Neele sculp. Strand.

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BOHEMIAN WHEAT.

With a descriptive Plate.

I. THE Triticum Turgidum, *calicibus quadrifloris, ventricosis, villosis, imbricatis, obtusis, of Linnæus*, represented in the Plate, Fig. I. or Big-bolled Wheat of Bohemia, having calices with four flowers, swelling, hairy, imbricated, and obtuse, produces seed nearly similar to the grains of common wheat.

Fig. I. Represents an ear of this wheat, with some others nigh to it, and yet detached from the principal ear. That ear is distinctly perceived to contain two grains of the corn.

Fig. II. Exhibits a solitary ear of this big-bolled wheat, with no other ears contiguous. It visibly contains two large grains, with a small one in the middle.

In warm climates, this sort of wheat is capable of being sown with advantage in winter. In Bohemia, it is sown in summer, on fields of light soil, newly manured with dung, and tolerably moist. It *affords* a larger increase than the other sorts of wheat common in Bohemia; but requires a better soil. Its *flour* is equal or superior to the best flour made from common wheat. The *straw* is somewhat softer than that of common wheat; and is readily eaten by the cattle. In wet weather, it is more difficult to thrash than the common wheat of Bohemia. For this reason, it is usually thrashed out in the *frosty* weather of winter. In cold climates, and in deep, sour soils, this wheat seldom comes to good.

II. Fig. III. Is a specimen of the Common Winter Wheat *of Bohemia*. *Linnæus* names and describes it—Triticum Hybernum, *calicibus quadrifloris, ventricosis, lævibus, imbricatis, submuticis.*—Or Winter-Wheat *with four flowers in a calyx, inflated at the middle, smooth, imbricated, very slightly bearded.*

Each ear of this wheat contains three grains; two of which are large, with a small one in the middle.

It is sown on the low grounds in the kingdom of Bohemia, about the middle of harvest, and earlier than the rye. The land which receives the seed must be previously in fallow, and plentifully manured with dung, neither excessively moist nor too arid. It usually ripens in ten months.

Of this wheat, that which is of a golden-yellow colour in the ripened ear, yields the best meal. The meal of the paler grain

ſhrinks exceedingly in the oven. The pale grain is produced when a field is over-plentifully manured with freſh ſheep's dung. The bakers uſe to ſay, that flour of this pale grain goes into the oven ſwollen, and comes out of it ſhrunk. If the dung be laid upon the field, ſome weeks before the ſeed be ſown; then the wheat is not diſcoloured, but ripens with golden-yellow ears.

III. Some farmers in Bohemia cultivate alſo a kind of ſummer-wheat, which has the ſame botanical characters with the *Triticum Hybernum*, and is known to botaniſts by the appellation of *Triticum æſtivum non ariſtatum.* Fig. IV. But, unleſs in a very dry ſeaſon, it is late in ſhooting out the ears, and it is, of all ſorts of grain, the lateſt in getting fully ripe. One ſhall ſometimes obſerve *red* and *white* wheat in the ſame field, and growing from the ſame ſeed of either of theſe two *Tritica.* The *red* has a hard rind, a ruddy grain, and yields an excellent grey flour, ſomewhat darker in colour than the flour from yellow grain. The rind of the *white* or pale grain is ſoft, and incloſes yellow ſeeds, of which the flour is not near ſo good as that of the *red.* Nor does it paſs well under the millſtones, if a proportion of the *red* be not mixed with it.

The ſtraw of the winter wheat is ſtronger and leſs agreeable to cattle than that of the ſummer-wheat.

The ſummer-wheat is not cultivated with advantage, except where deep and tedious ſnows hinder the ſeaſonable ſowing of the winter-wheat.

Fig. V. Exhibits the TRITICUM ÆSTIVUM *calicibus quadrifloris, ventricoſis, glabris, imbricatis*—of Linnæus: Or SUMMER WHEAT, *with four flowers in the calyx, and having it inflated at the middle, ſmooth, imbricated, and bearded.*

Its ears contain each two large grains, with a ſmall one in the middle. It is cultivated in the higher grounds in Bohemia, where, on account of the ſeverity of the ſeaſons, winter-wheat is thought leſs likely to thrive. The Bohemian peaſantry give it the name of bearded wheat.

It may be likewiſe cultivated as winter-wheat, if there be no danger from exceſſive inclemency of the ſeaſon. The farmers in the neighbourhood of Prague cultivate it as ſummer, and as winter-wheat, alternately. Its grains are red. Its ſtraw is tolerably good fodder.

STATE OF COMMERCE IN FRANCE, &c.

To the Editor of the Commercial Magazine.

SIR, *Liverpool.*

IN peruſing your Magazine for July laſt, I find a letter inſerted, dated Paris, July 17, 1801; and, acknowledging the truth of the aſſertions contained therein, I ſhall add a few more obſervations which I ſhall continue on various other ſubjects, ſhould you

find this worthy of insertion in a publication so useful as your Magazine, of which I am a great admirer.

Without being attached to French principles, but rather to more patriotic sentiments for England, I resided this year a few months in France, where I made similar remarks on the state of that country, of which your friend gave you a most minute information; yet I stepped farther, and began to trace the origin of that uncommon industry; I sought particularly for the cause of the prohibition of manufactured goods, and found that the first step towards it was absolutely entered into by this country. I cannot refrain from thinking that by prohibiting the trade with France, the emigrant party applied their usual power of persuasion. I beg you will believe that I am most assuredly the friend of every French emigrant, who combines honour with his misfortunes; yet the major part of them has been of the ancient nobility, and even those brought up in the mercantile line have, in advising this nation to break up the bands of trade with France, only soothed their sorrow, without either having the knowledge required to judge about commercial affairs, or, if they had, with a view to ruin France. If then this could not be obtained even at that time, when the French nation despised their own government, why was it, or should it be continued, to lay all possible difficulties in the way to trade with France direct? Many articles are yet prohibited to go there, as cotton wool, dyers wood, &c. yet they go in any quantity, unconcerned what becomes of them, to Hamburgh, Bremen, or Embden; it cannot therefore be said that articles are prohibited to be exported to deprive the French thereof, because, by paying a moderate profit to the Hamburghers, they are furnished almost with every commodity they are in need of. Sugars, coffee, &c. of late are permitted to go direct, yet still under difficulties which continue an impediment to trade, though in fact to the national good; for whilst those difficulties frighten or at least check the spirit of the (industrious) English merchant, the Americans and Hamburghers take the advantage of that loathsomeness in trade, and supply France, by leaving England a bulk of merchandise, to keep which, the interest of money, and warehouse rent alone, amount to prodigious sums. I therefore am perfectly convinced that whilst this country endeavours to injure France, it is only checking its own trade; and here it will not be improper to say a few words upon a free trade with France. In this case there would arise a perpetual demand for all kinds of produce, because, by way of France, all Italy, all Switzerland, and all the environs of the Rhine, would provide themselves, which would occasion a steady market, far preferable to the terrible changes to which the present commerce is exposed; there would be no extraordinary rise in the articles, unless such as are occasioned by bad crops; on the other hand, there is no fear of such a decline, as to be forced to make loans from government to keep

up ſpeculations made as unaware as they turn out; but by far the weightier point is the manufactories: whilſt we have prohibited the trade with France, the French were under the neceſſity to manufacture themſelves the articles they were in need of, or be contented with the manufactured goods of Germany; the latter are much inferior in quality, yet neceſſity conſoled the French people for the loſs of the finer Engliſh goods; and, now accuſtomed to the coarſer ware, they almoſt bid defiance to all that comes from England; the inactivity in Mancheſter at this time is to many people unaccountable. I long expected it, and the remedy lays in the encouragement of a free trade with France, Spain, and Italy: beſides, even in a political view, I think the meaſure juſt mentioned is adviſeable, becauſe, how can this country keep the ſuperiority over France, more decidedly than by contriving to get all the caſh in its own poſſeſſion, which would naturally follow, if the French were allowed the proper conveyances for trade? indeed it is a pity that war ſhould annoy trade. It is the more ſurpriſing that two nations, enlightened as they are, ſhould thus provoke commercial induſtry, for the purpoſe of enriching the Americans, who, by giving full liberty to their merchants, will ſucceed wonderfully, provided no alteration of the commercial ſyſtem of this country takes place.

The manufactories of Germany riſe gradually upon the dullneſs of ours, and, whilſt Mancheſter and other places are now obliged to ſend their goods for their own account to the Continent, and expoſe themſelves to ill treatment, or at leaſt cannot expect to reap thoſe advantages, which a regular demand would occaſion, the manufacturers on the Continent pour their goods into France, and ſo on to Spain, which, by a free trade with this country, would not even have been thought of. The dullneſs in Mancheſter goods alſo depreſſes the cotton market materially here and in London, whilſt the exportation thereof reaches the foreign manufactories at low prices, and conſequently enables them to make thereby a competent profit for the want of our machinery.

I beg you not to underſtand the above as a ſatire on the preſent ſtate of affairs; God forbid that I ſhould be otherwiſe than with the warmeſt feelings intereſted for this country; yet, to make our cotton manufactories as well as the Weſt India trade more flouriſhing, it will be abſolutely neceſſary that the free trade with the Continent is either aſſiſted by treaties, or left to the underſtanding of the commercial world only, and thereby to enable England to bring the balance of trade ſo much in her favour, that the bulk of ſilver or caſh reſts in the hands of the Engliſh merchants. Treaties with America, however they might appear to import the bulk of their goods into this country, would probably bring the commerce of Great Britain to an unexpected extent.

As for the Daniſh and Swediſh ſettlements in the Weſt Indies, I think they might be kept by this country as an expenditure towards a provoked war; and even now I am of opinion that the north of Europe, with all its friendlineſs, ought to be very carefully inſpected, and more dreaded by this country than thoſe who tell publicly that they are enemies. I mention this here, becauſe it is materially connected with the commerce of Great Britain, and ſhall enlarge upon it, provided theſe lines meet your approbation.

I am, with great regard,
Sir, your obedient humble ſervant,
Sept. 19, 1801. J. G. D.

MINERAL SURVEYS.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

IT is of infinite importance to a commercial and manufacturing nation, like this, to be independent of foreign importation, for as many as poſſible of the materials of its ſtaple arts of primary utility.

Pit-coal, copper, tin, lead, iron, are the materials perhaps the moſt eſſentially uſeful to the manufactures of Great Britain. Pit-coal we poſſeſs in abundance, though not in the moſt convenient diſtribution of it, throughout the kingdom. But, none of the metals is furniſhed from Britiſh mines in quantity fully adequate to the demand of our manufactures and trade.

Now, Sir, it is well known, that almoſt all the mines now open in Britain were firſt opened in conſequence of ACCIDENTAL diſcovery. There has been no ſuch thing as a regular mineral ſurvey of the lands. Although thoſe landholders, on whoſe eſtates mines have been fortunately opened, have, in many inſtances, derived prodigious additions of fortune from the working of them; yet, others have not been in general induced by the example, to procure ſuch a mineral ſurvey of their lands, as ſhould aſcertain, whether they had not ſimilar ſources of wealth within their power.

Indeed, till within theſe laſt thirty years, mineralogy was not ſo much ſtudied in this country, as that gentlemen qualified for the taſk of a mineral ſurvey could have been eaſily found in it. But the caſe is altered. Though there may be few or no mineral ſurveyors by profeſſion; yet, I ſhould think, there can be no want of perſons whoſe ſtudies and courſe of obſervation have fully qualified them for the taſk.

Upon theſe conſiderations, Sir, I, who am, myſelf, proprietor of a ſmall eſtate, in which I am inclined to ſuſpect the exiſtence of ſome rich metallic veins, ſhould rejoice to procure, through your Magazine, ſatisfactory anſwers to the following enquiries:

1. Whether it be not of the higheſt public conſequence, that, there ſhould be executed, if poſſible, upon ſome general arrangement by the legiſlature, a MINERAL SURVEY of the whole territory of Great Britain and Ireland?

2. Whether every intelligent landholder, deſirous to improve the value of his eſtates, ought not, in common ſenſe, to have a mineral ſurvey of them executed?

3. Whether there be, at preſent, any mineralogiſt of reputation, who is diſpoſed to act, profeſſionally, as a MINERAL SURVEYOR, and whoſe aſſiſtance I might, of courſe, aſk, for the ſurvey of my ſmall territory?

Bates's Hotel, Adelphi, I am, Sir, your's, &c.
Sept. 6, 1801. R. S.

WOOL-BEARING COWS AND OXEN.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I AM but an illiterate perſon. My intentions are, however, good; and I feel a ſtrong deſire to be better informed concerning moſt objects of utility, than the courſe of my life has hitherto given me opportunity to be. Allow me, then, to trouble you with an enquiry, which may, perhaps, be a very fooliſh one; but to which, if it deſerve any notice, one or another of your correſpondents may perhaps oblige me with a ſatisfactory anſwer?

To increaſe the quantity, and improve the quality, of our Britiſh wool, is juſtly held to be an object of infinite importance toward the preſervation of a manufacture which has been, for ages, our ſtaple branch of induſtry and traffic. I learn, with pleaſure, that the Spaniſh ſheep which have been, for that end, introduced into this country, are likely, under proper management, to thrive, and multiply, and afford wool equally fine, as that which we now have from Spain. It is only in the leanneſs of their carcaſes and in being ſubject to the foot-rot, that they, in any degree, diſappoint our wiſhes.

But if it were poſſible to procure a breed of cows *and* OXEN that ſhould furniſh a material for woollen yarn; would not even the bare poſſibility deſerve the higheſt attention, among the other projects for improving the rural œconomy of this country?

Now, Sir, I happened, lately, to be preſent at a converſation, in a public room, among ſome ſtrangers, ſeemingly perſons of great information, who mentioned, that there is "in the *foreſts* of *North America*, a ſpecies of WILD CATTLE, a conſiderable part of whoſe bodies is covered with *wool*, or with a *wool-like hair*, and of which there is no reaſon to ſuppoſe that they are either incapable of being tamed, or unfit to live, thrive, and propagate in this climate."

What I wiſh, therefore, to enquire, is, whether there be, in America, any cattle of this ſort?—Whether they be capable of domeſtication, or have ever, in any inſtance, been domeſticated?

—Whether the wool, or wool-like hair, which they produce, be in large quantity, and fit to become a material for any sort of strong or elegant cloth?—Whether their flesh and hides be equally valuable as those of our common cattle?

Should all these questions be affirmatively answered; I cannot doubt but the Board of Agriculture, or his Majesty, or the Duke of Bedford, or Lord Egremont, or some one or another of the many public-spirited princes, noblemen, and gentlemen, in this country, will speedily order a course of experiments relative to these cattle.

I am, Sir, yours, &c.

Norwich, Aug. 30, 1801. P. B. L.

A WORD IN FAVOUR OF THE RAISERS OF GRAIN, &c.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

THERE was the very perfection of sly malignity in the Quaker's resolution "neither to hang nor drown his dog, but to give him an ill name." But, your friends, the farmers of Great Britain and Ireland, at present find themselves in the very condition, as to repute, of that Quaker's dog. Every clamour against them has been, for some time, loudly encouraged from all quarters. In the daily papers, there has, for some time, appeared much less of either *news*, or even *common sense*, about any thing, than of wild invectives and of mischievous insinuations, having at least an indirect tendency to provoke popular outrage against the farmers. The middling and even the opulent classes of the inhabitants of London and other great towns, take part, contrary to the interests of the community, in the outcry of the dissolute rabble. Nor do even the land-holders and clergy espouse with proper zeal the defence of the husbandman, in the returns of whose labour and capital they are the principal sharers.

I, Sir, am but a small farmer of eighty acres; I never yet kept any part of the produce unduly or avariciously back from the market; indeed I have been always accustomed to thrash out my wheat in the course of the first five months after harvest, and to sell it off for the best fair market-price I could obtain for it. My circumstances have been such, that I could not do otherwise: and, it was never in my disposition to better them by grinding the faces of the poor.

Yet, Sir, I suffer actually as much, as if I were the principal accomplice in a conspiracy to starve the whole country. The poor's rates, in our parish, are, at this moment, as heavy as the landlord's rent. My lease was out the year before last; and the rack-rent has been doubled upon me. The direct price of labour has been almost doubled: for, the labourers would rather

growl, loiter, and ſtarve, till they fell in ſickneſs on the pariſh, than accept what they ſaid would not buy them bread for the day. An indirect price was, beſides, to be given in gratuities to encourage them to work heartily, and in beer, bread and cheeſe, cold meat, &c. to give them ſtrength for work. My cattle have been doubly expenſive in the keeping; and I have been obliged to purchaſe a new team of horſes, at twice what they would have coſt me thirteen years ago. My corn, and my hay, are reaped and got in with prodigious waſte; for, the labourers ſay, that, let them do as they will, I ſhall be ſtill too great a gainer. My children's clothing, &c. coſts me twice the uſual expence. To ſilence clamour, I have been obliged to ſend grain to market freſh from the field, at inconvenience under which its value is actually loſt.

Let the public conſider theſe things Sir, and know that, to oppreſs the farmers, is to kill the gooſe with the golden eggs.

Yours, &c. M. N.

(In a former Number we gave ſome account of a new method of bleaching cotton by ſteam * : we now give a further account of the operations performed at the ſitting of the Inſtitute on the 21ſt Prairial, at which the Count of Leghorn aſſiſted.)

FURTHER ACCOUNT OF A NEW METHOD OF BLEACHING COTTON AND WOOL BY STEAM, *By Citizen* CHAPTAL.

TWENTY months ago, I informed the Inſtitute of a proceſs for bleaching cotton, as ſimple as economical. The ſucceſs of this experiment in Ireland induced Citizen Bowens, proprietor of a large manufactory, and Citizen Bourlier, to adopt the plan. The firſt experiment was made on 200 meters of cotton cloth, and the reſult was ſo ſatisfactory as to introduce the ſtoves into uſe in many parts of the Republic and into Belgium. M. Chaptal ſays, he muſt confeſs that C. Bourlier has much improved the proceſs. He has invented eaſy means of turning the ſtuffs in the ſtoves, and of preſenting every part to the vapour. Flax, he obſerves, requires but a weak lye, but then it is neceſſary to give the action of the lye, and the atmoſpheric air alternately, to bleach it completely. In two or three days he bleached ſome of the coarſeſt flax to a fine whiteneſs. M. Chaptal preſented to the Inſtitute ſome cloths and dimities bleached equal to any. We had, he ſays, no doubt but that linens might be bleached by the ſame proceſs, and accordingly made three experiments, all of which anſwered well. Firſt—He impregnated 130 cloths.

Theſe experiments are very œconomical, they are complete in two days, and the linen is not injured. The heat communicated to the cloths removes all ſmell or matter attracted to the thread.

This effect muſt be highly valued by phyſicians, who know the facility with which the ſeeds of diſorders are communicated in hoſpitals, which the common method of cleaning is unable to prevent.

In page 38, 8th line of that paper, for *ſmoke* read *ſteam*.

London, Aug. 10, 1801.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

If you can diſpenſe with the want of originality, which the following Outline cannot boaſt, after having appeared *only* in the Annals of Agriculture, publiſhed by Arthur Young, Eſq. F. R. S.; and if you will overlook the inattention with which I am perhaps juſtly chargeable in not ſoliciting a place for it in your uſeful Work, at the time I tranſmitted it to Mr. Young, you will oblige

The AUTHOR.

OUTLINE OF A PLAN

TO ASCERTAIN AND DEFINE THE DISEASES OF HORNED CATTLE AND SHEEP, THE VARIOUS CAUSES WHENCE THEY ARISE, AND THE MEANS OF PREVENTING AND REMEDYING THEM; WITH REMARKS ON THE NECESSITY AND UTILITY OF THE MEASURE.

BY W. P. WHYTE, ESQ.

EVERY ſucceſſive day is increaſing the value and importance of thoſe uſeful ſpecies of animals, uſually contemplated by agriculturiſts, under the denominations of horned cattle and ſheep, and a laudable emulation to acquire and improve the beſt breeds of them has prevailed in different diſtricts of this kingdom for ſome years paſt. Amidſt this patriotic and beneficial contention, in which ſo much judgment has been diſplayed with ſuch evident advantage to the ſubject, is it not rather remarkable that our graziers have not made any ſerious and competent exertion to acquire a correct knowledge of their diſeaſes, and a proper and ſcientific mode of treating them? I have no heſitation in remarking, that the vigilant exerciſe of a mind well informed in theſe things, is indiſpenſably requiſite in the beſt ſyſtem of management of theſe animals; and the *neceſſity* of the meaſure propoſed would appear to ariſe from the imperfection of veterinary practice among them, from the confuſed notions and imperfect ideas which graziers in general have of particular diſeaſes, from the neceſſity that our ideas of the things to be inveſtigated ſhould be well ſettled and defined, before any improvement in the ſubject can be rationally expected, and from the impoſſibility of acquiring any real and accurate knowledge on this ſubject, without ſuch previous determination and arrangement of them. The imperfection of veterinary practice in general, and among theſe animals in particular, is too notorious to require particular proof; and when I reflect on the advanced ſtate of natural and rural ſcience, the facility with which knowledge is attainable at this auſpicious æra, and on the many and great opportunities which young gentlemen engaged in agricultural purſuits have of acquiring knowledge on this ſubject, above moſt of thoſe neceſſitous and illiterate characters whom they are in the habit of conſulting on theſe occaſions, I cannot avoid conſidering the deplorably-low ebb at which veteri-

nary practice is ſuffered to remain among the graziers as a great ſtigma on their character, and as indicating a culpable puſillanimity in ſome of our opulent and enlightened huſbandmen. What conſiſtency of character there can be in a gentleman of property, with ſome pretenſions to literary acquirements, appealing, as to things in which his higheſt intereſt is implicated, to a man in all reſpects his inferior, and with whom, perhaps, out of the hovel or the fold, he would be aſhamed of aſſociating, or with what proſpect of advantage it can be done, I cannot diſcover; and both the intereſt of the ſtate and that of private individuals require that this ſubject ſhould be taken into more ſerious conſideration, or I am miſtaken. To what purpoſe have our graziers expended hundreds and thouſands in improving the breeds of theſe cattle, if a variety of diſeaſes be ſuffered to ravage them without even a ſerious and well-concerted attempt to controul them? It ought to be obſerved too, that the prevalence of diſeaſe in ſome meaſure keeps pace with what are called improvements in agriculture. The effects of the biennial graſs called red clover (*trefolium pratenſe, Linnæi*) on both ſpecies of theſe animals are illuſtrative of the truth of this remark; and the reſult of a ſeries of obſervations made by that intelligent and judicious writer Mr. Marſhall, corroborates the ſame thing. Speaking of the fatneſs of rams, he obſerves, that "the decay of vigour is brought on prematurely by the unnatural ſtate of fatneſs in which they are kept, and of which a variety of diſeaſes *are inevitable conſequences.*" Rur. Econ. Mid. Coſ. p. 420. So ſtrongly convinced of the neceſſity of a meaſure of this kind, was the intelligent writer of a recent communication on agricultural ſubjects, that, after taking notice of the publication of the ninth volume of "Letters and Papers," &c. by the Bath Society, he has judiciouſly remarked, that "there is an evil of great magnitude and importance which ſeems to have eſcaped the conſideration of moſt perſons who have written on agricultural ſubjects, to which we would willingly call the attention of the ſociety. Our farmers have of late years paid particular regard to the breed of their ſtock, and numerous are the treatiſes which have been written on the beſt-proportioned limbs of ſwine, of oxen, and of ſheep: it is to be lamented, that, after the exerciſe of ſo much judgment in the ſelection of ſtock, we employ ſo little in the *management of their diſeaſes.* If a farmer has a cow or a bullock taken ill, he ſends for the neareſt *leech* in his neighbourhood; a fellow who knows as much of the diſeaſes of animals as the beaſt to which he is ſent for: indeed, a ſet of beings cannot be more deadly ignorant than theſe conſequential gentlemen, who generally preſcribe *a drink* to the poor creatures, whatever be their ſymptoms, or whatever their complaints. The veterinary art has been thought of ſufficient importance to be cultivated in this kingdom, and we cannot help wiſhing that ſome of our numerous agricultural ſocieties would form an inſtitution

for the regular inſtruction of perſons in the noſology of cattle." But how much ſoever theſe conſiderations may indicate the propriety and neceſſity of the inquiry propoſed, the ſame things appear to be farther inculcated by the confuſed notions and imperfect ideas which graziers in general have of the nature and cauſes of diſeaſes. Beſides their almoſt total defect of knowledge in thoſe natural principles on which the animal ſyſtem is conſtituted, and by which it is governed, they appear to have very confuſed notions of the true characters of diſeaſes in general: a misfortune which ſeems to have ariſen in a very principal degree from the general uſe of provincial terms in their diſcourſes reſpecting them, and which would be in a great degree remedied by an effective execution of the plan hereby recommended. It is a fact familiar to you, and many of your intelligent readers, that it is impoſſible for an inhabitant of Norfolk, and another of Somerſetſhire, or a gentleman of Leiceſterſhire, and another of Shropſhire, to converſe intelligibly with each other on many ſubjects of rural economy without occaſional explanations. So it is with reſpect to the particular ſubject before us. The diſeaſe which one man contemplates under the term yellows, another denominates the blood; a third calls that the goggles, which a fourth terms the gib, the gid, the turn, or no man knows what; and perhaps a fifth knows no diſeaſe under any of theſe terms. Thus the moſt diſtracting confuſion obtains, and muſt prevail, until gentlemen in this department of life acquire determinate ideas on ſubjects of this nature, and uſe definite terms in their diſcourſes upon them; and hence would appear naturally to ariſe (thirdly) the neceſſity that our ideas of particular diſeaſes ſhould be well ſettled and defined before we can rationally expect to derive any real and ſolid advantages in our endeavours to detect the various ſources and cauſes whence they ariſe, or to apply the means naturally adapted to prevent or remedy them. Until we have diſtinct ideas of the characteriſtic phenomena of a diſeaſe, it is impoſſible that we can, with any regard to truth or ſcience, charge this or the other effect to any particular cauſe. The neceſſity of obtaining correct and ſettled ideas of particular diſeaſes, if we would make any valuable progreſs in our efforts to detect their cauſes, is therefore too obvious to be longer inſiſted upon; as they are indiſpenſably requiſite in order to our acquiring any real and correct knowledge in this intereſting and delightful ſtudy. Unleſs we *know* the effect, it is impoſſible we ſhould diſcriminate on the abſtruſe ſubject of phyſical cauſes. This ſubject therefore impoſes upon us the abſolute neceſſity of fixing our cloſeſt attention to the pathology of diſeaſes, if we would be of any uſe in aſſiſting the ſufferers under them; and furniſhes a field in which the profound phyſiologiſt may gather inſtruction, and the moſt generous patriot exhauſt his philanthropy. Indeed, the neceſſity of the meaſure propoſed ſeems to be ſo obvious and ſtriking, that it ſhall only be

farther remarked, with a view to ſhew the real and great occaſion there exiſts for an exertion of this nature, that the converſation at almoſt every market table in the grazing diſtricts affords proofs of the incompetency of ordinary veterinary practice to ſubdue moſt of the diſeaſes to which animals are ſubjected, and of the general ſenſe of the country of the advantages which would reſult to it from an improved one, under which the acceſſion and fatal progreſs of diſeaſes would be combated on true principles of natural and phyſiological ſcience: a ſubject on which ſeveral of my correſpondents have taken occaſion to introduce hints in their recent communications to me.

