





REPRESENTATION OF A COAL WAGGON.

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DESCRIPTION OF A COAL WAGGON, STAITH,
AND WAGGON-WAY.

THE Northern Coal Mines have produced more useful inventions than any other single occupation. To them is to be ascribed the progressive improvements of the immense powers of the Steam-Engine, and to them the œconomical invention of the Rail-roads for facilitating the carriage of the Coals to the water side. This attempt was the more extraordinary, as the necessities of the Coal-mines for props, machinery, &c. had previously used up every stick of timber in the neighbourhood, and the import from returning colliers (coal-ships) was the sole resource. This however sufficed; and, before a pit is opened, ground is purchased for a future road, with more regard to a *gradual slope* than to the *distance* from the water side. The slope or level is preserved at great expence; bridges are sometimes carried over vallies for this purpose. This is absolutely necessary, since a single horse could not otherwise convey such an immense weight; the least perceptible rise of ground would stop him. When the road is carefully levelled and sloped, the rails (which are usually of beech, about two inches and a half square) are laid down on the road, running parallel at the distance of the breadth of the waggon-wheels apart. They are fixed by cross pieces of wood pegged into the under side of them, and covered with earth, lest the horse should trip against them. The wheels of the waggon were formerly of wood, but now of cast iron.—The outside of the rim less than the inside, so that the wheels can never slip off the rail. The annexed plate represents the Coal Waggon, on which is seen the ingenious contrivance of the *Con-way*, to regulate the rapidity of descent.

Description.] A. represents the body of the waggon, loaded with coals, B, drawn by a single horse C. by means of the traces *a, a*, and conducted or drove by a single man, called the *Waggon-man*, whose most common action on the road is, enticing his horse forward with a bit of hay in his hand, which he supplies from under his arm *b.*; the quantity of hay sufficient for a day being kept in the Hay-poke (or Bag) D. The body of the waggon is in form of an inverted prismoid, composed of pretty strong fir deals, having strong pieces of oak or ash wood at the bottom called Soals, at the corners and sides called Sheths, and, at the top, called Overings, which are occasionally raised with Ledges to make the waggon hold any additional quantity.

The top of the fore part of the waggon projects farther out than the bottom; therefore the greatest part of the loading is supported on the fore wheels, and consequently the waggon, when in motion, is drawn with less force than if the fore part did not project at all. The draught is also lessened by the fore wheels being considerably larger than the hind. E. is the convoy, being a strong curving piece of Alder-wood, whose end (c) is kept indifferently tight in the Ring-iron (d) by little wedges, called Scotches, deposited in a box (e) called the Scotch-box, and kept from touching the wheel by hanging its end (f) in a loop of leather (g), fastened to the hind Corner-Sheth of the waggon. Its use is to regulate the motion of the waggon down the sides of the hills (called by the waggon-men, Runs) making it uniform, which, by the laws of motion, would be accelerated was no such regulation to take place; the waggon-man, taking the end (f) out of the loop, lets it down upon the wheel, and, placing himself astride upon the end (f), with one foot on the waggon-foal, he presses more, or less, according to the nature of the declivity of the Run; the Convoy acting at that time as a lever of the second kind, whose fulcrum is in the Ring-iron (d), and the friction of the Breasts (h, h), (either of which may be used at pleasure) regulates the motion; the large iron (k) is called the Hind-iron, and hinders the convoy from slipping off the side of the wheel.

Waggon-men, in going down very steep Runs, always take their horses from before, and fasten them behind their waggons; as they would inevitably be killed was the convoy to break (which frequently happens), or any other accident occasion their waggons to run *amain*; nor is this fatal consequence only attendant on the horses, but the drivers often receive broken bones, bruises, and frequently the most excruciating deaths. Indeed, in some places, a most humane custom is established, which is, when any waggon-man loses his horse, the other waggon-men go a Gait (a journey to the Staith) for the poor sufferer, which is a little out of their profits, and purchase him another horse.

When the waggon arrives at the Staiths, he lets down his Bottom-board, which is the bottom of the waggon, having Hinges on one side, and a Hasp on the other; and the coals run down an opening in the waggon-way under the waggon, which has a box projecting off the dike of the Staith upon the water, under which the keels are placed which receive the coals; sometimes when there are no keels at the Staith, the waggons are emptied into the Staith-house, from thence to be loaded in the keels by barrows. If a waggon-man chance to break the axle of his wheel, so that his waggon falls, it is called a Cold-pye (or Coal-pye); and the custom is, if he can but get a *shovel-full* of coals carried in his waggon to the Staiths, he is paid for his Gait, otherwise not.

As the waggon is going back to the pit, the convoy is prevented from jumping out by a pin put through it, between the Ring-iron, and its end, called the Loiter-pin. The waggons are drawn from the pits to the Staith and back again, on the Waggon-ways. There are commonly two of these ways at a little distance from each other; that which is nearest to a level and on which the loaded waggon goes, is called the Main-way; and that on which it returns, the Bye-way.

As the horses belong to the waggon-men, whose occupation is not much more profitable than that of a common pit-man, it may be supposed they are not *excellent* cattle, nor in high order; yet such is the advantage of draft on these Rail-roads, that they usually convey a Newcastle chaldron (about 50 cwt.) to the river side. If the coal-waggon be supposed to weigh 10 cwt. no less than three ton is thus easily transported by one horse. The Staiths are solid buildings, two stories high; into the upper story the waggon-way enters, and a spout projecting over the river shoots the coals into the keels, or a trap door drops the coals into the lower story, whence they must be shovelled into the keels afterwards. These *keels* are flat-bottomed craft of singular construction and management. Their name is pure Saxon, as those barbarians invaded England in vessels, called by themselves and venerable Bede, *kiules* (kiulæ). They are very wide in the middle, and sharp at both ends, which are alike. They are rowed by *one* immense oar, with an equipoise fixed on its handle. At this one oar the whole crew (usually three men) exert their strength, while the captain or skipper, with an oar behind, steers against the effort of the great oar.

These *keels* are marked with nails at the head and stern, by which means it is known when they have their proper lading aboard. They carry ten Newcastle chaldrons (about 25 ton) to the shipping at Shields, and return up the river *Tyne* with the aid of the tide. The colliers (coal-ships) which convey the coals to London and elsewhere, are known to produce excellent seamen; and, as they run eagerly for priority at market, their sails and rigging have been gradually simplified and improved; in this they have served as patterns to all other shipping, and we may safely assert that all voyages are now performed in two-thirds of the time usual in the commencement of the present century. This immense benefit to commerce is wholly due to the emulation of the collier-vessels, and therefore finally arising from the fertile source of important improvements, the *Northern Coal Mines*.

The spirit of investigation which has lately been busied on the subject of Coals, and the reasonable expectation that the next session of parliament will produce some *effectual* regulations about the *metage* in the port of London, has rendered us solicitous to give all possible information to our readers on the subject.*

* See p. 325, vol. 2. — p.p. 115, 190, of this volume.

A P P E N D I X. No. II.

Home Field, three acres.— <i>Dr.</i>		Per Contra.— <i>Cr.</i>	
£. s. d.	£. s. d.	£. s. d.	£. s. d.
Kent 3l. ; poor rate 18s. ; tythes, compounded for at 4s. in the pound, 12s.	4 10 0	Produce of home field, twelve quarters barley, valued at 32s. per quarter	19 4 0
Ploughing for barley after wheat, three times, at 6s. per acre	2 14 0	Sold ditto, at 30s. per quarter	3 0 0
Seed, 10 B. at 4s. per bushel	2 0 0	Straw for fodder, valued at	3 0 0
Harrowing and rolling, at 6s. per acre	0 18 0	Sold ditto, two loads at 40s.	4 0 0
Weeding, at 1s. 6d. per acre	0 4 6		
Mowing (cutting) at 2s.	0 6 0		
Harvesting in the field, carriage of crop home, thatching reek, &c.	1 1 0		
Threshing out twelve quarters of barley, at 2s. per quarter	1 4 0		
Carriage to market	0 12 0	Home-field, creditor	22 4 0
	13 9 6	Ditto, debtor	13 6 11 6
		Balance	8 14 6 8 6

This specimen of a field account exhibits a considerable profit from a barley crop; to avoid tediousness, it is not supposed sowed with clover or the like. The difference in the two columns chiefly results from the above Horse Account, guessed at 12s. per day, but appearing really to cost but 11s. The five horses, and two men, are supposed to make two plough teams for barley on light land. The difference in the two prices of seed is supposed to result from a fluctuation of price in the commodity, the purchase of it, and the sowing. The creditor side is more easily understood; the farmer expected a higher price than he obtained. The articles to be entered on that side never being numerous, give opportunity to make distinct entries for the two columns.

ON THE DISCRIMINATION OF THRESHING MACHINES.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

YOUR last Blue Cover promised some farther examination of the Threshing Machine. Presuming on your impartiality, how can any inspection determine the essential matter of fact, *Easy and Clean Threshing*? I myself wish for a Threshing Machine, as, God knows, much improvement is *possible*, and apparently *attained* in some places by these Machines; but how am I, how are you, to determine? You see a Machine in a workshop; it turns easily, and appears well finished; but is that any security for the expenditure of 20 or 30l. on one article? I would propose, that the different manufacturers determine the event of their claims by experiment. If the various machines are brought together in one barn, and a few sheaves threshed by each of them, and, if afterwards the straw threshed by the one were put through the other, I think whichever extracted most grain from the straw in the second threshing must be the best, because the other left most corn behind in the first threshing, or beats out least in the second threshing. This double experiment would be quite decisive. If any manufacturer of machines were to offer such a challenge publicly to all competitors, it would look strong in his favour. The Agricultural Meetings at Wooburn might determine this momentous point. The only circumstance against the fairness of that decision would be, that the expence of carriage might possibly deter from the competition a poor manufacturer, whose merit might be far from contemptible. I like your Magazine, because I receive so much information from it, that it is become my most welcome monthly visiter, and therefore I wish you not to tarnish your usual accuracy, by pronouncing a verdict on any subject without *decisive* examination.

Compton, Devonshire,
Oct. 5th, 1800.

Your reader,

T. PATTISON.

OF THE INVENTION OF GLASS.

For the Commercial and Agricultural Magazine.

TILL the applications of a new discovery are gradually developed by time, its importance can never fully be known. Hence in its first origin it is often so much neglected, that the authors of many noble inventions enjoy but a dubious fame, and sometimes are even utterly forgotten. Printing and the mariner's compass are of contested original, and that of glass is in the darkest obscurity. An attempt to throw light on this subject, if not conclusive, may prove interesting to inquiring minds. Glass was probably discovered in some country esteemed bar-

barous by the Greeks and Romans; or the indefatigable collector of ancient knowledge, the elder Pliny, could have given a clearer account of its first origin. Neither has the Roman name of glass any affinity or derivation in the learned languages. The word *vitrum*, carries indeed a symptom of barbarous derivation in its first letter, which apparently is one of the awkward expedients for expressing the sound of the northern W in Roman characters. When Cæsar came into Britain, his ear determined, that the sound of the native's word for blue-dye, or woad, was best expressed also by *vitrum*. "Corpora vitro inficiunt*,—they stain their bodies with woad." Supposing the Britons to have known glass at that time, this synonym would seem to indicate some intimate connexion betwixt glass and woad †. Perhaps the combustion of woad entered into the rude composition of their glass; or perhaps the usual colour of British glass might consolidate this identity of names.

For that the Britons knew glass at a very early period is certain, from the many *blue beads* which have been dug up in the barrows about Stone-henge ††. It is true, that as now the inhabitants of the Friendly Islands, they might also receive this commodity from strangers, from the Phœnician traffic. But the rudeness of the beads (for they are not pellucid) and the unvarying blue colour of them, seem to indicate a native production. These beads were deposited at Stone-henge, not later than the Trojan war, as may be inferred with high probability from the following considerations: Though Homer's heroes were not unacquainted with steel, it was so recent an invention, that it was not in general, or indeed common use for their offensive weapons, which are mostly of brass §. But the superior edge of which steel is capable, soon after must have banished brass from that application of it. That the Phœnician trade with Britain (the Cassiterides) was then in existence, may be presumed from the greaves (the leg-armour) of Agamemnon, which are expressly said to be of tin. From a consideration of these circumstances, I argue thus. As the Phœnicians (as other traders) would send the most welcome commodities, in that age of eternal feuds and wars, they would soon import steel weapons. The beads at Stone-henge were found buried with brazen weapons †. Now, as these tumuli, (or barrows) were constructed in memory of their great warriors, and as the weapons therein are brass, the Phœnicians had not then imported steel. Therefore, its application to edge-tools was not then known by those

* Cæsar, Commentaries.

† Woad is a Saxon word of after times. *Woad* Sax. signifies a *weed*. *Καὶ τὸ ξόχνη* the famous *woed*, woad. †† Stukely, Antiq.

§ Homeri Iliad. passim.

† See Stukely. It is to be observed, that brass mixed with 1-10th part tin, bears a very tolerable edge; such are these weapons.

merchants: But it must have been known by them soon after the Trojan war; therefore, these British chieftains were interred with brass weapons at a period probably anterior to that war; therefore, the glass-beads found with them, were at that time known in Britain. Here is then a probability, that glass was known in Britain at a very early period*.

Another affinity betwixt glass and woad is also indicated by the etymology of our English word, *glass*. At first sight the similarity of the two substances seems to fix its derivation very happily from the Latin word for ice, *glacies*. But it may as probably be derived from *glasum*, which, in the language of the lower empire, is the word for *woad*. Our word *glass* is perhaps more immediately derived from the Welch word *glass*, which there still signifies a *blue-colour*, as well as *glass*. The Latin word *glasum* was therefore, perhaps, derived from the Welch Druid's language. Be that as it may, the double meaning of *vitrum* in the Latin, and *glass* in the Welch, both equally signifying *glass and woad*, is a combination of circumstances, against which the chance would be much higher than a million to one.

If this be assented to, it must be owned that glass-making probably had its origin among the Druids. Their language and religion extended over the British Islands, France, and the western half of Italy; for it existed in Etruria †. That these Druids were really men of some science, is evident enough from the frequent vestiges of their skill in mechanics, which could not be much inferior to the present quantity of knowledge in that science. It may be seen at Stone-henge, that they were masters of 30 or 40 ton weight, from the ponderous stones connected together by mortise and tenon, at 20 feet from the ground. As Stone-henge was evidently the grand cathedral of the Druids, and, as we are informed by Cæsar, that the gallic novices came over hither for instruction, we may fairly claim all the inventions of the Druids as belonging to our island. Thus by a happy coincidence with posterior facts, we see that Britain has invented glass as well as most of the good things which have benefited mankind. The sublime application of this is very mate-

* The Greeks are supposed to have known transparent white glass in the time of Aristophanes. He is supposed to mean this substance by the word *γυαλος*. But that was many ages after the Trojan war.

† Toland puts this out of doubt. They probably made the famous Etrurian vases, of the chemistry of which Mr. Wedgwood thought so highly. He (the first in that department of chemistry) affirmed, that these vases implied a knowledge far beyond his own. Pottery was nearly allied to glass making, and thus also makes for our argument. Their sciences were forgotten through the want of writing. It is silly to say, they *could* write, but they *would* not. If one generation would not write, clearly they would not teach their pupils, who, in the next generation, therefore indisputably *could* not write.

rial to the purposes of astronomy, is certainly due to Roger Bacon; Sir Isaac Newton applied it successfully to develop the mysteries of optics; Dollond, (acting upon a Newtonian theory) discovered the achromatic glass for telescopes; and we still hold undisputed pre-eminence in Europe, for all optical instruments. Thus the invention, the application, and the perfect manufacture of glass is all our own.

Magna virum mater, Britannia!

M. N.

ON THE MEANS OF ACQUIRING AGRICULTURAL KNOWLEDGE. IN ANSWER TO A. T. F.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

A CORRESPONDENT from Portsmouth, under the signature of A. T. F. in your Magazine for August last, seems desirous of an answer to the following request:—"A gentleman who wishes to acquire a practical knowledge of Agriculture, but whose avocations in life have hitherto afforded him only an opportunity of knowing it in theory, wishes to be informed by some of your intelligent readers, the best method he can pursue, and how long it may be requisite, to acquire a competent knowledge of the same?"

The desire of acquiring a practical knowledge of the most useful and important of all the arts of life, is beyond a doubt highly meritorious, and a signal proof of the happy and virtuous tendency of that mind in which it exists; but is it not at the same time a little extraordinary, that a gentleman, to whom the theory of Agriculture has been, in his own confession, a favourite study, should, so prepared, find himself at all at a loss how to commence an improving practice? Probably, however, the temporary confusion usually occasioned in the mind, by the mixed, busy, and pressing avocations of active life, may have rendered this a matter of some difficulty; and your correspondent is really in need of advice on the minutiae and detail of his favourite science, altho' he so well comprehends its grounds, and its general principles.—Having had, from my cradle, an enthusiastic attachment to the plough, and to the nursery of domestic animals, and in such pursuits spent the far greater part of my life, I will on this occasion do myself the honour to stand forth as your correspondent's steward or secretary, and in the smallest compass possible delineate for his future use the best practical sketch in my power, in the steady pursuit of which I have a right to warrant, from experience, he will arrive at a full gratification of his moderate and rational desires.

To a person well versed in the theory of Agriculture, it would be needless either to insist on the great use of previous theory, or to recommend books; but in this case, it will be absolutely necessary to commence with some one comprehensive *Remembrancer*, or TEXT BOOK, for which intent, next to your valuable Magazine, I should prefer the New Farmer's Calendar, lately published, not only on account of its being the latest publication, but the most comprehensive body of rural œconomy which we possess, and evidently the result of experience and practice.

