	78	0	49	9			80	0	53	3
Weſtmorland	136	5	110	0	78	6	52	4					42	5
Lancaſter	144	7			88	11	59	10	89	0	92	0	46	4
Cheſter	135	0					53	4					48	7
Flint	145	2			106	11	45	11						
Denbigh	145	2			98	0	49	0	96	0	83	4	91	8
Angleſea														
Carnarvon	113	0	70	0	70	6	39	0					85	10
Merioneth	136	5			87	10	39	0			80	0	76	7
Cardigan	116	2	80	0	62	8	30	1						
Pembroke	117	2			65	10	36	0						
Carmarthen	124	3			69	4	30	0						
Glamorgan	141	8			89	4	37	0						
Glouceſter	169	5			95	4	46	5	96	4	86	3		
Somerſet	150	9			86	5	42	10			124	0		
Monmouth	151	5			93	1	41	5						
Devon	137	11			76	7	40	9						
Cornwall	113	9			66	11	33	6						
Dorſet	149	1			81	4	42	0						
Hants	150	1			77	5	43	4	74	4				

BANKRUPTCIES AND DIVIDENDS,

Announced between the 20th of Dec. 1800, and the 20th of Jan. 1801.

BANKRUPTCIES.

AGUR, Wm. Bethnal Green, whitesmith. [Bourn and Co. New Inn.

Bedwell, Robert, Wantage, surgeon. [Hill and Meredith, Gray's Inn.

Bunn, Edward, Westham, baker. [Morgan, Clement's Lane.

Bacon, John, Sutton Ashfield, cotton spinner, (Middlemore, Nottingham; Macdougal, and Co. Lincoln's Inn.

Cooper, Thomas, jun. Liverpool, horse dealer. (Leith, Liverpool.

Campbell, Archibald, Gosport, brandy merchant. (Humphreys, Token-house-yard).

Day, William, King street, Golden Square, victualler.

Damerum, Wm. Portsmouth, carpenter. (Parsons and Co. Gosport; Williams and Co. Lincoln's Inn).

Dunar, Wm. Wapping, baker. (Freame, St. Martin's Lane).

Edwards, Thomas, New Bond street, haberdasher. (Field, Friday-street).

Elston, John, Liverpool, merchant. [Clements, Liverpool.)

Gilchrist, E. and J. Barry, of Liverpool, merchants. (Orre, Liverpool; Cooper and Co. Southampton Buildings.)

Gulliver, H. Richmond, stable keeper. (Smith, Richmond).

Gosford, Robert Hayward, Shoreditch, baker. (Stratton, Shoreditch).

Hurst, John, Wakefield, woolstapler. (Brooks, Wakefield; Batty, Chancery lane).

Hatch, John, Robert street, Bedford row, cabinet maker. (Parton, Cross street, Hatton Garden).

Hammond, George, Stamford, Lincolnshire, mercer. (Handley, Steeford; Sandys and Co. Crane Court).

Hilton, Alexander, Liverpool, draper. (Murrow, Liverpool; Smart, Staples inn.

Holmes, John, Leeds, ironmonger. (Wainwright, Leeds; Batty, Chancery lane.

Jackson, Ralph, Market Weighton, Yorkshire, dealer, (Gale, Hull.

Kirkpatrick, John, Liverpool. merchant. (Orrel, Liverpool; Cooper, Southampton Buildings).

Kershaw, Samuel, Little Rofs, Lancaster, manufacturer. (Partington, Manchester, Rur Furnival's inn).

Lowes, David and J. H. Rigg, Hart street, Covent distillers. (White, Chancery lane).

Lea, Thomas, Newington, dealer. (Mote, Digbeth, near Birmingham).

Merryweather, Francis, and John Hardinge, Lombard street, merchants. (Maddock and Co. Lincoln's inn.

Mainwaring, Ch. Manchester, shoemaker. [Clough, Manchester; Edge, Inner Temple.]

Mawbey, Joseph, Long Buckly, cordwainer. (Dennie and Co. Long Buckly; Kinderly and Co. Chancery lane).

Perry, James, Birmingham, button maker. (Holland, Birmingham; Boutflower, New North street.

Platfors, John, Worcester, coach maker. [Hyde, Worcester; Bland, Racquet Court.

Parsonage, Sam. Manchester, plumber. (Hewet, Manchester; Ellis, Curfitor street).