Pondering theſe things, and conſidering the great importance of preſerving from diſeaſe animals ſubſervient to the ſubſiſtence of the Britiſh community, lamenting the extent and prevalence of various complaints among horned cattle and ſheep, which contribute to that end in a very eminent degree, and being duly ſenſible of the general and flattering encouragement held out to proſecute a deſign of this nature, in numerous anſwers to my circular letter "on the blood in ſheep," I have conceived the utility of a competent and adequate inquiry into the nature and cauſes of the various diſeaſes of theſe valuable ſpecies of animals, and the conſequent propriety and importance of an attempt to aſcertain their antidote and remedy. By various communications with which I am favoured from gentlemen, reſident in all the principal grazing diſtricts in the kingdom, it appears not only that the particular complaint, which conſtituted the chief object of inquiry in that letter, prevails in all the fertile provinces, but that others of a ſimilar nature ravage the ſtock of many of the moſt conſiderable grazing farms. Hence it would appear, that an inveſtigation ſimilar to the one propoſed, conducted with ability and proſecuted with energy, would be productive of the moſt eſſential ſervice to the ſtate, and to the breeding and grazing intereſts in particular. Indeed, ſo highly fraught with both public and private intereſt, does this inquiry appear to be at the preſent day, that I apprehend the nation, and graziers in particular, would feel themſelves deeply intereſted in the ſucceſs of the undertaking, and conſequently diſpoſed to encourage it by a pecuniary remuneration, adequate to the extent and importance of it. If I could be perſuaded that this would actually be the caſe, I believe I ſhould feel little heſitation in tendering my ſervices for this purpoſe, as ſoon as more private engagements would admit, and the neceſſary apparatus and arrangements could be prepared: and the *fiat* of Dr. Garnett, the learned profeſſor of the Royal Inſtitution as to my ability for it, would, I preſume, give public ſatisfaction. If I might be permitted to anticipate the event of a public ſanction in a matter ſo generally intereſting, I ſhould ſubmit for public conſideration a *Proſpectus* of it, in moſt important particulars, ſimilar to the following.

OUTLINE of a PLAN to aſcertain and define the different Diſeaſes of Horned Cattle and Sheep, the various Cauſes whence they ariſe, and the Means of preventing and remedying them.

1. That a tour ſhall be made at different times through all the principal grazing diſtricts in that part of Great Britain, called England, ſimilar to thoſe of Arthur Young, Eſq. or Mr. Marſhall, the writer of the valuable volumes on the Rural Economy of the different counties, for the purpoſe of aſcertaining and defining the different diſeaſes incident to horned cattle and ſheep, the various cauſes whence they ariſe, and the means of preventing and remedying them.

2. That every particular diſeaſe (ſo far at leaſt as ſuch tour ſhall afford opportunity) ſhall undergo a ſcientific and full inveſtigation, with a view to the different ends propoſed.

3. That *minutes* of every material occurrence and tranſaction relative to the objects in view ſhall be regularly taken and preſerved, with a view to future publication; in particular, that theſe ſhall record the nature of particular diſeaſes, the diſtricts where they are moſt prevalent, the real, apparent, or probable cauſes of them, the provincial opinions on the ſubject, the ſymptoms of ſuch diſeaſes, the means which have been hitherto employed with intent to remedy them, the ſucceſs or otherwiſe of ſuch means, the morbid anatomical appearances after death, the certain or probable means of prevention, &c.

4. That the reſult of the whole ſhall be publiſhed in octavo volumes, either in diſtinct parts, once in every ſix or twelve months, or, arranged in ſyſtematical form, at the concluſion of the tour, as may be thought adviſable by the Secretary to the Board and the author, upon ſuch terms as ſhall furniſh them to the ſubſcribers at a moderate expence.

5. That the Board ſhall afford their ſanction to the undertaking by a letter of recommendation from the Preſident; which the touriſt ſhall be at liberty to carry with him, and ſhew occaſionally.

6. That the expence of the undertaking and the remuneration to the touriſt ſhall be borne and defrayed by a public ſubſcription, and the money to ariſe from publication of the minutes.

7. That ſubſcriptions ſhall be received (probably) by Arthur Young, Eſq. F. R. S. Secretary to the Board.

8. That the Royal Family and nobility of this kingdom, foreign potentates and nobility, and public bodies and ſocieties eſtabliſhed by royal charter, be invited to ſubſcribe at pleaſure.

9. That the gentry, land owners, breeders, graziers, and all others ſhall become ſubſcribers, upon the payment of to the receiver.

10. That a ſufficient number of copies of the minutes ſhall be handſomely printed on a ſuperfine royal quarto paper, and hot

preſſed, and delivered *gratis* to all ſubſcribers of any ſum being five guineas more than the ordinary ſubſcription.

11. That ſo ſoon as pounds are ſubſcribed, the touriſt will proceed in the undertaking.

When we reflect in what a rapid manner the population of the united kingdom is advancing, how much the ſubſiſtence of the community depends upon the aggregate produce of proviſions ariſing from the ſlaughter of theſe animals, how far the diſeaſes incident to them extend their fatal and almoſt uninterrupted influence, and how many thouſands are annually loſt to the community in conſequence of it, the *utility* of an undertaking ſimilar to that above propoſed muſt appear very manifeſt. When it is recollected, that the beſt breeds of both theſe ſpecies of cattle in this kingdom ſprang from the loins of a few individuals of each twenty or thirty years ago*; when we endeavour to eſtimate the almoſt incalculable value of ſome individuals in the ſtock of ſome of the firſt grazing farms, and are informed that inſtances of ſuch extraordinary merit are occurring almoſt every year, the value of any particular animal may be in ſome degree appreciated, and the importance of the ſubject in ſome meaſure conceived. When too we conſider how much the preſent laudable emulation among breeders is diſcouraged, and the progreſs of their efforts to obtain an improved ſort of ſtock retarded, while animals remain thus unprotected againſt, and almoſt unaſſiſted under, the attacks of diſeaſe; and when again it is recollected or underſtood, that the moſt ſudden and fatal diſeaſes uſually occur in the beſt flocks, or to the moſt valuable individuals among live ſtock in general (and that this is the caſe, I am warranted by very recent and reſpectable authority in declaring), the moſt ſuperficially informed in ſubjects of this nature muſt be compelled to admit, that the utility and importance of ſuch an inveſtigation as is propoſed ſtand in no need of farther elucidation.

It would ſeem to be morally impoſſible to effectuate the principal objects of this project without the perſonal examination of the ſubjects of diſeaſe, their various habits, conditions, means of ſuſtenance, climate or temperature in which they have been kept, &c. and it would appear to be phyſically ſo to aſcertain theſe without a minute ſcrutiny into each particular. It is not the general and imperfect accounts of theſe things which might be obtained by means of a correſpondence on the ſubject that would be ſufficient to found any general doctrine upon, for theſe would be found to be nearly as many contradictions as they were in number; but this can only be done after a critical and extenſive inveſtigation of the ſubject, aſſiſted by cloſe, long, and ſkilful obſervations upon it. No mode of procedure, therefore, which I can deviſe, ſeems ſo well adapted to accompliſh the objects of the undertak-

* The ſtock of the late Mr. Bakewell and Mr. Fowler afforded memorable inſtances of the truth of this remark.

ing as that of a tour to be made through the principal grazing diſtricts in the kingdom; by which opportunities would be afforded of perſonal inſpection into the principal objects of the inquiry, and by which the various diſeaſes would come under notice in all their different ſtages and modifications, in animals in every condition, and under the moſt varied circumſtances, on ſoils of every poſſible compoſition, and under every different mode of cultivation. By this mean too, and perhaps by no other, would facility be afforded to inſpect, by chemical analyſis, the different vegetables in their recent ſtate on which animals under or ſubjected to diſeaſe had been ſubſiſted, the ſoils on which they had been produced, both in their natural and improved ſtates, the manures with which they had been improved, &c. and theſe are minutiæ eſſentially requiſite to be attended to in forming an accurate judgment on the real or probable cauſes of diſeaſes in graminivorous animals. Thus too would opportunities be frequently obtained of making or directing experiments, with a view to the cure of ſome diſeaſes hitherto deemed incurable; of deviſing and arranging others with deſign to prevent their recurrence, or to obviate others of ſubordinate conſideration; and, above all, of examining anatomically the carcaſes of cattle after death, in a greater variety of caſes and inſtances than could be procured in any public inſtitution, or perhaps by any other means. Theſe are ſome of the principal reaſons which have induced me to propoſe a tour as the mean beſt adapted to conduce to the ends propoſed.

As it would be a principal object in the projected undertaking to perpetuate the reſult of the inqiuries therein meditated, there can accrue no ground to heſitate on the propriety of publiſhing every material tranſaction and occurrence in the proſecution of them; and the advantages reſulting to Europe, and to this kingdom in particular, from the notes on agricultural and rural economy, taken by different gentlemen while making perambulations through different diſtricts of country, and preſerved and publiſhed for general uſe, leave little room to doubt that ſome benefit might alſo be derived from the touriſt taking notice alſo of ſuch practical experiments and improvements in theſe departments as have been made and carried into effect ſince the writings of the later journaliſts.

If you conſider the plan (of which the above is an imperfect ſketch or outline) in any degree calculated to promote the public intereſt, and that it may not be improper to appriſe the public of it, while it undergoes thoſe modifications and improvements, which may be found neceſſary or adviſable, previouſly to its being finally adopted and acted upon, you will contribute your aſſiſtance to its promulgation, by giving it a place in the next number of your intereſting publication, and oblige, Sir,

Your obedient ſervant,

W. P. WHYTE.

†† A PROSPECTUS will appear in a few weeks.

ANCIENT MONOPOLISTS OF GRAIN IN BRITAIN.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

ALTHOUGH little inclined to encourage the popular outcry againſt farmers and corn-merchants, as perſons who would, more than any other claſs of men, ſtarve the community to raiſe their own fortunes; I have not been able to avoid hearing that outcry, nor always to diſmiſs the remembrance of it from my mind, even when engaged in ſtudies or buſineſs to which it might ſeem to have no very near relation.

Hence, in reading the account of the Life of Agricola by Tacitus, I think I have found a paſſage which aſcertains the antiquity of the practice of avariciouſly engroſſing grain in Britain, and at the ſame time deſcribes, in a lively and pointed phraſe, the miſchief which attended that ſpecies of Roman oppreſſion, in this country.

——"Namque, per ludibrium, aſſidere clauſes horreis, et emere ultra frumentum, ac vendere pretio cogebantur—donec, quod omnibus in promptu erat, paucis lucroſum fieret."

"The Britons, while themſelves in want, were, by the wanton malignity of their oppreſſors, compelled to ſit as guards, to prevent the pillaging of thoſe barns, in which was the corn they ſhould have had for bread, and to buy and ſell the produce of their harveſts juſt at ſuch prices as the Romans choſe, till that of which there was naturally abundance, became, by engroſſing and extortion, merely matter of exorbitant gain to a few."

Such were the firſt trials of the *monopoly* of grain in Britain. We owe it like our religion to Rome. It is one of the arts, but not one of the loſt arts of antiquity.

Perhaps the quotation and the fact may amuſe ſome of your readers; for, gentlemen farmers are ſometimes alſo claſſical ſcholars. Your's, C. B.

Pimlico, Auguſt 9, 1801.

A CONCISE HISTORY OF INLAND NAVIGATION.

(*Continued from our laſt, p.* 10.)

AS the act for making the canal from the Trent to the Merſey, and which has been ſince commonly called the *Grand Trunk* canal, has been taken in general as a pattern for ſubſequent canals acts, we ſhall give the heads abridged.

In the ſixth year of the reign of George III. A. D. 1766, "An Act for making a navigable cut or canal from the river Trent, at or near Wilden Ferry, in the county of Derby, to the river Merſey, at or near Runcorn Gap."

The preamble sets forth the advantages which will arise from making the said canal; and the Act enacts, that certain persons therein named shall be a body politic and corporate, by the name of *The Company of Proprietors of the Navigation from the Trent to the Mersey:* and authorises them to cut a navigable canal from Wilden Ferry, in the county of Derby, to or near Aston, Weston, and Eggington, in the county of Derby; Burton, Wichnor, Haywood, Sandon, Stone, Trentham, Stoke, Newcastle, and Harecastle, in the county of Stafford; and Lawton, Sandbach, Middlewich, Preston Brook, and Runcorn, in the county of Chester.

With full power to enter on any land, set off, dig, cut, and make the said canal, with the necessary towing paths, bridges, tunnels, aqueducts, sluices, locks, rivers, reservoirs, &c. and to erect the necessary wharfs, quays, landing-places, cranes, and other works; the said Company paying a reasonable compensation for all damages done by them, and the usual powers are given to all bodies politic, &c. and all trustees, guardians, &c. to sell and transfer; and commissioners are appointed to determine all differences.

The proprietors were authorised to raise among themselves the sum of 130,000*l.* divided into 650 shares, of 200*l.* each. Every subscriber to have a vote for each share, and no person to possess more than twenty shares, except by will or act in law. (That sum not having been sufficient to complete their works, they were empowered, by several subsequent Acts of Parliament, to raise the further sum of 194,250*l.* on mortgage of the tolls.)

General assemblies are to be held on the last Tuesday in March, and the last Tuesday in September, in every year. Each general assembly to consist of 300 shares, as principals, or proxies. A committee of twenty-one to be chosen by the general assembly, to transact the business of the Company, subject to the controul of such general assembly.

Destroying the works of the canal is declared to be felony, and the person guilty to be transported for seven years.

The proprietors are allowed to take for tonnage on coals, stone, timber, and other goods, wares, and merchandise, a sum not exceeding 1½*d.* per ton, per mile, and a further rate of wharfage on all such goods as shall remain on the wharfs above twenty-four hours.

Paving-stones, gravel, sand, and all materials for making and repairing the roads (lime-stones excepted), dung, soil, marle, and other manure for land, are exempted from any duty, provided the same shall be conveyed when the water flows over the weirs of the locks.

By a clause or clauses in this Act, and by agreement with the proprietors of the Trent and Mersey Company, the Duke of Bridgewater took a part of their line from Preston-Brook, and was thus enabled to carry his navigable canal into the river Mersey, below Runcorn Gap.

The Trent and Mersey canal was immediately begun and carried on under the direction of Mr. Brindley, as long as he lived. It has a fine aqueduct over the river Dove, and a tunnel under the hill of Harecastle for the length of a mile and a half; the whole length of the canal is ninety-one miles, from the Trent at Wildon ferry to the junction with the Duke of Bridgewater's canal at Preston.

After the canal was nearly finished, it was found that the summit or highest pound of water might sometimes want a supply; to obviate which difficulty, in 1777, application was again made to parliament, for leave to cut another canal from a place called Caldon, to join the grand Trunk near Newcastle, and also to make rail-ways from a hill of lime-stone, down to the head of that canal. This bill passed, and when this canal was completed, the whole length cut by this company amounted to nearly one hundred and twenty miles, in which there were ninety-one locks; the rise and fall on the Trent side being 316 feet, and on the Mersey side 326 feet. The whole expence of this navigation was upwards of 300,000*l.* of which the proprietors raised 130,000*l.* among themselves, and the rest on interest.

From this canal is a small one cut by another company, called the Newcastle Canal Company, from Stoke to Newcastle; and Sir Nigel Grisley has cut a small canal from his coal works.

The same year that the first act for cutting the Trent and Mersey passed, a set of gentlemen applied for, and obtained an act to enable them to cut a canal from the river Severn to join the Trent and Mersey canal near Haywood: 70,000*l.* was the capital of the company, with the usual power of borrowing more. The line taken by this canal was, from a place called Stourport, to pass Mitten, near to Kidderminster, Woolverhampton, Penkridge, and Tixall, to Haywood, where it joins the Trent and Mersey canal. This was a part of Mr. Brindley's plan, and was called the *Staffordshire* and *Worcestershire Canal.*

Before we proceed to another part of Mr. Brindley's plan, that of approaching London by canals, it may be proper to take a view of some most extensive undertakings, in the canal way, to which the rising state of Birmingham gave birth.

In the eighth year of the reign of his present Majesty, an Act passed for making a navigable cut or canal from Birmingham to Bilston, and from thence to join the Staffordshire and Worcestershire canal near Atherly: this canal, although only

between twenty-seven or twenty-eight miles in length, cost a very considerable sum; but both this and the Staffordshire and Worcestershire canals have amply recompensed the subscribers, and gave them the most satisfactory dividends. This arose chiefly from the vast quantity of coals found in the neighbourhood of the line, and from the great demand for that article at the manufacturing towns in the neighbourhood.

Nearly the same set of proprietors who had engaged in the Birmingham canal, applied for an act to cut a canal from Birmingham to Fazeley, and then to join the Coventry canal. These two canals were, by a subsequent act of the 21st Geo. III. united under the title of the Birmingham Canal Navigation.

Another canal, to communicate with these, was planned, and an act passed in the twenty-third year of the reign of the present king, for making a canal from Wyrly-bank, to communicate with the Birmingham and Fazely canal near Wolverhampton, to which the title of *Wyrly* and *Essington* canal was given, and this was afterwards extended, and they were empowered to join the Coventry canal near Huddersfield.

We have already observed that the plan of Mr. Brindley was to connect all these northern canals with a line of navigation to London, which was to be effected by two different companies; one to take the line from the Trent and Mersey canal at Frudley-heath to Coventry, and the other from Coventry to Oxford.

The former were styled the *Company of Proprietors of the Coventry Canal*, and were empowered to raise 50,000*l.* but before they had completed their canal to Atherston, in Warwickshire, their money was exhausted, and the work stood still for some years, until at last the proprietors agreed with the Trent and Mersey, and the Birmingham and Fazeley companies, that the two latter should complete the Coventry canal on money advanced by the two companies, by way of mortgage, with power of redemption. The part completed by the Birmingham and Fazeley company remained with them by subsequent agreement; but the part completed by the Trent and Mersey company was redeemed.

The act for making the Oxford canal passed nearly about the same time, and was completed about the same period as the Coventry.

The Stourbridge canal act passed in 1776, and was intended to open to that town a communication with the Staffordshire and Worcestershire canal. The same year another act was passed for a canal from the Stourbridge navigation to lands of Lord Foley's near Dudley, and which is called the Dudley canal, which opened the communication between the towns of Stourport and Dudley, and which, by another act passed in

the 25th of George the third, was extended to join a canal intended from Birmingham to Worceſter.

We now find a communication opened by water, from and to the great trading town of Birmingham, to every place on or near the Trent and Merſey, and the Staffordſhire and Worceſterſhire canals, and to all the towns in its own neighbourhood, to the weſtward and northward. The attention of the adventurers was next drawn to the opening a communication eaſtward and ſouthward.

Accordingly, in the year 1789, an act paſſed to make a canal from Birmingham to Warwick, and for which 100,000*l.* was raiſed, another from the Warwick canal to Napton, and to join the Oxford canal at Brampton. In 1797, another act paſſed for making a canal from the Birmingham and Worceſter navigations to Stratford-upon-Avon. It remains for us to mention one more canal, which muſt be finiſhed before the whole intended line of communication is complete, and that is the canal from Worceſter to Birmingham, for which an act paſſed in 1791, with power to raiſe 180,000*l.* in ſhares, and borrow 90,000*l.*; but this has not been found ſufficient, and it is not unlikely but that this great work will remain unfiniſhed until a peace enables the proprietors to raiſe more money.

There is a ſmall canal from the Severn to open a communication from Droitwich.

ON SMUTTY WHEAT.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

YOUR Magazine, I perceive, is open to the plain words of plain, practical men, I therefore venture to ſend you a few of my thoughts about Smutty Wheat. I have always found it the ſafeſt way to prevent wheat from turning ſmutty, to ſow *old wheat*. Let the price be what it will, I always ſow old ſeed that has been in the rick or barn twelve months, and I ſeldom have many ſmut balls in my crops. Laſt year, from the great noiſe and threatenings that were held out againſt farmers that did not threſh and ſell their wheat, I had not ſaved enough for my own ſeed; rather however than run the riſque of having a ſmutty crop, by ſowing my new wheat, although it was very clean, I choſe to buy old wheat for ſeed at the high price of twenty-eight ſhillings per buſhel, and found it to anſwer very well, for I have not half ſo much ſmut in my crops as my neighbours have who were unwiſe enough, or penny wiſe enough, to ſow new wheat, and thereby to ſave a few ſhillings and to loſe pounds. I have ſeen ſome crops this year, where new wheat had been uſed for ſeed, nearly one half ſmutty.

In our midland counties we ſcarcely yet know what it is to ſow wheat after potatoes; but I hope we ſoon ſhall, for it ſeems a very profitable root, and is becoming a favourite food with all ſorts of people. I never waſh my ſeed with either water or brine, nor uſe lime. For the preſent, I am

Your humble ſervant,

AN OXFORDSHIRE FARMER.

THE BRITISH MERCHANT. No. VIII.

HISTORY OF COMMERCE FROM THE MIDDLE OF THE ELEVENTH CENTURY, TO THE YEAR 1217.

ABOUT this period the trade to the Eaſt Indies by way of Egypt, which, on the riſe of the Mahomedan Empire, had been loſt, was now revived by way of Caffa on the Black Sea, and of Aſtrachan on the Caſpian, being brought to both theſe places through Perſia. The Genoeſe and Venetians were the carriers from Caffa to the various markets of Europe. It ſoon, however, returned to its courſe through Alexandria.

We have ſeen that our Henry I. brought the tenants of his lands to pay him part of their rent in ready money; but Henry II. converted many more of his rents in wheat, fleſh, &c. into money. A conſiderable traffic began about this time with Bourdeaux for wines, which continued as long as that city was under a Britiſh Prince.

Genoa had now conſiderable power, and compelled foreigners to procure licences from their Government to navigate on their coaſts, and this power was confirmed to them by ſome of the Emperors.

1157. The Venetians are this year ſuppoſed to have founded their bank, being the firſt ſtate in Europe that fixed ſuch an eſtabliſhment: the example was too advantageous not to be extended, and Genoa, Florence, &c. ſoon followed their example. From the travels of Benjamin of Tudela, we learn, that Conſtantinople was now a place of immenſe riches, its commerce extending to India, through the Black Sea.

1160. About this period the Hollanders began to inhabit the countries ſouth of the Elbe; a country which their wonderful induſtry has raiſed from a ſwamp to its late height of commercial greatneſs. Their firſt eſſay was in the herring fiſhery, which we learn they attended to regularly.

1169. The Hans Towns were now arrived at ſome degree of commercial greatneſs, and ſome authors fix this year as the beginning of that famous league, or their firſt confederacy, which conſiſted of the twelve following towns: Lubeck, Wiſmar, Roſtock, Straelſund, Grypeſwald, Anclam, Stettin, Colberg, Stolpe, Dantzic, Elbing, and Koninſberg. Some, however,

think this league did not properly begin until the treaty between Lubeck and Hamburgh in 1241. This celebrated league formed to themſelves certain rules: ſuch as not to admit any city into their confederacy which was not ſituated on the ſea, or had eaſy communication with it, and which did not keep their own keys, and execute civil juriſdiction within themſelves. They choſe as their protector the Grand Maſter of the Knights of the Croſs in Pruſſia. In time they ſettled into a more regular aſſociation, and their conferacy conſiſted of four claſſes. Lubeck was at the head of the firſt: this city was very rich and powerful, and held the common purſe and records of the confederacy. Copenhagen and Dantzic are ſuppoſed to have been founded about this time, and the iſle of Rugen was a ſtation for the herring fiſhery.

1172 is famous for the conqueſt of Ireland by Henry II. and about the ſame period, we are told by the Welch hiſtorians, that their Prince Madock ſailed to a country far weſt from Europe, and left ſome ſettlers there. This country, if the adventure be true, can be no other than America. The weavers' company of London, the ſame year, received their charter.

The cloſe of the twelfth century is remarkable for a very conſiderable revolution in the politics of the Princes of Europe. They had found their immediate vaſſals were growing too powerful for them to controul, and therefore they ſought to form a new power to counterbalance them. This they did by granting charters to the towns which had riſen to ſome degree of ſtrength, or rather population and conſequence. This anſwered the end of both the Princes and the towns people: the former gained friends and a revenue; the latter protection from the power of the feudal barons. In England, next in point of time to London, Southampton was incorporated. In Scotland, Germany, France, and Italy, the Princes adopted the ſame policy.

1184. It may not be unentertaining to our readers to know the prices of commodities at this remote period, which Madox in his Baronia Anglica has preſerved. Thirty-two cows and two bulls, he ſays, coſt 8l. 7s. Five hundred ſheep 22l. 10s. Fifteen breeding mares 2l. 12s. Hogs 1s. each: and Biſhop Fleetwood tells us four hens were ſold for two-pence, and a ram for eight-pence.

Anderſon remarks a curious circumſtance reſpecting the town of Stavern in Frieſland, which at this period was ſo flouriſhing, that we are told their merchants were able to *gild the ſeats they ſat on*, yet, by a bank of ſand being formed in the harbour, which prevented ſhips from entering it, before the cloſe of the twelfth century it fell to decay. The city of Hamburgh having lent ſome of the Princes money for the holy war, had ſome very valuable privileges beſtowed on it (1188), which were confirmed by the Emperor, ſuch as that no fort ſhould be erected within

two miles of the city, and the burghers, their ships and goods, should be free of toll on the Elbe, &c. Hamburgh, however, was not yet a free imperial city, but subject to the counts of Holstein.

1189. We find the guilds or corporations of London encreased. Winchester had also some privileges granted. Wallingford, Andover, Helston, Dunwich, and Great Yarmouth, had each a *guilda meritoria* granted to them. Lancaster had the same privileges granted as had been before given to Bristol; and Preston, which had been made a borough by Henry II. had additional privileges granted by king John.