By the question 'how long it may be requisite to acquire a competent knowledge,' it should seem that your correspondent is desirous of engaging in a kind of agricultural apprenticeship, previously to his embarking on his own account; supposing which, a couple of seasons, to a man already well grounded in theory, would be amply sufficient; but in my apprehension, such a tedious mode of initiation would be altogether needless, and a mere waste of precious time. The operations of husbandry require a revolution of many seasons for their completion. They are the business of a life, and, at an adult age, the present moment is the time for their commencement.

The first step to be taken by our future cultivator is obviously to provide himself with a farm, either by purchase or on lease, within such a convenient degree of propinquity, that it may be under his own personal inspection, at least thrice a week the year through. Intended as an amusing and experimental farm, in some degree, as a *ferme ornée*, we will suppose it to be comprized within the limits of 140 and 180 acres of pasture and arable; the latter to be from 5 to 7 score acres; and if there are a few acres of woodland, it will be not the less agreeable. To cultivate this farm in an easy and comfortable stile in the present season of general enhancement, will require a capital in hard ready cash, of from one thousand to eighteen hundred pounds, in proportion as it may be managed with or without a full stock of cattle.

The next step, absolutely necessary and very important is, to obtain a middle-aged bailiff, of good character and recommendation, who has been all his life practically conversant in the common business of husbandry, and the management of live stock; he ought to be able to write and keep ordinary accounts, to be perfectly submissive to orders, and, if a married man, so much the better, provided the proprietor does not constantly reside upon the farm. With such a man's practice, and the just theory and rigid inspection and control of a vigilant master, a farm may be cultivated, in the most complete stile, both with regard to pleasure and profit.

With respect to the general mode of culture, the cultivator (always supposing him a man unembarrassed by any considerations, and perfectly free to choose) may in the first place act

purely on the Tullian plan, depending entirely on pulveration, and the total eradication of weeds, without being over solicitous about manure, or troubling himself much with cattle. He may keep a stock of cattle sufficient fully to saturate his land with their manure; or he may, at his option, steer a middle course between both. The perfection of tillage is doubtless the Tullian system, aided by a full stock of cattle; but it then presupposes a thorough skill in live stock, and no aversion to the trouble and risk they induce. Another consideration is, the election between breeding and merely feeding live stock. To wave all these questions, the bare quotation of which is sufficient, we will suppose our gentleman farmer to keep a moderate number of every species of stock, as an amateur, and by way of acting up to the genuine spirit of husbandry. With a few strokes of the pen, we will furnish him with a score of horned cattle, as many of which to be milch cows as his convenience or inclination will admit, one breeding sow, and ten young stores, and three score sheep, ewes, or wethers indifferently.

It is almost needless to remark, that a man thus engaging himself from a predilection to the science, will surely commence by adopting all the late improvements in husbandry. The drill system therefore will be a *sine qua non*; the implements must all be orthodox, and a drill machine, threshing machine, tight, scientifically constructed plough, and cultivator, must be provided from some London artist of repute, together with ample instructions, and a good store of the useful virtue, patience, to set them a-going. An amateur will surely prefer oxen to horses for draught, and in consequence half a dozen or eight light and active Devons; or, should the soil be strong, more sturdy Suffex or Herefords, seasoned to work, must also be purchased. As to the methods of purchasing live stock in general, the proprietor must either trust to a salesman, constantly acting for him, or attend fairs and markets himself, accompanied by his bailiff. If he can brook the trouble, it will take no great length of time to become an adept. To those who are naturally fond of animals, breeding of horses is a delightful occupation; and altho' a common snare to the unskilful, most amply remunerates the labour and solicitude of the really initiated and intelligent.

Supposing the indispensable labours of the field proceeding in their proper diurnal routine, and every necessary article of stock, alive or dead, provided; the next considerations are, *repairs and yard-room, out-buildings sufficient, laying out and planting of orchard and garden, old and new fencing, planting of aquatics, or light wood, in every vacancy; draining; superinduction of valuable earth, and sinking of ponds.* It is of the utmost importance to remember, that although all these things cannot possibly be compassed at once, they should, each in turn, have as early a commencement as possible, on account of the immediate advantage

lost from the want of some of them, and the very considerable period of time which must elapse before we can receive the benefit of others. Who, for instance, would delay planting?

Should a head, or run of water, upon the farm, present an advantageous opportunity of *irrigation*, it would be laid hold of by an ingenious cultivator with avidity, as a source at once of agricultural profit and curious amusement. In this affair our farmer has no farther trouble on his hands than to purchase the pamphlet of the celebrated Mr. Wright, whose advice on the rare improvement of irrigation has so faithfully and effectually served the country. In short, our indefatigable and affectionate son of mother earth, by seeing every thing through his own eyes, and putting all to the unerring test of impartial experience, may, during the pursuit, and in the end, reap a most ample harvest of pleasure and profit; and I hope I may venture to say, that I have presented him with an outline, in pursuance of which he may institute for himself a school of instruction.

AGRICOLA VETERANUS.

METHOD OF EXTRACTING SUGAR FROM THE BEET.

For the Commercial and Agricultural Magazine.

SUGAR seems to form the radical or primary matter of many substances. It is found in great quantities in fruit, such as grapes, apples, pears; in roots used in the kitchen, as parsnips, turnips, &c.

Of all the vegetable productions which contain sugar, next to the sugar cane, the maple trees produce it in the greatest quantity. This tree, which grows in Canada, supplies the inhabitants of that rigorous climate with a sugar which makes amends to them for the want of the sugar cane.

Thanks to the discovery of Mr. Archard, of Berlin, Europe can find among the production of her soil the same recompence. We now present to our readers the best process with respect to obtaining sugar from the Beet Root.

The superior part of the crown of the root must first be taken away, being of no use. The root being afterwards well washed and scraped, must be cut and broken, and will produce juice of a violet colour, and very sweet taste. A large quantity of this juice may now be separated, the rest must be carried to the press. Thus 125 lbs. of Beet Root will produce 24 pints of juice. Being put into an iron boiler, this liquor must be placed on the fire, and made to boil for half an hour.

As soon as it begins to boil, a thick scum will arise; the violet colour disappears, and is succeeded by a yellowish colour; but the juice appears transparent no longer than it continues hot. When cold, it becomes thick, and will then operate on colours like an

acid. To separate the acid (found in almost all the vegetable substances that have any sweetness, but which, like acids in general, prevents the crystallization of sugar) after having taken off the scum, a quantity of lime water sufficient to effect a crystallization should be thrown in.

The liquor will then be much agitated, and a thin vapour will arise, which seems to indicate the presence of ammoniac and volatile alkali; but, as soon as the juice mixed with lime water shall begin to boil, it will grow transparent, take a yellowish colour, and will no longer grow thick when cold, and the taste of the Beet will disappear.

When reduced by the fire to a third part of its quantity, and cold, it must be filtered through a flannel cloth. The sweet liquor will pass through, and the remaining scum is scarcely any thing but a lime of the malic acid.

The liquor thus purified is again submitted to the action of the fire, until it forms a thick syrup, so that 24 pints of juice produce 8 lbs. of syrup of an agreeable taste.

To convert this into crystallized sugar, it must be put into a vase of a conic form. When exposed to a heat of 60 or 70 degrees of Reaumur, the surface is covered for some hours with a crystalline crust, which being broken is precipitated, and gives place to another of the same kind. This operation is repeated until a thick skin arises, which has no crystalline appearance, and the appearance of which denotes that the syrup does not contain any more saccharine matter.

In five or six days all the syrup will be run out, and there will remain a crystallized sugar of a coarse grain, and of a brown yellow colour. In the experiments made at Berlin, 3 lbs. and 6 ozs. of syrup produced 2 lbs. 4 ozs. of syrup, from which brandy may be distilled. A tenth part of the weight was lost by evaporation. From 8 lbs. of syrup, 4 lbs. and a third of sugar was obtained.

Lastly, to separate the crystallized sugar from the syrup which still remains, the whole must be put into a vessel in form of a sugar loaf, with its point open over another vase, keeping the whole in a heat of from 25 to 30 degrees of Reaumur.

ON THE CONDITION OF THE POOR IN ENGLAND.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

IN every country the object most interesting to humanity, is the existing state of the lowest order of society, who pass their lives not in the struggle for wealth or fame, but for the immediate necessities of life. In most countries the poor are left to their own exertions, and to the scanty bounty of the

benevolent; and if they suffer considerable hardships, humanity can do no more than drop a sympathizing tear. Benevolence has also been active in England; and more than 250,000*l.* per annum has been stated as the aggregate revenue of hospitals, endowed schools, and other charitable foundations.

It is evident enough, that a comparative poverty must exist in every community; but a *poor man* is a description, which, in different places, implies a very different portion of the comforts of life. The demand for labour must necessarily regulate wages: much work to be done in a country, and few hands, raises wages; more hands than work as necessarily lowers them. If agriculture, trade, or manufactures, increase faster than the population of a nation, the increasing demand for labour immediately raises its price. On the contrary, if the population increases faster than the work to be done, or if the population remain the same, and the quantity of work to be done decreases, wages fall to the lowest rate on which human life in that country can be supported; and when a bad season chances to raise the price of subsistence, no resource is left, and the poor must be reduced in numbers by actual famine. In the eastern world things are in this state; and a dearth of rice is never general without being fatal to millions. Such a horrid spectacle is so distant from the better state of Europe, that the relation of the effects of the famine at Calcutta seemed *incredibly* horrid; or at least we solaced ourselves with supposing that place *only* suffered such extremity. But it is certain it suffered rather *less* than the generality of the eastern world, since the English at Calcutta made great exertions (with considerable effect) to import rice for the natives. It is notorious, that in China the most strenuous efforts of labour are so inadequate to the maintenance of a family, that the laws permit parents to drown their children, and that the dire necessity for doing it is so common, that in large towns many thousands are so sacrificed in a year. In fact, where the average food produced in a nation can only just scantily feed its inhabitants, any supernumerary mouth must cause a death somewhere. It is more humane (they think justly) to drown infants than to starve adults. It may be observed, that the prohibition of all foreign trade, and of any novelty in manufacture, prevents the usual resource for an increase of population in China.

In an improving European country the case is much altered for the better; for instance in *Scotland*, it is many years since any famine operated so severely as to starve a considerable number of people*. At present, in the remote parts of Scotland, the labourer is not paid more than 5*s.* or 6*s.* per week, and he must breed up his family on this scanty pittance. Let it not be supposed, that

* In France a scarcity is even now fatal to many. See No. 12, page 9. to 13.

provisions are cheaper than in England? wheat is annually imported from England, and consequently must be *dearer* in Scotland by the addition of freight. It will be said, that they eat oat-meal instead of wheaten bread; but the oat produces so little flour, that the saving is not a sixth part. Winter greens (kale) and potatoes, in plenty, constitute riches to the Scotch peasant, who, having no resource beyond his own labour, must rest contented with his hard fare. But perhaps there is less difference betwixt the *poor man* in the East Indies and in Scotland, than there is betwixt the latter and a *poor man* in England. Common exertions in England will produce 10s. per week; and, in the case of many children, the poor-laws usually allow enough to make up 2s. per week for each individual in his household. But every thing is esteemed good only by comparison, and the English peasant is discontented, if to the finest wheaten bread he cannot add an annual porker, butter, and tea and sugar, the far-fetched products of both the Indies. This fortunate condition is to be ascribed to the increasing demand for labour, that is, to the rising prosperity of the nation.

Besides this general cause, the poor-laws are undoubtedly very beneficial to the labourer, and finally to the nation; since they operate as a bounty on population, and thereby encourage marriage in the numerous class, from which the great mass of population must necessarily arise. Ever since their establishment, the poor-laws have been an object of satire, with all those who expect perfection in a business of the most complicated detail, and under the direction of most numerous agents; agents who, serving the usual parish offices with the utmost repugnance, cannot be expected to be universally diligent or careful. Another class of complainants against the poor-laws, are those who, with much real benevolence are affected by every solitary instance of individual distress, without considering, that it is much oftener a merited punishment of vice, than a misfortune of the virtuous poor man. A humane heart deigns not to inquire into circumstances; to *appear wretched*, secures sympathy and assistance. But a minute of dispassionate discussion must inform us, that poverty by no means implies virtue. The motives to rectitude must be weaker as they are fewer, and the necessary ignorance of the poor can collect but few of the many incentives to morality. Those who have to employ the poor, constantly experience in them the machinations of minds which have been always intent on a single object; to procure large wages for the least possible work. Their laziness out of sight, and bad performance of task work, so constantly occurs, that usually a man, before he serves the office of overseer of the poor, has had sufficient experience to look on the poor in general as designing rogues, who, under various pretences, attempt to cheat the parish. Hence his demeanour towards the poor is sometimes

such as to offend many a spectator, who himself, probably, with the same experience, had not been at all less severe.

I am not inclined to enter extensively into the subject of the poor-laws; but I think a short discussion may convince many people, led astray by humanity and the general opinion, that the poor-laws are highly beneficial, and that it is very improbable any better mode of distributing relief can ever be established.

The sum expended annually in parochial relief, is known to be very considerable*, and generally supposed very sufficient; the administration of the money is much more usually complained of. But it is evident, in the infinity of circumstances that diversify human life, nothing but a discretionary power, and personal knowledge, can possibly adjust the relief of each pauper. Strength and weakness, sickness and health, the various age and capability of each child, the quantity and condition of garden ground, and a thousand other circumstances, evidently make any general legal directions totally impossible; and the nature of rustic labours renders it frequently inconvenient to collect and regulate the poor in a work-house: though that indeed is deservedly not a favourite arrangement with the benevolent. If it cannot be denied, that a discretionary power must be lodged *somewhere* for the regulation of parochial assistance to the poor, the only question remaining is, Whether at present such power be judiciously lodged by the poor-laws? My opinion is decidedly on the affirmative side; for which opinion I shall give my reasons in a short statement of facts.—For casual and immediate relief the power is lodged in the overseer of the poor, and (by custom) in most places, also in the church wardens. These men seldom want knowledge of the circumstances causing such applications for relief, and as they pay but a moderate share of such relief, have no improper motive on their mind for harshness or vexatious refusal, especially as such a conduct usually gives them the trouble of attending the Justice's meeting, besides a reproof when they attend, and an order for relief. Who are these parish officers on whom so much obloquy has been thrown? They are not selected; they are indifferently composed of the mass of mankind, and, as such, must fulfil parochial offices as all others are fulfilled; some well, some indifferently, some badly. But they are not without advice in the execution of their office; since, at the monthly vestry, applications are discussed, and all personal knowledge of the case of the applicants is carefully brought forward; thus a decision is formed by the collected knowledge of the parish, and the overseer is glad to act only

* In the parliamentary inquiry in 1787, it appeared that 2,100,000*l.* was raised annually throughout England; of which 1,500,000*l.* was actually expended on the poor. At present (in this dear year) more than double that sum will be paid directly, and indirectly, in allowance of corn cheap, &c.

as an executive officer of the orders of the parish parliament. He has a good reason for so doing, when in attending the frequent appeals made by the poor to the Justices, by pleading the decision of the vestry, he shifts the blame from himself. Thus the poor first apply to the discretionary power of the parish vestry, who, knowing the facility of appeal to the Justices, usually prevent it by allowing proper relief. If the vestry refuse it, the poor man appeals to the bench, and is as certain of a dispassionate decision, as by any other tribunal: as usually the Justices have no personal interest in refusing relief, while, on the other hand, they have the general feelings of humanity for assisting an apparent distress at the expence of others. Indeed it is generally allowed, that this motive too often influences them *too strongly* to afford relief sometimes to idleness, when it has well deserved the discipline of bridewell. Thus the parish officer, the parish vestry, and the bench of Justices, must all be inhuman or corrupted before relief can be refused to real distress; and the variety of circumstances must always render the relief of the poor a business of detail which requires personal knowledge; and this personal knowledge can *only* exist in the parish vestry. It behoves those who blame the execution of the poor-laws, to discover some practicable amendment. I am of opinion, that none can ever be discovered, and that those who talk about general regulations, extensive districts, &c. would distress the social and family feelings of the poor by a distant removal, and cause much more expence than the present arrangement under the much abused poor laws.

Queen Elizabeth established the poor-laws after a year of famine and distress; in her time wages were much higher than is usually supposed, insomuch, that the common soldier had his pay raised from six-pence to eight-pence; and we know, that soldiers always receive less wages than labourers: indeed eight-pence was the pay of the private soldier till very lately. Until the year 1796 wages had not risen much from the time of Elizabeth; whence we may be certain, that the increase of labour, and of labourers, kept an equal pace. The demand of men for the navy and army, and the high price of corn, joined in effecting a general rise of wages in 1796, and the present year has again had a similar effect. Considering the inevitable pressure of indirect taxes on the labourer, wages were probably rather *intrinsically* fallen previous to the present war.

The operation of the poor laws is rather of a distributive than of a bountiful description; the benefit of them to the nation very great, though the *mode* of its operation is not generally understood. Let us suppose the annual poor-rates, and the amount of wages throughout England added together in one total; I think this total would be less than the *sole* amount of the wages, if the poor-rates had not existed. For it cannot be

denied, that these laws very much facilitate the marriage of the indigent; who, without the prospect of parochial assistance, would be more backward to encounter the probability of a craving family. The obvious effect of numerous marriages is an increased population; and no sagacity is requisite to discern, that the demand for labour in a thriving country, must otherwise long since have raised wages to an amount wholly destructive of manufactures subject to the rivalry of nations where provisions and wages are already much lower than here.