Quenby, John, Winchester, mercer. [Sanders, Strand: Dynely, Gray's Inn.

Rennie, George, Southwark, coal merchant. (Flexney, Chancery lane.

Radcliffe, John, Errington, Yorkshire, miller. (Clayton, Ferrybridge; Sykes, New Inn).

Rideal, Wm. Wakefield, merchant. (Foljamber, Wakefield; Baxter, Furnivals inn).

Smith, R. Wantage, innholder. (Tubb, Oxford; Philpot, Red Lion square.

Shuck, John, Worcester, glove maker. (Welles, Worcester; Platt, Bride Court).

Topper Nicholas, Mary-le-bone, dealer. [Masters, Thatves Inn).

Townsend, Samuel, Briftol, ironmonger. (Gillet, Briftol; Lewis, Temple).

Taylor, Willoughby, Brighton, wine merchant. (Mitchell, Brighton; Toulc and Co. London.

Timenifwood, S. Soho, leather feller. [Fowler, Lambeth).

Workington, Thomas, Manchester, merchant. [Partington, Manchester; Hurd, Furnivals Inn).

Wright, T. Canterbury, dealer. (Hay and Co. Mincing lane)

Wenestaple, Humphrey, Holme, Derbyshire, dealer, (Bosley, Bakewell; Bruer, Temple.

Whittingham, Joseph, Manchester, manufacturer. (Lefar, Manchester; Ellis Curfitor street).

DIVIDENDS ANNOUNCED.

Allen, George, of Essex, dealer, February 25.

Addington, F. Hereford, haberdasher, March 7.

Beaufion, J. and E. Turton, Coleman street, druggists, Feb. 25.

Boughan, J. and R. Guyer, Fish street hill, hat makers, Feb. 7.

Bainbridge, M. Gofwell street, taylor, February 24.

Bentine, W. St. Martin's-le-grand, goldsmith, February 3.

Blacklin, J. Hull, linen draper, January 21.

Bowring, S. Milk street, hosier, January 30.

Bagley, R. Mortlake, gardener, January 27.

Berthond, H. Adams Court, Old Broad street, merchant, February 12.

Ballard, J. Evesham, victualler, February 5.

Bedwall, J. Cheltenham, banker, February 12.

Crichtil, R. Mortlake, Buckland Devon, shopkeeper, January 22.

Cierfon, S. Strand, carver, February 3.

Caldwell, C. and J. Smith, of Liverpool, and T. Forbes and D. Gregory, of London, merchants, Jan. 5.

Clegg, Wm. Beverly, linen draper, February 6.

Court John, Bath, ironmonger, February 18.

Clayton, Sarah, Liverpool, dealer, February 16.

Dalmaine, H. Bow street, dealer, January 11.

Downing, W. Pembroke, innkeeper, January 26.

Edward, J. Laurence lane, merchant, January 22.

Ekkins, W. Oxford street, bookfeller, Jan. 21.

Edwards, Richard, Ellesmere, dealer, February 20.

Flower, J. St. Paul's Churchyard, haberdasher, January 31.

Francis, Robert, jun. Broad-street, Warehouseman, February 2.

Gibb, Thomas, Doncaster, grocer, January 31.

Green, R. Olney, lace merchant, January 28.

Greenwood, W. Mile End, brewer, February 7.

Gale, R. Birmingham, mercer, February 17.

Hawkins, W. T. I. and J. Birmingham, button makers, Jan. 16.

Hartsinck, C. J. Hutchinson, and W. Playfair, Cornhill, bankers, January 31.

Hiscock, W. Kew Green, victualler, January 20.

Hayes, J. M. of Ludlow, draper, January 23.

Higfon, J. and J. Tasker, Liverpool, draper, Feb. 24.

Hardwick, J. Alcester, mercer, February 14.

James, Sufannah, Bloomsbury Place, dealer, Feb. 12.

Jacobs, Samuel, Southampton street, February 9.

Jordan, J. Shadwell, sail maker, January 26.

Kenworthy, W. Quickwood, Yorkshire, dyer, Jan. 26.

Kent, A. and M. Pemberton, Lime street square. merchants, February 24.

Kay, W. Birmingham, factor, February 16.

Law, J. and D. New street, jewellers, February 29.