On the return of Richard I. from the Holy Land, he promulgated the famous laws of Oleron, which contain some excellent rules in all maritime affairs, and were looked upon as authority in all courts where maritime causes are cognisable. The laws of Wisbuy were not framed until after this time.

1199. King John granted a merchant's guild to a number of towns, with privilege of electing their chief officer; and, in consideration of a fee farm rent, which they were in future to pay, they were free of certain royal tolls and pontage. Dunwich was at this time a very considerable town, (although now so much decayed), as it paid the king a rent of 120l. per annum. The rate of interest in England was about this time 10 per cent.

1203. The conquest of Constantinople, at this period, proved of great service to the Venetian state, every one thinking themselves justified in seizing what they could. The Venetians obtained Istria, the isles of Crete, Negropont, and some other places in those seas.

It may not be useless to reflect on the wonderful changes which take place in commercial affairs. At this period, 1203, we are told that the Danes were enabled to cloath themselves in *scarlet*, purple, and fine linen, by the profits of their herring fishery on the coast of Schonen: now there is no fishing of any consequence on that coast. At the same time Amsterdam consisted only of a few cottages: and, before the present war, it had risen to the rank of the first commercial city in Europe.

The war between Venice and Genoa now raged with great fury; it began and was carried on by commercial jealousy; it may therefore, as Mr. Anderson observes, be called a commercial war.

1208. London was presented with several privileges by king John, such as those of choosing its own Mayor, Sheriffs, and Common Council. Yarmouth also had from that Prince great privileges.

The commercial spirit of Venice was not confined to their concerns at sea: they found means to entice from Thebes, Corinth, Athens, and Palermo, the silk weavers, and laid the foundation

for the ſilk manufactory, which has ever ſince continued to flouriſh.

The liberties of the commercial part of mankind began to be better ſecured by the charters granted to the towns by the various ſovereigns of Europe; we have ſeen what king John did in England and in Germany; various are the free imperial cities, which were erected by the Emperors. The fine city of Hamburgh received this favour in the year 1215.

In the famous *Magna Charta* of king John we find ſecurity granted to the merchants to come into England, buy, ſell, paſs by land or water, and return to their own country. It may be agreeable to know the rate of proviſions in this king's reign, which were as follows: wheat 6s. at the higheſt, which is ſuppoſed to be about 18s. of our money, per quarter, and 1s. 6d. at the loweſt. Rochelle wine 1l. per ton, and other wines cheaper.

In 1217, Henry III. entered into a treaty of peace with the king of Norway, in which the ſafety of the merchants is particularly attended to; a proof the monarchs of thoſe days found their advantage in encouraging commerce.

New Sarum, Liverpool, and other towns, obtained charters from Henry III. and he confirmed the charter granted by his father to Newcaſtle upon Tyne.

(To be continued.)

ON THE PRODUCE OF THE PRESENT YEAR'S HARVEST, AND A CAUTION TO LAND VALUERS.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

ON the Wrapper of your laſt Magazine you "beg of your Correſpondents to favour you as ſoon, and as generally as poſſible, with communications on the produce of the preſent harveſt." I have therefore licence to tranſmit to you a few ſcraps of information on that ſubject, and you have liberty to uſe the ſame, or not, as to you may ſeem proper. I have been in the country the whole of the corn-harveſt, not ſtationary in one diſtrict, but reſident, for a certain time, in different parts of three counties, intermixing and converſing daily with huſbandmen of every deſcription. I was in the ſame places during the harveſt of laſt year, and the compariſon of this year's produce with the laſt is truly exhilarating to me, who have had the horrors upon me ever ſince the month of Auguſt 1800. The wheat crop is truly abundant, and I have been told by two farmers, who occupy very large tracts of land, that they have nearly as much wheat this year as they reaped in the whole of the three laſt harveſts. In this inſtance, the teſtimony of a large farmer will ſurely receive

due credit, even from his enemies, who, I am aſhamed to ſay, are ſtill undeſervedly many. The barley crop appears to me to exceed that of laſt year in an equal degree with the wheat crop. The oat crop likewiſe is far ſuperior to that of laſt year. The bean crop is pretty much upon a par with laſt year: but peas will be found more plentiful this ſeaſon than the laſt, though the laſt crop was in general a good one. And that this ſeaſon has been as favourable for the houſing as for the production of grain, is evident to any one who enjoys the power of obſervation.

For the correctneſs of the above ſtatement I appeal to the evidence of future months, which muſt give a pleaſing deciſion, although there is now no ſtock of old corn in hand, to aſſiſt, as in former years, in a reduction of price. Speculations in corn will now gradually ſubſide, and in a few months ſo far ceaſe as not to merit reproach.

Before I finiſh my letter, Mr. Editor, I beg leave to give a caution to Land-Valuers in general not to be led aſtray, by the preſent very promiſing countenance of all land, graſs land as well as arable, eſpecially where they are appointed to put a value upon land to the nature of which they were before total ſtrangers. For every ſtubble and every paſture, this autumn, promiſes a degree of fertility which it does not really poſſeſs in common years.

I am, yours,
A LAND SURVEYOR.

BRITISH MERCHANT-SHIPPING.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

PERMIT me to correct an inaccuracy into which your correſpondent L. B. has fallen, in computing the tonnage of the Merchant Shipping of Great Britain, p. 119. He aſſumes the number of veſſels above 20 tons burthen to be between 13,000 and 14,000, and eſtimating them one with another, at an average of 250 tons burthen each, makes the whole exceed 3,000,000 tons; to which adding the Royal Navy, and the Canal, River, and Coaſting ſhipping of all ſorts under 20 tons burthen, the whole tonnage of our Britiſh navigation appears to exceed conſiderably 4,000,000 tons!

That the average of 250 tons is much too high, and conſequently the reſult beyond the truth, might be eaſily made to appear even from the liſt on which it is founded; but it will be fully proved by the following authentic account of the total number of veſſels, with the amount of their tonnage, which be-

longed to Great Britain, Ireland, the Plantations, and all parts of the Britiſh Empire, on the 30th of September, in the reſpective years:

Years.	Veſſels.	Tonnage.	Men.
1788	13,827	1,363,488	107,925
1792	16,079	1,540,145	118,286
1800	18,877	1,905,438	143,661

The year 1800 is unavoidably defective, but cannot be greatly below the truth, and it certainly ſhews that the total tonnage is much leſs than your correſpondent eſtimates.

Sept. 7, 1801. J. J. G.

PREPARATION OF CHEESE IN ENGLAND.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

Finding in a compilation of ſome merit, which has laid your Magazine freely under contribution, the following account of the PREPARATION of CHEESE in ENGLAND, &c.; I ſhould wiſh you, if you can without any great impropriety, to inſert it in your next number. It is taken by its compiler from printed ſources, to which you and all the world have acceſs: But the materials are here drawn into one view. It needs much correction and enlargement from the communications of ACTUAL CHEESE-MAKERS, ſuch as, I hope, the circle of your Correſpondence may furniſh.

I am, Sir, yours, &c.

Edgeware, Sept. 10, 1801. D. S.

CHEESE, a ſpecies of ſolid food, prepared from curdled milk cleared of the whey, and afterwards dried for uſe. As this article conſtitutes a material part of domeſtic conſumption, we find, in almoſt every country, one or more places celebrated for the ſuperior quality of their cheeſe. Hence, we propoſe to enumerate the principal ſorts of this manufacture, both at home and abroad; introducing alſo an account of the mode in which they are prepared.

1. STILTON CHEESE is produced in the town of that name, in the county of Huntingdon; and, from its peculiar richneſs, and flavour, is ſometimes called *Engliſh Parmeſan.* The proceſs of making it is as follows: the night's cream is put to the morning's milk, with the rennet; when the curd *is come*, it is not broken, as is uſually done with other cheeſe, but taken out whole, and put into a ſieve, in order to drain gradually. While draining, it is preſſed till it becomes firm and dry; when it is placed in a wooden hoop, or box, made to fit it, as it is ſo extremely rich, that, without this precaution, it would be apt to ſeparate. It is afterwards kept on dry boards, and turned daily, with cloth binders round it, which are tightened as occaſion requires. After being taken out of the hoop, the cheeſe is cloſely bound with cloths, which are changed every day, till it acquires ſufficient firmneſs to ſupport itſelf; when theſe cloths are re-

moved, each cheese is rubbed over daily, for two or three months, with a brush; and, if the weather be damp, or moist, twice a-day: the tops and bottoms are treated in a similar manner every day, even before the cloths are taken off.

Stilton cheese is sometimes made in nets, resembling cabbage-nets; but these are neither so good, nor so richly flavoured, as those prepared in the manner before described.

Although the Stilton farmers are in much repute for their cleanliness, they take but little pains with the rennet; as they, in general, cut small pieces from the *vell*, or *maw*, that are put into the milk; and, being gently agitated with the hand, break, or turn it, so that the curd is easily obtained. We venture, however, to say, that their valuable cheese might be improved, and few broken ones occur, if they would prepare the rennet in the manner adopted in the west of England; namely, by keeping the vell, maw, or *rennet-bag* (as it is differently called), perfectly sweet and fresh; for, if it be in the least degree tainted, the cheese will never acquire a fine flavour. When the vell, or maw, is fit for the purpose, a strong solution of salt should be made, with two quarts of soft, sweet water, into which are to be introduced sweet briar, rose leaves, and flowers, cinnamon, mace, cloves, and, in short, almost every kind of spice and aromatics that can be procured. The whole must boil gently, till the liquor is reduced to three pints, and care should be taken that it be not smoked. The spices should next be strained clean, and the liquid, when milk warm, poured upon the vell, or maw. A lemon may then be sliced into it, and the whole stand at rest for a day or two; after which it should be again strained, and bottled. Thus, if well corked, it will keep good for twelve months, or longer, possess a fine aromatic odour, and impart an agreeable flavour to the cheese.

2. Cheshire Cheese is prepared in the following way: The evening's milk is not touched till the next morning, when the cream is taken off, and put to warm in a brass pan, heated with boiling water: one-third part of that milk is heated in a similar manner. The cows being milked early in the morning, the new milk, and that of the preceding night, thus prepared, are poured into a large tub, together with the cream. A piece of rennet, kept in luke-warm water, since the preceding evening, is put into the tub, in order to coagulate the milk; with which, if the cheese is intended to be coloured, a small quantity of *arnotto* (or of an infusion of marigolds, or carrots), is rubbed fine and mixed; the whole is stirred together, and, being covered up warm, allowed to stand about half an hour, or till it is coagulated; when it is first turned over with a bowl, to separate the whey from the curds, and broken soon after into very small particles: the whey being separated, by standing some time, is taken from the curd, which sinks to the bottom, and is then collected into a

part of the tub, provided with a slip, or loose board, to cross the diameter of the bottom, for the sole purpose of effecting this separation; on which a board is placed, weighing from 60, to 120 pounds, in order to press out the whey. As soon as it acquires a greater degree of solidity, it is cut into slices, and turned over several times, to extract all the whey, and again pressed with weights: these operations may consume about an hour and a half. It is then taken from the tub, and broken very small by the hand, salted, and put into a cheese-vat, the depth of which is enlarged by a tin hoop fitted to the top. The side is then strongly pressed, both by hand, and with a board at the top, well weighed; and wooden skewers are placed round the cheese, at the centre, which are frequently drawn out. It is then shifted out of the vat, a cloth being previously put on the top of it, and reversed on the cloth into another vat, or again into the same, if well scalded, before the cheese be returned to it. The top, or upper part, is next broken by the hand, down to the middle, salted, pressed, weighted, and skewered, as before, till all the whey is extracted. This being done, the cheese is again reversed into anothor vat, likewise warmed, with a cloth under it, and a tin hoop, or binder, put round the upper edge of the cheese, and within the sides of the vat; the former being previously inclosed in a cloth, and its edges put within the vessel. These various operations are performed from about seven o'clock in the morning till one at noon. The pressing of the cheese requires about eight hours more, as it must be twice turned in the vat, round which thin wire skewers are passed, and shifted occasionally. The next morning it ought to be turned, and pressed again, as likewise at night, and on the succeeding day; about the middle of which it is removed to the salting room, where the outside is salted, and a cloth binder tied round it. After this process, the cheese is turned twice daily, for six or seven days; then left two or three weeks to dry, during which time it is once turned, and cleaned every day; and at length deposited in the common cheese-room, on a boarded floor, covered with straw, where it is turned daily, till it acquires sufficient hardness. The room should be of a moderate warmth, but no wind, or draught of air, must be permitted to enter, as this generally cracks the cheese. The outsides, or rinds of them, are sometimes rubbed with butter, or oil, in order to give them a coat.

3. Gloucester Cheese is made of milk immediately from the cow; but which, in summer, is thought too hot, and is, therefore, lowered to the requisite degree of heat, before the rennet is added, by pouring in skim-milk, or, if that will not answer, by the addition of water. As soon as the curd "is come," it is broken with a double cheese knife, and also with the hand, in order to clear it from the whey, which is laded off. The curd being thus freed from the principal part of the whey,

is put into vats, which are set in the press for ten or fifteen minutes, in order to extract all the remaining liquid. It is then turned out of the vats into the cheese-tubs again; broken small, and scalded with a pailful of water, lowered with whey, about three parts water to one of whey; and the whole is briskly agitated, the curd and water being equally mixed together. After having stood a few minutes, to let the curd subside, the liquor is poured off; and the former collected in a vat, the surface of which is, when about half full, sprinkled with a little salt, that is worked in among the curd. The vat is then filled up, and the whole mass turned two or three times in it, the edges being pared, and the middle rounded up at each turning. At length, the curd is put into a cloth, and placed in the press, whence it is carried to the shelves, and turned, generally, once a day, till it has acquired a sufficient degree of compactness, to enable it to undergo the operation of washing.

4. Wiltshire Cheese. The milk which produces this cheese is *run*, as it comes from the cow, or as it happens to be *lowered*, by the small quantity of skim-milk mixed with it. The curd is first broken with the hand and dish, care being taken, in first crushing the curd, to let the whey run off gradually, to prevent its carrying away with it the "*fat*" of the cowl. For thin cheese, the curd is not broken so fine as in Gloucestershire; for thick cheese, it is crushed still finer; and, for what is called *loaves*, it is, in a manner, reduced to atoms. The whey is poured off as it rises, and the curd pressed down. The mass of curd is then *pared down*, three or four times over, in slices about an inch thick, in order to extract all the whey from it, pressed, and scalded in a similar manner to the Gloucester cheese. After separating the whey, the curd is, in some dairies, re-broken, and salted in the *cowl*; while, in others, it is taken out of the liquor, and salted in the vat: thin cheeses being placed, with a small handful of salt, in one layer; thick ones, with two small handfuls, in two layers; *loaves*, with two handfuls, in three or four layers; the salt being spread, and rubbed uniformly among the curd. Wiltshire cheese is commonly salted twice in the press, where it remains, in proportion to its thickness; thin cheeses, three or four, *meals*; thick ones, four or five; and *loaves*, five or six.

5. Cottenham Cheese. The superiority of this cheese, both in delicacy and flovour, is not ascribed to any particular management of the dairies, but solely to the fragrant nature of the herbage on the commons.

6. Suffolk, or Skim Cheese. The curd used in making this cheese is "broken up" in the whey, which is poured off, as soon as the former has subsided; the remainder, with the curd, being thrown into a coarse strainer, and exposed for cooling, is then pressed as tightly as possible; after which, it is put into a

vat, and set in a press, for a few minutes, to discharge the remaining whey. When all the liquid part is drained off, the curd is taken out, again broken as finely as possible, salted, and returned to the press.—In some large dairies, mills are employed for breaking the curd.—This kind of cheese is much used at sea, as being less liable to be affected by the heat of warm climates, than others.

7. CHEDDER CHEESE is held in high estimation; but its goodness is attributed chiefly to the land on which the cows feed, as the method of making it is similar to that pursued throughout Somersetshire, and the adjoining counties.

8. LINCOLNSHIRE CHEESE. By adding the cream of one meal's milk to that which comes immediately from the cow, excellent cream cheese is made in that county. It is gently pressed two or three times, and turned for a few days, previous to its being sent to market. This cheese is usually eaten while new, with salad, radishes, &c.

Having thus given an account of the principal sorts of cheese produced in this country, we shall likewise enumerate some of the most celebrated kinds prepared on the Continent.

1. The PARMESAN CHEESE is made of the evening's milk, after having been skimmed in the morning, and at noon, and mixed with that of the morning, which has likewise been previously skimmed at noon. The whole is poured into a copper cauldron, resembling an inverted bell, and suspended on the arm of a lever, so as to be moved off and on the fire, at pleasure. In this, the milk is gradually heated to the temperature of about 120 degrees, when it is removed from the fire. As soon as it has subsided, the rennet, in a small bag, is steeped in it; and, being occasionally squeezed, a sufficient quantity of it soon passes into the milk, which is then well stirred, and left to coagulate. In the course of an hour, the coagulation is completed, when the milk is again put over the fire, and raised to a temperature of about 145 degrees: and, while it is heating, the whole mass is briskly agitated, till the curd separates in small lumps. Part of the whey is then taken out, and a little saffron added to the remainder, in order to colour it. When the curd is thus broken sufficiently small, nearly the whole of the whey is taken out, and two pailfuls of cold water poured in, by which the temperature is lowered, so as to enable the dairy-man to collect the former, by passing a cloth beneath it, and gathering it up at the corners. The curd is then pressed into a frame of wood, resembling a peck-measure without a bottom, placed on a solid table, and covered by a round piece of wood, with a great stone at the top. In the course of the night, it cools, assumes a firm consistence, and the whey drains off. The next day, one side is salted, and on the succeeding day the cheese is turned, and the other side rubbed in a similar manner. This operation is

continued for about forty days, when the outer crust of the cheese is pared off, the fresh surface is varnished with linseed oil, the convex side coloured red, and the cheese is fit for use.

2. GREEN SWISS CHEESE appears to possess no other peculiarity than that derived from the fragrant power of the Common Meliot, or the *Trifolium Melilotus officin.* L., which, however, imparts to it a strong flavour, rather offensive than agreeable to most persons: hence it is not calculated to become a favourite article in this country, though considerable quantities of Swiss cheese are annually imported for the tables of the luxurious.

3. DUTCH CHEESE is likewise prepared in the manner generally adopted in Cheshire, with this difference, that the Dutch, instead of rennet, make use of spirit of salt. Hence their cheese not only acquires a sharp saline taste, but is also said to be exempt from the depredations of mites: its rich buttery quality must be ascribed to the luxuriant vegetation in the low countries.

4. WESTPHALIA CHEESE. M. HOCHHEIMER, a German author, asserts "that it is preferred in England to the Dutch, Swiss, and even Parmesan cheese." Having had no experience of its taste, we can only give an account of the manner in which it is prepared.

After the cream is removed from the milk, when in a subacid state, the latter is placed near a fire, spontaneously to coagulate. The curd is then put into a coarse bag, and loaded with ponderous stones to express the whey: in this dry state, it is rubbed between the hands, and crumbled into an empty, clean milk-vat, where it is suffered to remain from three to eight days, accordingly as the cheese is intended to be strong, or mild. This part of the process is called "skinning," or, more properly, *mellowing*; because it undergoes the putrid stage of fermentation, and requires a coat, or skin, on the top, before it is taken out of the vessel, and kneaded into balls or cylinders, with the addition of a considerable portion of caraways, salt, and butter; or, occasionally, a small quantity of pounded pepper, and cloves. But, if it be too far advanced in the mellowing process, a third part of fresh curds, likewise crumbled into small pieces, is superadded, to prevent, or correct its putrid tendency. In short, the whole mass requires a powerful hand to form a complete union of parts; for it is very apt to corrupt, when imperfectly kneaded. As the pieces, when moulded, are of small size, not exceeding three or four ounces each, in weight, they soon dry in the open air, and are then fit for use. It is, however, necessary to turn and clean them, as well as to shift their places every day upon a board, in order to promote their maturity. After being nearly dry, they are sometimes (for the palate of epicures) suspended in a wood-fire chimney, by means of a net, for several weeks, or months: and both their taste and flavour are said to be remarkably im-

proved, whether kept in a dry air, or ſubjected to the action of ſmoke.

5. POTATOE-CHEESE. There are three varieties of this curious article prepared in Germany: we ſhall, however, deſcribe only that ſort which appears to us the moſt plauſible.—The beſt mealy potatoes are ſelected, and half-boiled in ſteam; as, by burſting, their flavour and efficacy are diminiſhed. When cool, they are peeled, and finely grated, or beat into a pulp with a wooden peſtle. Three parts of this ſoft maſs, and two parts of ſweet curd, after extracting all its whey, are kneaded together, and allowed to ſtand two or three days in warm, and four or five days in cold weather. The mixture is then formed into ſmall pieces, like thoſe of Weſtphalia cheeſe, and dried in a ſimilar manner.

But, ſays M. HOCHHEIMER, if you wiſh to procure a *more delicious potatoe-cheeſe*, take only one part of potatoes, and three of the curd made of ſheep's milk; let the kneaded maſs remain three or four days in a vat, to become mellow; then put a ſtratum of it, one inch high, into a ſmall firkin, ſtrew a few lilac flowers, or caraways and mace, over it; ſpread a little freſh butter, about the ſize of a walnut, over theſe aromatics; then form another layer, repeat the ſame mode of ſeaſoning the cheeſe, and proceed in a ſimilar manner to the top of the veſſel. When this cheeſe has been kept for ſome days, in a dry, airy place, without being expoſed to the ſun, it is ſaid to excel in taſte the beſt ſort made in Holland; and to poſſeſs the additional advantage, that it improves with age, and generates no vermin.—We have had no opportunity of aſcertaining the truth of this boaſted ſuperiority, and candidly ſubmit the proceſs to the deciſion of our economical readers.

Preſervation of Cheeſe. Among the various productions of the vegetable kingdom, there are perhaps none better calculated for this purpoſe, than the following: 1. The leaves of the Yellow Star of Bethlehem, *Ornithogalum luteum*, L.; 2. The Tutſan, or Park-leaves, *Hypericum Androſæmum*, L.; and 3. The tender branches of the common birch tree, *Betula alba*, L.—The two firſt of which, in particular, have from experience been found to poſſeſs conſiderable antiſeptic properties. They ought, however, to be employed only when moderately dry, in which ſtate they ſhould be placed upon, or at the ſides of the cheeſe, in an airy ſituation. The twigs of the birch are eſpecially uſeful, in preventing the ravages of mites.

Hard and ſpoiled Cheeſe may be reſtored in the following manner: Take four ounces of pearl-aſh, pour ſweet white wine over it, till the mixture ceaſes to effervesce. Filter the ſolution, dip into it clean linen cloths, cover the cheeſe with them, and put the whole into a cool place, or dry cellar. Repeat this proceſs every day, at ſame time turning the cheeſe; and, if neceſſary,

continue it for ſeveral weeks: thus, the hardeſt and moſt inſipid cheeſe has frequently recovered its former flavour.

Although we have devoted much room and attention to this important ſubject, conſidered in an economical view, we ſhall be very conciſe on the *phyſical properties* of cheeſe. The ſubſtance, being the coarſeſt and moſt viſcid part of the milk, is digeſted with difficulty; and therefore calculated only for the more vigorous ſtomach of the healthy and laborious. Hence, perſons of a delicate organization, as well as the ſtudious and ſedentary, ought carefully to abſtain from its uſe; for, when eaten *new*, for inſtance *cream cheeſe*, it is apt to diſagree, produce rancid eructations, and impair the digeſtive organs: when *old*, it has a remarkable tendency to putrify and taint the breath, even of the healthful. After dinner, a very ſmall quantity of ſound, old cheeſe, may do no injury; but it neither aſſiſts the digeſtion of food, nor produces any additional nutriment, when the veſſels already abound with alimentary matter.—Laſtly, we adviſe thoſe who know the value of health, and are enabled to procure more ſalutary food, never to make a meal upon bread and cheeſe alone.

For the Commercial and Agricultural Magazine.

THE MANNER OF THE WIRE-WORK AT TINTERN, IN MONMOUTHSHIRE.

The ingenious Mr. RAY, in a work, of which the ſecond edition was publiſhed in 1691, furniſhes the following account of a WIRE-WORK at TINTERN, in MONMOUTHSHIRE. Does the ſame manufacture ſtill ſubſiſt. If ſubſiſting, are its manipulations ſtill the ſame?

THEY take little ſquare bars, made like bars of ſteel, which they call *Oſborn-Iron*, wrought on purpoſe for this manufacture; and ſtrain, *i. e.* draw them at a furnace with a hammer moved by water (like thoſe at the iron forges, but leſſer) into ſquare rods of about the bigneſs of one's little finger, or leſs, and bow them round. When that is done they put them into a furnace, and neal them with a pretty ſtrong fire for about twelve hours: after they are nealed then lay them in water for a month or two (the longer the better); then the rippers take them and draw them into wire through two or three holes.

Then they neal them again for ſix hours or more, and water them the ſecond time about a week; then they are carried to the rippers who draw them to a two-bond wire, as big as a great packthread.

Then again they are nealed the third time, and watered about a week as before, and delivered to the ſmall wire-drawers, whom there they call overhouſe-men; I ſuppoſe only becauſe they work in an upper room.

In the mill, where the *Rippers* work, the wheel moves ſeveral engines like little barrels, which they alſo call barrels, hooped with iron. The barrel hath two hoops on the upper ſide, upon each whereof hang two links ſtanding acroſs, and faſtened to the two ends of the tongs, which catch hold of the wire, and draw it through the hole. The axis on which the barrel moves, runs not through the centre, but is placed towards one ſide, *viz.* that on which the hooks are. Underneath is faſtened to the barrel, a ſpoke of wood, which they call a ſwingle, which is drawn back a good way by the calms or cogs in the axis of the wheel, and draws back the barrel, which falls to again by its own weight. The tongs, hanging on the hooks of the barrel, are by the workmen faſtened on the wire, and by force of the wheel, the hooks being drawn back, draw the wire through the holes.

They anoint the wire with train-oil, to make it run the eaſier. The plate, wherein the holes are, is on the outſide iron, on the inſide ſteel.

The holes are bigger on the iron ſide, becauſe the wire finds more reſiſtance from the ſteel, and is ſtreightened by degrees.

There is another mill where the ſmall wire is drawn, which with one wheel moves three axes, that run the length of the houſe on three floors, one above another.

The deſcription whereof would be tedious and difficult to underſtand without a ſcheme, and therefore I ſhall omit it.