In our estimate of the public charities of England, it is not usual to introduce the poor-rates, which amounts probably to *three millions* this year. The Roman laws have been justly praised, when (by the *jus trium liberorum*) they rewarded the parent of three adult children with certain honours and exemptions. In England, this immense inducement to marriage and social happiness, this national bounty on population, is much oftener blamed by ignorance, than praised by discernment; though a dispassionate consideration will prove to every thinking mind, that the English poor-laws form the happiest combination of policy and humanity that ever adorned the annals of legislation.

I remain, your constant reader,

A COUNTRY MAGISTRATE.

ON NON-CONSUMPTION AGREEMENTS.

To the Editor of the Commercial and Agricultural Magazine:

SIR,

IT gives me much pleasure to see the inhabitants of the metropolis, at length adopting the best (probably the only possible) expedient, for diminishing the price of the necessaries of life. I refer to the recommendatory papers stuck up by order of the different vestries, and proposing a *diminished consumption*.—The price of bread has undoubtedly had that effect already; but the other less necessary articles of food may soon, by this expedient, be lowered to a moderate price. But the grand difficulty is to make the proposed abstinence general. In a country town where every man knows his neighbour, and merited obloquy would pursue the offender against the general wish, such agreements and recommendations may be rendered very effectual; but in London, the multitude secludes the actions of every individual from public notice, more completely than if he were in a desert.

In this predicament, I fear, the vestries will fail in their attempt from aiming at too much; to reduce butter a third of its price, seems impossible at the commencement of the season of buttered toast. However, much might certainly be done: 3d reduction instead of 6d. might be accomplished, if knowledge directed the laudable zeal of the vestries. The fault

of their recommendation is, its being indefinite; they recommend *reduced* consumption. To enter into the feelings and calculations of mankind, it is necessary to propose the *quantum* of reduced consumption. Thus, if each housekeeper would resolve to purchase no more than half a pound per week for each adult person in a family, and for children in proportion, butter would soon be cheap enough, and the success of that abstinence would encourage the more strict adherence to public regulation in other cases. Half a pound per week is more than an ounce per day, and sufficient for one meal, for breakfast. If tea in the afternoon be felt necessary in these fearful times of scarcity, half an ounce must be allowed to be enough to waste at that meal. This makes but twelve ounces per week for each individual.

The utility of this limit is most obvious in the case of servants, who from constant observation in every family, consume a double quantity to any other persons. Indeed, it is natural enough, that those who live at the cost of others, should eat and gorge themselves with the best delicacies they can lay hands on in the house. Every one must feel, that, in such a situation, he himself would much relax from his usual economy. As great numbers of the gentry, with these locust attendants, will soon arrive in town, peculiar vigilance is requisite. The arrival of ten thousand servants would instantly raise the butter to 2*id.* per lb.

The number of servants always decreases in proportion to the civilization of a country. Augmented conveniencies require augmented expence in other articles; the manufacturer is maintained instead of the servant: we see none of those clusters of idle fellows behind and at the side of carriages, which are spoken of in the writings, and represented in the paintings, of the last century. Still, however, there are too many; a nation is not so much weakened by the death of a man, as by his commencing servant. In the first case, he produces nothing indeed, but he consumes nothing. In the second, he produces nothing, and consumes a double quantity. I have not heard of any thing with more pleasure for some time, than that a farther tax on these devouring locusts is in contemplation.

I remain, yours,

London, Oct. 13, 1800.

ONE OUNCE.

P. S. The dry weather which gave us *corn*, destroyed the herbage and manufacture of *butter* in Ireland. It is now dearer there than in England; no import is to be expected. Hence the present high price, and hence the greater abstinence is more essentially necessary.

SKETCH OF A GENERAL INCLOSURE BILL.

*(Concluded from page 169.)**To the Editor of the Commercial and Agricultural Magazine.*

SIR,

IN my last communication concerning the inclosure of waste lands, I proceeded so far as to suppose, that in case four-fifths in value assented to the measure, that either the Legislature might compel the remainder to come into the measure, or at least might make farther arrangements for the peaceable and equitable division of four-fifths of the common.

A supposed injustice as to situation, quantity, or quality of allotment, usually causes discontent and ill-will for some years, in a newly inclosed neighbourhood. In this difficulty, I have to propose an expedient perfectly new; as far as my information and knowledge of the subject reach. However, as it appears to me a complete *panacea* on this occasion, I imagine you will be pleased to forward it to public notice, through your useful magazine.

Instead then of allotting a distinct piece of land to this and that claimant, I would confine the duty of the arbitration jury to mark out the land with a furrow (or otherwise) into a competent number of portions, not inferior to the number of the claimants, and *in general* accommodated by various sizes to the various extent of claims. Let the various claimants then meet, and determine by majority of votes, whether the sale of these portions shall be private and confined to themselves, or a public auction for the whole world. For, on consideration, I have no doubt, that every one will see that some auction is the only mode of giving unequivocal and universal satisfaction. Suppose such auction (whether confined to the claimants or public) shall commence with the largest lot, and proceed downwards. The convenience to all must be considerable. Occupiers in opulent circumstances, probably wish for more land, and more room for their exertions. On the contrary, the occupier, or landlord, with an incompetent capital, or short of cash, will be much more benefited by the receipt of a present sum of money; which if he chuses *not* to bid for any lot of land, must fall to his share. For though it is extremely difficult to divide land to general satisfaction, even after the ratio, or proportions of such divisions are exactly known; with a sum of money the care is very different, as only requiring for each claimant the application of the *rule of three*; thus, supposing the whole common sold for 5000l; and that my claim, as a land-owner and occupier, founded on a payment of 1-10th of the parish rates, may amount (perhaps) to 1-20th part of the whole: the jury have only to take a slate, and say, if 200l. (the total amount of poor and church rates of the township) will receive 2500l. (half the purchase money, see page 168), what must an estate of 20l. (annual payment to these rates)

receive? The result is easy, 250l. If my circumstances have induced me to purchase any of the lots sold, it is then to be considered, whether the purchase exceed or fall short of this allotted sum: in the first case, I must pay the balance, in the other case receive it, from the gross amount of purchase-money. If I have not bought at all, I have to receive the total 250l. Nobody can complain of the superior accommodation of a neighbour. If their own judgment did not induce them to bid higher than he for that lot, they cannot afterwards (even in thought) complain of any hardship. It is evident, that those who mean to bid will vote for a confined auction; others for an open one. Majority in number and value to decide the matter. If these two criterions of opinion are on different sides, the jury may determine the question, or any other mode of determination may be appointed by law. It can never be a question of vast importance to any: for, as neighbours to the land can well afford to pay more for it than others, the competitors from other places would seldom be purchasers.

I confess to you, Mr. Editor, that among the various thoughts which float in the imagination, I have seldom been so well satisfied of the importance of any of my own, as of the above-mentioned. I can see no objection; but mine may be the blind partiality of a parent. The subject of inclosing waste-lands, is now agitated with a seriousness adequate to its importance; and the thanks of all their countrymen, as well as mine, will be justly due to any one, who, by objection, or illustration, will discuss this subject in the pages of your magazine. If any communication of this sort should be forwarded to you, whose insertion should be prevented by any nonsense, gross errors, or other cause, I should still acknowledge it as a favour, if you will forward such paper to my direction, sent herewith. Even from error and darkness, hints are sometimes to be collected.

RUSTICUS.

P. S. I mean to retain *specific allotments* to cottagers; joining as near as possible their habitations. This would not much puzzle a jury, or offend greater claimants.

ON THE UNUSUAL SCARCITY AT NORTHAMPTON
MARKET.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

AT our market last Saturday, I heard several corn-buyers say, they had attended that market forty-five years, and had never seen such a one before; they could always buy corn at some price or other, but that day they could not buy at any price, the samples being so few, and many of the farmers being purchasers for feed.

The principal inhabitants of this corporation have very laudably subscribed upwards of one thousand pounds to assist the bakers in purchasing foreign corn, which I am fully persuaded will be the only means to reduce the price in this, and other markets. I believe there never was a year in the memory of the oldest man living, wherein the old wheat were so nearly exhausted at the end of harvest, as the present; which there can be no doubt is the principal cause of the present high price of the new; for there is a wide difference betwixt a man that goes to market to purchase an article from necessity, and one that goes to purchase from choice, or as opportunity serves; the man that buys from choice, is most generally shy of the seller; if he makes a bargain, it must be upon his own terms, he having a stock in hand to serve him several weeks, and therefore is not obliged to buy immediately, but can take the advantage of the market. The case is quite different with the man that buys from necessity; his granaries being empty, and not having goods to serve his customers, he is obliged to comply with the seller's price through fear of missing the opportunity; and not buying at all, which, if he does not, his men must stand still, and the trade will be turned against him. When the price is high, and the article scarce, he rarely buys more than will serve him until next market day, hoping the price will be lower before he lays in a larger stock. That this is the case, is well known to every rational man, that has been for any length of time in the habit of attending public markets.

The old wheat being so nearly exhausted, there needs no mathematical calculation to prove the cause of the great demand for new wheat before the farmers have finished sowing, and can get into their barns to supply the markets. For no rational man can even *suppose*, that that imaginary herd of beings, such as monopolizers and forestallers, have already got the greatest part of this year's crop into their hands, and withhold it from market on purpose to raise the price. If such beings do exist, their motive of action is to buy *low* and sell *high*; therefore, it is their interest that the price of corn at this time of the year, should be *low*, that they may get it into their hands before they raise the price. If this be admitted, there needs no farther proof of the non-existence of such men than the present high price of corn; and that the only means a wise and vigilant Legislature can take for the present, will be to set examples of economy, and encourage a large importation of the necessaries of life from every quarter, and to endeavour to prevent a scarcity in future, by loosening the bonds of prejudice; to do away the restrictions of the plough, by making wise and effective laws for the immediate cultivation of the waste lands; to encourage the introduction of the best constructed implements for the abridgement of animal labour, by which means the furze-bush and bramble may be

rooted out of the land to make room for more useful vegetables, that we may lay in a stock of provisions in the more favourable seasons to supply us in these years of barrenness and scarcity, to which in this uncertain climate we are always liable.

What man is there that is acquainted with the face of this country, when he hears the cries of the poor for bread, but must regret that supineness, negligence, inattention, and (worst of all) that prejudice has prevented the waste-lands from being brought into cultivation *in proportion as the arable land has been laid down to grass*; which would not only have kept down the price of corn, but that of butcher's meat, and consequently of all the other necessaries of life.

I am Sir, yours &c.

W. LESTER,

Patent-harrow and Chaff-Engine Manufactory,
Northampton, Oct. 20, 1800.

THE GRAPES OF CORINTH.

There is not perhaps such a general ignorance of the nature of any article of house-keeping consumption, as of the fruit which is the distinguishing ingredient of English Plum-pudding; indeed, the unaccountable misnomers of *Plum-pudding*, *Figged-pudding*, and *Currant-pudding*, may well mislead, though it is certain enough that dried Grapes (Raisins) of various kinds are intended by all these names. We extract an account of the small kind usually called *Currants*, from a recent publication of *Felix Beaujour*, late French Consul in Greece. This volume is entitled, "A View of the Commerce of Greece." It has been translated into English, and is a very circumstantial account of the general interests of Commerce in the Mediterranean.

THE Corinthian vine, *vitis Corinthiaca*, or *apyrena*, which Wheeler has mentioned in his Travels to the Levant, is a shrub which rises to the height of from four to five feet.— This vine is consequently lower than ours, but is thicker and more woody. It puts forth also more roots and more shoots; its leaves are still larger, more obtuse, less deeply cut, of a more delicate green at the top, and more pale at the bottom.— The fruit which it yields, and which Linnæus has denominated the *small Corinthian grape*, *uva passa minima*, or *passula Corinthiaca*, has berries similar to those of the currant or elder. At first it is green, then of a deep red, and, when it is ripe, it becomes of a dark purple colour; it is sweet to the taste, and, at the same time, as tart as the Muscadine grape when it is dry or too mellow; but, when it is fresh, it has an agreeable acidity. As it has fewer stones, and is more juicy than the common grape, it is in great request among the amateurs, who eat it by bunches, and crush the stones between their teeth.

The first grapes of Corinth that appeared at Marseilles and the other great marts of Europe were brought there, towards the commencement of the last century, from the road of Co-

rinth, and for that reason were called *Corinthian grapes*. They were cultivated at that time on all the hills, which, from the centre of the isthmus, sunk gradually towards the two seas, and which, out of all the ancient cultivations, have retained only those fine clusters of cypress, in the midst of which Diogenes was basking, in the finest sun that ever shone, when Alexander came to disturb him.

Is the Corinthian the common grape degenerated, or, if you please, ameliorated and brought to perfection by being cultivated, or does it constitute a distinct species? This is a circumstance which my endeavours have not yet permitted me to ascertain. What I know is, that this kind of fruit is not indigenous in the Morea. No writer before the seventeenth century has mentioned it; and it appears, from the researches which I have made, both in Greece and in the Ionian isles, that the Corinthian grape arrived from Naxia*, in the Morea, towards the year 1580. There is no plant, it is true, to be found at this day in that island of the Archipelago; but it has also disappeared from the territory of Corinth, although it is very certain that it was cultivated in that place when in the possession of the Venetians.

It is cultivated in our days in the territories of Vostitza and of Patras. It succeeds on the whole coast of Achaia, and on some parts of the opposite coast of Ætolia and Locris. It has disappeared on the shore of Elis, and it has succeeded on the opposite shore of Zante †, and in the islands of Ithaca and Cephalonia.

The soil best adapted to the Corinthian grape is a dry, light, and flinty soil. It does not delight in a thick, moist, and close earth; whence it follows, that the elements, requisite to yield the best vineyards, are flints mixed with a sufficient quantity of clay.

The analysis I have made on different soils, and in various parts of the Morea, produces to me, on eight parts, five parts of flinty earth, two and a half of clay, and one half of calcareous earth.

Our vines delight in situations that turn to the south and to the east; they prefer the hills to the plains. The Corinthian vine, on the contrary, prefers the plains to the hills; and, although it delights, as ours does, in being sheltered on the south, yet it prefers a westerly situation to every other.

It prefers the vicinity of the sea, and avoids mountains and wild prospects, and never could grow on Mount Cyllene; and,

* The ancient Naxos.

† Zacynthus anciently; these three islands constituted the dominion of the famed Ulyssa. E.

although the banks of the Alpheus are delightful, yet, as they run between high mountains which intercept the salt air of the sea, this is the reason assigned why the vineyards situated on the banks of that river languish. What renders this conjecture probable is, that they succeed better on the neighbouring plains of the ancient Elis.

The culture of the Corinthian grape is, however, confined to the territories of the Morea and the Ionian islands; but I think that it might be introduced with success into the other countries of the south of Europe. Of all those through which I have passed, there is none, in my opinion, better adapted to the culture of it than the soils of Syracuse and Cadiz. There, the same temperature and the same climate as in the Morea; the same vicinity to the sea; the same soil, light, friable, and stony; all, to the very prospects, to the agreement of, and to the colours of nature, appear to be the same on those different coasts.

A country that might also be equally well calculated for the same culture would be, perhaps, Provence, or at least that part of the eastern division of that department which extends, as it were, gradually to the foot of the sub-Alpine mountains, and the prospect of which, beheld from the sea, presents the most magnificent amphitheatre in the whole world. That district of France enjoys the finest sky and the mildest temperature.— It presents shelters every where, and happy situations. The olive-tree, the fig-tree, and the pomegranate-tree, grow there, as in the Morea, by the side of the vine. The wines of *La Gaude*, which are gotten there, and which are so sweet, and those of *La Malgue*, which are so generous, resemble those of Argolis and Laconia, so celebrated among the ancients, and the *Cassis*, is preferable to the *Malmsey*. When we pass successively through those two countries, we think that we have changed neither climate nor place. The same perfume of orange-trees embalms you at Nice as at Corinth: you meet again with the orchards of Sycione in those of Grasse; the gardens of Patras in those of Hières; and the vale of Tempé in that of Solliéz.

The cultivation of the Corinthian vine has some processes in common with the culture of our vine, and it has others which are peculiar to itself. Re-peruse Columella, and you will find that these processes, after the lapse of two thousand years, still resemble those of the ancients.

When a person wishes to lay out a spot of ground for a Corinthian vineyard, he prepares in autumn the soil destined for that plantation. He must first break it up, then dig it up with a mattock, in order to root out ill weeds, and, lastly, level and smooth it.

He is next employed in the choice of plants or *slips*, which are called *maglioli* here. The slips are both cut and planted in

Nivôse *. They are usually taken during the time of cutting from the finest vines, and from the vineyard of some neighbouring district; for, those that are taken from the adjoining vines never succeed.

Those vines, which have the fewest leaves in autumn yield the best plants, because those plants shoot forward most rapidly in the spring. The inhabitants of the Morea say, to express the property of those plants, that they are *too ripe*. The epidermis, or outward skin, ought to be somewhat black, and to emit a liquid when they are cut. If they are dry, and of a faded green, they are thrown aside.

The Corinthian vine may be planted in autumn and in winter, but it is usually planted in this latter season: it is moreover requisite that a dry season should be selected for the planting of it. When it is rainy, the plants that have been procured are laid up; and, for that purpose, they are put together in bundles, and buried in the earth, care being taken to water them, lest they should die.

When the time of planting them arrives, there are dug, in parallel lines, along a cord, which regulates the laying out, and the length of the line, trenches, which, being four feet and a half in depth, and one foot and a half in breadth, ought to be six feet in length. Between each trench and line there is a distance of six feet, so that, when the shoots first appear, the plantation resembles a superb chess-board, in which the green, proceeding from the young plants, rising uniformly among the lines that intersect each other at right angles, forms a most agreeable prospect.