Laurie, G. N. Hatton street, merchant, January 30.

Laurey, B. and E. Fag, Fenchurch street, merchants, February 7.

Leving, Nathaniel, Newgate street, draper, Feb. 3.

Lower, Dells, Canterbury, victualler, Feb. 6.

Marshall, R. Allwick, dealer, Jan. 22.

Medhurst, D. West Smithfield, joiner, February 7.

Mellor, J. and G. Pratt, Leek, dealers, January 31.

Milward, W. Inkborough, baker, February 2.

Milward, J. Clifton, maltster, February 10.

Meredith, W. Shadwell, merchant, February 7.

Martin, R. and M. Last, Watling street, warehousemen, February 21.

Maillard, J. J. Lancashire, merchants, March 14.

Nantes, H. Warnford Court, merchant, January 31.

Percy, Charles, Goring, February 12.

Purdy, Wm. Mark lane, broker, February 3.

Parr, J. O. London, Insurance broker, February 14.

Parkinfon, John, jun. Great Yarmouth, Shopkeeper, February 23.

Penfent, M. W. and L. W. Bedecker, London, merchants, January 31.

Page, John, Thave's inn, warehouseman, Jan. 7.

Pearce, W. Chiswick, carpenter, February 25.

Peach, T. Loughborough, hosier, February 4.

Percy the elder and younger, near Bridge street, merchants, February 11.

Peters, J. and H. Southwark, drapers, February 14.

Piggot, Peay, Oxford street, linen draper, Feb. 24.

Patterfon, George, Berwick, draper, February 14.

Ruffel, T. Cortion, common carrier, December 31.

Rayner, J. Finsbury square, merchant, January 24.

Rayner, M. Finsbury square, merchant, January 24.

Roberfon, Alex. Birchin lane, merchant, March 3.

Ridout, W. Manchester, weaver, January 29.

Roberfon, Robert, Salford, rope maker, Feb. 21.

Ruffell, T. Portsmouth, carrier, February 11.

Copley, C. Spencer's, Kent, butcher, Feb. 9.

Stevens, J. Oxendon street, cook. January 22.

Smith, Thomas, Park street, taylor, January 24.

Swinnick, T. Ramsgate, stable keeper, February 7.

Simpfon, Chr. and J. Kelly, Piggs-Lee, Lancaster, dyers, February 12.

Taylor, R. Southwark, draper, February 24.

Wilfon, Charles, jun. Sunderland, baker, February 9.

Wilkinfon, J. Rotherham, druggist, Feb. 16.

Watfon, R. Oxford, grocer, Feb. 9.

Watts, Sarah, New Bond street, Feb. 7.

Wright, Richard, Bankfide, coal merchant, Feb. 11.

Yate, John, Oxford street, draper, Feb. 14.

A TABLE of the Prices of STOCKS for *Jan.* 1801.