THE ROYAL INSTITUTION.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

IT has been ſaid, and with truth, that no man ever yet appeared a hero to his *Valet de chambre*. No deſign ever ſeems highly wiſe or magnificent to thoſe to whom it is fully known in its detail. Scarce any event can very awfully, or even very agreeably ſurpriſe perſons by whom it has been long, with extravagant hopes, expected, and who mark its cauſes, its relations, and the ſucceſſion of its parts, as it actually takes place. Even an earthquake ſeems, comparatively, but a ſlight affair to thoſe who cultivate the ſides of Veſuvius or Ætna. The firſt workers in the uſeful arts were ranked among the gods of polytheiſtic antiquity; their ſucceſſors of the preſent day are numbered in almoſt every claſs of ſociety.

The influence of this conſtant principle in human nature has begun to appear moſt ſtrikingly in regard to the Royal Inſtitution of Great Britain. The merits of Count RUMFORD, its acting preſident, and its author, are, with gay contempt, undervalued. The homely utility of ſome of the objects aimed at in it has

been made a ſubject of ridicule by the narrow-ſighted, the malevolent, and the dull, ſmall wits of the town. The neceſſary boldneſs of others of the experiments made, and the views propoſed in it, have been alſo abuſed with ſlippant cenſure. One of the greateſt benefactors to ſociety, that have ariſen in the preſent age, begins to be calumniated as a Quack: And the only very generous and patriotic attempt towards publick good that has been made in England ſince the beginning of the war, is already talked of, as a piece of idle foolery.

Sir, I have but a very ſhort appeal to make to your candour, in favour of Count Rumford, and of the Inſtitution of which he is the founder.

His *improvement of chimnies* for the ſaving of fuel, and the producing of a free and regular emiſſion of ſmoke, is not to be denied. It has been adopted moſt extenſively throughout Great Britain and Ireland. It has been actually given that ſaving of fuel which was attributed to it, in its firſt propoſal. On a calculation the moſt moderate, but certainly within the truth, it has afforded to theſe kingdoms *a clear ſaving of not leſs than the value of £100,000 ſterling*. Within a few years more, when the Rumford-grates ſhall have been univerſal, they will afford an annual ſaving in fuel to above twice this value. None but bad men, and very unworthy members of the community, can avoid to look with eſteem and gratitude upon the public benefactor, whoſe ſervices are, at ſuch a juncture, profitable to the nation to ſo great an amount.

The *Soup-eſtabliſhments* we owe, likewiſe, to Count Rumford. They have been, in the courſe of theſe laſt three or four years, tried, with the moſt entire ſucceſs, in almoſt every country of Europe. They have rendered the materials of which the ſoups are made twice as uſeful, and of courſe twice as valuable, as they ever were before. They thus *virtually* increaſe to a great amount—to perhaps not leſs for all Europe, than a million ſterling a year,—the quantity of the annual produce and the productive labour in theſe countries. What is perhaps much more important, they have enlarged the powers of charitable beneficence, in a time of want and war, when the miſeries of the indigent were the greateſt, and when the reſt of the people were the leaſt able to relieve them. Theſe *Soup-eſtabliſhments* are likewiſe valuable, as adding one more wholeſome and pleaſant diſh to the changes in the diet of the labouring poor; it thus adds to the number of their pleaſures, tends to the preſervation of their health, and increaſes, in fact, the value of their wages, by making them go farther. It is not for us, Sir, who witneſs all this, to extenuate the merits of its author, by ſaying, that there is neither genius nor philoſophy in bringing it about: the only thing we have properly to conſider, is, whether ſuch beneficial effects have been actually produced?—and to whom we owe

them? It muſt entail laſting ignominy on the ſenſe of gratitude of Britons, if ſuch a man ſhall either meet with ſlights, or go unrewarded.

Upon the ſuggeſtion of the author of theſe benefits to ſociety, was the Royal Inſtitution erected. The firſt objects of attention in it have been to perfect the above-mentioned inventions of Count Rumford, as matters of great and more immediate utility in life than any others which could be readily thought of. Improvements have been made in them, which, it were eaſy to prove, will, ultimately, more than repay all the expence of the inſtitution. Phyſical ſcience has been alſo cultivated in its applications to others of perhaps the moſt homely, but certainly the moſt important, of the uſeful arts. Series of highly intereſting philoſophical experiments have been either repeated, or originally performed in it. Not to ſpeak of the inſtruction diffuſed by its courſes of lectures—nor of the philoſophical converſations which ariſe among thoſe who frequent its apartments.

On theſe, and many other grounds, Sir, I beg leave to appeal to your readers, in oppoſition to thoſe prejudices which ſo many of the flippant and ignorant are ready to excite againſt a man to whom much is owing from the community, and an inſtitution from which the happieſt advantages will continually more and more ariſe. I am, Sir,

A Life Subſcriber to the Royal Inſtitution.

ON THE COMMERCE AND AGRICULTURE OF AMERICA.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I HAVE not yet had opportunity to learn much by perſonal obſervation, concerning the trade and huſbandry of the United States, that can either greatly edify or inſtruct your readers. A few facts, however, have come to my knowledge: and theſe, according to promiſe, I, without loſs of time, ſit down to write to you.

One of the moſt thriving buſineſſes in this country is, that of a LAND JOBBER. A prodigious trade is driven in land in all parts of theſe ſtates, from the remote extremities of the back-ſettlements, eaſtward to the ſea. The moſt unwary purchaſers are emigrants who arrive from Europe. Theſe often pay their all for lands as yet uncultivated, on which diſeaſe, and the want of utenſils and aſſiſtants for the requiſite labour, bring them quickly to a wretchedneſs unknown to the pooreſt peaſants in Britain or Ireland. It is common for the more opulent of the emigrants from Europe to purchaſe cultivated farms in the eaſtern diſtricts. Theſe are to be obtained from females, or children ſelling their patrimonial eſtate to divide the produce among them; from bankrupt or unthriſty farmers, who ſell becauſe their affairs go to wreck

by miſmanagement, and their debts muſt be paid; and even from induſtrious perſons, who think to enrich themſelves by turning a cultivated farm into ready money, and then retiring backwards to cultivate another of larger extent bought for a tenth part of the price of the former. The average rate at which the beſt cultured lands are now ſold in America, is twelve years purchaſe. It is not yet common, even in the beſt cultivated and moſt populous parts of theſe ſtates, to tenant lands on leaſe, and a rack-rent, as in England.

Labour is very dear, notwithſtanding the numerous emigrations of poor labouring people from Europe. Except where ſlavery ſtill ſubſiſts, it is impoſſible to find hands to perform the neceſſary labour. The advancement of American huſbandry muſt be long exceedingly impeded by this diſadvantage.

Wood-cutting, ſhip-building, and the burning of potaſh, employ in various parts of theſe provinces a vaſt number of hands. They are for the preſent gainful; furniſhing a great fund of commodities of ready ſale for exportation. But, there is danger leſt the tracts adjacent to the ſea and the navigable rivers ſhould be ſtripped of wood, and that within no long time, to a degree highly injurious to the naval proſperity of this country.

The ſhipping of America has immenſely augmented by the circumſtances of the preſent war. Much foreign property is juſt now veſted in American ſhipping. The better part of the carrying trade of the Weſt Indies, of the Eaſt Indies, and even of Europe, is carried on in American bottoms, and by American mariners and factors. At a peace, much of the foreign capital which is now veſted in America ſhipping, will probably be withdrawn, yet, after all, America will remain conſiderably richer than it would have been, had it not been for the war and this carrying trade; and theſe ſtates will have made very great advancement towards maritime grandeur, in the courſe of the war. Some perſons in America were once ſo weak as to ſuppoſe, that the Americans might have a great ſea-faring trade, without maintaining, for its protection, any armed naval force. But, the folly of that notion is now almoſt univerſally underſtood; and it is generally allowed throughout theſe ſtates, that they muſt of neceſſity ſupport an armed navy, proportionate in ſtrength to the quantity and the activity of their merchant-ſhipping.

The influx of money into theſe ſtates has, for a good many years, been conſiderable. It is brought from Europe. It is obtained in various ways from the Portugueſe and Spaniſh ſettlements in South America. It does not merely enter, and then paſs haſtily from us. A part is continually fixed in different forms in the country. Much other property is continually accumulated in buildings in the towns and in the country, in improvements on the lands, in rich furniture and clothing, &c.

Britiſh goods are imported in vaſt quantities. And it will be long ere America have cotton or woollen manufactures to vie

with thoſe of Europe. The agriculture is generally without yſtem. The Scots, Iriſh, Engliſh, and Germans, have reſpectively introduced thoſe methods of huſbandry with which they were acquainted in their native countries; and the ſame practices have been, for the moſt part, followed implicitly by their children and ſucceſſors. The government of Jefferſon is not as yet inauſpicious to the improvement of any of the uſeful arts here, but rather otherwiſe.

I am, Sir, your's,

C. ALEXANDER.

Philadelphia, July 4, 1801.

ROTATION OF CROPS IN THE COUNTIES NEAR LONDON, IN THE REIGNS OF EDWARD VI. MARY, AND ELIZABETH.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I SEND you the following extract from TUSSER'S HUSBANDRY, written by a practical farmer, in the end of the ſixteenth century; becauſe it curiouſly explains the ROTATION of CROPS, which was then the moſt approved in Engliſh Huſbandry. The book is ſo very ſcarce, that I have never ſeen more than two copies of it, which I lately found, by accident, on the ſhelves of a dealer in old books, and purchaſed. By compariſon of the rotation which TUSSER deſcribes, with that which is now common, we may eſtimate the degree of improvement in the leading branch of Engliſh huſbandry during theſe two laſt centuries.

" Good land, that has *ſeverall* crops, may have three:
" In *champian*† countrey, it may not ſo be,
" †T' one taketh his ſeaſon, as commoners may,
" The other, with reaſon, may otherwiſe ſay,
" Some uſeth, at *firſt*, (1) a *good fallow* to make,
" To ſow, thereon, (2) *barley* the better to take;
" Next that, to ſow (3) *peaſe*; and of that, to ſow (4) wheat,
" Then *fallow again*, or *lay* for thy neat.
" Firſt (1) *rye* and then (2) *barley*, the champian† ſays;
" Or (1) *wheat* before (2) *barley*, be champian† wayes;
" But, drinke *before* bread-corne, with Middleſex men;
" Then, lay on more compaſs, and fallow agen."

I will not now trouble you with any farther extract—but I think this paſſage exceedingly intereſting. And, I ſhould be highly gratified, if any of your correſpondents would favour us, through the channel of your Magazine, with the " Hiſtory of the changes

†††† The words above, to which theſe marks are adjoined, relate to lands in *commonalty* or *run-rig* and unincloſed. Where each field changed maſters, every year, no improved rotation could be regularly adopted. *Land that is ſeverall*—is land no longe in common.

in the Engliſh rotation of crops from the æra of TUSSER to the preſent time."

TUSSER lived, and farmed, in the reigns of Edward the Sixth, Mary, and Elizabeth. He ſays, that he was the firſt perſon who tried the culture of wheat with ſucceſs, in the county of *Suffolk*; and the firſt that raiſed barley in Brantham, a place where only rye had been *before* cultivated.

I am, Sir, your obedient ſervant,

Greenwich, Sept. 13, 1801. P. C.

ON HOEING THISTLES, NETTLES, &c.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

AS I have not ſeen any anſwer to your correſpondent L. E. M. I beg leave to inform him, hoeing thiſtles, nettles, docks, &c. is practiſed in this vicinity with ſucceſs. The work is not tedious, and if continued year after year, it will in a great degree deſtroy them; mowing thiſtles, &c. in many inſtances makes their growth more abundant. I believe the cauſe is, that the ſcythe injures the plants leſs than the hoe.

Thomas Tuſſer, who wrote a good Practical Treatiſe on Huſbandry many years ago, ſays

In June and in *awe*,
Saving makes for a law.

And I believe this obſervation will be right as to the time for cutting all noxious weeds.

I am, Sir, your obedient ſervant,

Steyning, Sept. 21, 1801. R. J.

ENUMERATION OF PATENTS LATELY ENROLLED.

1801. *June* 5. EGERTON Smith, of Liverpool, Lancaſhire, Stationer, and Thomas Todd, of Liverpool, aforeſaid, Organ-builder; for a method of tuning, and keeping in tune, muſical and ſtring inſtruments in general.

—— 5. William Chapman, of Newcaſtle-upon-Tyne, Gentleman; for the application of certain ſubſtances, either ſeparately or combined, as a preſervative of cordage.

—— 18. Thomas Bartlett, of Boſton, in the ſtate of Maſachuſetts, in North America, but at preſent reſiding in Threadneedle-ſtreet, London; for improvements in the conſtruction of elaſtic truſſes for ruptures.

—— 18. William Sellers, of Piccadilly, Middleſex, Gentleman; for a new-improved apparatus of machinery, for the purpoſe of diminiſhing friction, and communicating a direct rotary motion from one wheel to another, by means of cranks,

which he calls alternate relieving cranks, applicable to wind or water-drainage mills, or thoſe for raiſing water for irregation, and various other uſeful purpoſes.

—— 18. G. F. Lenz, of Homerton, Middleſex, Tanner; for a method of conſtructing tan-pits for the tanning of hides and ſkins, and for ſtriking hides by machinery.

—— 20. John Spencer, of Duffield, Derbyſhire, Nail-Maſter; for a new method of making horſeſhoe-nails.

—— 20. John Aloyſius Senefelder, of Gould-ſquare, London, Gentleman; for a new method and proceſs of performing the various branches of the art of printing on paper, linen, cotton, woollen, and other articles.

—— 23. William Bolton, Eſquire, Captain in the Royal Navy; for a rudder, and the means of preſerving the ſame.

—— 23. Thomas Witherby, of Enfield, Middleſex, Gentleman; for a pump, and method of working machinery.

—— 24. Samuel Holemberg, of Silver-ſtreet, Bridgewater-ſquare, London, Goldſmith; for locks and faſtenings for general uſes, on a new and improved conſtruction.

—— 26. George Stratton, of Blackfriars-Road, Surry, Ironmonger; for improvements in machines for cooking, and fire-places.

July 1. Anthony Boden, of Mellor, Derbyſhire, Cotton Carder and Rover; for an engine or machine for batting or beating and cleaning cotton.

—— 1. James Manley, of the townſhip of Welton, in the pariſh of Great Budworth, in the county palatine of Cheſter; for improvements in the manufacturing of ſalt.

—— 10. George Medhurſt, of Pentonville, Middleſex, Mathematical Inſtrument-maker; for improvements of certain machines for waſhing and wringing of linen, woollen, wool, cotton, ſilk, velvet, or any other commodity that requires waſhing, cleanſing, or ſcouring.

—— 10. John Wilkes, of Sheffield, Yorkſhire, Gun-ſmith; for a method of making ſelf-acting cylindrical ſpring ſnuffers upon a new conſtruction, which cut off, confine, and extinguiſh, the ſnuff at one motion.

—— 20. Charles Earl of Stanhope; for a new method of burning chalk, marble, and lime-ſtone, into lime.

—— 20. William Hoard, of Deptford, Kent, Ship-chandler; for an improved portable machine for manufacturing ropes and cordage, of any length, in a ſhort ſpace of ground, peculiarly adapted for ſhipping.

—— 31. Archibald Earl of Dundonald; for a new method or methods of preparing a ſubſtitute or ſubſtitutes for gum-ſenegal, and other gums, extenſively employed in certain branches of manufacture.

CRITICAL CATALOGUE.

I. *Robertſon's View of the Agriculture of Perthſhire Concluded.*

WHILE England and Scotland remained ſeparate kingdoms, the trade of every man was war, and there was little or no inclination for cultivating the ground; but merely to ſupply the preſent wants without any views to future improvement. Since the union, *Incloſure* has made very rapid progreſs. In a country interſected with ſo many mountains, a great proportion of the ſurface muſt remain for ever unincloſed, becauſe the produce of the ſoil will not repay the expence. If incloſing, however, ſhall be carried on, for another century, with the ſame ſpirit which has gone forth of late years, all the green ground, even in the high lands, will be incloſed. At an average, three fifths of the arable land is open. Stone walls without mortar are moſt prevalent where the quarries are convenient, or ſtones are found in the fields, or where the expoſed ſituation and ſterility of the ſoil render the growth of thorns precarious. But this kind of fence is now increaſing. In ſome parts of the county a new kind of hedge is uſed; larch trees are planted in the face of a ditch inſtead of thorn. This kind of fence thrives in a dry ſoil, admits a frequent pruning, and in a ſhort time becomes impenetrable for cloſeneſs and ſtrength by the intertexture of the branches. The moſt approved mode of pruning hedges is to trim the thorns in a regular ſlope from the bottom on both ſides, ending in a very acute angle or point at the top. From the mode of incloſure our author clearly and conciſely diſcribes its principal advantage in aſcertaining to every landlord his juſt property, to every tenant his own farm; preventing treſpaſſes and litigation, enabling the farmer to follow a regular rotation of crops, and to ſow when and where he pleaſes.

From ſecurity of tenement we follow our author to improvement of ſoil. Tillage, as to depth of furrow, direction of ridges, and other circumſtances, muſt be neceſſarily adapted to the nature of the ſoil. In parts of Perthſhire, where the land is extremely light and gravelly, the farmers have a practice in the beginning of winter, of *ribbing* their land, i. e. they turn up and leave a furrow alternately, ſo that the ſoil, which is turned over by the plough, is left exactly on the top of the furrow, that is not ſtirred. The object of this operation is the ſame with that of gardeners, who turn up their onion and celery beds, through the winter, to expoſe as much ſurface as poſſible to the meliorating influence of the atmoſphere.

The ſureſt teſt of agriculture is the *rotation* of crops. A table of rotations exhibits the ſeries varied through all the different claſſes of ſoil to be found in Agricultural Perthſhire. This table, with its illuſtrations, preſenting views at once comprehenſive and diſtinct of the ſtate of farming, relative to the various capabilities of ſoil, ſituation, and poſitions, affords a very favourable idea of the aggregate ſkill of Perthſhire farmers.

The crops cultivated in very extenſive diſtricts of Perthſhire are nearly the ſame as the moſt important crops raiſed on Engliſh farms. A Scotch acre, about one fifth more than an Engliſh acre, in the Carſe of Gowrie, at an average produces about four quarters Engliſh meaſure of wheat, of barley about four one fourth, of oats about five quarters. The rent in that part is about three pounds an acre. Within theſe thirty years the average rent to the county has been doubled.

From corns our author proceeds to graſs natural and artificial. Natural meadows being marſhy, ſoft land, unfit for tillage, to be productive in Graſs, require drains to prevent their being overcharged with moiſture. Where proper drains are practicable, they may be converted into any rich paſturage; and even into corn fields. Draining appears from this treatiſe to be very well underſtood in Perthſhire. Rye graſs and red clover are the artificial graſſes moſt eſteemed in this county. The proportion in which they are mixed,

when ſown, is altogether arbitrary. When hay is the object, the rye graſs predominates; when the crop is to be cut for green food, there is always more red clover and leſs rye graſs. It is worthy of being remarked, that the oftener red clover is cut green, without being allowed to carry ſeed, the longer it will laſt in the ground. The beſt time for cutting clover is, when the flowers are all fully blown, and the earlieſt begin to turn brown. If allowed to ſtand longer, the roots of the ſtalks loſe their leaves, and become hard and ſticky; and the plant is ſo much exhauſted that it takes a long time before it ſends up new ſhoots. Sainfoin, lucern, and burnet, are not cultivated in this county.

From the food to be raiſed, the author proceeds to the mode of feeding cattle. This branch of farming has increaſed very greatly in the county of Perth. The reſult of progreſſive ſkill is a conſiderable increaſe of product, with leſs labour and expence. In the parts of the county where graſing is moſt thoroughly underſtood, the milch cows are generally fed in the houſe or in the ſhade, while cut clover is in ſeaſon; and allowing an airing once a day, in an adjoining field. Although this practice is attended with more labour, than leaving the cows to paſture at large in the clover field; yet the advantages which otherways attend it, by far over balance the additional labour. The clover is ſaved from being covered in many places with dung; the field is ſaved from poaching in rainy weather; the dung hill for the next year is greatly augmented; the milk will be more copious; and double the number of cows maintained on the ſame extent of ground. The bleak mountains of this county are now depaſtured by ſheep alone, with a few gleanings of the former goats, and are thereby becoming more verdant every year, and capable every ſucceeding ſeaſon of feeding more on the ſame extent of territory. Our author mentions a curious fact, that the heath is not extirpated ſo rapidly on the low as it is on the high grounds. This he thinks may probably be occaſioned by the difference of the manure of the ſheep at different ſeaſons. It is more powerful in ſummer and autumn, while they frequent the higher hills, becauſe they live more plentifully, and eat food in higher luxuriance, than it can be, while their food is moſtly withered graſs, and their meals more ſcanty, which is the caſe in winter and ſpring. The paſture upon good land, after one or two crops of hay have been reaped from it, is as rich in many parts of this county as in any part of Britain.

The county of Perth abounds in wood. There are more oak woods and of greater value, in this county, than in all the reſt of Scotland. The copſe of oak is cut once in twenty-four or twenty-ſix years. A few ſpare trees of the moſt promiſing appearance and of the beſt figure are left at proper diſtances, from one cutting to another, and ſometimes for three or four cuttings. The chief product of this coppice oak is not the timber, but the bark uſed for tanning leather. The timber, however, anſwers ſome of the purpoſes of huſbandry, but is too ſmall for ſhip building. In parts of the country where fuel is difficult to be procured it ſerves for fire wood. Natural fir is leſs common in this county than in more Northern diſtricts of Scotland. But in one part called Rannoch, on the north weſt confines of the country, there is a foreſt of natural fir, which upon a ſurvey has been found to cover two thouſand five hundred and ſixty-ſix acres of land (being upwards of five ſquare miles), in one continued track of large and lofty trees. The birch, the alder, and the haſel, abound in this county.

Plantations alſo flouriſh, comprehending chiefly aſh, elm, beech, plane, oak, and larch. But the principal continuous plantations are firs, which were planted in moors and other tracts of ground concluded to be unfit for agriculture; but ſince that art has ſo rapidly advanced, many plantations have been grubbed up and converted into productive arable land.

Beſides dung, the chief manures are lime and marle. Moſs now begins to be tried as a manure. Flooding is very partially uſed, and the author judiciouſly recommends that it ſhould be much more generally employed.

The breed of black cattle in Perthſhire is not equal either for milk or beef to the neighbouring counties of Angus, Fife, and Argyle. But farmers are by importations from other counties improving the indigenous breeds.

The breed of ſheep has undergone a much greater improvement than the breed of cows. The ancient ſheep in Perthſhire were the white faced. They were few in number, compared to the flocks at preſent; and in the Highlands were houſed in cots every night in winter and ſpring. About thirty years ago, the black faced breed was introduced from the ſouth, and bought in either in lambs or at a year old. Their numbers have increaſed beyond all expectation, ſince that time, over the whole Highlands of Scotland.

Of horſes there are two breeds totally different, the Highland and the Lowland. The Highland horſe is ſomewhat below the middle ſtature, about twelve or thirteen hands high; the back generally hollow, and the ſides flat, but moſtly wide at the buttocks; the cheſt deep, the boſom wide, and the legs generally good; the prevailing colour grey, changing early to a white. The Highland horſes travel with ſafety and perſeverance; and for the Highland roads, whether they lead over rugged or rotten ſurfaces, a better breed it would, perhaps, be difficult to introduce; but they are light for two horſe ploughs. The Lowland horſes are large and ſtrong.

The Highlands of Perthſhire abound in hogs, with which they ſupply their Lowland neighbours.

Veniſon and game of every kind are plentiful.

Perthſhire is famous for its ſalmon fiſheries: and a letter from Mr. Richardſon, the chief leaſeholder of fiſheries in that county (or perhaps in the world), very accurately details their rent, product, and preſent ſtate. It appears from this letter that, on an average of the laſt nineteen years, the quantity of fiſh is much inferior to that of the preceding nineteen. The chief and obvious reaſon appears to be deſtroying ſalmon in forbidden time, eſpecially before the ſpawn.

Roads have recently undergone very great improvement, and are now in a ſtate moſt favourable to communication. There are no navigable canals in the county of Perth.

This is not a commercial county, proportionably to its capabilities and productions. Its exports are chiefly live ſtock, and raw materials for linen and woollen manufactures. Recently conſiderable quantities of corn have been ſent to England.

Manufactures flouriſh in ſome parts of Perthſhire, where coals can be purchaſed at a reaſonable price; but the Inland and Highland parts, being ſo diſtant from fuel, poſſeſs little manufactures; though a great quantity of raw materials.

Population has increaſed conſiderably on the whole, although in certain diſtricts, eſpecially where ſheep farming prevails much, it is decreaſed.

There ſtill remain ſeveral obſtacles to improvement. Of theſe the moſt material are *Runrig*, an arrangement of farms by which the lands of different tenants conſiſt of alternate ridges in the ſame field.—*Thirlage*, by which the tenants of certain diſtricts are compelled to have their corns ground at a particular mill.—*Servitudes*, by which tenants are obliged to interrupt their own agricultural labours in order to execute thoſe of their landlords. Theſe, however, it appears, both from this author and the ſtatiſtical reports of pariſhes, are decreaſing both there and in other counties.—*Shortneſs of leaſes, diſtance from manure, and commons*, are alſo hindrances to improvement. Various means of improvement are ſuggeſted, among which the moſt important are navigable canals, to which this county is very well adapted.

The genius of the Perthſhire people is very favourable to improvements; active, enterprizing, and intelligent: the itinerant and adventurous ſpirit of Scotchmen is no where more conſpicuous than in Perthſhire. By far the greater number of country gentlemen have, in their youth, enlarged their ideas by mingling with the world, in active profeſſions, eſpecially the navy,

army, and the law; and in no country is there to be met a greater portion of ſenſible and well-informed landed proprietors, than in the county of Perth. Intellectual expanſion, naturally producing liberality of ſpirit, is the germ from which riſe the improvements of Perthſhire, ſo far exceeding thoſe of many other counties more favoured by climate.

The work which we have been reviewing is a very valuable performance; it is the production of obſervation and experience, induſtriouſly collecting uſeful detail; claſſing his ſubjects with great judgment; reducing, eſtabliſhing general principles with a ſkill and ability that evince a mind converſant in the inveſtigation of phyſical and moral cauſes. We wiſh the author would extend his review to the adjacent counties of Sterling, Fife, and Angus, and prevail on his neighbour, Dr. Stuart, of Luſs, to undertake Dunbarton and Argyle.

II. *Hunter's edition of Evelyn's Silva, and Ferran.* Mawman. 2. vol. 4to.

Defective as the character of Charles II. was, in various conſtituents of kingly excellence, he was very attentive to the Navy of his kingdom, and to whatever tended to promote that engine of ſecurity and power. Under the patronage of that monarch, Mr. Evelyn produced the work which Dr. Hunter revived.