The slips ought to be dry when they are planted. Four of them are put in each trench, and are ranged at the two extremities two and two, the *head* and *tail* corresponding together at equal distances, or forming together angles more or less acute, according to the nature of the soil or the degree of curvature given to the slip. By the *head*, the inhabitants of the Morea understand the foot of the plant, and by the *tail* the smallest end. This end ought to be long enough to come out of the trench with two eyes at least, and three at most. The slips which are of the preceding year's growth are the best, but those also are made use of which are of that year's growth. Among us, we call these *bens* and the others *capons*.

When there is reason to apprehend that any plant has not succeeded, three are put, instead of two, at the extremity of the trench; but, in this case, care must be taken to cut the third when the two others have shot forth. With this attention, we may be certain that there will be no vacant spots, and that the lines will be well stocked.

The trenches are then filled up with the earth that had been

* December.

taken away; and, when the whole of the vineyard-plot is thus filled up and planted, it is levelled, then dug very deeply with a mattock, and the earth is divided, in order that it may thoroughly imbibe all the vapours of the atmosphere. The vapour exhaled from the fig and the pomegranate tree is, it is said, favourable to the Corinthian vine, and that is the reason why it delights in the vicinity of those trees.

The practice of planting the vine by *slips* is most generally followed in the Morea; but that of planting it by layers is utterly unknown. A fine slip of an old stock is selected, which, lest it should be broken, is deposited gently in a hole, 15 inches deep, care being taken that the end, which is not buried in the earth, appears with one eye. When the slip has taken root, it is separated from the stock. It is thus that I have seen, in Provence, old vine-stocks cut into layers, and set in the ground, to fill up the void spaces in the *rows*. In the same manner, in many other provinces of France, are treated the muscadine, the chasselas, and other valuable grapes.

The practice of *proving*, which consists in interring an old vine-stock with its finest shoots, in order that it may grow young again in the bosom of the earth, is not known, and will never be adopted.

As soon as a field is laid out into a vineyard-plot, the plough enters it no more: all the operations are performed with the hoe*.

The first and most necessary operation is performed in Pluviôse †. The roots of the Corinthian vine delight in spreading over a friable soil, and which easily gives way; but this friability is owing to those salutary operations performed in Pluviôse, which separate the surrounding earth, and which procure also a free filtration to the rain-water, which the stock absorbs eagerly, and which cannot penetrate to its roots, when the earth has been much hardened by the winter frosts.

The other operations are performed in spring and autumn, and must be repeated, if a young shoot is wished to shoot forth vigorously. The second operation is usually performed before the vine is in flower, and the third when the grape is arrived at its full size, but unripe.

The vineyards that are planted with Corinthian grapes, demand, in their youth, extreme attention.

When the plant puts forth, in the first year, young shoots, they must be wholly cut off, because they would only exhaust the stalk, which requires then to be strengthened.

* The Greeks are unacquainted with the use of the spade: the hoe is made use of for every operation. Lord Somerville's late publication describes such a hoe.

† From January 20 to February 19.

Only one should be left the second year, in order that that shoot may receive its full growth.

The third year the operation of lopping commences, which is absolutely necessary, in order that the vine may not shoot forth too much wood, and that it may not give to the branches the sap or juice destined for the fruits. The operation of lopping must be performed only on the finest shoots, and the others must be cut off.

During the first year of lopping, only one single eye is left.— The following years it is lopped with more or less rigour, in proportion as the vine has more or less strength. To the strongest are left three eyes, and two to the others.

The time of lopping is the month of Pluviôse *. That operation is performed sooner or later, according to the situation and climate. The general rule is to perform it 15 days after the vine has budded. A too early or too late lopping is attended with inconveniences: when it is performed too early, the vine is liable to freeze, and, when too late, the vine shoots forth before the wound is closed, and it then exhausts itself in tears.

In order to perform the operation of lopping well, two fingers breadth of wood must be left above the upper eye, and be done so that the notch may be on the side opposite that eye, lest the tears that proceed from that wound should injure it.

It is the fourth year in which the branches begin to be laden with fruit, which must be suppressed, lest it should exhaust the sap: they must also be suppressed during the two succeeding years. The stock, during that interval, receives all its growth, and only requires afterwards to be strengthened. The vine-dressers then begin to prune and underlay it.

They prune, or, as it is called, they nip off, the needless buds of the Corinthian vine, by cutting away the worst shoots. They then leave it a greater or less number, according to its vigour.— If you leave it too many, the tree would exhaust itself in an unprofitable luxuriance; if you leave it too few, the stock would die from a superabundance of life. Three or four shoots are left to the finest and most vigorous vines, and two or three to the rest.

When the vine has shot forth, and has been nipped by the frost, hopes may be entertained that it will shoot forth after-buds. Particular care must be then taken not to touch the wood that is to bear these buds; but, when the vine appears to be entirely frozen, all the old and new wood should be cut off, without any regard being had to the stock. This operation renews the plant, and gives it a new existence.

After the lopping, and pruning of the needless buds, the vine is here put in *perches* *. That operation is performed by bow-

* From January 20 to February 19.

† Props, or Espaliers.

ing down the shoot, and by attaching it, thus bent, to the vine-prop; but, in the greater part of the vineyards of Greece, the vines are suffered to creep, unrestrained, upon the ground, and to make use of each other for a support.

The practice of *earthing* the vine is also followed here. The *genius* of the vine being to extend its roots along the surface of the soil, it soon exhausts the ground, which surrounds the stock, of all its nutritive salts: by putting dung to that stock, the tree is restored to its pristine vigour.

They engraft under ground in the Morea, as we do in Bour-gogne, in order that the graft, adhering to the root of the stock, may at the same time take root in the neck of it. The best time for engrafting the vine is when it is in sap.

The processes I am about to mention are the most generally followed in the Morea. They are followed also, with some variations, in all the places where the Corinthian vine is cultivated. I will not say that these processes are the best; all that I can assert is, that I have followed them myself in my country retreat at Pella, and that my Corinthian vines have taken very well.— I know not whether the soil will be favourable to them; but I hope that it will. I shall thus enrich, after my way, the country that produced Alexander; and, if I do not myself eat all my grapes, I shall at least have the pleasure of seeing them taken away by the grandsons of Antiochus and Selucus, who certainly never have any idea of the *wonderful fortune* of their fires, when, covered with tatters, and with naked feet, they come to sport and play in my fields.

The use of manure is utterly unknown here; but it is used at Zante, where the Corinthian vine is better cultivated than in the Morea. The vine must be manured when it is exhausted, and that is known by its turning yellow. It must not, however, be manured too much; for, that would give the vine too much vigour, and it would produce grapes, which, in order to be forward, should continue green.

I knew two husbandmen of Zante, who used to dig, in the autumn, at the foot of every vine-stock, a small trench, which they filled, the one with the husks of grapes, after they had undergone the last pressing; the other with salt mixed with ashes: and those two husbandmen constantly had, to my knowledge, the finest grapes, and the most plentiful crops.

The Corinthian vines bear from the seventh year, but their chief produce does not commence till the twelfth. They usually last eighty years, and will last a hundred, when they are well kept. The troops of Moroufini and of Schulembourg have eaten grapes, which are still in full produce.

These vineyards have only one enemy among all the destructive insects; and that is a small worm named *scatari*, which is five lines in length and two in diameter. It is somewhat

black, and is provided with a double saw and strong nippers. During the winter, it continues under ground, and attacks the roots, which causes the vine-stock to dry up. It ascends the branches in the spring, and consumes the young buds; and, unless it is killed or removed, in eight days it will have devoured all, and the mischief it occasions is irreparable. But this insect, that thus preys upon the vine, multiplies itself very little, because it is born and dies the same year. During its short life, it undergoes various metamorphoses. At first, destitute of wings, it pushes them forward in the spring, in order to run with more rapidity over the vines: it consumes every thing, leaves and flowers, and at length dies from being extremely bloated and swelled up. The inhabitants of the Morea have a proverb, which says, that "gluttons die of the dropsy, as the scatarî does."

The Corinthian grape arrives at maturity, and is eaten, in Thermidor*; but the vintage does not commence till Fructidor†, when it has changed its red into a purple colour. The gathering of them is performed by women or children, and is done by small knives, bent at the point. The clusters are put into baskets, and are carried to the floor, which is always placed in the midst or at one of the extremities of the vineyard.

The floor has the form of a long square, but somewhat inclined, in order that the rain-water may run freely off. This water is received in small canals, which carry it out of the vineyard. The bottom of the floor is of earth; but it is so well beaten, that it presents a surface smooth, hard as flint, and glittering. This consistency and this polish are given by means of cow-dung, mixed with bullock's blood and blades of straw, the whole of which is tempered in water. The amalgam of all these substances yields a thick viscous liquor, which, being poured over the surface of the floor, and warmed by the heat of the sun, forms a thick, but compact and smooth, mastic, which has the cleanliness and appearance of a varnish. This varnish serves for a double purpose: in the first place, it prevents the earth from mixing with the grapes; and secondly, it causes the grape to dry the sooner, because it attracts and preserves the heat.

The grapes are spread over the floor, bunch by bunch. They are left there night and day; but care is taken to turn them every twenty-four hours.

In a fine season, the grapes dry in eight or ten days: but they require twenty or thirty in a rainy season. When the rains are of any duration, the gathering is lost; and, should the grapes be preserved, they lose their quality, and fall considerably in price. The Corinthian grapes, on the contrary, are sold for as great a price as the wines of the consulate of Opimius were.

When the grapes are dried, the stalks are separated from them

* From July 19 to August 18.

† From August 18 to September 17.

by small rakes, made of the stalks of the *lixium Africum* of Linnaeus: they are properly cleaned, by being extricated from all the extraneous substances which have been mixed with them, and are put into baskets, to be conveyed to the magazine. These magazines, which are call Serails, are buildings of a peculiar construction; they are opened hermetically, and have only one opening above, and one entrance below. This door is opened only at the time of sale, and it is by the opening constructed on the top, that the grapes are thrown in, and heaped up till the magazine is full. The grapes, thus pressed by their own weight, and also by extraneous bodies, emit a viscous liquor, by the aid of which, they unite so closely together, that it afterwards becomes necessary to make use of a shovel, with an iron point, to detach pieces from this mass, when the Corinthian grapes are to be put into casks. They are then stamped upon with naked feet, in order that they may occupy less room, and that being deprived of the external air, they may be preserved better in their passage. With these precautions, they may be carried all over world.

There is a pleasant wine extracted from the Corinthian grape, which is as strong and sharp as brandy; but the quantity it yields is so small, that no vineholder is willing to send his grapes to the press. Besides, that wine is liable to turn sour, and will not bear exporting. The Corinthian grapes are exported, in their natural state, to the north of Europe, where they are made use of in puddings. The English, in particular, consume a prodigious quantity of them. In France they are made use of only in preparing medicines, and in Italy they are used only in ragouts.

The Corinthian grape was formerly considered, in the English commerce, only as an article of luxury; it is now an article of economy. I have been assured, that it is made use of in the distilling of brandy, and also, in many manufactures, to cleanse wool and silk. If this be true, the culture of the Corinthian grape has been brought to greater perfection; and we ought to desire it for ourselves, because that article might open a new branch of commerce, of very great importance to our establishments in the Morea.

I know not for what reason the Marseillais have never wished to meddle with this branch of merchandize, notwithstanding the advice of friends, and that of interest, more powerful still. It is the people of Leghorn and Triest, who buy up the Corinthian grapes by commission, upon the spot, on account, for London, Amsterdam, and Hamburg. Why should not the French endeavour to take this commission out of the hands of the Italians? I have always thought and written, that we acted very wrong in not supporting our establishments in the Morea. But we are here only an imperceptible point, and that point has escaped the

eyes of the government. It is, however, by neglecting trivial things, that the wisest establishments are ruined. All our factories at Patras, Modon, and Navarin, have disappeared, and those which still subsist at Naples and at Coron, are brokers rather than traders.

The gathering of the Corinthian grapes, in the Morea, may be estimated, at a medium, at ten millions weight. Patras and its territory produce four millions; the district of Vostitza yields two millions; and the four other millions are gathered on the coasts of Achaia and Ætolia; as at Xilocastro, Anatolico, and Messalongi. The country consumes a small quantity only of these grapes, and the sale of them may amount, at an annual medium, to eight millions, which makes the eight-tenths of the produce. England contracts for five-eighths; Holland, the United States, and Denmark, for two; the other eighth is divided between France and Italy.

The Corinthian grapes have been sold these latter years at the rate of eighty piasters* the millier, or thousand pounds, including every expence. These expences are enormous, and almost double the price of the first purchase. As there is no settled tariff in the Turkish custom, you are at the mercy of a receiver, whose profession is to plunder you. The duty on re-exportation must be calculated at least at the rate of six per cent. and it rises to ten when he oppresses, and extorts money from the traders.

Patras is the chief mart of the Morea for Corinthian grapes; but, as the receiver of the customs at that port of the Mediterranean treats most unmercifully the vessels that come to load there, a resolution was taken, some time since, of causing these vessels to stop in the road of Anatolico, situate at the mouth of the Achelous. Anatolico is founded on piles, in the midst of small lakes, and is Venice in miniature. Its road, formed by the islands Echinades, is ample and safe, but it is strewn with mud, which is deposited there by the river, and is not more than three or four feet in depth. On this account, it can be navigated only by small boats, that draw but little water; and, in order to convey the grapes on board the vessel, small boats are made use of, called Monoxylons, which consist of only one trunk of a tree, similar to that of the first navigator. Their cut, shapeless as it is, is slender and long, and they fly across the water with great rapidity. When the sea is calm, you can see all these boats passing with the rapidity of lightning from one lake to another, and sometimes they adventure even into the middle of the gulph. But, when the wind begins to blow strongly, they disappear as suddenly as a swarm of bees. The vessels that take in their lading at Anatolico are mostly Danish. Their ample size and beau-

* Nearly equivalent to 16l.

ful appearance form a most striking contrast with the monoxylous; and this contrast presents to the observer the two opposite extremes of the art of ship-building; that of the infancy of societies, and that of bringing them to perfection; a faithful representation of the civilisation of Turkey and of Europe. D.

OBSERVATIONS ON SIR J. CHILD'S PLAN FOR RELIEVING
THE POOR.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I HAVE read with much pleasure and satisfaction the plan of relieving the Poor, devised by Sir Joshua Child; it is a subject in which every Englishman must feel himself deeply concerned; some on the score of interest, others on that of humanity. To the first of these I address myself—the existence of the evil is admitted, and the end of my exertions will be answered, if I succeed in pressing it upon the attention of those, who have it in their power to promote so laudable an undertaking: if they are determined to shut their eyes against conviction, the crime is with them; an individual has done his duty. I shall suppose, that the persons to whom I am speaking have read this plan, and I will, as far as I am able anticipate the probable objections to it. In the outset of the work there will be many considerable expences incurred, buildings must be erected, machinery must be purchased, raw materials procured, and many other unavoidable expences, before the public can receive any return for what they expend. It follows therefore, that the commissioners must possess a power of increasing the rates of the respective parishes under their control, in order to defray this; and it is in fixing the share of each parish, that I shall meet with the most formidable opposition.

It must have fallen within the observation of most people, some time or other, to have seen the very great difference there is, in the mode of conducting the affairs of one parish, to which exists in another; it will be frequently seen in two that adjoin, and where, for example, the number of poor shall be equal, the rates of the one shall exceed 150l. per annum, whilst those of the other shall not amount to 50l. per annum. The objection of the parish that pays 50l. per annum to the being consolidated with the one that pays 150l. per annum, is well founded: they argue thus; we have at a considerable expence, and with much trouble, established an employment for the poor, by which our rates have been reduced from 150l. to 50l. per annum, while you have, by your indolence and inactivity, suffered your rates to increase exactly in the proportion in which ours have decreased; and are we to be united to an incumbrance?—no; we cannot endure it! they cry; let every parish maintain its own poor!

The clamour becomes universal, the measure is thought to be unpopular, and is consequently dropt. It is, Mr. Editor, to resist this overwhelming torrent, this deluge of popular opinion, that I devote one half hour to my pen, and to prove that the parish that would at first sight appear to be so much injured, will ultimately be benefited; and it is for this plain reason, that when your poor are properly managed, and regularly employed, instead of being a source of trouble and expence, they will be a fund of riches, and consequently the parish that brings most of them into the stock, will add most to its importance and wealth.

It will not perhaps be apprehended by every one how much the division of counties into small parishes has tended to embarrass the exertions of individuals, to increase the miseries of the poor, and to produce endless litigations in our courts of law; it is this diversity of interests, this chaos of rights, that leads to continual disputes about the settlement of a pauper, and in the adjustment of which, perhaps as much money is expended as would maintain twenty*.

Is there not absurdity on the face of it? Would not a foreigner believe, that this poor person driven from one place, removed to a second, taken back to his first, and thence perhaps carried to a third, was infected with some pestilential disorder, or that he was a felon; would he believe that it was our countryman, and that his crime was *poverty*?

Now, Mr. Editor, I have one more question to ask, and I have done. Which costs the country most, our soldiers and our sailors; or our poor; and which is best fed, and best clothed? The cause is as obvious as the answer; the one is under the direction of a general regulation, the other is governed by 10,000 supremes †. The man who succeeds in his cause, shall be rewarded with Horace's character of a just man;

“ The man who boasts integrity of heart
 “ Sticks to his text, with honour acts his part,
 “ Fears not the noisy clamours of the crowd,
 “ But over vulgar errors triumph's pour'd.

Lib. iii. Ode 3.

I am, Mr. Editor, yours &c.

PAUPER.

Charmouth, Dorset. Oct. 13, 1800.

* Above 53,000l. per ann. is expended in England in litigations concerning settlements of paupers. E.