Days	Bank Stock.	3perCt. Red.	3 perCt. Confols.	4perCt. Confol.	5 perCt. Navy.	5perCt. Loyalty.	Long Ann.	Short Ann.	Imper. 3perCt.	Imperial Annuities	Irish 5. Cent.	Engliſh Lottery.	Conſ. for opening.	Engliſh Omnium.
28														
29		61 1/2 5/8 3/4	ſhut	78 1/2 5/8	ſhut	93 7/8 94 1/8	18 1-16		60 7/8 60	11 3-16		16 18	62 3/4 7/8 63	
30	161 1/4 161	61 3/4 7/8 3/8	ſhut	78 3/4 79	ſhut	94 1/4 1/2	18 1-16	5 5-16	60 1/4 3/8	11 1/4	91 3/4 7/8	16 18	62 7/8 63	
31		61 3/4 5/8 3/4	ſhut	78 3/4 78 7/8	ſhut	94 1/2	18 1-16	5 5-16 3/8	60 1/4 3/8			17 0	62 7/8	
J. 1														
2		61 5/8 3/4	ſhut	78 7/8 79	ſhut	94 5/8 95	18 3-16	5 5-16 3/8	60 1/4 1/2	11 3-16 1/4	92 1/2	17 0	62 3/4 7/8	3/4 rem.
3		61 3/4 62		78 7/8 79 1/8		94 7/8 95 5/8	18 3-16	5 5-16 3/8	60 1/2	11 3-16	92 1/4 7/8	17 0		1
4														
5		61 7/8 62		79 1/4 79	ſhut	95 1/4 1/2 5/8	18 3-16 1/4	5 5-16	60 5/8			17 0	62 7/8 63 1/8	
6									Holiday					
7		62 1/4 1/2 3/8	61 3/4 1/2 3/4	79 5/8 7/8	94 1/2 95 1/2	95 5/8 96 1/2	1815-16 7/8	5 3/8	61 1/8			17 0	63 1/2 1/4 1/2 3/8	
8	161 1/4 162	62 1/2 1/4 3/8	61 3/4 62 61 7/8	79 7/8 80 1/8 1/4		96 3/4 7/8	18 3/8 1/2			11 3/8 7-16	93 3/8 1/8	17 0	63 3/8 1/2 3/8 1/4	
9		62 1/2 1/4	61 7/8 5/8	80 1/8 1/4 1/8	96 1/2 1/4	96 7/8 96 3/4	18 1/2 7-16		61 1/4 3/8	11 7-16 5/8	93 1/4 7/8	17 0	63 1/2 1/8 1/4	
10		62 1/8 1/4	61 3/8 5/8	79 7/8 80 1/4	96 1/4	96 5/8 7/8	18 7/8	5 1/4	61	11 3/8 7-16	93 3/4	17 0	63 1/8 1/4	
12	162 1/2	62 3/8 1/4	61 5/8 3/4 5/8	80 1/4	96 1/4 1/2	96 3/4 97	18 7-16 1/2	5 1/8	61 1/8 1/4		94	17 2	63 1/4 1/8	
13	162 161 1/2	62 1/4 1/8	61 5/8 1/2	80 1/4 1/8 1/2	96 1/4	96 7/8 5/8	18 3/8 7-16	5 3/8	61 1/8	11 3/8 7-16	94 93 3/4 94	17 3	63 1/8 63	
14		62 1/4 1/8	61 1/2 61 1/8	80 3/8 3/8 1/2	96 1/8 95 1/2	96 3/4 7/8	18 3/8 7-16	5 3/8	61 1/4	11 7-16	93 5/8 3/4	17 3	63 1/8 62 5/8	
15	160 1/2	61 3/4 3/8 1/2	61 1/8 61 60 3/4	79 7/8 80 1/8	94 3/4 95	95 5/8 95 3/4	18 1/4 5-16		60 1/4 3/8	11 5-16	95	17 3	62 3/4 1/2 5/8	
16	160 159	61 1/8 60 3/4	60 3/4 1/8 1/4	79 5/8 79	94 93 1/4	95 1/4 94	18 3-18	5 5-16	60 1/8 59	11 1/4 3-16		17 3	62 1/2 62	1/4 prem.
17		60 7/8 61 1/8	60 1/4 1/8 60	79 1/8	93 3/8	94 1/4	18 1-16	5 5-16 3/8	59 1/8	11 3-16 1/4	92 1/2	17 3	62 3/8 1/4	
18														
19									Holiday					
20	157 1/2	59 5/8 3/8 3/8	59 5/8	77 7/8 1/2 7/8	91 1/8 92	92 1/4 93	17 5/8 7/8	5 1/4	58 1/2 1/4	11 1/8 11-16		17 3		2 3/4 dif.
21	156 155 1/2	59 1/2 1/4 1/8 1/8	58 5/8 1/2 1/4 1/8 3/8	77 1/8 77	91 3/4 90 1/2	93 92	17 16 3/4	5 1/4	58 1/4 58	11		17 3		3 p.ct. dif.
22		58 1/2 3/8 1/8	58 57 1/8	76 1/4 1/2 3/8	90 1/4 90	91 3/4 1/4	17 1/8 7-16	5 1/4		0 7/8		17 3		
23		58 1/8 5/8 1/4	57 55 7/8	76 1/4	89 1/2 3/4	90 1/4 91	17 1/8 7-16		56 7/8 7 1/2	10 7/8	88 7/8 1/2	17 3		4 6 1/4 dif.
24		56 7/8 1/8 1/4	56 3/8 55	75 1/4 73 1/2	88 1/4 86 1/2	89 1/2 87	16 15-16 3/4	5 3-16 1/8	55 3/4 54 3/4	10 1/2 7 16	87 3/4 85 1/2	17 3		
25														

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