The revival of works exhibiting either the phyſical or moral ſtate of important ſubjects at former times, and elucidating the changes that have ſince taken place, has a double uſe; firſt, in the knowledge which it conveys of the actual ſubject; ſecondly, in marking progreſſion, or retrogreſſion. Two editions of Dr. Hunter's publication of this work appeared before the commencement of the Agricultural Magazine. The preſent edition, however, coming within the limits of our plan, we are enabled to give our readers an account of this valuable work.

The general object of Mr. Evelyn's performance was to encourage the propagation of Foreſt trees, by explaining the ſubject and teaching the means: the performance is therefore a compound of botanical and agricultural information and inſtruction. After enumerating ſome of the general properties of trees, our author deſcribes the ſoils beſt adapted to foreſts: thence deſcending from genera to ſpecies; he begins with the Oak: he deſcribes its botanical varieties, explaining the ſeveral uſes of its differences, with the ſoil reſpectively adapted either to ſowing or planting. The Engliſh Oak is much ſtronger than the French, and better fitted for ſupporting burthens, for ſhip-timber, in ſhort, for reſiſtance of force. The excreſcences of the Oak afford many beneficial advantages in huſbandry; the aſtringent ſtrength of its bark, ſo admirable and antiſeptic, renders it a very valuable medicine. We do not find its uſe to tanners among the enumerations of its various qualities: Its juices are alſo ſtrongly medicinal. In his account of the other trees, he purſues the ſame mode, tracing them from the ſeed or plant, attending them in the cultivation, following them from the hatchet, through their various uſes in agriculture, manufactories, and commerce. By enumerating the variety of beneficial uſes, propoſing the ſtrongeſt motives to incite men to the culture which he recommends.

The illuſtrative notes explain diſcoveries and inventions of a later date, and afford a very valuable addition of knowledge, having the ſame objects and directions.

The Cheſnut will thrive in almoſt any ſoil, and in all ſituations; it will grow beſt, indeed, in a rich, loamy land; but it will ſucceed very well on that which is gravelly, clayey, or ſandy; all mixed ſoils are ſuitable to it, as well as expoſed places, and the declivities of hills; it is extremely well adapted to Parks; not only becauſe it grows to a large ſize, and forms a beautiful regular head, but on account of the quantity of nuts it produces, which are excellent food for Deer in the rutting ſeaſon.

All kinds of Elms, the Wych excepted, are proper to plant in hedge-rows, upon the borders of fields, where they will thrive much better than

when planted in a wood, or close plantation, and their shade will not be very injurious to whatever grows under them; but when these trees are transplanted out upon banks after this manner, the banks should be well wrought, and cleared from all other roots, otherwise the plants, being taken from a better soil, will not make much progress in these places. These trees are also proper to plant at a distance from a garden or building, to break the violence of the winds, for which purpose there is not any tree more useful; for they may be trained up in form of a hedge, keeping them cut every year, which will cause them to grow very close and handsome, to the height of forty or fifty feet, and be a great protection against the fury of winds.

The timber of the Ash (the Oak only excepted) serves for the greatest variety of uses of any tree in the forrest: though a handsome tree, it ought by no means to be planted for ornament in places designed to be kept neat, because the leaves fall off with their long stalks, very early in the autumn, and, by their litter, destroy the beauty of such places. Although this tree should not be planted near gravel walks and pleasure grounds, it is well calculated for woods, and clumps in large parks, and for standards; but it should never be planted on the borders of tillage lands, because the dripping of the leaves is extremely prejudicial to corn, and the roots have a powerful tendency to draw the nourishment from the ground.

The common Hasel grows wild in almost every part of this island, and serves very well for thickening woods. In order to raise a coppice of Hasel, the nuts must be gathered in autumn; these must be carefully preserved till the month of February, in a moist place, to keep them from growing dry; then, having the ground well ploughed and harrowed, let drills be drawn at one yard distance, into these drop the nuts at about ten inches distance, and let them be covered with two inches of earth.

The Birch, according to Mr. Evelyn, has given name to Berkshire: of this etymology, however, we have some doubt. It suits itself to all sorts of soils, and tends to the melioration of land. When the land is good enough to admit of the plough, a crop of corn is the best preparation for a birch plantation.

(To be concluded in our next.)

Storch's Picture of Petersburg. 1 vol. 8vo. Longman, 1801. *Translated from the German.*

This work affords a very pleasing account of Petersburg, its environs, inhabitants, customs, manners, manufactures, and commerce: incidentally are also introduced various anecdotes of Catharine, characterizing that celebrated princess. Czar Peter the Great had two objects in the construction of this new city, to form an emporium for his commerce, and his imperial residence. The aspect of the residence is gay and chearful; streight, broad, and generally long streets; frequently interfecting each other in abrupt and sharp corners; spacious open squares; variety in the architecture of the houses; in short, the numerous canals, and the beautiful river Neva, with their substantial and elegant embankations, render the general view brilliant and enchanting. In regard to regularity and capacity for embellishments, but few capital cities in Europe can be compared with Petersburg: considering the coldness of the climate, Petersburg is very well supplied with bread and other necessaries, and all ranks, even the poorest, are well supplied with the necessaries of life.

There are many charitable institutions for those who cannot procure themselves the means of livelihood.

Absolute governments being more favourable to a vigorous police than free constitutions, depredations are not very common, except by fraud, which appears to be very prevalent. The manufactories are numerous and flourishing: the principal materials on which they are employed, some on a larger

and others on a ſmaller ſcale, are leather, paper, gold, ſilver, ſugar, ſilk, tobacco, diſtilled waters, wool, glaſs, clay, wax, cotton, and chintz. Leather, as is well known, is among the moſt important of their manufactures for the export trade; accordingly here are ſixteen tanneries. Even manufactures and trades adminiſtering to luxury and ornament abound in this place. The Empreſs either formed, or improved various inſtitutions for the promotion of literature. A chapter of this work gives a ſummary of the principal Ruſſian works, and alſo tranſlations from other languages; Mr. Petrof, Librarian to the Empreſs, compoſed and publiſhed a poetical tranſlation of the Æneid, which produced him a high character: a long reſidence in England inſpired him with a fondneſs for Britiſh literature, which animated him to the difficult undertaking of tranſlating the Paradiſe Loſt of Milton into his mother tongue, and this, though in proſe, has juſtly added to his reputation. By a ſingular coincidence of name, Pope's Eſſay on Man is tranſlated by an author of the name of Popof. The Ruſſians are extremely chearful, and very active: from theſe two cauſes ſinging and dancing are favourite amuſements: their exerciſes in general are ſuch as require and improve ſtrength and agility, ſuch as wreſtling and boxing, foot-ball, &c. the middle and lower ranks are very ſocial in their diſpoſitions and their paſtimes; but the higher mingle leſs with the publick than in other countries.

This work appears to be a faithful picture of Peterſburg; and though its repreſentations would not invite a man thoroughly acquainted with the comprehenſive pleaſures of a London life to *chuſe* the Ruſſian capital for his reſidence, yet it contains enough to convince him that ſocial comforts are to be found in Peterſburg much greater than he would have expected.

HISTORY.

National Tranſactions.

CHINA and EAST-INDIES.

ANOTHER unfortunate circumſtance has happened in China, ſimilar to that which occurred in the laſt century; and on a diſagreeable diſcuſſion with the Chineſe government at Canton, relative to a China-man being wounded by a ſhot from his Majeſty's ſchooner the Providence, the following tranſlation of extracts from the Chineſe Code of Criminal Laws was publiſhed by the authority of the Honourable Company's Supercargoes, for the information of all concerned.

Art. 1ſt. "A man who kills another on the ſuppoſition of theft, ſhall be ſtrangled according to the law againſt homicide committed in an affray.

2d. "A man who fires at another with a muſket and kills him thereby, ſhall be beheaded as in caſes of wilful murder. If the ſufferer is wounded (but not mortally) the offender ſhall be ſent into exile.

3d. "A man who puts to death a criminal who had been apprehended, and made no reſiſtance, ſhall be ſtrangled according to the law againſt homicide committed in an affray.

4th. "A man who falſely accuſes an innocent perſon of theft (in caſes of greateſt criminality) is guilty of a capital offence; in all other caſes the offenders, whether principals or acceſſaries, ſhall be ſent into exile.

5th. "A man who wounds another unintentionally ſhall be tried according to the law reſpecting blows given in an affray, and the puniſhment rendered more or leſs ſevere according to the degree of injury ſuſtained.

6th. "A man who, intoxicated with liquor, commits outrages againſt the laws, ſhall be exiled to a deſert country, there to remain in a ſtate of ſervitude."

The foregoing are articles of the laws of the empire of China, according to which judgment is paſſed on perſons offending againſt them, without allowing of any compromiſe or extenuation.

From India we learn, that the Ranah or Rajah of Ondipoor, who lately called in the aſſiſtance of Scindeah to reduce his ſubjects, who had thrown off their allegiance, is at the head of the Rajapoor tribes, and by way of pre-eminence aſſumes the title of Rana. This family is regarded with the higheſt degree of reſpect, even by the Muſſulmen themſelves, in conſequence of a tradition relating to his genealogy: he is ſaid to be deſcended in a direct line from the celebrated Aunſhurwan, who was the reigning monarch of Perſia at the birth of the Prophet, and of a common origin with the Seids, deſcended from Huſſein, the ſon of Ally; a circumſtance which goes to prove an intercourſe to have exiſted at that time between the natives of India and the neighbouring Pagan nations. Scindeah was called in on a ſimilar occaſion in the year 1790.

Mr. Crowe has failed in his miſſion to eſtabliſh a reſidency at Schind; Zemaun Shaw having declared himſelf averſe to the meaſure, from an apprehenſion that the reſidence of Europeans among them will afford to the diſaffected clans of the Seick means and excuſes for fermenting thoſe diſtractions and rebellions which have diſmembered and weakened the ſouthern countries.

A letter from Dacca (Bengal), of the 2d of May, ſays, that information having been given to Mr. Camack, that a dangerous conſpiracy exiſted in embrio againſt the peace of that government, by ſome of the diſaffected Chiefs, of whom Shemſud Dowla was at the head, he immediately iſſued ſecret orders to the civil and military powers to uſe every exertion to trace the buſineſs to the bottom; when, after a long and arduous inveſtigation, it appeared that the conſpirators had long kept up a communication with ſome of the moſt refractory tribes in the various provinces of Bengal, particularly the daring depredators on the eaſtern banks of the Ganges, many of whom were to have been drawn towards that city under various pretences, together with a number of facquires, who had engaged to celebrate a public religious feſtival, in order to throw the military and civil power off their guard on the occaſion, when advantage was to have been taken of the popular tumult and confuſion, in which they were to have ſelected the victims to their revenge. Many of the ringleaders have been taken.

TURKEY and EGYPT.—The affairs of the Turkiſh empire have a very gloomy appearance, except in Egypt. Paſſawan Oglou continues to make a further and rapid progreſs, having taken Belgrade.

Letters from Egypt preſent more agreeable proſpects. Cairo ſurrendered to the united Engliſh and Turkiſh army on the 27th of June, without any loſs; the French Commander, General Belliard, finding the place not tenable, capitulated. The French have conſtructed batteries on the bank of the Mariotis, and the Engliſh had likewiſe conſtructed them on the oppoſite ſhore.

Letters from Egypt reiterate the reports communicated by way of Rhodes and Conſtantinople, that the garriſon of Alexandria was preſſed by want, and that many of the inhabitants had been expelled the city, and conducted in the night acroſs the old port to the neck of land which forms the Lake Mareotis. The occaſion of this is variouſly ſtated, ſome of our letters imputing it to a conſpiracy to ſurrender the city to the Engliſh; others, with more probability, to a deſire to reduce the conſumption of proviſions by the removal of all unneceſſary hands. Some of theſe people have been conducted to the Britiſh camp, and make the moſt melancholy repreſentations of the ſituation of the inhabitants of Alexandria, who are deſtitute of every thing. They ſtate the republicans to be diſcontented, and only held to their duty by the expectation of ſuccour. They were informed of Gantheaume being on

the coaſt, and elated by the circumſtance.—The failure of his enterprize, it was expected, would conduce to the ſurrender of Alexandria.

ITALY.—The attack made by the French on Porto Ferrajo, in the iſland of Elba, promiſes to give them much trouble, and will, perhaps, in the end, prove unſucceſsful. The garriſon have certainly received ſupplies and reinforcements, and the preſence of an Engliſh ſquadron will prevent the beſiegers receiving any.

FRANCE.—The negociation between this country and Great Britain ſeems now drawing near a concluſion, and every proſpect of peace has vaniſhed. Till the ſtate of the negociation is laid before Parliament, it is not poſſible to judge in what point the two negociating powers have diſagreed.

The Conſul, ſome time ſince, eſtabliſhed a guard both of horſe and foot, all equipped in a moſt ſuperb manner; theſe he has now increaſed by ſome cavalry, armed in the manner of the Arabs. He has alſo placed the Gendarmerie on a new and very effective footing. Its old eſtabliſhment of 3000 is to be augmented to 16,000, under the command of a General of Diviſion, and it is in future to conſiſt of men only who have been five years in actual ſervice, but who retain to the utmoſt their perſonal ability. Their officers are to be choſen of a ſimilar deſcription, and their duty is of a mixed nature, half civil, half military.

Count Cobenzel, the Imperial Ambaſſador, has had his firſt audience of the Conſul, and has delivered his credentials.

French troops are collecting on the coaſt oppoſite England, as, it is ſaid, on the ridiculous idea of a deſcent on England.

SPAIN and PORTUGAL.—Although the peace between Spain and Portugal is ſigned, the fate of the latter country ſtill hangs in ſuſpence. It is certain a large and increaſing French army hovers on the frontiers. To avoid its entering, there can be little doubt but that Portugal muſt make greater ſacrifices. The following are given as authentic extracts of the treaty of peace between Spain and Portugal, which, though executed on the 6th of June, have only been publiſhed at Madrid on the 8th of Auguſt. The inſtrument profeſſes to be executed by the Plenipotentiaries of the three belligerent Powers who have concluded two treaties, which it ſtates "in their eſſential parts will be but one; as the guarantee will be interchangeable, and will ceaſe with reſpect to both when either ſhall be infringed." The Articles, which bear no ſignature on the part of the third belligerent Power (the French Republic), are as follow:—

Art. I. There ſhall be peace, amity, and good underſtanding, between his Catholic Majeſty the King of Spain and the Prince Regent of Portugal and Algarve, as well by ſea as land, through the whole extent of their kingdoms and poſſeſſions; and all captures which ſhall be made by ſea, after the ratification of the preſent Treaty, ſhall be faithfully reſtored, with all their goods and effects, or their reſpective value paid.

II. His Royal Highneſs will ſhut the ports of his whole territories againſt the ſhips of Great Britain in general.

III. His Catholic Majeſty will reſtore to his Royal Highneſs the fortreſſes and places of Jurumena, Arronches, Portalegre, Caſtel-Davide, Barbacenas, Campo Major, and Ougnela, with all the territories hitherto conquered by his arms, or which may hereafter be conquered, with all their artillery, fire arms, or other warlike ſtores, and in the ſame condition in which they were when they ſurrendered to him; and his Catholic Majeſty will take as a conqueſt the fortreſs of Olivenza, with its territory and inhabitants, from the Guadiana, and unite the ſame for ever to his own territory and ſubjects, ſo that the river above-mentioned ſhall be the boundary of the reſpective kingdoms in that part.

IV. His Royal Highneſs the Prince Regent of Portugal and Algarve will not permit any depots of prohibited and contraband goods, which may be

prejudicial to the intereſts of the Crown of Spain, to be formed on the frontiers of his kingdom, excluſive of ſuch as appertain to the revenue of the Crown of Portugal, or are neceſſary for the conſumption of the reſpective territory in which they are eſtabliſhed; and if this or any other Article ſhall not be maintained, the Treaty which is now concluded between the three Powers, including the interchangable guarantee, ſhall be null and void, as is expreſſed in the Articles of the preſent Treaty.

V. His Royal Highneſs will immediately repair and make good all damages or injuries which the ſubjects of his Catholic Majeſty may have ſuſtained during the preſent war, from ſhips of Great Britain or the ſubjects of the Court of Portugal, and for which they can rightfully claim indemnification; and in like manner his Catholic Majeſty engages to make ſuitable ſatisfaction for all captures which may have been made by the Spaniards before the preſent war, in violation of, or within a cannon ſhot of the Portugueſe territory.

VI. Within the ſpace of three months, reckoning from the ratification of the preſent Treaty, his Royal Highneſs will pay to the treaſury of his Catholic Majeſty the expences left unpaid when they withdrew from the war with France, and which were occaſioned by the ſame, according to the eſtimate given in by the Ambaſſador of his Catholic Majeſty, or which may be given in anew; with the exception, however, of any error that may be found in the ſaid eſtimates.

VII. As ſoon as the preſent Treaty ſhall be ſigned, all hoſtilities ſhall ceaſe on both ſides within twenty-four hours, without any contributions or requiſitions being laid after that time on any of the conquered places, except ſuch as may be allowed to friendly troops in time of peace; and as ſoon as this Treaty ſhall be ratified, the Spaniſh troops ſhall leave the Portugueſe territory within ſix days, and ſhall begin their march within ſix hours after receiving notice, without offering any violence or injury to the inhabitants in their way, and they ſhall pay for whatever may be neceſſary for them, according to the current price of the country.

VIII. All priſoners who may have been taken by ſea and land ſhall, within fifteen days after the ratification of the preſent Treaty, be ſet at liberty, and delivered up on both ſides; and, at the ſame time, all debts which they may have contracted during their impriſonment ſhall be paid.—The ſick and wounded ſhall remain in the reſpective hoſpitals, there to be taken care of, and in like manner delivered up as ſoon as they ſhall be able to begin their march.

IX. His Catholic Majeſty engages to guarantee to his Royal Highneſs the Prince Regent of Portugal the entire poſſeſſion of all his ſtates and poſſeſſions, without the leaſt exception or reſerve.

X. The two High Contracting Parties engage to renew the treaty of defenſive alliance which exiſted between the two Monarchies, but with ſuch clauſes and alterations as the connections entered into by the Spaniſh Monarchy with the French Republic may demand; and in the ſame treaty ſhall be regulated what aid ſhall be mutually afforded, ſhould neceſſity require.

XI. The preſent Treaty ſhall be ratified within ten days after it is ſigned, or ſooner, if poſſible. In witneſs whereof, &c. &c.

They write from Liſbon under date of the 14th Auguſt—"The remainder of the valuable Brazil fleet from Mapanſioa and Fernambuca, amounting to thirty ſail, is ſafely arrived here. The French army ſtill retains its poſition, and is daily increaſing. General St. Cyr ſeems ſtill to be determined on the conqueſt of Portugal. The only Britiſh ſhip of war here now is the Phaeton frigate, which is arrived from Gibraltar, and has brought ſeveral officers of the army and navy wounded in Egypt, who are going home to England. Beſides the packet now bound to England, there is another here, the Harlequin, ſaid to be the laſt that will be allowed to enter from England."

NORTHERN POWERS.—The following is a correct abridgment of the Convention, ſigned between the Courts of Ruſſia and London, on the 17th of June, 1801:

"Article I. There ſhall be perpetual amity between the two States. II. Contraband trade between their ſubjects is prohibited.—III. Ships of neutral Powers may freely navigate to the ports and on the coaſts of the nations at war, and the goods ſhipped on board them ſhall be free, contraband of war and the property of the enemy excepted; amongſt which latter are not to be reckoned articles of the produce, growth, or manufacture, of the countries at war, which may have been acquired by ſubjects of the neutral Power, and are tranſported on their account. Contraband of war, according to the treaty of 1797, are defined to be cannons, mortars, fire-arms, piſtols, bombs, grenades, balls, bullets, firelocks, flints, matches, powder, ſaltpetre, ſulphur, helmets, pikes, ſwords, ſword-belts, ſaddles, and bridles, excepting, however, the quantity of the ſaid articles which may be neceſſary for the defence of the ſhip and of thoſe who compoſe the crew; this article not to prejudice the ſtipulations of either Crown with other Powers.—IV. Determines a blockaded port to be one where, by the diſpoſition of the Power which attacks with ſhips at anchor or ſufficiently near, there would be evident danger in entering it.—V. Ships of the neutral Power ſhall not be ſtopped but upon evident facts, and then be tried without delay.—VI. Aſcertains the right of ſearching merchant veſſels ſailing under convoy, with theſe reſtrictions, that it ſhall only be exercited by ſhips of war, and ſhall never extend to privateers, or other veſſels. That the proprietors of all merchant ſhips belonging to the ſubjects of one of the contracting Sovereigns, which ſhall be deſtined to ſail under convoy of a ſhip of war, ſhall be required, before they receive their ſailing orders, to produce to the Commander of the convoy their paſſports and certificates, or ſea letters. That when ſuch ſhip of war, and every merchant ſhip under convoy, ſhall be met with by a ſhip or ſhips of war of the other contracting Party, who ſhall then be in a ſtate of war, in order to avoid all diſorder, they ſhall keep out of cannon ſhot; and the Commander of a ſhip of the belligerent Power ſhall ſend a ſloop on board the convoy, where they ſhall proceed reciprocally to the verification of the papers and certificates that are to prove on one part, that the ſhip of war is authoriſed to take under its eſcort ſuch or ſuch merchant ſhips of its nation, laden with ſuch a cargo, and for ſuch a port: on the other part, that the ſhip of war of the belligerent Party belongs to the Imperial or Royal fleet of their Majeſties. This verification made, there ſhall be no pretence for any ſearch, if the papers be found in due form, and if there exiſts no good motive for ſuſpicion. In the contrary caſe, the Captain of the neutral ſhip of war (being duly required thereto by the Captain of the ſhip of war or ſhips of war of the belligerent Power) is to bring to and detain his convoy during the time neceſſary for the ſearch of the ſhips which compoſe it, and he ſhall have the faculty of naming and delegating one or more Officers to aſſiſt at the ſearch of the ſaid ſhips, which ſhall be done in his preſence on board each merchant ſhip, conjointly with one or more Officers ſelected by the Captain of the ſhip of the belligerent Party. And if it happen that the Captain of the ſhip or ſhips of war of the Power at war, having examined the papers found on board, and having interrogated the Maſter and crew of the ſhip, ſhall ſee juſt and ſufficient reaſon to detain the merchant ſhip in order to proceed to an ulterior ſearch, he ſhall notify that intention to the Captain of the convoy, who ſhall have the power to order an Officer to remain on board the ſhip thus detained, and to aſſiſt at the examination of the cauſe of her detention. The merchant ſhip ſhall be carried immediately to the neareſt and moſt convenient port belonging to the belligerent Power, and the ulterior ſearch ſhall be carried on with all poſſible diligence; that if any merchant ſhip thus convoyed ſhould be detained without juſt and ſufficient cauſe, the Commander of the ſhip or ſhips of war of the belligerent Power ſhall be

bound to make to the owners of the ſhip and of the cargo compenſation for all loſſes occaſioned by ſuch a detention, and further be liable to an ulterior puniſhment for every act of violence or other fault which he may have committed. On the other hand, no ſhip of war with a convoy ſhall be permitted, under any pretext whatſoever, to reſiſt by force the detention of a merchant ſhip or ſhips by the ſhip or ſhips of war of the belligerent Power; an obligation which the Commander of a ſhip of war with convoy is not bound to obſerve towards privateers and their fitters out. The ſentences upon prizes made at ſea ſhall be conformable with the rules of the moſt exact juſtice and equity; they ſhall be given by Judges above ſuſpicion, and who ſhall not be intereſted: and the ſaid ſentences ſhall be promptly and duly executed. In caſe of the unfounded detention, or other contravention of the regulations ſtipulated by the preſent treaty, the owners of ſuch ſhip and cargo ſhall be allowed damages proportioned to the loſs occaſioned by ſuch detention. The rules to obſerve for theſe damages, and for the caſe of unfounded detention, as alſo the principles to follow for the purpoſe of accelerating the proceſs, ſhall be the matter of additional articles, and which ſhall have the ſame force and validity as if they were inſerted in the preſent act.—VII. Any veſſel, in order to be deemed of the country whoſe flag it bears, muſt have on board the Captain of the ſhip, and one half of the crew, of the people of that country, and the papers and paſſports in due and perfect form: but every veſſel which ſhall not obſerve this rule, and which ſhall infringe the ordinances publiſhed on that head, ſhall loſe all rights to protection.—VIII. The principles and meaſures adopted by the preſent act ſhall be alike applicable to all the maritime wars in which one of the two Powers may be engaged whilſt the other remains neutral. Theſe ſtipulations ſhall in conſequence be regarded as permanent.—IX. The Kings of Denmark and Sweden ſhall be immediately invited by his Imperial Majeſty, to accede to the preſent convention, and at the ſame time to renew and confirm their reſpective treaties of commerce with his Britannic Majeſty: and his ſaid Majeſty engages to render and reſtore to each of theſe Powers all the prizes that have been taken from them, as well as the territories and countries under their domination, which have been conquered by the arms of his Britannic Majeſty ſince the rupture, in the ſtate in which thoſe poſſeſſions were found at the period at which the troops of his Britannic Majeſty entered them: the reſtitution of thoſe prizes and conqueſts to be immediately expedited after the exchange of the ratifications of the acts by which Sweden and Denmark ſhall accede to the preſent treaty. X. The preſent convention ſhall be ratified by the two contracting Parties, and the ratifications exchanged at St. Peterſburgh in the ſpace of two months at fartheſt. Two ſeparate articles of convention with the Court of London. By the firſt, ſequeſtrations are mutually to be taken off in each kingdom from the effects, &c. of the ſubjects of the other, and the armiſtice with Denmark and Sweden to be prolonged three months; the Emperor of Ruſſia undertaking for his allies. And by the ſecond, the treaty of commerce of the 10th Feb. 1797, is to be maintained in all its ſtipulations to their full extent.

The Swedes and Danes have both ratified and agreed to the ſaid convention.

The Emperor of Ruſſia, we are told, joins with the Elector of Bavaria and Duke of Wirtemberg, to procure ſome favourable terms for the king of Sardinia and the Two Sicilies. It is however ſuppoſed that France and Ruſſia underſtand each other well, as a convention has been lately ſigned between them.

The Archduke Charles is making a new orgnization of the Auſtrian army.

By letters from Peterſburgh, of the 15th ult. the deputation ſent thither by the Senate of Hamburgh, conſiſting of Senators Schulte and Koch, had their audience of leave at Court, and were to return to Hamburgh in a few days. They met with a moſt gracious reception, and the Emperor of Ruſſia

aſſured them that he was perfectly ſatisfied with the political conduct of the Imperial City of Hamburgh, and would always be ready to protect and ſupport its independence.