† Our correspondent does not sufficiently advert to the higher pay, and abler bodies of sailors and soldiers. They are also provided with food *gratis*, or at a fixed low rate. E.

ON SOME LATE IMPROVEMENTS IN THE MANUFACTURE
OF CORDAGE, FOR NAUTICAL PURPOSES.*For the Commercial and Agricultural Magazine.*

THE common method of making ropes, which has been hitherto in general use, is manifestly erroneous. A considerable body of yarns of equal lengths are stretched horizontally, brought together at the extremities, and then combined or united by a circular turn at each end. It is evident, that as this circular motion converts them into a cylindrical form, the yarns will subtend unequal radii; the outside ones will circumscribe a larger circle than the inside ones. The bearings of the several yarns must, therefore, be unequal, and that they are actually so, will clearly appear on the cylinder (formed by them) being unravelled, or to use a technical expression, *rove back*. It is to this inequality of the bearings of the several yarns we are to ascribe the ragged appearance of crane-ropes, and of cables and other large ropes for nautical purposes; their external yarns are broken, while their internal ones are fresh and unstrained.

To correct the errors of this common method of making large ropes and cables, which may be called the *wringing* system, two distinct new methods have lately been introduced, differing from that in common practice, as well as from each other, and which, by the inventors and patentees, are called the winding and the salvagee or sub-division system.

The former, which has been adopted in the royal dock-yards, consists in yarns or divisions of yarns passing through a number of holes in a stationary board, which surround a central one, and then being acted upon by a circular turn on their axis at the extremities, so as to be *rove-up* to the utmost degree of tension, or, as the technical phrase is, to their *full-hard*. This twist is much more cylindrical than that produced by the common method; the indents and distortions are inconsiderable; the twist, if carefully made, will form a regular and smooth cylinder, and possess in this state, the greatest possible strength. For it will hardly be disputed, that a combination of yarns, united in parallels to each other, have the greatest power from their central direction to suspend weights; and, that when converted into spirals by a rotation on the axis of a cylinder, they lose or diminish that power in proportion as the spirals contract, and retain the more of it the less they deviate from the vertical direction.

This new system is, however, liable to one strong objection, which is, that the cylinder thereby formed, being nearly dormant, and with little more re-action than to unfold itself, recourse is had to a circular turn on its axis from the extremities, which produces too rapid a re-action for forming that strong adhesion which is necessary to combine or unite the strands

or divisions of a rope, and which cannot be obtained but by a gradual and progressive re-action, occasioned by a repelling power sufficient for that purpose. If the circular turn is from the one extreme, as it is in the *winding* system, the repulsion will be at the other; if the circular turn is from both ends, the repelling power will be between them.

The salvageee or sub-division system is intended to remove this objection. The gradual and progressive re-action, which forms a distinctive character of this system, generates the strongest adhesion of the twists, or component parts of the rope, (which at the same time are in spiral directions) nearly parallel; and of consequence, with a power but fractionally inferior to a combination of yarns parallel to each other.

According to this system, the yarns are spun and laid horizontally in parallels, as usual, the full length intended. This being done, the number required for the cylindrical twist, namely, one-ninth part of a cable, or one-third part of a hawser, or any twist of any other rope, is divided into two, three, four, or more equal parts. These subdivided twists are then turned at the extremities *with the sun*, by means of a double wheel and back frame, until the turn meets in the centre. This point attained the turn is slackened at the ends, and the whole rendered as nearly alike as possible, taking care, that each remains a distinct and separate column, or twist, which is call a salvageee-twist. Thus, three, four, or as many of these salvageee-twists, as may be required for the strand of a rope or the twist of a cable, are united by putting them on forelocks, which are turned at each end *with the sun*, as before; all the parts are then combined into a cylindrical form, acting with pressure as usual, and the cylindrical twist or strand is reduced or contracted, by turning the horses or cranks, until it is shortened from one eighth to a sixth, and then the twist required is obtained.

From this description which we have purposely rendered more minute than that of the preceding method, because it appears to us, the more perfect of any, it is evident, that it is manufactured widely different from every other mode as yet made use of or invented. Hitherto double laid cordage has been composed of nine cylindrical twists and hawser-laid cordage of three such twists, while by the *salvagee*, or *sub-division system*, cable-laid cordage consists of eighteen, twenty-seven, thirty-six, forty-five, fifty-four, sixty-three, or seventy-two cylindrical parts, as salvageee-twists, and hawser-laid cordage of any number, multiplied by three. The turn in the salvageee-twists is peculiar to this manufacture, as instead for reversing, they act with each other, so as to tie and unite; while the custom has hitherto been to reverse the turn in every part of the process. These cylindrical twists, as has already been observed, are not obtained by the act of winding, or so placed as to deprive them of their full re-acting

power, without which cordage of every description must be defective; but they retain their full re-action, and possess the utmost *equality of bearing*, which seems attainable in this manufacture.

Convinced as we are of the great importance of this improvement, we think it right to inform our readers, that the public is indebted for it to Mr. *James Mitchel*, an eminent rope-maker in *Limehouse-hole*, who, sensible of the errors of the common method, as well as of the imperfection of the *winding* system, has successfully applied himself to strike out the above new method; the manufacturing of cordage, according to which, has been secured to him, for the usual term of years, by Royal Letters Patent.

For the Commercial and Agricultural Magazine.

ON THE NECESSITY OF THE FARMERS SUPPLYING THE
FAMILIES OF THEIR LABOURING POOR WITH MILK.

(By an eminent Land Surveyor.)

IF the pitiful conduct of avarice, in all ages and all countries, had not furnished the never-failing example, the humane could scarcely be brought to credit, that the poor labourer and his starving family could ever be denied such a natural request as that of milk for their money, to nourish the tender infant! a species of nourishment so craved, so absolutely necessary. Yet it is notorious, that the farmers in every part of this island, even in the dairy counties, where the article so much abounds, are generally averse to supplying the poor with milk, rather choosing to give every drop of it, not consumed in their own household, to their calves or pigs; and not by any means from the motive of superior gain, because they well know that milk retailed has never been at so low a price as not to produce more profit than when manufactured or disposed of in any shape at market. The sole motive is indolence, and an aversion to the trouble and incumbrance of retailing the milk in small quantities.

But motives like these ought never to stand in the way, or blunt our charitable feelings, more particularly at a dangerous crisis like the present, disordered as it is, and still likely to be, with insurrections of the belly, the most horrible and dangerous of all others. Yet even this, although a forcible, is a mean motive which ought to be superseded now, and for ever, by the more just and generous one of common humanity. Milk must truly be considered as a necessary of life, where there is a young family; and as in the present state of things, at least, the poor peasantry, far from being able to keep a cow or a pig, find difficulty enough in keeping a loaf of bread by them, it becomes the indispensable duty of the farmers to furnish them with milk at a fair price, and in point of quantity, to their utmost de-

mand, whether new or skimmed; for I have known too many farmers pretend to find their labourers with milk, and the poor souls have often complained to me nevertheless that the quantity was so small, and the disappointments so frequent, after perhaps a walk of two or three miles in quest of it, that it seemed like a plan to weary them of the pursuit. New milk should by no means be denied, in these times of scarcity, when the labourer finds so great a difficulty to obtain a due quantity of nourishment, in proportion to the exhaustion occasioned by his labour.

This necessary measure can only be effected by a regular plan, to be adopted by the farmers of every parish. I mean the substantial ones, to whom the keep of an additional cow is no object, other than a profitable one. Thus every one, by consulting his labourers, may regulate the demand and the quantity. To avoid the trouble of a mixed calculation, and a round one will come to precisely the same end in all respects, we will suppose a farmer to keep one extra cow for the particular purpose expressed; as the best kind in this case (quantity of milk being the object), let it be a Holderneffe or Yorkshire short-horned cow, from which, well fed the year through, winter as well as summer, may be expected an average of at least three gallons per day. The poor in many parts would willingly now give a penny per pint for new milk, to my certain knowledge, which, with the above cow, would produce to the farmer, supposing he sold all the product, two shillings a day, or fourteen shillings a week; a sum totally impossible to be obtained from a cow by any other method than that of selling the milk.

On a less sale, the return would be in proportion as to profit; and at even at a lower price, the profit would be sufficient. How far short of such a return as this is the usual product of the butter, the cheese, or the suckling dairy. In the first, far the most profitable of the three, a farmer is generally satisfied of his cow's average at seven pounds of butter a week in summer, and three in winter, which, on an average of times and seasons, may be sold at nine pence per pound in the first, and one shilling in the latter season; the profit of the pigs, an additional shilling or eighteen pence per week. Even in the present exorbitant times, no other mode of disposal can equal that of retailing the milk at the price above stated.

We may carry our ideas somewhat farther, Mr. Editor, in this benevolent, therefore pleasurable track. Suppose a fine Holderneffe cow kept for this charitable purpose; after her milk shall run short, she may be superseded by another in full milk, fatted, and slaughtered at home by the farmer, the coarse pieces being disposed of at a fair price to his labourers, who enjoying a new, and, alas! unusual taste of old English plenty, would bless the hand that had provided it for them, instead of listening to the violent declamations of knaves and lunatics, and conspiring to

fire his stacks and barns. Wishing the most extensive circulation throughout town and country to your most useful and valuable Magazine, I remain, &c. &c.

*** The future correspondence of this Gentleman, and any others of his respectable profession, will be peculiarly agreeable. E.

To the Editor of the Commercial and Agricultural Magazine.

ON THE CROPS OF CORN IN THE EASTERN COUNTIES.

SIR,

MANY years ago I made an observation which I have since but too often seen verified. Our most competent judges are ever liable to be deceived, respecting the real state of the wheat crops, until their actual arrival at the barn floor. Indeed, the infallible œconomists of Cheapside and Piccadilly are not so liable to err, or rather never err, in their own opinion, which they never change; for with them, the crops are ever superabundant, and the farmers rogues and cheats. My old observation, I am sorry to say, is too likely to be once more verified by the present crops. We all flattered ourselves during harvest with an abundance, which we now see, with fearful regret, will not be realized.

We must not flatter ourselves; the crop of wheat particularly, no where much above mediocrity, even in the chief corn counties, is in many parts deficient. Add to this misfortune, the absolutely necessary anticipation which must ensue, with the extraordinary demand occasioned by the existing circumstances of the country, and the prospect is gloomy indeed: but as we have probably ourselves drawn down this calamity on the country, if not by our own act and deed, at least by our acquiescence, it is our indispensable duty to bear it with patience, and to render it as tolerable as circumstances will admit to the poorer classes of the community.

This desirable end, however, will not be obtained by nonsensical interference, legislative or mobocratic; by the persecution of blameless and necessary individuals, or the absurd and impracticable schemes of conceited and crazy pamphleteers: There can be little hope or expectation that the public, in its present state of mind, would deign to listen to wholesome radical advice; but thus much may be surely offered without offence.—*Leave the farmers and the corn trade, and all concerned therein, to themselves—import all you can,—corn, rice, and provisions of every kind—extend your charity to the utmost. Remember, that interference, in every country, has never failed to decrease quantity in the markets, and enhance the price.*

The wheat crop will not only be materially short of our expectations, in point of quantity, but there is great reason to fear

it will not possess the substantial quality of good years, since many fair samples of red wheat have been found considerably under the weight of 59 lbs. the Winchester bushel; whereas the writer of this article has often weighed samples of apparently similar faces, which have exceeded 64 lbs. the bushel. I apprehend our average produce in this county will not exceed, if it equal, two quarters of wheat per acre, and that all along our coast and to the westward we must entirely depend on supplies from the eastern counties, our usual resource, under similar circumstances. Indeed, in our neighbourhood, the army and navy are sufficient to consume all we can grow. That your readers may have as correct an idea as possible of the produce in the three great corn counties, Suffolk, Norfolk, and Lincolnshire, I have herewith transmitted to you several letters from the best informed and principal merchants, which you will doubtless insert in your valuable and extensive Repository of œconomical information.—Being on the eve of a tour in Kent and Essex, I may by and by be enabled to give you a sketch of the produce of those corn counties also, on which the London market so much relies. In the interim, I am, Sir, your obedient humble servant,

Oct. 10th, 1800.

A HAMPSHIRE CLERGYMAN.

Our correspondent has forwarded to us five letters, from Messrs. Garfit and Clayton, Bolton; from Lionel Selt, of Lynn-Regis; from Messrs. Byles, of Ipswich; from Mr. Dawson, of Geldeston, Suffolk; and from Messrs. Bowkers, (without date). As they are all to the same purport, we select only extracts out of two of them for insertion. E

Geldeston, near Bungay, Suffolk, Sept. 12th 1800.

I BEG leave to advise you, that our harvest has been generally completed some days; the crops are certainly abundant; but unfortunately not more than one-third was housed before the late rains; such are very beautiful. The barley cut since, and carried in any condition, may, though discoloured, be used in malting; but all which received the rain on the ground must be rendered useless, excepting for hogs; owing to the warmth of the earth, it vegetated so very luxuriantly. The beans are mostly out; if the rains continue, the consequences must be serious. Bright corn of all descriptions is getting to an alarming price, particularly barley. (Signed) B. U. DAWSON.

Boston, 4th October. 1800.

IN this country very little grain was sowed before the rains set in, so that the greater part of our wheat, especially the white, will be sprouted, and most of the oats discoloured; many red. On some low lands, late sown, the oats are not yet cut. Scarcely any wheat has yet been brought to market; and we believe none has been bought by the merchants. The millers have bought a few samples at 70s. to 105s. per quarter, as in quality. Here we have not had on hand a single quarter of wheat these two months.—(Signed) GARFIT, CLAYTON & Co.

COM. & AG. MAG.

O o

ON AMERICAN SPRINGS..

(Concluded from page 176.)

AS Dr. Rouelle has been at some pains to analyze the respective waters of these springs, and as this analysis may enable the gentlemen of the faculty in Europe, to form a better judgment of their respective properties and uses, I shall take the liberty of tracing the results of his several experiments, from a review of them.

I. Analysis of the acidulous waters, commonly called Sweet Springs.

This spring is situated in a valley, between two small mountains, in Bath County, in Virginia; and affords water sufficient for turning a saw and a grist mill, forming a considerable stream, which runs into one of the branches of James river. The situation being low and marshy, the spring is injured by the mud, and by a run of water which falls into it. Doctor Rouelle gives a full account of the natural history of this spring, upon analyzing of which, he found a quart to contain,

Of saline substances, 12 to 15 grains | Iron, 1 — ½ grains
Earthy ditto 18 — 24

II. Analysis of the Red Spring, or Spaw. A quart of this water contains, of aerial acid,

Calcareous earth, or lime, . 4 grains | Vitriol of Magnesia 1 grain
Aerated magnesia 3 | Cubic muriatic salt ½
Iron aerated 2 | Iron 1
Selenites 1

This water, he thinks, would be more acidulous than that of the sweet spring, if the superfluity of aerial acid was not taken up by the iron. In the Sweet Spring, the acidity would be greater than it is if the inflammable air did not alter it. The water of the Red Spring may be carried, with proper care, to any part of the United States, without losing any of its active properties. This is an advantage not enjoyed by the waters of the other springs, which lose a great part of their aerial acid on being transported to a distance, and become disagreeable to the taste.

III. Analysis of the hepatic water, commonly called Sulphureous.

—This is situated in a valley nearly surrounded by mountains, in Greenbriar County, and is remarkable for its smell, which is that of hepatic air. This may be perceived at the distance of half a mile. So noxious is it, that very few birds attempt to cross over the springs. This water contains a large proportion of hepatic air, mixed with a little aerial acid. This fluid has an action on the eyes, nose, and breath, and occasions a head-ach, which however soon goes off. Doctor R. found a quart of this water to contain as follow;

Hepatic air mixed with aerial acid | Calcareous marine salts . . 1½ grains
Calcareous earth. 12 grains | Iron, about 1
Vitriol of magnesia 5 | Sulphur ¼
Selenites 2

The hepatic air obtained, was not inflammable, on account of aerial acid mixed with it.

IV. & V. *Analysis of the Warm Springs.* Of these Doctor R. describes two. The first, he says, is situated pretty nearly in the middle of the mountains, at the bottom of one tract of the chain called Warm Spring Mountain, in Bath county, one of the highest ridges after the Blue Ridge. The taste of the water of this extraordinary spring is something acidulous, and fœtid or hepatic. The hepatic air is very volatile. Dr. R. thinks this water contains more hepatic air than aerial acid, and that it owes its virtues to the former. Besides these two airs, a quart of water contains,

Of calcarious earth	2 grains	Calcarious marine salts.	1 grain
Selenites	$\frac{1}{2}$		

About six miles from this place, there is another spring, warmer than that which has just been mentioned. In a quart of this, the Doctor found,

Of lime aerated	8 grains	Calcarious marine salts	2 grains
Vitrol of magnesia	2	Iron	$\frac{1}{2}$
Selenites	1		

As the airs, however, appear to be active agents in the Warm Springs, these experiments appear to have been so far defective as they have failed in ascertaining the proportions of them, which I understand to have been occasioned by a defective apparatus

It seems highly probable, I think, that future experiments may ascertain some peculiar advantages to agriculture in the analysis of these springs; and, indeed, if chemical investigations were more minutely, and more intimately connected with husbandry, there seems to be little doubt but the community would become infinitely benefited by such a combination of the results of science and inquiry.

The saline earths which were obtained from the bowels of the mountains in Spain, as herein before stated, afford a striking example, when exposed to the air, of the extraordinary field for multiplication of manures, which every country contains, in some degree, very far beneath its surface.

As to a further description of these mineral or medicinal springs, I must beg leave to refer the reader to the above recited professional Treatise.