GERMANY and AUSTRIA.—The Diet of Ratiſbon opened on the 17th of Auguſt, when it ſoon appeared clear that the majority of votes would give the Emperor full powers neceſſary for ſettling the affairs of the ſeculariſations with France, in concert with the courts of Berlin and Peterſburgh. The death of the Elector of Cologne has afforded a fine and very fair opportunity to gratify the claimants for indemnities, and the King of Pruſſia has not failed to take advantage of it, by giving notice to the Chapter of Cologne, that they muſt not proceed to a new election.

The following is the Reſcript by which his Imperial Majeſty declines adopting, in conformity to the ſuffrages of the general Diet of the Empire, the mode pointed out for the final adjuſtment of the Articles reſpecting the Empire:—

"In ſeveral votes it has been already anticipated, that his Imperial Majeſty might have motives of ſufficient importance for his reluctance to accept this Commiſſion. Solely directed by the reaſons alleged, and not to riſk a diminution of the dignity of the Head of the Empire by an unſucceſsful undertaking, his Imperial Majeſty could not agree to accept the Commiſſion of the general Diet, nor to approve, in his quality of Supreme Head of the Empire, of that part of the concluſum. His Imperial Majeſty, however, being always accuſtomed, and ever anxious, not to tranſgreſs the boundaries traced by the German Conſtitution, gives his aſſent to the co-operation of the Empire in the uſual form of a deliberation of the Diet of the Empire: ſince the majority of the States having decided upon the different modes of co-operation on the part of the Empire (viz. 1ſt, the full powers to be given to his Imperial Majeſty; 2dly, an extraordinary Deputation of the Empire; and 3dly, the deliberation of the Diet itſelf), by rejecting the two firſt modes propoſed by ſeveral States, and among others by his Imperial Majeſty, in his quality of a State of the Empire, in favour of the co-operation of the Diet aſſembled under its Supreme Head, the latter has no longer any authority to approve of one of the two firſt modes of co-operation, though they might be very well calculated for accelerating the work of peace, which ſtill remains to be accompliſhed.

"The principal objects which ſtill remain to be adjuſted by a ſpecial convention to complete the peace, are, in other reſpects, known from the treaty of Luneville, which has been reciprocally ratified; and from what his Imperial Majeſty knows of the negotiation for the peace of Luneville, in order correctly to examine and decide upon thoſe points, nothing more is neceſſary than an hiſtorical acquaintance with the laws of nations and ſtatiſtics, within the reach of all; and they may be ratified in the moſt ſecure manner by thoſe who have a particular intereſt in their diſcuſſion.

"In this ſtate of affairs, in which the Diet of the Empire has given a preference to the States in the Diet aſſembled in the Empire and its Supreme Chief, and the manner of treating the affairs of Europe, require (and this will be one of the firſt tranſactions of the Imperial Diet) that a full concluſum on the objects to be regulated for completing the peace, by a particular convention, ſhould be ſubmitted to the ratification of his Imperial Majeſty as promptly as a proper diſcuſſion of this affair may permit. His Imperial Majeſty waits with paternal ſolicitude for this concluſum, which will not fail to ſatisfy his expectations, if the General Diet, in forming it, be guided by the regulations laid down with ſo much wiſdom in its laſt concluſum.—Done at Vienna, and ſealed with the ſeal of his Imperial Majeſty, June 26, 1801."

The Spaniſh Ambaſſador at Vienna having inſiſted at that Court on the acknowledgment of the King of Etruria, was anſwered, that this could not conſiſtently be done, till the Archduke Ferdinand ſhould have been indemnified for the loſs of Tuſcany. On receiving this anſwer, the Spaniard imme-

diately declared, that he was directed by his Court to quit Vienna, for an unlimited time, by leave.

The deputation of the Diet, which is to ſettle the indemnities, is to conſiſt but of eight members, among whom are Bohemia, Brandenburgh, Bavaria, Saxony, Wirtemburgh, Heſſe-Caſſel, and two Imperial cities.

CONCORDATUM OF THE POPE.—The Pope's letter, which has been ſo long announced, was delivered on Wedneſday the 16th ult. by Mr. Erſkine, to all the French Biſhops who have taken refuge in London:

"*Venerable Fathers,*

"You have merited ſo much of the Catholic Religion, and have done ſo many noble actions, both collectively and individually, that we do not heſitate to propoſe to you one ſtill more noble. You muſt give up your Sees, with a good grace, and reſign them freely into our hands. It is undoubtedly a very great ſacrifice. Things are come to that point, that we are under the neceſſity of demanding this ſacrifice; and you are under the neceſſity of making it. We know that you muſt feel great regret in abandoning thoſe flocks over whom, preſent or abſent, you have watched with ſo much care. The knowledge we have of your good conduct does not permit us to doubt, that you will immediately ſend your letters of abdication. We cannot believe that any one of you will throw any impediments in the way of this meaſure, ſince three hundred Catholic Biſhops at Carthage have heretofore ſet you the example. In latter times, ſeveral of you have written in this diſpoſition to our predeceſſor, Pius VI. Since we are now placed in a ſituation to render your abdication neceſſary, we cannot doubt but that you will comply with our deſire. The preſſure of the times, the violence of which we ourſelves feel, compels us to acquaint you, that it is neceſſary that you ſhould give us an anſwer in ten days. The ſame cauſes alſo compel us to acquaint you, that your anſwer muſt be abſolute, and not evaſive. So that if you do not give us an anſwer in ten days, we ſhall conſider it as a refuſal to comply with our demands. At the ſame time we communicate this circumſtance to you with regret; we are reduced to ſuch extremities in the middle of the obſtacles which are oppoſed to the good of religion, and we muſt take every means in our power to remove them.

"It cannot be neceſſary to acquaint you, that we have taken every means in our power to ſpare ſo unpleaſant a meaſure; we confeſs, with concern, that our efforts have been ineffectual, our ſolicitations without ſucceſs, and that we have been compelled to it by the cruel neceſſity of the times."

A general meeting was appointed on Saturday, the 19th, of the Biſhops and Archbiſhops of France, in this country, at the Archbiſhop of Narbonne's, in Orchard-ſtreet. The object of the meeting was, to take into conſideration the above brief of his Holineſs the Pope.

This affair has produced the greateſt agitation, not only among the French Princes, Nobility, and Clergy, but in the whole Catholic Body. The French church is in a criſis which puts it to the teſt, and involves the deareſt intereſts of Bonaparte. It would be a new ſcene, indeed, but a poſſible one, in the preſent diſorganization of the moral and political world, to ſee a body of French Roman Catholic Biſhops living in England, and ſupported by the King of Britain's bounty, now join with our own church in making a public and formal declaration of—NO POPE!

The following are the French Biſhops now in London:

Dillon, Archbiſhop of Narbonne, aged 81 years.

Boiſgelin, Archbiſhop of Aix, aged 70 years.

Cice, Archbiſhop of Bourdeaux, aged 68 years.

The Biſhops of St. Paul de Leon; Noyon; Vannes; Angouleme; Montpellier; Perigeux; Lombez; Moulins; Nantes; Leſca[illegible]; [illegible]omignes; Uſez; Arras; Avranches.

Commercial Affairs.

AT a Court of Directors of the East India Company the Court resolved to employ the same number of tonnage of shipping for the year 1802-3 as for last year; that was eight ships for Coast and Bay, one for Madras and Ceylon, one for Madras and Molucca, two for Bombay, two for Bencoolen, and fourteen for China.

New hops at Winchester market, of the finest bud, sell at l. 15s. to 5l. 15s. per hundred weight.

At Farnham the present crop of hops is one-fourth more than was ever before remembered. About Canterbury, the picking is nearly finished; the prices continue to fall. The average of the London and provincial markets does not exceed four guineas per cwt.

Hops, it is expected, will sell at 65s. to 75s.: the prices of 179 .—Coloured bags, which are at present most in demand, sell at 75s. to 0s. per cwt.—The duty is estimated at 200,000l.

The Baltic trade, which experienced some interruption during the dispute, has revived with great spirit, and no less than 315 ships passed the Sound, in a few days, in the month of August. Most of the commodities from the Baltic have fallen considerably within a few weeks.

Between the 24th of June, 1800, and the same day, 1801, 5060 ships entered the port of Liverpool, bringing in 489,715 tons of freight.

A very valuable trade is now carried on from Bombay with the kingdom of Siam; the cotton produced at that place is found to be of an excellent quality.

A large quantity of fine hemp has been lately collected at Ceylon, it grows chiefly at Candy. Much attention is paid to this commodity, in hopes it may become a very extensive article of commerce.

In the Chettagong districts there are plantations of very fine *opuntias*, trees on which the cochineal insect is fed and propagated. We have no doubt the East India Company's servants will avail themselves of this circumstance to encourage the production of cochineal in India.

The herring fishery at the Isle of Man employs between seven and eight hundred boats, on board each of which there are eight men at least.

An immense quantity of herrings have been taken at Dunbar.

At the late Bristol annual fair cattle sold well, but lean beasts could not find purchasers at any price. Leather, in consequence of some temporary demand by government, found ready sale at the following advanced prices, viz. crop hides of 35 to 40lb. 17d. to 18d. and of 45 to 50lb. 18d. to 19d. per pound. Calf skins 60 to 70lb. 27d. to 28½d. per dozen. Horse hides from 14d. to 15d. per pound.

In consequence of a resolution of the opulent inhabitants at Uttoxeter, not to use butter while it bears an exorbitant price; that article fell from one shilling to eight-pence per pound in their market, on Wednesday the 23d ult.

At Montrose butter sells at 15d. per lb. of 21 ounces.

At the Frankfort and Leipsic fairs British goods sold at a most unprecedented reduction of price. It was expected the Russian merchants would have attended, to procure that supply, which, in consequence of the northern disputes, they were prevented from obtaining by the ordinary course. The expectations were disappointed, and the traders who had laid in large stocks were compelled to dispose of their goods without any profit, and, in some cases, at a very considerable loss.

The trade between this country and *Venice* has for the last three or four years been very inconsiderable, but on the return of peace it will soon revive, and in all probability exceed its former extent. The goods usually imported from Venice are, currants loaded at Zante or Cephalonia, or some port in the Morea, silks, cream of tartar, glass beads for the East and West In-

dian and African trades, whiſks of rice weeds, ſponge, and ſome Levant drugs, cotton, oil and Vallonea. The exports from England to Venice are pilchards and red herrings, of which the conſumption is conſiderable, a ſmall quantity of ſalmon, ſalted-ox-guts, of which about 100 or 150 caſks or puncheons are yearly conſumed for making ſalt puddings: they frequently have this article from Cork, but thoſe from London are preferred, as being better cured; tin from Penzance and Falmouth, lead and litharge, allum, woollens, and hardware; beſides ſugars, cocoa, pepper, and other foreign articles. The number of veſſels which have entered inwards in all the ports of Great Britain from Venice, and which have cleared outwards for that country during the laſt twelve years, have been as follows:

Inwards.	Years.	Outwards.	Inwards.	Years.	Outwards.
3	1789	11	19	1795	8
17	1790	9	15	1796	12
22	1791	13	5	1797	2
8	1792	8	3	1798	3
12	1793	1	6	1799	7
14	1794	7	4	1800	12

Agriculture.

AGRICULTURE REPORT, for SEPTEMBER, 1801.

THE harveſt is now finiſhed, even in the lateſt diſtricts of the northern counties; and a finer one was ſcarcely ever known. The crops of all kinds are great, and the quality of grain good.

The ſeaſonable rains have clothed the graſs lands; and, although this abundance of graſs may at preſent raiſe the price of meat, by keeping feeding ſtock longer from market, it muſt ultimately make it more plentiful.

The fallows are in general in fine condition, and ſome farmers have already commenced ſowing, and the fine ſeaſon and high price will cauſe a great quantity of wheat to be ſown in moſt high-land counties; but the fen farmers ſow leſs wheat every year, becauſe the fens are expoſed ſo much to floods in winter.

Hops are very plentiful, and rather lower in price. In the wool trade there is very little variation.

A conſiderable breadth was planted with potatoes, and the quality this year in general very good; but the crops on the potatoe ſoils are very light, and therefore the price is likely (after the getting up ſeaſon is over) to advance progreſſively. The coleſeed crops in the principal diſtricts are this year very good, as alſo are the late ſown turnips, and the early ſown in general are tolerable.

Chatteris, Sept. 25. J. SCOTT.

The breed of pigs is rapidly extending, in conſequence of the late abundant harveſt; and if the farmers will refrain from killing for a few months, pork and bacon muſt ſhortly fall to their wonted prices.

At the ſeat of R. Ramſbottom, Eſq. near Halifax, a ſingle hive of bees produced eight ſwarms from May to July; and in Warley, Mr. Clay had two hives that produced ſeventeen ſwarms in the ſame time.

A perſon well informed as to the ſtate of the dairies in Cheſhire, Flintſhire, &c. declares that they at preſent contain more than an ordinary ſtock of cheeſe and butter, reſerved with a view to raiſe the price, by limiting the ſupply. Butter in the metropolis has lately riſen two-pence per pound, namely, to 18d.—the price is wholly unwarranted, and furniſhes an additional proof of the neceſſity of the legiſlature interfering to reſcue the public from the fraud and plunder to which it is at preſent ſubject.

The late ſhowers have done infinite benefit to the graſs lands, turnips, &c. A correſpondent at Shrewſbury obſerves, that the ſecond hay harveſt has been nearly equal to the firſt in produce and quality.

Potatoes throughout the country are uncommonly abundant.—In ſome parts of Cornwall the produce has been at the rate of four and a half Winchester buſhels to eighteen feet ſquare.

A calf, ſeventeen weeks old, grazed by Mr. Cornell, of Higham, in Suffolk, was lately killed, which weighed four hundred and forty-ſeven pounds, viz. the four quarters, three hundred and ſeventy pounds; head, twenty-eight pounds; and hide, forty-nine pounds.—The colour and fleſh were equally excellent.

A turnip was produced at Horringer fair which meaſured three feet in circumference, and weighed three ſtone.

At Oakham fair there was a large ſhew of lean cattle, which ſold high. Fat cattle were ſcarce and dear.

At Lincoln, butter has lately ſold at twenty-pence per pound.

Some remarkable ſheep have been lately ſent from Benares into our territories in India, who are entirely deſtitute of tails.

A farmer in Hampſhire, who is a candidate for the prize of 300l. offered by the Board of Agriculture for the beſt crop of potatoes on new broke ground, has planted thirty acres, for the fee ſimple of which (being waſte land) he paid only 4l. per acre. He has raiſed as many potatoes as will produce 200l. and which, excluſive of the premium he hopes to obtain, will be 80l. more than the coſt of the ſoil.

Potatoes have this ſeaſon been ſold in Devonſhire at 1s. per ſack, if the purchaſer will dig them; and in ſome parts of Wiltſhire at 1s. 6d.

SINGULAR VEGETABLE PRODUCTIONS.

An apple meaſuring 12¾, and another 13 inches, in circumference, were lately pulled—the firſt at Finnieſton near Glaſgow, the other in Capt. Tod's garden, at Alderton, near Hddington.

In the garden of Mr. Hamilton, of Dalzell, a ſtrawberry was pulled, meaſuring 4¾ inches in circumference; and in a field belonging to the ſame gentleman a kidney-potatoe was dug, which meaſured nine inches in length, and weighed 18 ounces.

Twenty-ſix pecks of potatoes have been grown this year from three quarters of a peck of ſets, or ſixty-three yards of ground, in a garden near Sheffield.

In a garden at Sheffield Moor, belonging to Mr. Watſon, a ſingle oat has, this year, produced 30 ſtems, containing, in the whole, eight thouſand five hundred grains!

A ſingle grain of wheat, dropt amongſt the ſtones by chance at the back door of J. Lewis, a labouring man in Glaſtonbury, produced fifty-three ears, which being rubbed out, yielded two thouſand ſix hundred and ſixty-one grains of ſolid and good corn.

A ſingle grain of barley, ſown this year at Welbourne, near Grantham, has produced 208 ſtraws, bearing 5,545 grains of corn.

Beech-nuts are not only excellent food for pigs, but yield an oil fit for all ordinary purpoſes.—Major Marſac, who occupies the charming houſe of Caverſham, which formerly belonged to Lord Cadogan, lately ſold the beech-nuts on his eſtate for 50l. to a perſon at Reading for the purpoſe of expreſſing oil from them.

At Doncaſter, new wheat has fallen during the laſt week 12s. per quarter; the current prices now are from 28s. to 32s. per coomb.

At Gainſborough, wheat has fallen 10s per quarter; and at Newark 5s.; at Uppingham and Lynn, it has advanced one or two ſhillings per quarter.

At Exeter the averaged price has fallen from 11s. to 9s. 6d. per buſhel; and the weight of the ſhilling loaf has been, in conſequence, increaſed from 4 lb. 4 oz. 2 drs. to 4 lb. 13 oz. 10 drs.—At Oxford the price of the peck

loaf of houſehold bread has been reduced three half-pence.— At Bath the price of the quartern loaf was on Thurſday reduced a half-penny, flour having fallen 3s. 4d. namely, to 83s. 4d.

At Canterbury flour has advanced 2s. 6d. per ſack, viz. to 72s. 6d. and the price of the quartern loaf has, in conſequence, been raiſed one penny: it now ſells at 12¾d. Bread is likewiſe dearer at Norwich, although the price of both wheat and flour has fallen.

At Cheſter the averaged price of wheat has fallen from 9s. 10¼d. to 9s. 7d. per buſhel; but at Nantwich it has riſen from 8s. 11d. to 9s. 10¾d.

In ſome of the Southern markets wheat is on the advance; but, in general, the prices throughout the country during the laſt week experienced ſome depreſſion.

In ſome parts of Northumberland and Durham, beſt new wheat ſell at 70s. per quarter.—The price at Newcaſtle is from 70s. to 75s. having experienced a depreſſion of about 18s. per quarter ſince the laſt harveſt.

At Aberdeen the quartern loaf ſells at 1s. 2½d.; oatmeal 2s.; and potatoes 8d. to 10d. per peck.—At Dundee, oatmeal is 1s. 2d. to 1s. 6d.; potatoes 10d.—At Kelſo, new wheat 56s. to 70s. per boll of ſix buſhels.—At Haddington the average is 30s. 1d. per boll, being a reduction of 1s. 10d.; the quartern loaf ſells at 9½d.—At Edinburgh the quartern loaf coſts 11d.; and oatmeal from 18s. to 23s. per boll.

The Bath Agricultural Society had a meeting laſt month, Benjamin Hobhouſe, Eſq. in the Chair.—A paper was read by Mr. Wagſtaff on redeeming Waſte Lands, for which the thanks of the Society were given.—Another paper was read by Mr. Bright on the beſt mode of preſerving potatoes during the year, for which the thanks of the Society were given to him, and the paper was referred to a Committee. Several communications on other ſubjects, from Sir Joſeph Banks, were likewiſe read.

The buſineſs of the hop market, at Worceſter, has of late become ſo conſiderable, that the Mayor has ordered it to be open twice a week inſtead of once.

At the Devizes the middle of September, grain ſold at the following prices:

Wheat	70s to 100s	Beans	56s to 60s
Barley	42s to 60s	Oats	32s to 42s

The Duke of Manchеſter, Mr. Coke, of Norfolk, Mr. Young, Secretary to the Board of Agriculture, were at Woburn Abbey laſt month on a viſit to the Duke of Bedford, when ſeveral plans were agreed on for experiments in Agriculture, to be under the direction of Mr. Cartwright, who is to ſuperintend the farms eſtabliſhed by the Duke of Bedford, as abovementioned.

The attention to agricultural purſuits and improvements ſeems now to be general through Europe. The King of Denmark has appointed a profeſſor of economy, part of whoſe duty it is to be, to make every year a tour through the kingdom, and give an account to the public of his remarks on agriculture and induſtry, and of the improvements made therein; and to read public lectures on the ſubjects before ſpoken of.

Experimental farms are already eſtabliſhed in France, for we find that citizen Flandre Deſpinay, the aſtronomer, at a farm of that kind near Lyons, has bred a mongrel between a bull and a buffalo. The animal is male, and has the hair the colour of the bull. The day after it was brought forth, its dam led it to the water, into which it plunged and ſwam for an hour.

At the late Ipſwich fair there appeared about the ſame quantity of lambs as the two preceding years, being eſtimated at not leſs than 80,000. Mr. Shillito's polled wethers, of Ickworth, gained the pre-eminence, being nearly fat, and reached as high as 27s. Mr. Pawſey's polled lambs, of Lidgate, were alſo in high condition, and fetched 33s. and his Norfolk 22s. the latter acknowledged to be the beſt of their breed in the fair. The polled lambs of

various croſſes were eagerly ſought for, and moſtly horned ſtock were then diſpoſed of.

At Bradford Leigh fair, on Monday, the cheeſe exhibited for ſale was remarkably fine, and ſold at the following prices: beſt 47s. to 55s. per cwt. Half Coward 34s. to 38s. per ditto; and many tons were taken home unſold.

There was the moſt plentiful and beſt ſhew of horſes at Horncaſtle fair, laſt week, ever remembered, which went off at an extraordinary high price: the ſhew of both lean and fat beaſts was very ſmall, and owing to the high prices few were ſold.

At Melton fair on Friday laſt, there was the largeſt ſhew of beaſts ever remembered: upwards of 4000 fat ones fetched high prices, but ſtores, owing to the preſent drought, were without purchaſers almoſt at any prices. There was but a ſmall ſhew of ſheep, which maintained the high prices latterly given. The ſhew of horſes was alſo ſmall.

A few days ſince, when butcher's meat was really ſcarce and comparatively dear, the Bath Agricultural Society ſtrongly recommended attention to the breed of hogs. The advice was reiterated in the public papers, and happily adopted, for the country was conſequently in leſs than ten months ſo ſtocked with fleſh of that uſeful quadruped, that the price of meat in general fell from 5s. 4d. to 3s. 6d. per ſtone. Were the ſame means again reſorted to, we ſhould ſhortly ſee both beef and mutton at prices a little more moderate than they at preſent bear.

Farnham, this year, will, both as to quantity and quality of hops, exceed the average of any plantation in the kingdom. Their picking has commenced, and, ſo abundant is the crop, that the pickers have agreed to take 2d. per buſhel for picking them. Some parts of Suſſex are rather ſhort of bine, more eſpecially thoſe plantations which produced a conſiderable quantity laſt year.

Weſt Kent is not quite ſo good as in 1794, many of their favourite diſtricts are a little injured by the mould. The body grounds of Canterbury are good, and will produce ſome more excellent bags for the porter brewery.

The Duke of Bedford has ſet apart two extenſive farms of conſiderable value, for the ſole purpoſe of carrying on experiments in agriculture, neceſſary to aſcertain certain facts that are wanted to direct the attention of the practical farmer. The Duke has made choice of the Rev. Mr. Edmund Cartwright, whoſe portrait appeared in a former Number of our Magazine, for ſuperintending, arranging, and conducting his experiments. This was the gentleman whom Sir John Sinclair had made choice of to ſuperintend one of the farms intended to have been eſtabliſhed by the farming ſociety, had it taken effect.

At Briſtol Autumn fair, black cattle in good condition ſold well, others but low, and many were driven away unſold. The ſhew of horſes was indifferent, and there were but few good ones among them.

A copy of the following letter has been generally circulated amongſt the Clergy:—

"My Lord, "*Whitehall, Auguſt* 17, 1801.

"The correct and ſatisfactory information which his Majeſty's Government obtained from the Clergy, relative to the ſtate of the laſt year's crops of grain, induces me to ſolicit the aſſiſtance and good offices of your Lordſhip, and other Prelates of our Church, in procuring in like manner, and through the ſame reſpectable channel, a ſtatement of the number of acres of wheat, barley, oats, potatoes, turnips, rape, peas, and beans, ſince the laſt harveſt, in the ſeveral pariſhes of England and Wales.

"In order to abridge as much as poſſible the trouble which this requeſt will impoſe on ſuch of the reſident Clergy in your Dioceſe as ſhall be prevailed upon to undertake it, I incloſe, in a ſeparate cover, returns, with columns ready to be filled up with the number of acres ſown with each particular ſpecies of gain, and other crops therein ſpecified.

" It has occurred to his Majesty's confidential servants, that if they could be furnished, through the favour and assistance of the Clergy, with an annual return of the description I have mentioned, it would be a circumstance highly beneficial to the public interests, as it would form the best criterion whereby to judge of the effects which the provisions of Parliament, both in regard to inclosures and other matters, produce on the agriculture of this country. I have the honour to be, my Lord,

" Your Lordship's most obedient humble Servant,

" *The Lord Bishop of* ——, *&c. &c.* " PELHAM."

Manufactures and Useful Arts.

ON Wednesday the 3d June, the Society for the Encouragement of Arts, Manufactures, and Commerce, held the last Meeting of this Session, and adjourned to the Fourth Wednesday in October next.

On Tuesday the 26th of May last, agreeably to the Resolutions of the Society, the Premiums and Bounties adjudged during the Session were delivered to the Claimants from the Chair, by T. S. Dyot Bucknall, Member of Parliament for St. Alban's, in presence of a great number of Ladies and Gentlemen, who honoured the Society with their company on the occasion. The business began by the Secretary reading some Observations on the effects of Rewards bestowed by the Society, from the institution in 1754, in the several classes into which the business is divided. The Rewards adjudged this Session were then bestowed as follow:

In AGRICULTURE.—To Henry Vernon, Esq. for having planted 11,600 English Elms, the Gold Medal.

To Mr. Thomas Selby, for having planted 21 Acres with Osiers, Thirty Guineas.

To Thomas Johnes, Esq. for extensive Plantations of Timber Trees, the Gold Medal.

To Mr. Robert Brown, for cultivating 145 Acres of Spring Wheat, Twenty Guineas.

To the Rev. T. C. Munnings, for the comparative Culture of Turnips, the Silver Medal and Ten Guineas.

To Mr. John Palmer, for Harvesting Corn in Wet Weather, the Silver Medal.

To Mr. Thomas Fogg, for improving 50½ Acres of Land lying Waste, the Gold Medal.

To Mr. John Horridge, for his Preparation and Application of Manures, the Silver Medal.

To Nicholas Ashton, Esq. for planting 133 Acres of Waste Moor Land, the Gold Medal.

To Mr. William Lester, for an Implement in Husbandry called a Cultivator, the Silver Medal.

To Thomas Andrew Knight, Esq. for a Drill Machine for sowing Turnip Seed, the Silver Medal.

In CHEMISTRY.—To Samuel Bentham, Esq. for preserving Fresh Water sweet in long Voyages, the Gold Medal.

In the POLITE ARTS.—To Mr. T. Kilburn, for a Drawing of Flowers, the Silver Medal.

To Miss Sarah Matilda Parry, for an original Sketch from Nature, being a View on the River Wye, the Silver Medal.

To Miss Louisa Charlotte Lloyd, for a Drawing of the Head of Galen, from a Cast in Plaister, the Silver Medal.

To Mr. William Mulready, for a Drawing of Outlines, the Greater Silver Pallet.

To Mr. Peter Joseph Bone, for a Drawing of Outlines, the Lesser Silver Pallet.

To Mr. Richard Cook, for a Drawing of Outlines, the Silver Medal.
To Mr. Francis John Sarjent, for a View from the Red Lane, near Reading, in Berkſhire, being an original Drawing from Nature, the Greater Silver Pallet.
To Mr. H. Moſes, for an Hiſtorical Drawing of the Continence of Scipio the Greater Silver Pallet.
To Miſs Mary Smirke, for a Painting, being a View from Nature, taken near Finchley, the Gold Medal.
To Miſs Beauchamp, for a Copy of a Painting from Salvator Roſa, the Silver Medal.
To Miſs Andras, for two Models in Wax, being Her Royal Highneſs Princeſs Charlotte, and Lord Nelſon, the Greater Silver Medal.
To Mrs. Rebecca Lowry, for two Paintings on Glaſs, the Silver Medal.
In MANUFACTURES.—To Mr. Thomas Wilmot, for Paper from raw Vegetable Subſtances, Twenty Guineas.
In MECHANICS.—To Mr. Robert Hayes, for taking three Whales by the Gun Harpoon, Ten Guineas.
To Mr. Richard Phillips, for a Method of driving Bolts into Ships, Forty Guineas.
To Mr. Thomas Arkwright, for a Machine for raiſing Minerals, Twenty-five Guineas.
To Mr. Henry Serjeant, for a Machine for raiſing Water, the Silver Medal.
To Mr. Field Evans, for Diſcovering a Quarry of Stones proper for Mill Stones, Fifty Pounds.
To Mr. Thomas Ghint, for an Improved Crane, Fifteen Guineas.
To Mr. Wm. Bullock, for an Improvement in Draw-back Locks, Fifteen Guineas.
To Mrs. Bezant, for an Improved Water Wheel, Ten Guineas.
In COLONIES and TRADE.—To Andrew Stephens, Eſq. for making 18,000lb. of Lake from Stick Lack, the Silver Medal.
And the whole concluded by declaring the number of Noblemen and Gentlemen elected Members ſince October laſt.

Cordage manufactured from the long beard which grows on the ſhells of cocoa nuts, is found in every deſirable point equal to that produced from hemp.

An Engliſh ſailor made ſome experiments on the ſubject, and the reſult was ſuch as to induce our government in India to adopt the plan. The materials were collected at the Laccadive Iſlands, where it is produced in immenſe quantity, and ſome of the largeſt ſized cables have been made, and tried on board the ſhips compoſing Admiral Blanket's ſquadron—they anſwer perfectly well; and our correſpondent obſerves, "from their elaſtic nature, are deemed more ſerviceable in a high ſwelling ſea than thoſe formed of the beſt hemp."

We hear with pleaſure of any diſcovery which tends to reduce our dependence on rival countries for the ſupply of thoſe articles of ſuch imperious neceſſity.

The manufacturers and artiſts of France, in reply to an application to them from government, have ſent various articles, which they eſteem worthy to be exhibited, from the department of Ardeche, ſpecimens of antimony and ſilk; from Lot and Garonne, ſail-cloth; from the Cotes du Nord, fine cloths; from the Upper Rhine, iron; from the Drome, potteries; from the Ardennes, cloths of ſedan; from the Moſelle, cryſtals; from the Gironde, cutlery. Such an expoſition will probably be attended with good effects.

In a former Number of our Magazine we mentioned a new method of Bleaching by ſteam. We have ſince heard that an eſſay on that art in full

length has been publiſhed by Mr. O'Reilly, of the Royal Academy of Bologna, in which he goes through the whole art of bleaching wool, ſilks, hemp, flax, &c.

Fine Arts, Sciences, and Literature.

IN a ſurvey which has lately been made at Columbo, a ſpecies of palm has been diſcovered, called the *palm licuela*, which produces very large leaves, and rivals, in this reſpect, the cocoa tree itſelf. It is claſſed among the loftieſt trees, and becomes ſtill higher when burſting forth into bloſſom from its leafy ſummit. The ſheath which then envelopes the flower is very large, and when it burſts, makes a loud report; after which it ſhoots forth branches on every ſide, to the ſurpriſing height of 36 or 40 feet.

The Lectures in the Medical Sciences begin the firſt week in October. The uſual courſes are received at St. Thomas's and Guy's Hoſpitals. On anatomy and ſurgery by Mr. Cline and Mr. Aſtley Cooper. On the practice of medicine by Dr. Babington. On midwifery by Drs. Lowther and Haighton. On chemiſtry and experimental philoſophy by Dr. Babington and Dr. Roberts. On philoſophy by Dr. Haighton. On medicine by Dr. Curry. On the principles of ſurgery by Mr. Aſtley Cooper.—At the London Hoſpital: On ſurgery and anatomy by the two Mr. Blizards and Mr. Headington.—At St. Bartholomew's Hoſpital; On the theory and practice of medicine by Dr. Roberts. On anatomy and phyſiology by Mr. Abernethy. On comparative anatomy by Mr. Macartney. On the theory and practice of ſurgery by Mr. Abernethey. On chemiſtry and the materia medica by Dr. Powel. On midwifery by Dr. Thynne.

Of private Lectures.—Dr. Den iſon and Dr. Squire lecture on midwifry—Dr. Batty, on midwifery—Dr. Bradley, on medicine—Mr. Chevalier, on ſurgery—Mr. Pearſon, on ſurgery—Dr. Oſborne and Dr. Clarke, on midwifery—Mr. Pole, on midwifery—Mr. Willſon and Mr. Thomas, on anatomy—Dr. Crichton, on medicine and chemiſtry—Dr. Garnett, on the ſame—Mr. Carpue, on anatomy.

Morals and Manners.

SEVERAL perſons profeſſing to ſell bread cheaper than the regular aſſize were convicted, before the Southwark Magiſtrates, of ſelling bread ſhort of the appointed weight. The two firſt loaves that were weighed wanted eleven ounces and a half, and the next 105 wanted 256 ounces. The bread was diſtributed among the gaols, and the bakers fined 5s. for each ounce deficient.

At Guildhall an information was exhibited before the Sitting Alderman againſt Mr. Charles Dalton, for ſelling 53 truſſes of ſtraw of an unſound quality, in Smithfield Market. There was another information againſt him for ſelling the like quantity deficient in weight. Evidence was produced to prove that the ſtraw was falſely packed, the outſides being of a very good quality, and the inſides quite muſty. The Solicitor for the defendant ſubmitted, that the information muſt fall to the ground, as it had not been proved that a ſale had taken place. The Magiſtrate being of the ſame opinion, the information was quaſhed.

CAUTIONS.

As a gentleman and lady were travelling on the road adjoining the river Merſey, between Didſbury and the Northern Ford, ſome boys diſturbed a waſp's neſt, by which the horſe was ſo ſeverely ſtung, that he inſtantly ran back into the river, which is five or ſix yards deep. The lady and gentleman fortunately leaped out as the chaiſe was falling over the bank,

and escaped being hurt. The horse was drowned, and when taken out of the river many wasps were found sticking on his head. It is supposed that from the dreadful manner the animal was stung he must have died, had he not not been drowned.

A boy having inadvertently made a fire to roast potatoes in a field near Lowestoft Church, the grass, from long drought, immediately caught the flame, and communicated to a hay-stack in a distant part of the field, which was entirely consumed: from its blowing very hard at N. W. great fears were entertained for the safety of the Tower, as the fire ran furiously along the hedges and ground, and nothing but the greatest exertions of the inhabitants prevented its spreading, as the water was very distant and difficult to be got at.

Two or three fatal accidents have happened from the careless disposal of pitch-forks, &c. A fine young man at Mereton, in Shropshire, after assisting in forming a stack of corn, threw down his pikes with the grains uppermost, and sliding down the stack after it, alighted on the points, which penetrated into his bowels, and in five minutes occasioned his death in the most excruciating pain.

Two men were lately killed by the foul air of a burnt lime kiln, near Plymouth.

A Mealman residing at Brentford was summoned before the Lord Mayor for not complying wth the regulations of the act of parliament respecting wheat. A Baker stated that he had purchased a quantity of flour of this person on the 17th of August, and that he did not deliver in a bill of parcels, the act expressly providing that the Mealman shall deliver in a bill of parcels, under the penalty of 10l. upon failure thereof. His Lordship said, that from these repeated neglects he had not been enabled to regulate the assize of bread so satisfactorily as he could wish; but this being the first complaint, he should mitigate the fine to 40s. which was accordingly paid.—And the next day a great number of Bakers were summoned before his Lordship for not delivering in the bills of parcels of the price and quantity of flour purchased by them each week according to the returns made by the Mealmen, and in compliance with the act of parliament. Several of the bills now delivered in were discovered to be irregular, which they alleged was in consequence of the Mealmen not giving them a bill of parcels at the delivery of the flour. The Lord Mayor desired them to attend on a future day, and said he would summon the Mealmen in order to answer this complaint. His Lordship said, he was determined to use every exertion to put a stop to this practice, which is a material cause of the present high price of bread.

Natural Phoenomena.

A Very curious description of fish, resembling a muscle, was discovered by a gentleman, at Brighton, in the centre of a chalk-stone. It is not known in England, but in Italy it is called the stone-eater. It works its way into the chalk-stone by a kind of saw at its head; it is defended from all its enemies by prickly scales. In Italy it is prized as a great delicacy, the taste resembling an oyster, but the flavour far superior. In Smith's Tour, mention is made of the Mytilus Lithophagus, or Stone-eating Mytilus. The columns of the temple of Jupiter Serapis, at Puzzoli, are perforated by this species.

Mr. Capell Loft states, that he has lately seen several spots on the sun. One of hem, as measured by a micrometer, spread over nearly an eleventh of the sun's diameter; another was six seconds in passing the edge of the telescope, and was consequently about a twenty-second part of the sun's diameter, therefore from 35,000 to 40,000 miles in length.

About the month called by the French *Thermidor*, a luminous meteor was ſeen over the town of Frankfort, which illuminated the whole place, and then burſt with an exploſion as l ud as the report of an ordinary cannon.

Another was ſeen about the ſame time over the city of Pont de Veux, in France, which likewiſe burſt with a noiſe, and divided into a number of globules, which fell into the gardens of the city. The heat of the atmoſphere the preceding day was intenſe.

A whirlwind, in the pariſh of Wiſhaw, Warwickſhire, lately aroſe in the yard of the Rev. Mr. Matthews. It carried to the diſtance of fifty yards over a hedge a dog-kennel, containing two pointers, who were not hurt in their tranſit, and continuing its progreſs for about two miles, covering a ſpace of about 100 yards in breadth, deſtroyed trees, barns, &c. to the value of 500l.

There is an oak tree of very extraordinary dimenſions betwixt Knareſborough and Harrogate, meaſuring eighteen feet in circumference at two yards from the ground. The curioſity which it excites is much increaſed by a large ſtack of corn being at preſent built upon it, which is ſupported by the trunk and branches alone.

The town of Wellington, Shropſhire, was viſited lately by the moſt tremendous ſtorm of thunder and lightning ever known in the memory of the oldeſt inhabitants. Its continuance was near two hours, during which the claps of thunder were loud and inceſſant, and the flaſhes of lightning awfully vivid, and theſe, added to a torrent of rain, which choaked up all the water courſes, and cauſed a general inundation, filled the inhabitants with terror and diſmay. The lightning ſtruck the gaol and ſhattered the roof; it exploded alſo in ſeveral places in the centre of the town, but fortunately no lives were loſt. Much damage was done in the different cellars, which were completely filled with water, and the roads in general were rendered impaſſable. In its paſſage from Wellington to Colnbrook Dale, its effects were ſtill more dreadful. One of the furnaces at Ketley was blown up, and ſeveral houſes were unroofed and otherwiſe injured. Many horſes, &c. were drowned. Providentially it appeared on the Sabbath, when the people were not at work, or a number of lives would have been loſt. We are ſorry to ſtate that the damage is eſtimated at 10,000l.

A curious circumſtance occurred laſt month at Saffron Walden. A number of ſwifts and ſwallows were aſſembled in the air, apparently with a view to take their annual flight to another clime, but inſtead of that a battle enſued, and many were killed and fell dead among the ſpectators.

Early on Monday the 21ſt of Sept. a covey of twelve partridges came into Newark Market-place, and being unaccuſtomed to ſuch a ſituation, inſtead of raiſing themſelves a ſufficient height, flew againſt the houſes, and immediately fell to the pavement, where, after running in various directions for ſome time, they were all picked up by their alert purſuers.

LONDON PRICES OF GRAIN for *Aug. and Sept.* 1801.

MARK-LANE, *Monday, Aug.* 31.

We have had but very few freſh arrivals, either of Foreign or Engliſh Wheats, today. Fine ſamples have advanced about 3s. per quarter ſince Friday.—Barley and Malt are briſker ſale, and, if any thing, rather dearer.—Oats, of fine quality, are likewiſe on the advance; but inferior ſamples, with Peas and Beans, remain as before.

Price of Grain, on board Ship, as under:

Wheat	55s to 80s	Fine	to 56s	Grey Peas	40s to 44s
Fine	to 86s	Oats	20s to 30s	Fine	—s to —s
Superfine	to —s	Fine Polands	to 38s	Small Beans	42s to 45s
Rye	35s to 44s	Malt	46s to 78s	Tick ditto	30s to 40s
Barley	34s to 45s	White Peas	50s to 56s		

Monday, Sept. 7.

We have had but few freſh arrivals of Corn in ſince laſt Monday, owing to the late contrary winds, and our buyers being of opinion things muſt be cheaper, cauſed little buſineſs to be done in the Wheat trade, and prices remained nearly the ſame as laſt week.—Rye, Barley, and Malt, continue much the ſame.—Oats of fine quality, if any thing, are rather dearer; but inferior ones are very dull, and cheaper.—Peas and Beans are ſcarce, and rather dearer.

Price of Grain, on board Ship, as under:

Engliſh Wheat	40s to 55s	Barley	28s to 34s	Polands	34s to 38s
Fine	to 80s	Fine	to 48s	Peas	40s to 44s
Superfine	to 88s	New	to 54s	Boilers	48s to 56s
Foreign ditto	25s to 45s	Malt	45s to 56s	Fine	to 64s
Fine	to 70s	Fine	to 66s	Superfine	to 76s
Dantzic	to 85s	Superfine	to 76s	Small Beans	38s. to 43s
Rye	30s to 36s	Oats	16s to 21s	Fine	to 48s
New	to 42s	Fine	to 28s	Tick do.	30s to 36s

Monday, Sept. 14.

Although we have had a pretty many arrivals of Foreign ſhips, and the ſame of Engliſh, ſince laſt Monday, yet prices advanced on Friday, and Wheat is full 5s. per quarter dearer than on this day ſe'nnight.—Rye is rather dearer.—Barley and Malt is ſomewhat cheaper.—Oats are full 2s. per quarter dearer than laſt Monday.—Tick and Small Beans are much the ſame.—White and Grey Peas are 2s. per qvarter higher.

Price of Grain, on board Ship, as under:

Engliſh Wheat	45s to 60s	Fine	to —s	White Peaſe	45s to 56s
Fine do.	to 90s	New	to 52s	Fine Suffolks	to 57s
Superfine	to 98s	Malt	45s to 56s	Grey Peaſe	40s to 45s
Foreign ditto	35s to 50s	Fine	to 60s	Superfine	to —
Fine	to 85s	Superfine Malt	to 76s	Small Beans	42s to 50s
Superfine	to 95s	Oats	20s to 30s	Fine	to —s
Rye	30s to 36s	Fine	to 38s	Tick ditto	30s to 49s
Fine New	to 44s	Polands	38s to 40s	Fine	to —s
Barley	30s to 45s				

Monday, Sept. 21.

We have had a pretty good ſupply of both Foreign and Engliſh Corn ſince laſt Monday, chiefly Wheat, which article has declined in price full 8s. per quarter ſince this day ſe'nnight.—Rye, Barley, and Malt, are much the ſame.—Oats of fine quality are rather dearer; but coarſe and inferior ſamples are very dull, and with very little alteration in price.—Both Peas and Beans are very ſcarce, and rather dearer.

Price of Grain, on board Ship, as under:

Engliſh Wheat	55s to 70s	Fine	to 48s	Fine	to 60s
Fine do.	to 80s	New	to 54s	Pearls	65s
Superfine	to 88s	Malt	50s to 65s	Grey ditto	40s to 44s
Foreign ditto	48s to 56s	Fine	to 70s	Fine	to 46s
Fine	to 70s	Superfine Malt	to —s	Small Beans	40s to 48s
Superfine	to 84s	Oats	21s to 36s	Fine	to 58s
Rye	36s to 40s	Fine	to 36s	Tick ditto	36s to 40ss
Fine	to 42s	Polands	40s to 42s	Fine	to 44s
Barley	30s to 36s	White Peas	48s to 56s		

Monday, Sept. 28.

We have had a large arrival of Engliſh corn, with a further arrival of Foreign ditto, for this day's market, which cauſed our Wheat Market to decline in price from 8s. to 10s. per quarter ſince this day ſe'nnight.—Rye continues pretty ſteady.—Barley and Malt are rather dearer, there being very little at Market.—Oats, being in demand, have advanced from 2s. to 3s. per quarter ſince this day ſe'nnight.—White and Grey Peas are rather lower.—Tick and Small Beans are very plentiful, and ſomewhat cheaper.—Flour, 5s. per ſack cheaper.

Engliſh Wheat	50s to 70s	Fine	to 50s	Fine	to 68s
Fine	to 75s	Superfine New White	to 58s	Superfine	to 74s
Superfine	to 80s	Malt	56s to 62s	Grey ditto	40s to 44s
Foreign Ditto	45s to 65s	Fine	to 68s	Fine	to 46s
Fine	to 70s	Superfine Malt	to 76s	Small Beans	45s to 47s
Superfine	to 75s	Oats	20s to 36s	Fine	to ---
Rye	30s to 36s	Fine	to 38s	Tick ditto	30s to 36s
New	to 42s	Polands	42s to 44s	Fine	to 43s
Barley	30s to 45s	White Peas	50s to 55s		

Return of Wheat in Mark-lane, from Aug. 17 *to Aug.* 22, *inclusive.*
Total, 16899 quarters.—Average, 74s. od—20s. 10d. lower than last return.

Return of the Prices of Flour, from Aug. 15, *to Aug.* 21, *inclusive.*
Total, 10187 sacks.——Average, 85s. 7½d.—13s. 7¼d. lower than last return.

Hence results the Price of BREAD.
Eighty Quartern Loaves at 1s. 2½d. 4l 16s 8d.———Against the Baker 11½d.

Price of Hops.

	Pockets.		Bags.	
Kent —	4l 4s to 6l —s	Kent —	4l —s to	5l —s
Suſſex —	4l —s to 5l 5s	Suſſex —	4l —s to	4l 8s
Farnham —	4l —s to 8l —s	Eſſex —	4l —s to	4l 10s

Seeds.

Red Clover (per cwt.)	30s to 105s	Cinque Foil, ditto	—s to —s
White Clover, ditto	30s to 112s	White Muſtard Seed (p. b.)	10s to 14s
Trefoil, ditto	5s to 40s	Brown do. do.	10s to 14s 6d
Turnip, (per buſhel)	12s to 28s	Canary Seed do. do.	8s to 10s
Rye Graſs, (per quarter)	18s to 32s	Rape Seed, (per laſt)	38l to 40l

Meat. Smithfield, Monday, Aug. 31. (*To ſink the offal, per ſtone of* 8*lb.*

Beef —	4s od to 5s od	Veal —	4s 4d to 6s od
Mutton —	5s 4d to 6s 2d	Pork —	6s od to 7s od

Lamb 5s od to 6s 4d

Head of Cattle this day—Beaſts about 1,900—Sheep and Lambs 9,500.

Raw Hides.

Hides (per ſt.) ——	3s 4d to 3s 8d	Heavy Calf ——	10s od each
Middling ——	2s 6d to 2s 10d	Light Calf ——	7d per lb.
Ordinary ——	2s 2d to 2s 4d		
Lamb Skins ——	1s 9d to 3s od		
Sheep Skins ——	1s od to 1s 9d		

Price of Leather.

Butts, 50 to 56lb. each	19½d to 21d	Calf Skins, 30 to 40lb. *p.* doz.	18d to 21d
Ditto, 60 to 66lb. each	22d to 24d	Ditto, 50 to 70lb. do.	22d to 27d
Merchants Backs	—d to 20d	Ditto, 70 to 80lb. do.	22d to 25d
Dreſſing Hides —	16d to 17d	Sm. Seals (Greenland)	30d to 32d *p.* lb.
Fine Coach Hides	17d to 19½d	Large do.	100s to 130s *p.* doz.
Crop Hides for cutting	17½d to 19½d	Tanned Horſe Hides	14s to 26s *p.* hide.
Flat Ordinary —	15½d to 16½d	Goat Skins	—s to —s *p.* doz.

Price of Tallow.

St. James's Market —	3s 5½d	Ruſſia ditto (Soap) —	53s to 0s
Clare Market —	3s 5½d	Melting Stuff —	49s to —s
Whitechapel Market —	3s 3d	Ditto rough —	32s to —s
Per ſtone of 8lb.—Average	3s 4½d	Graves — —	20s
Town Tallow —	58s od	Good Dregs	12s
Ruſſia ditto (Candles) —	54s 57s	YellowSoap, 72s--Mottled, 80s.--Curd, 84s	

Candles, per dozen, 10s 6d

Prices of Hay and Straw on Saturday, Aug. 29.

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

Return of Wheat in Mark-lane, from 24th of Aug. to the 29th, inclusive.

Total 341 8 Quarters—Average 67s 4½d.—6s. ½d. lower than last return.

Return of the Prices of Flour, from Aug 22, to Aug. 28th, inclusive.

Total 13,795 Sacks——Average 69s 6½d.——16s 1d lower than last return.

Hence results the Price of BREAD.

Eighty Quartern loaves at 1s 0½d. 4l 3s 4d———In favour of the Baker 1s 1·d½.

Price of Hops.

	Pockets.			Bags.		
Kent —	4l 10s to	5l 12s	Kent —	4l —s to	4l 10s
Suſſex —	4l —s to	5l 0s	Suſſex	3l 16s to	4l —s
Farnham —	5l —s to	8l —s	Eſſex	—l —s to	—l —s

Seeds.

Red Clover, (per cwt.)	30s to 105s	Cinque Foil, ditto	—s to —s
White Clover, ditto	30s to 112s	White Muſtard-ſd. p. bu.	10s to 14s 0d
Treſoil, ditto	5s to 40s	Brown, ditto do.	10s to 14s 6d
Turnip, (per buſhel)	12s to 28s	Canary ſeed do.	8s to 10s
Rye Graſs (per quarter)	18s to 32s	Rapeſeed, per laſt	38l to 40l

Meat. Smithfield, Monday, Sept. 7. (To ſink the offal, per ſtone of 8lb.

Beef	4s 0d to 5s 0d	Veal . .	4s 4d to 6s 0d
Mutton	5s 4d to 6s 2d	Pork . .	6s 0d to 7s 0d
	Lamb, -	5s 0d to 6s 4d				

Head of Cattle this day——Beaſts about 1,900—Sheep and Lambs 10,500

Raw Hides.

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

Price of Tallow.

St. James's Market —	3s 6d	Ruſſia ditto (Soap) —	52s 53s
Clare Market — —	3s 6d	Melting ſtuff — —	48s —s
Whitechapel Market —	3s 4d	Ditto rough — —	32s —s
Per ſtone of 8lb.—Average	3s 5½d	Graves — —	19s —s
Town Tallow .	59s 6d	Good Dregs —	11s —s
Ruſſia ditto (Candles)	56s 57s	Yellow Soap, 72s-Mottled 80s—Curd 84s	

Price of Candles per Dozen, 10s. 6d.

Prices of Hay and Straw on Saturday, Sept. 5.

St. James's—Hay	3l 10s to 6l 0s	Average	4l 15s 0d
Straw —	2l 5s to 2l 14s	———	2l 9s 6d
Whitechapel—Hay	4l 0s to 6l —s	———	5l 0s 0d
Clover	6l 0s to 6l 18s	———	6l 9s 0d
Straw	2l 0s to 2l 13s	———	2l 6s 6d

Coal Exchange for the week.

Monday—Wallſend	43s	Wedneſday—Hartley	38s
Biggs Main	42s 6d	Montague Main	39s
Bourn Moor	38s 6d	South Moor	37s 6d
Hebburn	42s 6d	Friday—Wallſend	43s 6d
Pontop	39s	Walker	42s 6d
Walker	32s 6d	Wylam	37s 6d

Delivered in Town at 8s advance above on the price.

Return of Wheat in Mark-lane, from Aug. 31, *to the* 5*th of Sept. inclusive*
Total 21,9 0 quarters.—Average 64s. 1d.——3s. 3½d. higher than last return.

Return of the Prices of Flour, from Aug. 29, *to Sept.* 6, *inclusive.*
Total 16,925 sacks.——Average 69s. 8½d.——0s. 2d. higher than last return.
Hence results the Price of BREAD.
Eighty Quartern loaves 1s. 0½d.—4l 1s 8d—Against the Baker ½d.

Price of Hops.

Pockets.			Bags.		
Kent —	3l 16s to 5l 0s		Kent —	3l 6s to 4l 4s	
Sussex —	3l 16s to 4l 10s		Sussex —	3l 6s to 4l —s	
Farnham	3l —s to 6l —s		Essex	3l 6s to 4l 4s	

Seeds.

Red Clover (per cwt.)	30s to 105s	Cinque Foil, do.	—s to —s
White Clover, do.	30s to 112s	White Mustard Seed (p. bush.)	10s to 14s
Trefoil, do.	5s to 40s	Brown do. do.	10s to 14s 6d
Turnip (per bushel)	12s to 28s	Canary Seed do.	8s to 10s
Rye Grass (per quarter)	18s to 32s	Rape Seed (per last)	38l to 40l

Meat. Smithfield, Monday, Sept. 14. *(To sink the offal, per stone of* 8*lb.)*

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

Head of Cattle this day—Beasts about 1,800—Sheep and Lambs 8,500.