I may add, however, to the catalogue before enumerated, and with some degree of propriety, a few specimens of cascades formed from springs which rise at a vast height in the mountains, and are far above the grand cataract of Niagara in point of perpendicular fall; nor should I wholly omit an account of the caves in our limestone countries, from which an abundant supply of salt-petre is produced; and which circumstance has

stamped a value upon them, that was unknown before the necessities of the American war led to the discovery in 1776.

These hints may moreover direct travellers to admire some of Nature's sublimest works; on a scale so immense, as to render America perhaps the only land which exhibits such superior scenes of native magnificence.

In Bath County, in Virginia, there is one of these remarkable cascades, or water-falls, called *the falling spring*. It is a branch of that part of James River which takes the name of Jackson's River, rising in the mountains twenty miles south-west of the *warm spring*.

This water falls over a rock 200 feet; which is 50 feet more than the fall of Niagara.

Between the sheet of water and the rock below, a man may walk across under the stream without being wet.

In the county of Amherst, in the same State, and also on a branch of James river, there is a cascade spring of much greater magnitude. The stream called Crab Tree, a south branch of Tye River, after acquiring water sufficient to turn a mill, forms one of the largest cascades, perhaps, which can be found in Virginia. Its source is upon the north side of the Priest Mountain, and, after running north-eastwardly about a mile in the valley between two neighbouring mountains, it descends the side of the mountain, which seems to be formed of an entire rock.

This descent of water has never been known to undergo an actual mensuration; but appears to the eye to be near 600 feet. In no part of its fall is the water entirely independent of the rock; but in every part as little so as can denominate it dependent.

In regard to the caves of America (most part of which are valuable on account of the pure nitre which they contain, and with which their floors are strongly impregnated) they are so numerous, it would fill up a complete *mundus subterraneus* to describe them.

They generally correspond with those which are described in the History of Derbyshire; and one may suffice as a general outline of them all.

I beg leave to refer to Mr. Jefferson's Notes for his account of Maddison's Cave; and I content myself with selecting one from my papers, as a subject of comparison, which was explored in June 1785, by Col. Mayo Carrington, and the late Major John Rogers. Near the mouth of Cumberland River, in the State of Kentucky, there exists (among many others in that country) a spacious cave, which enters the bank of the river about fifteen feet from the water's edge, and about six feet perpendicular above the common water mark.

Into this cave the above two gentlemen entered with torches of burning wood, and penetrated about 208 yards without meeting with any impediment; but the failure of their lights compelled them to return.

The entrance is about 10 by 8 feet, and a small stream of water empties through it into the river.

In their entrance into this large cave, they passed through several capacious rooms, which crossed the leading avenue of the cave, mostly at right angles. From the roof of these hung many petrified substances, resembling icicles, and other figures, mostly transparent. They supposed these to be occasioned by the droppings of the limestone rock, of which the cave is formed.

There are yet two singular caves, which deserve the notice of philosophy, on account of their very peculiar properties. These are the *blowing cave* and the *freezing cave*.

The *blowing cave* is situated in the ridge of mountains in Virginia, which divides the waters of Cow and Calf Pasture rivers, near the place called the Panther Gap, not far from the warm springs. It is said, that from the mouth of this cave a perpetual current of air issues, and that the blast is frequently so strong as to prostrate the weeds at several yards distance from the cave.

I have not at present the papers which respects the *freezing cave*; but so far as I recollect, I think it is situated near Colonel Polson's, in Hampshire County, Virginia, not far from the *subterraneous river*; a place which needs no farther description; and more especially as the "*freezing cave*" is a place known to the neighbourhood.

W. TATHAM.

ENUMERATION OF PATENTS.

1800. **M**R. George Medhurst, of Battle-Bridge, Middlesex, engineer, for a method of driving carriages or all kinds without the use of horses.

— Innocenzo Della Lend, of Piccadilly, Middlesex, M. D. and surgeon, for a medicine called "*Phlogistical and fixed Earth of Mars, or powder of Mars,*" for the cure of various diseases.

— Matthias Koops, of Queen-street, Ranelagh, Middlesex, gentleman, for a method of manufacturing paper from straw, hay, thistles, waste and refuse of hemp and flax, and different kinds of wood and bark, fit for printing, and other useful purposes.

— Mr. Isaac Hadley Reddell, of Birmingham, Warwickshire, for a method of constructing carriages for the conveyance of merchandize either by land or water; which carriages may be removed, either loaded or unloaded, from the land to the water, or from the water to the land, with care, expedition, and safety.

— Mr. Isaac Hadley Reddell, of Birmingham aforesaid, for a method of making stirrups.

— Thomas Gill, of Birmingham, esq. for a new method of rifling the bores or calibres of cannon, and of musquet, carbine, gun, and pistol barrels.

CRITICAL CATALOGUE.

I.—*Observations on Forestalling, Regrating, &c., with Thoughts on the Coal Trade, and Reflections on the New London Flour Company.* By J. S. GIRDLER, Esq. 1800.

THIS very remarkable volume is the production of a patriot, who has evidently exerted himself strenuously in what he thought a good cause: neither labour nor expence has he spared to discover and punish those forestallers and monopolizers, who appear to him such baneful pests of society.

He begins with pointing out the ruinous influence of the high price of provisions on our manufactures, and finally on the produce of the taxes. These observations are incontrovertible: but in the very outset he *assumes* the mischievous effects of monopoly, &c. as an acknowledged fact. This is begging the question: the proofs should have preceded the assertion. He says, that farmers always (whether the year be wet or dry) at harvest complain of bad crops on various pretences. It is indeed known, that farmers are a querulous race of people, as they always must be in an uncertain climate; and they hope to get higher prices by such misrepresentations: but the question of this fact is not to be determined by the opinions of farmers. They have so often *heard*, that the price may so be raised, that most of them *believe* it, and, therefore, will continue their complaints annually. In the third chapter, the author recites his labours in searching for hoarded wheat on the banks of the river Thames: he found much; but till he can prove that the possessors of it intended to lose money by it, he can hardly think, that they would not offer it to sale at the very tempting prices of the present summer. Gain is the God of speculators; and this very love of gain constantly *operates* to equalize the price of all commodities throughout the year, Mr. G. next examines and enforces those arguments which have been produced against large farms. He says they diminish population, and the produce of the land. After the grower is provided, the surplus goes to the market. If there are *fewer* growers, there must be *more* surplus. But there is in effect *more* population *, *more* produce, and *more* surplus from great farms †. Farms are consolidated by bidding up a higher rent: this could not be afforded if the large farmer had *more* surplus. It is true that much arable land has been converted into grass lately ‡; an inevitable effect of increasing population. In old Cato's time, the environs of Rome were most profitable, under very indifferent grass; they trusted for corn (the less bulky commodity) to the imports from Sicily and Egypt. We must, we do already, import corn from the same cause §. Our author surprises us, (page 39.) in discovering himself an advocate for the continuance of waste lands, and quotes the beautiful poem, but wretched nonsense, of

* See page 184. of No. 14.

† See page 44. of No. 12.

‡ See Mr. Lester's letter in the present number.

§ See page 391. of No. 11.

Goldsmith, in behalf of his opinion. Would he wish to see all the present inclosures of England thrown out to common? If not, he can advance no valid argument against inclosing more. But Mr. G. is also an enemy to *any improvement* in husbandry, (page 32, 33.) the old modes, he thinks, always the most productive; though, to an unprejudiced man, the introduction of clover and turnips seems as evident a benefit to agriculture, as the invention of the mariner's compass to navigation, or of printing to the increment of human knowledge. The light land of Norfolk feeds as many sheep now as it could uninclosed; so that all the corn there produced is clear addition to the national store. Most of the counties somewhat partake of Norfolk management. The application of experiment and science to husbandry, must surely have the effect it has on all other subjects. Our author disapproves of any bounty on the exportation of corn. We coincide with him; the landed interest would not consent to the land-tax in 1689, till the bounty was granted to their corn. The unsettled government of King William *could not* refuse the boon. But *if* the bounty has encouraged cultivation in proportion, the public lost not by it. However, exportation is now *virtually* annihilated. Some ancient laws, fixing the price of meat and corn, calls forth Mr. G.'s warmest panegyrics. Indeed he is a decided advocate for a *maximum*. Roberespierre's experiment settled that question. He had surely more coercive power in his hands than our government; yet his mandate only issued in the destruction of the wretched bakers of Paris. His law ordered them to sell bread, when they could not buy flour; and the consequence was, that twenty-five were guillotined the following morning, and the evil of famine considerably aggravated by their death! The *maximum* was in consequence necessarily repealed. The abolishing of grist-mills is lamented: but the toll dish is a strange irregular mode of payment: in the present year, at a quart per bushel, it would sometimes have amounted to seven-pence for grinding! The miller is always *eager* for gristing in dear years. The repugnance is on the side of the public. Mr. G. thinks the present mode of setting the assize by the price of flour unjust. We had rather see the assize totally abolished*; but as the baker *buys* flour, by the price of that must his loaves be regulated. If the manufacture of flour be supposed (on an average) to take a week in doing, the market price of the wheat in the preceding week's market only has a reference to the flour market. Therefore it is not surprising that wheat may sometimes *fall* when flour may *rise*, and *vice versa*. Sample markets next rouse our author's anger; they certainly save much carriage. We are happy that Mr. G. humanely allows the necessity of *some* food being brought up, and forwarded to the London market, (page 145.) We began to fear his patriotic intentions would starve the metropolis †. We allow with him, that prize oxen and sheep are not immediately conducive to public benefit; neither is a race horse; but models must be selected for proper mixtures of breed. The various regulations wished for by our author, are developed in chapter 14. Our readers have seen in our numbers many

* See page 304. of No. 10.

† See page 208. of No. 14.

discussions on monopoly * ; we shall repeat for Mr. G.'s consideration one simple argument against its efficacy or power. How is it that these criminals only appear *now and then* like locusts? In 1796 and 1800, their exertions (it seems) have been very effectual. Does their desire of gain intermit sometimes; or do they ever determine on two or three years' mercy to the public? No, surely; and it is enough to prove at once the nullity of the supposed effect of enhancement, to consider, that they do not, and therefore cannot, *always* enhance the price of the necessaries of life. The impositions in coals are indeed flagrant; a better regulation of the measure would instantly remedy the evil; on this account the proposal in page 207, is very excellent †. The trials of Mr. Rusby, Mr. Waddington, and some others, are given at some length, and evidence the force of popular clamour on minds which should be better informed. A violent invasion of property is proposed (page 322.) to discourage large farms. In the dispute betwixt the carcase butchers and the cutting butchers, Mr. G. takes part warmly against the former. They are some of the *middle men*, against whom he so frequently pours out invective. Let him advert to this observation: if the grower of corn, or of cattle, for market, could himself bring it there for less expence than the usual profit of the *middle man* amounts to, such grower *would* bring it to market *himself*. But it is found, that less money, and time, is idly wasted, by consigning much market business to few hands. Nobody but the inn-keepers near the market could get by driving so many individuals thither; and the public must finally (in some shape) pay the expences of the farmers and graziers in travelling and market attendance. That is, the commodity must rise a little in price in consequence of such coercive regulations. In page 332, the monthly agricultural reports are censured; we join in the censure of their language, which often contains provincial barbarism and agricultural pedantry of phrase: the facts are not often (we think) wilfully misrepresented.

This volume contains some useful tables of reference: that of the augmentation of price of commodities: the quantity of foreign wheat imported into the port of London from 1781 inclusive: table of exports from 1697 to 1764: list of statutes relative to corn; and the price of corn from 1742 to 1756, at which time it was cheaper than in many centuries before.

We observe a strange blunder in page 45: the author is astonished that, in 1795 (a bad season) little should be imported: in 1796 (a favourable harvest) a vast deal. Hence he deduces many arguments for the existence of monopoly, &c. He forgets, that it is not the harvest of the *current* year, but of the year *before*, which must influence the price. A plentiful harvest has little influence till the beginning of November. Before that little can be threshed out. Seed time requires all hands, and the seed most of the corn then threshed. Thus the scarcity of 1795 influenced 1796, as the scarcity of 1799 has this year influenced 1800.

* See p. 250, 258. of No. 9. P. 357. of No. 10. P. 208. of No. 14.

† Something of this sort may be seen in page 190. of No. 14

In page 49. Mr. G. gives his opinion, that a fair price for corn is from 8l. to 10l. per load; from 3s. to 4s. per quarter. The first effect of such price would be the ruin of every farmer: the next effect, the ruin of all land owners; and, the last result, a complete cessation of all agricultural exertion. This would insure a *plenty* indeed! The author believes also in clandestine exportation; as corn is constantly dearer in England than elsewhere, whither is it carried? There must be as much *loss*, as risk of *detection*, in this speculation:

We hope, from the repeated declarations of the minister, that he will not suffer popular clamour to make him interfere in the corn trade: the insurance against loss granted to speculating importers this year, was the wisest measure we have ever witnessed, and has had immense effects. The price of corn must now soon fall, and we hope no more markets, without *any* sellers *, will again be witnessed. The stock of corn was low indeed; the high prices had tempted out almost the last grain. Preventive measures are not impossible: public granaries must be erected in a country daily decreasing its arable land, and increasing its population †.

II.—*General View of the Agriculture of Mid-Lothian*. ROBINSONS. 6s. It is well known to the public, that the agricultural surveys of the various Counties of Great Britain commenced under the auspices of the Board of Agriculture soon after its institution. As facts are much more valuable than speculations, however ingenious, too much praise can hardly be given to this most judicious exertion of the powers intrusted to that Board. It is only to be lamented that the pecuniary resources in their hands were so very limited, that little information could be collected expressly for the occasion. The only method they could pursue was to search out a Man in every County of good general information, to print his more crude observations for dispersion, and to add the consequent additions and observations in a corrected report. As the task is yet very far from completion, and as we must necessarily in the course of time review all subsequent county reports, we have resolved not to leave a chasm in the general information which we endeavour to offer to our Readers; and consequently to insert a Review of one or two of these Reports in every Critical Catalogue, till we have brought the series up to the present time.

The present volume in point of priority (perhaps also of merit) first claims our attention. The county in which more science is exerted in Agriculture than elsewhere, is also on that account an interesting spectacle. Lord Kaims has not lived in vain.

An Agricultural Map is properly inserted at the entrance of the Volume. This species of Map is of very striking utility, and we believe no example of it existed before the present. It adds to the usual information of other Maps, to the delineation of places and rivers, the distinctive character of soil in each district, and, by the help of four or five simple colours, gives at one view an idea of the grand distributions of the country. Its utility for reference in reading the book is inconceivable to those who have not felt this aid. The County of Edinburgh, or Mid-Lothian, contains about 230,400 English acres,

* See Mr. Lester's letter in this magazine.

† See page 394, 399. of No. 11.

equal to 183,240 Scotch acres*, and of this about one-third is from situation and soil wholly uncultivated. The climate appears somewhat more rainy, and more subject to greater variations of heat and cold than the climate of London. It possesses in plenty Lime-stone and Coal; the fundamentals of improving land, and creating manufactures. The land is in few hands: an accurate Table states 542 as the total number of estates. The size of farms from one to three hundred acres. The occupiers chiefly hereditary farmers; very fast augmenting their civilization; the author seems to think them on the verge of too great refinement. However, as a man of enlarged and penetrating views, he properly defends their cessation from personal labour, and their more frequent purchases from Edinburgh. The Farmer should certainly oversee all operations on his land, which is incompatible with personal labour; and he buys from town, because it is from experience a more frugal practice. There are no Tythes or Poor-rates in Scotland; this accounts for the apparent high rent there, which often astonishes the English Farmer. The size of the acre contributes to the deception. The capital employed in Agriculture in this small county is moderately estimated at above Half a Million.

The Rotherham light Plough, an improved Harrow, and Reaping Fork (for gathering the Corn into Sheaves) are in general use; they are here described and delineated. Threshing Mills are common; a One Horse Mill threshes four Bushels per hour. The clumsy culture by high ridges is relinquished, and draining is substituted for that awkward expedient. The culture of Wheat is increased from 1000 to 8000 acres within the last 50 years; the produce has in some instances been 16 Bolls, above 8 Quarters per Acre. Supposing the Scotch acre an immense crop! The average is 30 bushels, equal to 24 on an English acre. Barley and Oats badly harvested must be passed *twice* through the Threshing Mill. In page 94 is a wonderful story about a Highland thresher: we are unable to believe that a human being, any more than a horse, can make great exertions on scanty, meagre food. A little *nationality* is visible in the tale.

Near the metropolis of Scotland, land is too valuable for a breeding country, and the breed of cattle are not remarkable; rather improving. Some East Indian cattle, of high reputation for speed, have been imported by Lieut. Col. A. Murray.—The price of labour about 15*l.* 15*s.* per ann. in 1795. Labourers do not in general like piece-work. This is a very bad symptom of sluggishness, and militates against their subsequent character by our Author. The roads are generally good, as might be expected round the metropolis. Its numerous *Dogs* are represented as a serious obstacle to keeping Sheep.—They should have a price set on their heads as Wolves had formerly. The grand obstacle to improvement is the short sighted policy of the Landlords, who very seldom encourage the tenant in his exertions.

This evil exists every where, and is rather surprizing. Surely a temporary connexion with the soil can never be expected to call forth the laborious and radical improvements of draining, and permanent

* The English statute acre contains 4840 yards of 36 inches each; the Scotch acre 5760 yards of 37 inches each; hence the proportion between the Scotch and English acre is nearly as 5 to 4.

fences, without suitable encouragement from the Land-owner. Industry is thus unhappily cramped, and the country deeply injured; since hence *two* persons must *agree* in inclination, and this combination of opinion does not *always* happen to exist in both. In the Appendix, No. 3, are very interesting particulars of the British Wool Society; the only information on this topic accessible to the public. No. 11. an interesting account of a local improvement of Moorlands. Many particulars in this volume are not noticed; it is so full of matter that *something* must be left unmentioned. The information about Edinburgh is valuable; its consumption, population, taxes, &c. are displayed. To the English reader this volume is especially valuable: we are too great strangers to the distant parts of our own country. There are many plates in this volume quite unnecessary; and therefore injudiciously inserted, as raising the price to no good purpose. But on the whole, we can decidedly applaud the labours of Mr. G. Robertson, the careful compiler of this volume. We fear we shall find few other County Reports so generally interesting.

III.—*General View of the Agriculture of the County of Stafford.* By W. PITT. 5s. 6d. Nicol. 1796.—Staffordshire is an inland county, containing 780,800 statute acres. Its climate is perceptibly sharper than the more southern counties; and more rain falls than in London. Though we assent to the author's opinion, that much more rain falls in Ireland and the western counties than on the eastern side of our island, we wish to suggest to him, that all old accounts of the exact quantity of the fall of rain are fallacious, because the instrument of admeasurement has been placed at very different distances from the ground. It is but lately that it has been ascertained that this circumstance was of importance. The drops of rain in falling through the last sixty feet, acquire from the moist atmosphere an accretion of almost one-third.

In this county (we see in the agricultural chart prefixed) there is about an equal quantity of strong and light land. Of forests and waste lands about 140,000 acres. Of this 100,000 are reclaimable. The mines of coal and limestone are peculiarly abundant, and apparently inexhaustible. Iron-ore is also plenty, and its manufacture increasing. There are about eight estates in this county about 8000l. per annum; and below that, in all gradations, down to the freeholder of 40s. The author thinks the yeomanry have only disappeared in name, as there are still as many possessors of landed property as formerly. However true this remark be in general, it must be acknowledged, that, in a commercial country, there is a tendency to consolidate large landed estates.—Farm houses and out-houses are represented as mostly old and inconvenient built without plan. This is true every where; but improvement in this article is certain in every new erection.—Mr. Pitt praises the general character of farmers; he says, they are not backward when they see certain improvement. Prudence indeed keeps them from wild speculation, and the projector abuses their stupidity in revenge for his neglected propositions. This is a just picture of the great body of farmers everywhere.—Leases are common, but not general. Agriculture not a very profitable business. The majority of farmers save nothing, and certainly live in a coarser manner than tradesmen employing the same capital in town. Among

the implements of husbandry the double furrow plough, and the cast-iron roller are conspicuous. The *flay* for ploughing grass lands seems to have anticipated Mr. Duckett's invention of the *skim-coulter*.—Under the head of inclosure is narrated an exact account of increased population at Elford since the common field was inclosed. More careful cultivation makes more work; which requires, and soon attracts, or fixes more labourers.

Staffordshire is represented as not a feeding country in any comparison with Leicestershire; but the meadows skirting the river Dove are mentioned as peculiarly productive. The waste lands are supposed to average at 3s. per annum value as sheep walks; inclosed they would give 15s. per annum rent: consequently about 3l. per annum gross produce. Draining is pursued with much skill and adequate success; the plenty of lime-stone furnishes an easy opportunity of draining, *for ever*. Irrigation is not neglected; a great benefit, but never very extensive. Mr. Jeffop throws out some luminous ideas about making reservoirs for flood waters, which would tend to augment its influence.—Discussion and emulation is alive about the comparative excellence of different breeds of cattle and sheep; a sure proof that nobody is *far* removed from excellence in this point. The use of oxen for draught is not approved of in Staffordshire. Our author observes, that the most backward counties use most oxen; and that a farm which maintains oxen instead of horses and cows, would produce *more* beef indeed, but *less* butter and cheese.

The canals and manufactures of this county have raised the price of labour by augmenting the demand for it: about two shillings per day seems the average; but piece-work is very common. We think it increases every where, and draw thence an omen of increasing activity.—The corn grown is only sufficient for two-thirds of the inhabitants of this populous county, where potteries and cotton mills are now added to the older manufacture of the iron works. The canals finished have cost 500,000l.; they pay ten per cent., and have had a most favourable effect in augmenting the value of many mines, before almost inaccessible to land carriage.—The population is 250,000 souls; the rental of land and houses 600,000l. The population has increased as two in five (almost half) within this century. The weights and measures are in the utmost confusion, differing in every market; that we suppose, 'ere now, is much mended.

An appendix contains much information about the moor lands; a tract of rough country lying north of Uttoxeter and Newcastle-under-line. It has become a practice lately to plant with timber this barren district; and the author, with proper discrimination, while he applauds the useful application of such land to planting, deprecates, with becoming decision, any planting on more valuable land. Where the plough can go, or where pasture grows, it is the interest of the landlord and of the community so to employ the earth; the accumulation of compound interest easily demonstrates, that the most flourishing timber never answers on land that bears a tolerable rent; and the community loses four times that rent by diminution of the gross produce of food. Oat bread is not uncommonly eaten in the moor lands; but the difference of expence is very little from that of wheaten bread. Of the management of the bishop's woods at Eccleshall a favourable

account is given: the potteries demand much underwood for packages. An ample botanical list of plants and garden flowers is inserted.

In some former period there was a more extended cultivation in Staffordshire than at present. Traces of the plough are found on most of the wastes and commons; marl pits for manure are visible in many desolate places. The author sensibly conjectures, that the pacific period for about fifty years, from 1590 to 1640, produced this cultivation, now forgotten. The want of manufactures then threw augmented population *entirely* to tillage-employment.

Mr. Pitt has given to the public a very attentive and respectable view of the agriculture, manufactures, and political œconomy of the county of Stafford.

IV.—*Of the Average Depression of the Price of Wheat in War.* By J. BRAND. 1800. *Rivingtons.*—Widely different from the many ignorant scribblers, whose existence only originates with the prejudice of the day, Mr. Brand comes forward with argument and calculation to establish his favourite position, that wheat is constantly dearer in peace than in war. In the last session of parliament, the minister affirmed, that a deep criminality would attach to those who might attempt to infuse into the public mind the opposite opinion. What appeared an interested assertion in Mr. Pitt, is, in this pamphlet, discussed in a dispassionate manner. Mr. B. observes, that there are reasons to suppose a diminished consumption in war: great part of our army and navy are fed on the produce of distant climes, and the circuitous effect of augmented taxes has (if any) a most distant influence on the corn market. Indeed until taxes cause diminished cultivation, they can have no effect; and the rapid augmentation in the annual number of inclosure bills augurs nothing of this sort at present. The *retailer* of all articles lays an augmented profit for every tax he feels; but the *producer* of a commodity which cannot be exported, must take the market price, whether he gain or lose. Therefore bakers and millers may enhance their profits a little on account of the taxes: but the farmer cannot do so. In page 10, we are presented with a table of the price of corn from 1688 to 1798; distinguishing the years of war and peace; hence it appears that the average of war years during that period has been 2l. 2s. 11d.; of peace years, 2l. 5s. 3d. Average 2s. 4d. in favour of war years. This amounts to 5l. 8s. 8½d. per cent. on the price. The irregularities of seasons affects the price much in separate years: only a general view of a long period can lay a solid foundation of calculation.

Corn lowered in price from 1688 to 1744; since which time it has risen. Our author attributes this to the augmented produce of the Spanish mines, which has lowered the value of money in Europe. He might have added to this cause, that the good credit of paper money in England has driven out much of our coin into the rest of Europe. The ruin of Poland, and of the Netherlands, by war and rapine, has also diminished the absolute quantity of wheat grown. Added to these general causes, the vast increase of our manufactures, and consequently of our population*, and the general fashion of eating *whitened* bread (which has so entirely superseded rye and bar-

* See on this subject in Vol. II. page 391.

ley) have augmented our call for wheat. Hence our present average of importation is no less than 400,000 quarters in the last five years. Indeed we have *imported* constantly from the year 1771. Thus the sustenance of at least half a million of souls is drawn from other countries. A serious consideration for our legislators! We have not such implicit faith in general averages [as Mr. B. The seasons we think more irregular, and more operative, than he supposes. His opinion and arguments are indeed of great weight, and we only refuse a *plentitude* of conviction. He affirms, that if in this war the price is 6l. 6s. per quarter, peace had enhanced it in the same year to 6l. 15s. 8½d.—The notes are very valuable, and prove the author an able and accurate arithmetician. The last note contains a very curious speculation on the subject discussed in our No. 13. page 113. Mr. King is more accurate than our correspondent.

V.—*Considerations on the present high Price of Corn, &c.* By HOMO. 6d. 1800. *Scatchard*.—This gentleman, after allowing the scantiness of the harvest of 1799, and talking sensibly enough concerning the necessity of the corn trade (vulgarly called monopoly) for the maintenance of all great towns, proceeds to tread on more dubious grounds. He even proposes a *maximum* price of wheat, and thinks “there cannot be much difficulty in framing a bill for the limitation of the price of corn.” It is not only difficult, but impossible; as has appeared in all nations that have tried this tremendous experiment. Much evil to individuals, and much more to the public, has been the uniform consequence. He thinks such limitation would not injure the landlord or the farmer. Certainly the landlord’s augmented expences fully balance any increase of rental: but the farmer must sustain almost as much loss as the diminution of the price of corn amounts to. His consumption of enhanced manufactures is not nearly equivalent. Four guineas per quarter is the *maximum* proposed; he gives no tables, or any proof of having studied the subject. All mere random propositions. He wishes “not to say any thing that may excite animosity against speculators,” and therefore *only* affirms, “that they prey on the vitals of the people.” Quite conciliatory!

In page 26, an inquiry is to be instituted by the government into the quantity of corn upon hand. They did so in 1796, and every where received false returns. The farmers all naturally said, “We must take care to return *little enough* to be sure.” And in effect how can they themselves know the actual quantities before the wheat is threshed? They cannot be *certain* within a quarter part. Though the author seems to *believe* that we grow not enough for our ordinary consumption, he dislikes any intention of storing corn against a scarcity; that is, he would rather import when corn is dear, than when it is cheap. Strange œconomy!

He concludes with hoping that the nation will petition parliament to ordain laws according to his projected *maximum*, &c. We rest comfortable under the conviction, that the minister and parliament have learnt a different lesson in political œconomy. Mr. Pitt has not read Adam Smith in vain.

HISTORY.

National Transactions,

CIVIL AND MILITARY.

EAST INDIES AND CHINA.—Since our last Magazine, important intelligence has been received from both these countries.

The fears we expressed respecting the consequences of the floods in China have been but too well realized with respect to the inundated districts. The vast quantities of slime and mud left when the water subsided, and the accumulation of putrid matter occasioned by these circumstances, had caused a malignant disorder which had proved fatal to upwards of 100,000 persons.

The new emperor of China has commenced his reign by many acts of popularity. He did not succeed without some apprehensions from the intrigues of the prime minister to the late monarch, who was strongly suspected of aspiring to the throne himself. The emperor, however, had the address to disguise his sentiments until he found himself secure; and then degraded the object of his jealousy, imprisoned him, and seized his wealth, which is said to have amounted to an incredible sum in money, besides pearls, of which he possessed near 500 lb. weight. A silken cord was sent him, as a hint to expect a speedy execution, with which he hanged himself. A rebellion which has existed in some of the provinces was not yet quelled.

An affair occurred in China, previously to the sailing of the last fleet, which threatened to interrupt the intercourse between this country and that empire. A schooner belonging to the English had lost two cables, and a Chinese was discovered and supposed to be in the act of cutting a third; he was fired at and killed. A general alarm was occasioned by this circumstance at Canton, and a suspension of all commerce was threatened and expected. However, Capt. Dilkes, of the *Madras*, the senior officer of the navy on that station, went on shore and succeeded in amicably adjusting all differences.

Our settlements in India do not appear to be in the most tranquil state, and some powers on the frontiers seem to threaten hostilities. Zemaun Shaw, the ambitious sovereign of Cabul, has for many years kept half Asia in alarm; and he has all along shewn a wish to trespass on the English frontier. His territories are very extensive, comprising all the country between the river Indus and the southern border of the Caspian sea, and from the eastern confines of Persia to Great Buckaria; besides Lahand and the province of Cashmere. The population of these countries is great, and he is said to have an army of 100,000 men. While he stands alone, however, the British have nothing to fear from him: but we are concerned to state, that there is much probability of our government being involved in a contest with the court of Ava; the English having given an asylum to some emigrants from Arracan. The king of Ava ordered his vizier to enter the English province and seize them; but he not complying, a number of the Burmahs collected, and, under some sirdars or chiefs had actually advanced into the English territories. No farther account has been received. From Major Symes' embassy at Ava we collect the following state of the Burmah empire;

Ava contains 8,000 cities or towns, and 14,400,000 inhabitants, exclusive of Arracan, which is estimated to contain nearly three millions more; every man is subject to military service, and the ordinary mode of recruiting the armies is by ordering every two or three houses in each district to furnish a number proportionate to its population, or an equivalent in money, at the rate of 300 tackal (40 or 45 l.) for each man: the soldiers are fed by the king, but receive no pay; and, in cases of desertion or treachery, the family

of the offender suffers: even cowardice subjects the family of the delinquent to capital punishment, which is rigorously executed. This barbarous practice is the only mode of inciting to enterprizes of danger, men who are not actuated by any innate sense of honour, and who are insensible to national pride.

The Burmahs are strong, active, and brave; but, excepting the sword, are wretchedly armed, their fire-arms being chiefly condemned muskets from the English arsenals in India.

Add to these prospects, the late dispatches from India which bring account of fresh commotions in many of the newly-acquired territories there. Almost every district abounds with robbers, whose excesses are supposed to be winked at by the chief; and who, we lament to say, have frequently British troops quartered on them, as a punishment for crimes which they have not power to prevent.

TURKEY & EGYPT.—The French seem now to be in complete possession of Egypt. On the side of the Red sea they have fortified Suez; so that no hopes appear now to be entertained of making any impression on that side. The French commander in chief has laid a contribution of ten millions of livres on the city of Cairo, as a punishment for the revolt; which has enabled him to discharge the arrears due to the army. Cairo has been put in a state of defence. Damietta, Rosetta, and Alexandria, are also well fortified. All the Greek and Turkish ships, which entered Alexandria during the truce, were seized, and their cargoes applied to the uses of the army. The only force now preparing to go against them is an army the grand vizier commands at Jaffa, which some accounts make 20,000, and others only 8,000 men. A Turkish fleet, with two English ships of the line, are cruising off the coast.

From Constantinople they write, that the Russian squadron, which had been there, was ordered to return to the ports of the Crimea.

Much may be expected from the measures adopted by the Grand Seignor, if the empire is not too far gone to be recovered. Notwithstanding the opposition given by the janizaries, he continues to raise and train troops after the European manner, and superintend them occasionally himself. Artillery has also been introduced agreeably to the European practice.

Pasawan Oglou still continues in rebellion, and has given a defeat to another Pacha who was sent against him, and on whose skill and courage the Porte placed great reliance.

NAPLES & MALTA.—The intention of the British administration, with respect to the destination of the troops sent from this country at various times to Minorca, was long supposed to be the defence of the kingdom of Naples. The troops under Sir James Pultney, who made the unsuccessful and very extraordinary attempt on Ferrol, were also said to be destined to the same service. The whole number together will not amount to less than 30,000 men. This force, if it did not prevent, would, however, greatly protract the fall of Naples; and would be one proof, out of many, of the folly of the Grand Consul in granting an armistice, and affording time for such a powerful body of fine troops being collected and brought into one point. But the critical situation of Portugal has most unfortunately changed their destination.

The Pope and king of Naples seem on good terms; for the latter has more than 6000 of the troops of Naples in his pay. This measure seems to prove that Bonaparte will not procure a passage through the papal dominions but by force. His Holiness, Pius VII. is endeavouring to restore peace and concord to his country by acts of clemency and general oblivion, and by these means attaching the discontented to his government. The candid offers of Bonaparte, or the fate of his predecessor, seem to have made some impression on his mind.

Malta has, contrary to general expectation, surrendered by capitulation, and to the English. It will now soon be seen whether it is to remain with

the conquerors to be given up to Naples, or to be made use of to purchase the return of Paul to the cause of the Coalition.

SPAIN & PORTUGAL.—The difference between these two countries seems now to be hastening to an open rupture. We are assured that the Spanish forces continue to advance towards the frontiers of Portugal. Spain is in great alarm by a visitation from that dreadful calamity, sickness. At Cadiz an epidemic distemper has broken out, which makes great havoc; and, by advices from the British consul in Barbary, there is great reason to fear that the plague may have been imported from that country into Barcelona by means of some smugglers. At Tangier, Tetuan, and other places on the coast of Barbary opposite Spain, the plague rages with great violence. Our fleet lay at anchor in Vigo bay, by the last account, and had been in great danger from a storm, in which one frigate, the *Stag*, was lost.

In consequence of the commotions excited by Bowles among the Indians in Florida, against the Spaniards, the government has ordered 5000 men to advance towards the frontiers; but by other accounts we hear that he has over-run a great part of Florida, and plundered the country within a mile of St. Augustine. To many of our readers it may be gratifying to know who this man is. He is a native of Virginia, born of English parents, and who, when a youth, quitted his paternal roof, and joined the Creek Indians, among whom he is naturalized; he adopts their manners and customs, and has risen to the rank of Chief. Bowles was a loyalist, and his distinguishing characteristic is an hatred of the republican Americans.

The French have made themselves masters of a rich Portuguese squadron, consisting of fourteen sail, coming from their settlements in South America.