Raw Hides.

Hides (per stone)	3s 4d to 3s 8d	Market Calf ——	10s 0d each
Middling —	2s 8d to 2s 10d	Horse-hides —	10s to 13s each
Ordinary —	2s 4d to 2s 6d	Sheep Skins ——	1s 9d to 3s 0d
	Lamb Skins	2s 0d to 3s 6d	

Price of Leather.

Butts, 50 to 56lb. each	19½d to 21½d	Calf Skins, 30 to 40lb. *p.* doz.	18d to 22d
Ditto, 60lb. to 66lb. each	22d to 24d	Ditto, 50 to 70lb do.	23d to 27d
Merchants Backs	20d to 21½d	Ditto, 70 to 80lb. do.	23d to 26d
Dressing Hides	16d to 17½d	Sm. Seals (Greenland)	30d to —d *p.* lb
Fine Coach Hides	18d to 19½d	Large do.	100s to 130s *p.* doz.
Crop Hides for cutting	17½d to 19½d	Tanned Horse Hides	14s to 26s *p.* hide
Flat Ordinary	15½d to 17½d	Goat Skins	—s to —s *p.* doz.

Price of Tallow.

St. James's Market —	3s 6d	Russia ditto (Soap) —	52s 53s
Clare Market —	3s 6d	Melting Stuff —	48s —s
Whitechapel Market —	3s 5d	Ditto rough —	32s —s
Per stone of 8lb.—Average	3s 5½d	Graves —	19s 0s
Town Tallow	59s 6d	Good Dregs —	11s 0s
Russia ditto (Candles)	55s to 57s	Yellow Soap 72s. Mottled 80s. Curd 84s	

Price of Candles per dozen, 10s. 6d.—Moulds 11s.

Prices of Hay and Straw on Saturday, Sept. 12.

St. James's—Hay	3l 3s to 6l 0s	Average	4l 11s 6d
Straw	1l 13s to 2l 9s 6d	——	2l 1s 3d
White-ch.—Hay	4l 0s to 5l 16s	——	4l 18s 0d
Clover	6l 0s to 6l 10s	——	6l 5s 0d
Straw	1l 18s to 2l 10s	——	2l 4s 0d

Coal Exchange for the Week.

Monday—Pontop	40s	0d	Heaton Main	45s	0d
Tanfield Moor	39s	6d	Windsor Pontop	40s	0d
Wentworth	36s	6d	Friday——Wallsend -	4 s	6d
Wednesday—Benton	42s	6d	Walker -	44s	9d
Blyth	40s	6d	Willington -	43s	6d

Delivered in Town at 8s. advance above on the Price.

Return of Wheat in Mark-lane, from the 7th Sept. to 12th, inclusive.
Total 19,388 Quarters——Average 77s. 9d.——13s 8d. higher than laſt return.

Return of the Prices of Flour, from 7th Sept. to 11th inclusive.
Total 14,958 Sacks——Average 71s. 7¾d——1s 11¼d higher than laſt return.

Hence reſults the Price of BREAD.

Eighty Quartern loaves at 1s 0½d. 4l. 3s. 4d.—Againſt the Baker—0s 3½d.

Price of Hops.

Pockets				Bags.			
Kent	4l 0s to 5l 2s			Kent —	3l —s to 4l 10s		
Suſſex -	4l 0s to 4l 16s			Suſſex —	3l —s to 4l 6s		
Farnham -	5l 0s to 7l 0s			Eſſex ——	3l —s to 4l 6s		

Seeds.

Red Clover, (per cwt.)	20s to 90s	Cinque Foil, ditto	—s to —s
White Clover, ditto	30s to 112s	White Muſtard Seed, p. bu.	10s to 14s 0d
Trefoil ditto	10s to 50s	Brown, ditto do.	10s to 14s 6d
Turnip, (per buſhel)	12s to 18s	Canary Seed do.	8s to 10s
Rye Graſs, (per quarter)	20s to 28s	Rape-ſeed, (per laſt)	38l to 40l

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

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

Head of Cattle this day—Beaſts about 1,800—Sheep and Lambs 8,500.

Raw Hides.

Hides (per ſt.) ——	3s 4d to 3s 8d	Market Calf Skins	10s 0d each
Middling ——	2s 8d to 2s 10d	Horſe-hides	10s to 13s each
Ordinary ——	2s 4d to 2s 6d		

Lamb Skins — 2s 0d to 3s 6d
Sheep Skins 1s 9d - to 3s. 0d

Price of Tallow.

St. James's Market —	3s 6½d	Ruſſia ditto (Soap) —	54s to —s
Clare Market —	3s 6d	Melting Stuff	48s 49s
Whitechapel Market —	3s 4½d	Ditto rough ——	32s —s
Per ſtone of 8lb —Average	3s 5½d	Graves	19s to—s
Town Tallow —	59s 6d	Good Dregs —	11s
Ruſſia ditto (Candles)	56s to 58s	Yellow Soap 72s Mottled 80s Curd 84s	

Candles per Doz. 10s 6d—Moulds 11s 0d

Price of Hay and Straw, Aug. 22.

St. Jame's—Hay	3l —s 0d to 5l 16s	Average	4l 8s 0d
Straw	1l 10s —d to 1l 16s 6d	——	1l 13s 0d
Whitechap.—Hay	4l —s 0d to 5l 16s	——	4l 18s 6d
Clover	6l 6s 0d to 7l —s	——	6l 13s 0d
Straw	1l 8s 0d to 1l 16s	——	1l 12s 0d

Coal Exchange for the Week.

Monday—No Coals ſold		Friday—Wallſend -	47s 6d
Wedneſday—Benton	46s 0d	Walker -	46s 6d
Hebburn Main	46s 6d	Walbottle -	44s 6d
Montegue Main	45s 0d	Tanfield Moor	44s 6d
Windſor's Pontop	44s 0d	Ruſſell's Main	42s 6d

Delivered in Town at 8s. advance on the above price.

Return of Wheat in Mark-lane, from 14th of Sept. to the 19th of Sept. inclusive.

Total 12,375 Quarters——Average 77s. 8d.——os. 1d. lower than laſt return.

Return of the Price of Flour, from Sept. 12, to Sept. 18, inclusive.

Total 13,215 Sacks.——Average 78s 9$\frac{1}{2}$d.—7s 1$\frac{1}{2}$d higher than laſt return.

Hence reſults the Price of BREAD.

Eighty Quartern loaves at 1s 1$\frac{1}{2}$d 4l 10s——Againſt the Baker 9$\frac{1}{4}$d.

Price of Hops.

	Pockets		Bags
Kent —	4l 4s to 5l 8s	Kent —	3l 15s to 4l 15s
Suſſex —	4l —s to 5l —s	Suſſex —	3l 15s to 4l 6s
Farnham —	4l —s to 7l —s	Eſſex —	3l —s to 4l 10s

Seeds.

Red Clover, (per cwt.)	20s to 90s	Cinque Foil, ditto	—s to —s
White Clover, ditto	30s to 112s	White Muſtard Seed, p. bu.	10s to 14s
Trefoil, ditto	10s to 50s	Brown, ditto do.	10s to 14s 6d
Turnip, (per buſhel)	12s to 18s	Canary Seed, do.	8s to 10s
Rye Graſs, (per quarter)	20s to 28s	Rape Seed, (per laſt)	38l to 40l

Meat. Smithfield, Monday, Sept. 21. (To ſink the offal. per ſtone of 8lb.

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

Head of Cattle this day——Beaſts about 1,800—Sheep and Lambs 7,500

Raw Hides.

Hides (per ſtone)	2s 6d to 2s 8d	Market Calf —	10s od each
Middling —	3s od to 0s od	Engliſh Horſe —	10s to 13s each
Ordinary —	2s 4d to 2s 8d	Lamb Skins —	2s 3d to 3s 6d
	Sheep Skins 2s od to 3s 3d		

Price of Leather.

Butts, 50 to 56lb. each	20d to 21$\frac{1}{2}$	Calf Skins, 30 to 40lb. *p.* doz.	19d to 22d
Ditto, 60 to 66lb. each	22d to 24d	Ditto, 50 to 70lb. do.	23d to 27d
Merchants Backs	20d to —d	Ditto, 70 to 80lb. do.	23d to 26d
Dreſſing Hides —	15$\frac{1}{2}$ to 16$\frac{1}{2}$	Sm. Seals (Greenland)	30d to —d per lb.
Fine Coach Hides	17$\frac{1}{2}$ to 19d	Large ditto	100s to 130s *p.* doz.
Crop Hides for cutting	18d to 20d	Tanned Horſe Hides	14s to 25s *p.* hide.
Flat Ordinary —	15$\frac{1}{2}$ to 17d	Goat Skins	—s to —s *p.* doz.

Price of Tallow.

St. James's Market —	3s 6$\frac{1}{2}$d	Ruſſia ditto (Soap) —	54s to —s
Clare Market —	3s 7d	Melting Stuff —	50s —s
Whitechapel Market —	3s 5d	Ditto rough —	32s —s
Per ſtone of 8lb.—Average	3s 6d	Graves —	19s —s
Town Tallow —	60s —d	Good Dregs —	11s —s
Ruſſia ditto (Candles)	57s to 58s od	Yellow Soap, 72s-Mottled 80s--Curd 84s	

Candles, *p.* doz. 10s 6d—Moulds, 11s od.

Prices of Hay and Straw on Saturday, Sept. 26.

St. James's—Hay	3l 6s to 5l 14s od	Average	4l 10s od
Straw	1l 10s to 1l 16s od	———	1l 13s od
Whitechap.—Hay	3l 18s to 5l 12s od	———	4l 15s od
Clover	5l 10s to 6l 10s od	———	6l 0s od
Straw	1l 8s to 1l 16s od	———	1l 12s od

Coal Exchange for the Week.

Monday.—Blythe	41s od	Coupin	42s od
Willington	44s 9d	Hartley	41s 6d
Brandling	42s 6d	Friday—Wallſend	47s od
Hartley	41s 6d	Wallbottle	41s 6d
Wedneſday—Benton	42s 9d	Tanfield Moor	42s 3d
Bigg's Main	44s od	Eighton	41s 3d
Brandling Main	42s od	Heaton Main	44s od

Delivered in Town at 8s. advance on the above price.

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, ended SEPT. 19, 1801.

INLAND COUNTIES.

COUNTIES.	Wheat.		Rye.		Barley.		Oats.		Beans.		Peaſe.		Oatmeal.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
Middleſex	87	5	53	4	39	2	34	5	44	7	52	6		
Surrey	94	2	46	0	50	6	31	0	51	0	45	6		
Hertford	83	1	54	0	42	0	33	6	56	4	58	6		
Bedford	79	10	52	8	59	0	36	4						
Huntingdon	87	1			46	0	22	6	43	0				
Northampton	90	10			52	6	23	0	48	0				
Rutland	99	0	50	0	59	0	36	0	48	0			79	9
Leiceſter	92	9			48	0	26	7					67	6
Nottingham	101	6	63	0	64	0	31	4	51	0				
Derby	99	4			63	6	35	0	61	4			35	9
Stafford	96	6			53	9	32	6	52	9			43	11
Salop	85	8	57	2	57	0	37	0					89	1
Hereford	83	8	65	6	51	2	30	0	54	5	47	11	98	4
Worceſter	100	10			58	7	39	3	59	6				
Warwick	100	4			54	5	33	11	63	1	60	0	71	10
Wilts	92	8	56	0	50	4	32	4	57	8	56	0		
Berks	87	8	49	0	41	6	33	0	45	4	46	10		
Oxford	99	2			45	6	32	5	52	0	51	8		
Bucks	83	4			45	0	30	9	47	2	51	0		
Brecon	81	7	54	4	47	5	24	0			48	0	57	2
Montgomery	68	0			51	3	20	11					65	8
Radnor	74	10			55	6	29	5					110	8

Maritime Counties.

Eſſex	85	0	45	9	46	4	34	6	35	7	37	0		
Kent	86	3			40	6	28	7	38	6	50	0		
Suſſex	99	10					32	0						
Suffolk	89	8	50	0	49	0	29	4	39	11	48	8	110	3
Cambridge	90	9	56	4	48	0	23	7	40	0				
Norfolk	91	4	46	0	44	1	27	0						
Lincoln	91	10			48	7	23	4					50	10
York	84	7	51	10	49	10	25	10	50	6	80	0	56	6
Durham	72	4	51	5	43	10	23	6						
Northumberland	75	8	44	0	32	1	25	6						
Cumberland	102	3	69	9	58	8	37	10						
Weſtmorland	99	7	70	0	54	0	38	4					42	5
Lancaſter	88	1			32	0	32	0					30	5
Cheſter	86	8					33	8					28	2
Flint	90	8			62	5								
Denbigh	86	1			61	4	30	2					33	1
Angleſea	80	0			40	0								
Carnarvon	79	0	60	0	49	4	30	0					60	5
Merioneth	80	5	66	8	44	10	26	0					49	3
Cardigan	81	11			52	6								
Pembroke	87	6			47	8								
Carmarthen	75	8			45	0	16	0						
Glamorgan	81	11			54	0	23	3						
Glouceſter	106	6			57	4	30	3	52	6	48	10		
Somerſet	93	0			48	0	28	2						
Monmouth	83	6			50	11	38	8						
Devon	91	10			45	11	25	7						
Cornwall	97	8			47	6	26	2						
Dorſet	94	6			50	11	31	6						
Hants	98	4			50	3	35	10	58	2				

BANKRUPTCIES AND DIVIDENDS,

Announced between the 20th of Aug. and the 20th of Sept. 1801.

BANKRUPTCIES,

ALLCORN, Richard, Hampton, Middlesex. [Webb, St. Thomas's street, Southwark
Ball, Wm. Derby, druggist. (Barbor and Brown, Fetter lane
Beswick, Jas. late of Hendon, baker. (Welch, Aldersgate street
Betson, John, Washwood Heath, Aston, Warwick, factor. (Sanderson, Palsgrave place
Bamford, Samuel Paul, John Cooke, and Jas. Francis Clifford. Tiverton, worsted manufacturers. (Constable, Symond's inn.
Bridgman, Edw. Higham Ferrers, Northampton, baker. [Hodson, Wellingborough
Brevitt, Wm. late of Wednesbury, Staffordshire, butcher. (J. Lilley, Parker, Stafford
Baker, Thos. and John Sherland, Exeter, woollen drapers. (Field, Friday street
Bull, Jas. Edw. Bowyer, City Road, Old street, baker. (Gale Bedford street, Bedford row
Beaumount, Wm. late of Healdy Butts, in South Crosland, parish of Almondbury, Yorkshire, clothier, and Copartner with Rich. Beaumont and Stephen Vickerman. [Battye, Chacery lane
Cantrill, Wm. Burton-upon-Trent, Staffordshire, druggist. [Baxters and Martin, Furnival's inn
Deverill, Geo. Redbourn, Hertfordshire, straw hat manufacturer. (Wild, Warwick square
Eccles, Thomas, Watling street, wholesale linen draper. (Johnson, Ely place
French, Sam. Jun. Hertford, mealman. [Allens, Clifford's inn
Flinders, John, Nottingham, hosier. (Holmes, Mark lane
Flux, Robert, Cirencester, Gloucestershire, carpenter. [Foulkes, Hart street, Bloomsbury
Fox, Solomon, Wardour street, cabinet maker. (Few, Red lion square
Galliers, Jane, St. John street, West Smithfield, baker. [Revers, Nicholas lane
Gardner, Samuel John, Pitt street, St. George's, Southwark, mealman. (Tyler and Humpheys, Tooley street
Garner, Thos. Jun. Bread street, warehouseman. [Ellis, Curfitor street
Hanson, John, Atherstone, Warwickshire, wine and spirit merchant. (Barbor and Browne, Fetter lane
Harling, Edw. late of Almondbury, Yorkshire, merchant. [Battye, Chacery lane
Hodson, Jonathan, Stockport, shopkeeper. [Chetham, Stockport
Hitchcock, Jas. late of Hatton Garden, dealer in prints. but now a prisoner in the Fleet. (Morris and Biggen, Inner Temple
Keen, Henry, Cleeve Prior, Worcestershire, baker and maltster. [Whishaw and Taylor, Gray's inn
Lomas, Wm. and Geo. Needham market, Suffolk, hawkers. [Harding, Primrose street
Lomas, Wm. late of Needham market, hawker. [Ellis, Curfitor street
Levy, Lewis and Jonas, Osborne place, Brick lane, Whitechapel, vermicelli manufacturers. [Lee, Barnard's inn
Mair, Jas. late of Gravesend, plumber. (Walker, Serjeant's inn, Chancery lane
Morrice, Pierce, St. Martin's court, St. Martin's lane, hosier. (Egerton, Gray's inn
Ockendon, Richard, late of Bexhill, Sussex, shopkeeper. [Young, Milton, and Pownal, Doctor's Commons
Pickering, John, Lower Eaton street, Pimlico, dealer in wine and spirits. (Surman, Oxenden street
Pitt, Thos. Swansea, haberdasher. (Farrer, Lacey, Steadman and Wall, Bread street hill
Quenby, John, Liverpool, tea dealer. (Windle, Bartlett's buildings
Quantrill, Jas. late of Duke street, Portland place, factor. (Noy and Tempier, Mincing lane
Riches, Geo. Queen street, Cheapside. warehouseman. [Wild, Warwick square
Roberts, Hugh, late of Aldersgate street, silk weaver. [Field, Friday street
Stafford, Rob. jun. Huntingdon, grocer. (Cooper and Lowe, Southampton buildings
Scott, Mary, [widow of the late Joseph Scott] Henry Scott, and Edw. Appleby, Hinckley, Leicestershire, hosiers. (Holmes, Mark lane
Sherland, John, Exeter, woollen draper. [Williams and Brooks, Lincoln's inn.
Stephens, Rob. Manchester, dealer in weft. (Ellis, Curfitor street
Simms, John, late of Sheepey Parva, Leicestershire, miller. (Tebbut, Staples inn
Scarbrow, W. St. Neots, Huntingdonshire, baker. (Cooper, and Lowe, Southampton buildings
Saul, T. and John Reynolds, Manchester, wool staplers. [Swan and Stevens, Old Jewry
Sanderson, Jas. Preston, Lancashire, and N. Sanderson, Houghton, Lancashire, cotton manufacturers. (Hodgson, Chancery lane
Tollody, J. Mirley, Essex, corn merchant. (J. Ambrose, Mirley
Tipper, B. Derby, patten ring maker. (Ward and Locket, Derby
Tubbs, D. late of Liverpool, merchant. [Daltera, Liverpool
Woodward, J. Derby, callico manufacturer. [Forbes, Ely place
Walter, Robt. Plymouth dock, hatter. (Blanford and Sweet, Inner Temple
Wimberley, T. Peete, Huntingdonshire, grocer. (Cooper and Lowe, Southampton buildings
Wilkinson, J. Bridlington, merchant. (D. Taylor, Bridlington
Woolgar, W. Minories, brazier. (Nind, Prescot street
Whitehead, W. Laceby, Lincolnshire, shopkeeper. (Marris and Clarke, Barton-upon-Humber
Wilson, Jas. Birmingham, builder. (Kinderley, and Long, Symond's inn

DIVIDENDS ANNOUNCED.

Brown, Geo. Old Cavendish street, tailor. Nov. 5
Birchall, John, Woor, Salop, dealer in salt, Sept. 23
Burnett, Edw. and Robt. Oliver, Manchester, linen drapers, Sept. 29
Barton, John, Davies street, Hanover square, dealer in horses, Oct. 10
Burges, Daniel Blaby, Leicestershire, victualler, Oct. 3
Bradley, Joseph, Shawbank, callico manufacturer, Oct. 13
Burker, Wm. Simon Field and Abraham Field, Leeds, wool staplers, Oct. 13
Curtis, Jas. Swansea, timber merchant, Sept. 29
Corbett, Thos. late of Minchinhampton, clothier, Sept. 24
Cross, Henry, Exeter, tobacconist, Sept. 29
Collins Robert, jun. late of Union court, Broad street, carpenter and builder, Nov. 14
Denton, Wm. Elland, Halifax, merchant, Oct. 2
England, J. Wisbech, St Peter's, Ely, innkeeper, Sept. 22
Edwards, John, Kensington, tailor, Oct. 17
Fishwick, Wm. Duke's court, St. Martin's lane, tailor, Nov. 21
Gazeley, Joseph Sherwin, Great Queen street, Lincoln's inn fields, merchant, Nov. 4
Gerrard, Jas. Cannon street, corn factor, Oct. 10
Gillis, John, New Sarum, whipmaker, Sept. 24
Gowan, Geo. Great Ormond street, merchant, Dec. 5
Greenall, Wm. Hardshaw, Lancashire, dealer, Oct. 5
Grint, John, Wandsworth, corn chandler, Oct. 20
Holland, Wm. Southwark, linen draper, Nov. 5
Hammond, Geo. Stamford, mercer, Sept. 24
Hunter, Margaret, H. Krowen, and Robt. Hunter, Bristol, merchants, Oct. 1
Hunter, John, late of Rye, carrier, Oct. 14
Hawkins, John, Leicester, currier, sept. 28
Hadfield, John, Sheffield, grocer, Oct. 2
Heap, Geo. Manchester, cotton manufacturer, Oct. 7
Ibbett, John, Crown street, Finsbury square, shoemaker, Oct. 17
Johnson, R. Joseph, New Sleaford, mercer, Oct. 13. (final)
Lawson, S. Rotherhithe, carver, Nov. 11
Long, Geo. Jun. Dewsbury, linen draper, Oct. 1
Long, Wm. Pontefract, linen draper, sept. 28
Larkworthy, Ambrose, Exeter, fuller, Oct. 1
Marriott, Sam. Paul's Head tavern, Cateaton street, vintner, Nov. 7
Mellor, Jas. jun. and John and Edm. Mellor, late of Wooldale, Town End, clothiers, sept. 27
Morton, Thos. Ralstrick, Halifax, dealer, sept. 30
Mercer, Wm. Tunbridge, miller, Oct. 6
Madgwic, Thos. Buxted, tanner, Oct. 10
Newman, Holdsworth, Little Dartmouth, merchant, sept. 19
Neale, Wm. Frome Selwood, innholder, Oct. 12
Neblock, Jas. and Geo. Burges, Bristol linen drapers, Nov. 20
Pereira, Abra. Mendes, and Hermenegild Castellain, Old Bethlem, merchants, Dec. 8
Pye, John, Liverpool, merchant, sept. 29
Patience, Thos. New Broad street, stond mason, Oct. 31
Poeter, Geo. Charing Cross, haberdasher, Nov. 27
Rachael and Jas. Bisset, Bristol, sugar bakers sept. 28
Rogers. John, Birmingham, saddler, sept. 21
Rorison, Robt. Chorley, grocer, sept. 21
Reilly, Jas. and Jas. Collins, Mead's court, Bond street taylors, Nov. 7
Radford, Wm. Liverpool, mercer, Oct. 3
Rome, John, Sudbury, linen draper, Nov. 27
Sims, R. late of Walworth, grocer, Oct. 6
Selby, Joseph, Nottingham, hosier, sept. 30
Smith, John, St. Martin's lane, baker, Oct. 6
Uther, John, William, Bowling green lane, Clerkenwell, victualler, sept. 26
White, M. Wm. Sunderland, wine and spirit merchant, sept. 14
Wagner, J. Michael, Bristol, merchant, sept. 30
Wade, J. Sheffield, factor, sept. 17
Weld, Wm. Manchester, fustian manufacturer, sept. 23
Wallace, John, and Wm. Hawes, Hanwell, soap makers, &c. Nov. 7
Warren, Geo. Coventry street, upholder, Nov. 11
Yate, John, Thos. Spencer Dunn, Sam. Helton Parker and Thos. Yate, Liverpool, merchants, Oct. 1
Zachary, H. late of Laurence lane Cheapside, Irish factor, Nov. 7.

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

Days	Bank Stock.	3 per Ct. Red.	3 per Ct. Consols.	4 per Ct. Consol.	5 per Ct. Navy.	5 per Ct. Loyalty	Long Ann.	Short Ann.	Imp. 3 per Ct.	Imperial Annu.	Omnium.	Eng. Tick.	Irish Tick
Aug. 29		61¼⅛	60⅜⅝	81¼ 81	96⅛	97⅛⅜	18 13-16⅞	5¾ 7-16		11⅜⅞	9¾	15 18	
31		6 ⅞ 61	60⅜½	81 80⅛	95⅞⅜⅞	97⅛97	18 13-16	5 7-16	60⅛		9½⅜	15 18	8 0
Sept. 1	168½ 167¾	61¼ 61	60⅜⅛½	81⅜	95⅞ 96⅛	97⅜			60⅛		9¾	15 18	8 0
2							18¾						
3			60⅜ ⅛	81¼ 81½	96⅛ 95¾⅞	97⅛⅝¼	18¾ 11-16	5¾ 7-16			9⅛ 8¾	15 18	8 0
4			60⅞⅞ 60	80⅞ 81	95⅝½⅛		18 11-16		59½¾⅝		8¾½¾	15 18	8 0
5			60¼⅛	81 80¼	95⅜¾		17 11-16	5¾ 7-16			9¼ 8¾	15 18	8 0
7			60⅞ 60		95⅛⅜						8½¼½	15 18	8 0
8			59⅞ 59⅞		95⅝¼⅜						8½¼	16 0	8 0
9			59⅞ 60		95½⅝⅜						8½¾	16 0	8 0
10			60¼⅛		95⅛½				59⅞		8¾	16 0	8 0
11			59⅜⅜		95⅜⅛				59½		8 7½	16 0	8 0
12			59½⅛⅛		94⅝⅜⅜						7½¼½	16 0	8 0
14			9½ 60		95½⅜⅜				59½		7⅝ 8¾	16 0	8 0
15			60⅞ 60		95⅝½¼				59½⅝		8¾½¼	16 0	8 0
16			59¾½⅝		95⅜⅛¼				59⅜½		8¼ 7¼ 8	16 0	8 0
17			59⅝⅞½		95⅛⅛						8 7½	16 0	8 0
18			59½½½		95⅛⅜				59⅝⅝		8½½½	16 0	8 0
19												16 0	8 0
21													
22			59½⅜⅜		95 94½¼				59⅛		7½¼		
23			59⅜½⅜		94⅝⅝					11 11-16	7½½	16 0	8 0
24			59½⅛		94⅜⅞				59		7½¼	16 0	8 0
25	168		59⅜¼		9 ⅜½⅝				59⅛ 58⅞		7¼ 7 7¼	16 0	8 0
26			59⅛¼		94 93¾				58⅞	11⅝ 11-16	76¼	16 0	8 0

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