FRANCE.—The preliminaries of peace between this country and Austria, which were signed by the Austrian plenipotentiary, and which the Emperor refused to ratify; have been made public by the Grand Consul, evidently with intention to show the moderation of his demands. Some time since the Consul promised the people of France, that he would announce to them peace or new victories before the new year arrived (Sept. 23); but he seems, through his folly in granting the armistice, to have failed in both. On that day he was, however, enabled to inform them that the armistice had been renewed forty-five days; which, as it affords the great body of people, who never give themselves time to think, a faint prospect of peace, has diffused great joy throughout France. To view this second convention in its true point of view, it seems wholly in favour of Austria; as she has now full time to recruit her armies, to receive from England the promised subsidy, and for the English forces to land in Italy, if the state of Portugal does not alter their destination. With these helps, the Emperor, even with all his losses, will probably be as nearly on an equality with the French as he was at the beginning of the campaign. The delivering up the fortresses of Ulm, Philippsburg, and Ingoldstadt, has generally been regarded as favourable to France: but when it is considered that Ulm is not a fortified town, that the possession of Philippsburg only weakened the Imperial army, and that from want of provisions it could not resist long, it may safely be asserted, that the number of fine troops which will join the Austrian army from these garrisons, will more than compensate any loss by giving them up.

The French have celebrated their new-year's day with great pomp and enthusiasm, unmindful of the dangers which hang over them from a new coalition, which is suspected by many, and a renewal; of the war, or of the measures the Consul seems taking for securing his own power. He has organized a new and very powerful body-guard, and is bestowing places every day on his friends to increase his influence. With respect to the armistice said to be negotiating between France and this country, the difficulties of settling it are great. The English ministry, acting as allies to the Emperor, could by no means refuse such a treaty, as Bonaparte had granted one so favourable to the Emperor; but how to settle such an armistice is a point

very difficult indeed; and we may venture to predict, that no arrangement can take place satisfactory to both sides. Indeed we are told, by authority, that the treaty is at an end.

The favour shewn by the Consul to the Russian officers, prisoners in France, gives reason to suppose that the two countries are not on such hostile terms as might be supposed.

The Brest fleet is divided into two squadrons; one without the harbour, consisting of eight three-deckers, and four other ships; the other of seventeen ships of seventy-four guns. Both these squadrons have springs on their cables. Near the bar of Boscavel eleven ships ride also with springs on their cables, and each ship has 400 troops on board.

The new-year's day was, as before said, celebrated in Paris with uncommon demonstrations of joy; the theatres were opened on the preceding day, *gratis*, to the people, at the expence of the state; and the day was kept by a grand meeting in the field of Mars, by sports and illuminations.

A treaty of commerce has been concluded with the commissioners of America.

HOLLAND.—Great exertions are making in this country to fit out a fleet. Several corps of French and Dutch troops are in motion from Holland, to join the army on the right bank of the Rhine; a clear proof that the Hollanders have no fear of a descent by the English. It is also said that the Batavian army serving under Augereau is to be augmented with 10,000 men. The German papers tell us of very great desertions which prevail among the Dutch troops, and assign this as a reason for the Dutch regiments having been ordered to do duty in the garrisons of Mentz, &c. The Batavian government have laid an embargo on the exportation of provisions; and several neutral ships, laden with butter, cheese, &c. for England, have been obliged to unload.

DENMARK.—The convention between England and Denmark has been carefully kept secret by the British ministry; a thing very unusual in a case where the interests of the merchants are so much concerned, and which induces many to suppose that it is not very favourable to this country. In a foreign paper the copy of a convention has appeared, which seems to be authentic, and which amounts almost to a dereliction of the great question by the English. The conduct of the emperor of Russia, with respect to the English merchants, shows that he will not calmly look on and see Denmark crushed; and we much fear the line of conduct to be taken by the northern courts is irrevocably settled.

SWEDEN.—An affair has happened at Barcelona, which, if it was transacted as related by the Spaniards, cannot fail of giving offence to the Swedes. Two frigates were lying in the road of Barcelona, when two English men of war seized a Swedish vessel bound for this port, and put 400 men on board her, with which they attacked the frigates by surprise, and carried them off. Such is the account sent from Spain; which the Spaniards have put in the form of a manifesto, and delivered to the ministers of all the neutral powers. A more particular address to the king of Sweden has been issued, calling on him to revenge the insult offered to his flag, and to support the law of nations. The official account of the capture of these vessels has appeared in the London Gazette, but no notice is there taken in any respect about the Swedish ship; we must therefore suspend our judgment on this event till further documents appear.

The king of Sweden, in consequence of the English fleet appearing in the Sound, gave orders to fit out numerous gun-boats, and that hussars should constantly patrol along the coast. A ship of 80 guns, intended for the Swedish admiral, went out of the harbour to join nine sail of the line ready for sea. The king has himself visited the fleet, and seems to do every thing that can inspire confidence, and diffuse a spirit into his marine.

RUSSIA.—It is now evident that the dispute between this country and

Denmark has not been looked on by Russia with an indifferent eye. On the 10th of September an *ukase* was published at Riga, and also at other ports, directing a sequestration of English property, and assigning, as a reason, the violent proceedings of the English toward Denmark. The settlement of the dispute has caused the sequestration to be taken off, but the measure evidently shows the emperor's determination to interfere. From Petersburg they write, that two grand armies are to be formed, one in Lithuania, and the other in Volhynia; and that an additional fleet was ordered to be fitted out against the spring, to consist of one ship of 130 guns, two of 100, fifteen of 74, and nine of 66.

The surrender of Malta will afford the English an opportunity to try to bring back the emperor Paul once more to the coalition, by ceding to him that island, which he seems so anxiously to desire. To speculate on the conduct of this prince would be rashness; but it seems now to be his great object to secure the free navigation of the seas.

The treaty of alliance which has subsisted for some time between Russia and Prussia is said to have been lately renewed for eight years.

The recent arrival of Mr. Shairp, the British consul, from Cronstadt, without being permitted to land, has given a new cause of alarm.

PRUSSIA.—By a report lately made, the number of troops mustered this year by the monarch of this country amounts to 260,000, of which 40,000 are cavalry. In case the war should again break out, a great portion of these troops are to advance towards the line of demarcation, to preserve that from being infringed. In the French papers, the jealousy of this prince at the great success of the French troops is said to be one cause for the Grand Consul's so readily prolonging the armistice with Russia. This may probably be true; but the reduction of the power of Austria is what must be so much desired by Prussia, that we rather think it a paltry excuse invented by the friends of the Consul to palliate the egregious folly in his conduct in giving up a fortunate situation, which it is more than probable he will never see again, or at least without wading through an ocean of blood.

AUSTRIA.—Perhaps no government was ever so certainly saved from destruction by the folly of an enemy as this. Defeated in every point, and all her fine armies disorganized, the French had only to press on, and the emperor would have had little to support him but the loyalty of his undisciplined subjects. When, by granting a truce, he is once more enabled to look his enemy again in the face, with some prospect of making a good stand. Yet has this been done without any shew of accommodation on the emperor's part. He has been raising troops, removing unfortunate officers, and even advancing to the head quarters, with a view of taking the command himself, and of infusing a spirit into the troops.

In Austria every exertion is using to further the recruiting service; and the old regiments in garrison are sent forward to meet the enemy. In Bohemia every nerve is exerted to raise an army to meet that of General Augereau; while in Hungary the people are called on to rise in a mass, and the Archduke Alexander, the Emperor's brother, Palatine of Hungary, has set off for that country to give vigor to their measures. Late travellers inform us, that great discontents have prevailed in Hungary ever since the Emperor Joseph trench'd upon their privileges; but it is evident the present emperor does not fear any ill consequences therefrom, or he would not so readily trust his subjects of that country with arms. Perhaps he means to gain their favour by a restoration of privileges, or concludes that they will submit to the loss of them, rather than admit a foreign enemy.

GERMANY.—The portion of Germany occupied by the French troops, and whose princes have been hostile to the republic, are loaded with heavy contributions for the support of the French armies. To do the French justice, they demand that those contributions should be paid only by the nobility and the rich. Bavaria has been loaded with its full share, brought on it by the rapacity of its prince, who has filled his own coffers by the

British subsidy, while the enemy he has provoked by accepting it are fleeing his unfortunate subjects. The conduct of this prince must operate very powerfully with the emperor; for, should he make peace, and withdraw his troops, which consist not only of his contingent as a prince of the empire, but of all that are in the pay of Great Britain, it will most certainly greatly reduce the imperial army.

The French general, Augereau, has concluded a treaty of peace with the reigning princes of the house of Nassau, viz. Nassau Weilberg, Nassau Usingen, and Nassau Orange. This is a strong proof of the good intelligence the King of Prussia entertains with the French government; for the prince of Nassau Orange, (the Statholder), who is his near relation, is now well known to be in actual hostility with France, and to have every man he can influence, and even his sons, in the pay of England.

SWISSERLAND & ITALY.—The new constitution of Swisserland has been accepted. This change in its constitution has been made with less disturbance than, from the spirit of the people, might occasionally have been expected. The provisional council has published a proclamation inviting the people to be peaceable, and to receive their new constitution with readiness, which, they assure them, is founded on the true basis of representation. At the same time, they carefully warn them against any attempt to revive a federal government.

WEST INDIES.—The yellow, or some other malignant fever, seems to be again active in the West Indies. On board the cutter which brought the last mail from Jamaica to Falmouth, three of the crew died of the fever on the homeward bound passage.

Toussaint, the negro chief, seems now to be in complete possession of St. Domingo. He has adopted a species of taxation which might be usefully followed in Europe, viz. a tax on absentees. The regularity with which this man proceeds, will perhaps tend to shew, that negroes are capable of maintaining some kind of government, and that property may be made as safe under them as under the more enlightened whites. The fate of this colony is of the greatest importance to Europe, at least to those European powers who possess colonies in the West Indies. If it succeeds, we may reasonably presume, that negroe slavery cannot long exist in its neighbourhood; and it will be a most pleasing reflection to every humane mind to see Europe supplied with that highly useful commodity, sugar, without the existence of slavery, or the accursed slave trade.

AMERICA.—The approaching elections in America bids fair to determine whether the French or English party will prevail. The conclusion of the treaty with France evidently proves, that the French party are very powerful and much dreaded; as, after Mr. Adams's conduct, nothing but a fear of the resentment of his countrymen could have induced him to adopt such a measure. It is a melancholy situation for this country, that her rulers have brought her into such a situation, that it is scarcely possible she can now be on strict terms of friendship with one of the great European powers without the danger of hostilities from the other.

Commercial Affairs.

THE Russian American Company, composed of stock proprietors, and having for its object a trade with the Eastern Ocean, has lately received its charter from the Emperor, and has begun its undertaking with great activity.

The number of vessels built in the several ports of the British empire, in the year 1789, was 827, whose tonnage amounted to 71,090. In the year 1799—852, whose tonnage was 97,825. The number of vessels belonging to the several ports of the British empire in 1787, was 14,316. The number of men and boys employed in navigating the same, 108,962. The num-

ber of vessels in the year 1798—17,295—number of men and boys, 129,546. The number of British ships which entered inwards in the year 1789, was 11,907—the number outwards 13,508. The number of foreign ships which entered inwards in the same year, 1542—the number outwards, 891. The number of British ships entered inwards in 1799, 10,557—the number outwards, 10,085. The number of foreign entered inwards in the same year, 3012—number of ditto outwards, 2,392.

Tobacco, in almost every country, has become a considerable source of revenue. In England, in 1798, the duty amounted to 848,493*l*. In France, previous to the Revolution, it yielded 29 millions of livres. In Spain, nearly 10 millions of rix-dollars; Portugal, about half that sum; Austria, a million; Naples, half that sum, and Denmark, about 50,000 rix-dollars. The climate of the West Indies is as well calculated for tobacco, as any part of America.

Upwards of 140,000 pieces of Nankeen have been brought from China by the last ships; one ship with spices, is arrived from Ceylon, and two more are expected.

At Kingstown market, cheese sold from 7*s* to 8*s* per cwt.; some much higher. The sheep were few, and sold high.

The first load of new wheat brought into the market at Bath, sold for 55*s* a bag.

At the wool-market at St. Ducuman's, Somersetshire, wool was sold at 1*s* advance on last year's prime.

At Shelmeaton fair in Suffex, there was a good show of sheep, wethers 22*s* to 32*s*; ewes, 18*s* to 32; lambs, 9*s* to 19*s*. Many were driven back.

Cotton wool, in consequence of the late arrivals, has declined in price; sugar, tea, and coffee, are also dull of sale.

At Peterborough fair, there was a large show of cattle and horses, which in general sold high.

Mr. Woodhead, formerly a cornfactor, has given the following reasons why the price of flour frequently exceeds that of wheat: a few opulent individuals, he says, have the entire guidance of the market, and return to the meal weighers what price they please for flour; this price is generally regulated by certain rules, in the sale to the necessitous bakers, who are obliged to bring part of the money in hand, by way of advance, and then a high price is fixed on it, which is returned to the meal weighers as the *BONA FIDE* price.

In Edinburgh, on Wednesday Oct. 1*st*. oatmeal fell 2*d* per peck. Wheat in Haddington market, on the Saturday before, fell 3½*d* per boll, and much remained unfold. A society at Sterling which had imported a cargo of grain, converted it into bread, and sold it at 10*d* the quartern loaf.

An attempt has been made in London, to raise the price of milk; but, by the spirited opposition of the inhabitants, this daring innovation has been checked. It has been proved, that the cow-keepers make an annual profit of 14*l*. on each cow. There appears to be 8500 kept for milk in the neighbourhood of this metropolis, the property of no very considerable number of individuals, whose profit per annum is not less than 120,000*l*.

Braintree fair was well supplied with Scotch, Welch, and Irish cattle, which sold freely at moderate prices. The hop fair was thinly stored, and the best pockets sold from 18*l* to 20*l* per cwt.

At Stirbich fair, there were a few hops in pockets, which sold from 15*l* to 20*l* per cwt. Derby cheese 80*s*; single Gloucester 80*s* to 82*s* per cwt. Cottenham and Cambridge, from 7*s* to 8*s* per stone.

At Reading fair, the quantity of cheese was greater than expected; the best sold from 78*s* to 86*s*. and new meal from 60*s* to 70*s*.

Accounts from Memal represent, their rye harvest has been very plentiful, as have those of oats and barley; but that their wheat harvest has been so short, there are no hopes government will take off the duty.

The exportation of live hogs and bacon, has been prohibited from Denmark, and the duchies of Holstein.

At Lymington fair, there was an extraordinary large quantity of cheefe, for which the dairymen asked 5l per cwt.; but finding no buyers, they lowered, and sold the best from 8os to 84s per cwt.

On account of the high price of hops, orders have been sent to the commissioners of the customs, to allow the free importation of foreign hops.

The total of the 3 per cent. annuities, purchased for redemption of the land tax, was on the 2d of Oct. 15,587,824l. and will require 1,952,379l. to complete the purchase.

With the laudable intention to facilitate the circulation of foreign grain from the ports of Hull and Liverpool, through the interior of the kingdom, the Coventry Canal Company have announced that flour shall pass the whole, or any part of the line free of tonnage duty.

The crops of the West India islands have, the last season, proved so abundant, that a sufficiency of vessels could not be procured to bring it to Europe.

Notwithstanding the appearance of a plentiful harvest; we are concerned to state that the price of wheat, which at first fell, seems now to be rising in every part of the kingdom; and this, notwithstanding the aid of a very considerable importation. It has been found, that on an average of the last 25 years, 162,000 quarters have been imported annually. On the average of the last ten years, it has amounted to nearly 400,000 quarters; and in the year ending Sept. 1800, the importation has exceeded 900,000 quarters, which at a general average of 95s per quarter, amounts to 4,275,000l. to which add the value of barley, rye, oats, and flour, and the whole cannot be of less value than 6,000,000l.

The nett duty of all the customs received and returned to the Treasury for one year, to the 5th January, 1800, was £10,048,050
Of excise 13,366,680
Of excise from North Britain 672,000

The whole amount of the revenue, including land tax, is 37,000,000

At the last Weyhill fair, the best Farnham hops sold as high as 25l. Crondalls 22l. and 23l.; Kent 18l. to 19l. The leather fair, very dull, prices in general, butts 2s to 2s 1d; crops 1s 10d to 1s 10½d; light hides 1s 7d to 1s 8½d; skins 2s 1d to 2s 4d. The cheefe sold higher than at Lymington fair.

In consequence of a resolution of the distillers not to distill from grain, and of the known intention of the ministry to bring forward a bill to prohibit such distillation for a certain time, the prices of sugar and rum advanced very considerably.

The law prohibiting the exportation of rice having expired, government have very properly sent orders to the collectors of the customs of the various ports, not to clear any ship with rice before the meeting of parliament.

An order has been sent to the officers of the customs at the various ports, to prepare an account of the provisions imported into Great Britain during the last twelve months.

The brewers have given notice to the publicans, that they must raise the price of beer to them, consequently porter will not be sold to the public under 4½d. per quart.

The crop of new lemons in Spain has this year been remarkably fine, but not very abundant. The Swedish ships laden with that commodity have all failed, but the Danes are waiting for convoy.

Statement of foreign and English exports from Bengal, in the year 1797, 1798, and 1799, by which a comparison may be readily made between the increase and decrease of the respective tonnage in these three years: the British ships from Bengal, in the year 1797, brought, according to computation, 40,881 tons; the foreign ships no more than 17,190. In 1798, the British ships brought 41,260 tunss and the foreign ditto advanced to 21,851

tons ; but in 1799, the British rose to 53,883 tons, and the foreign sunk so low as 15,607 ; and in the year 1800, the difference appears still more considerable.

From the returns of the customs it appears, that the cotton exported from Bombay to this country, from the month of Dec. 1798, to October 1799, amounted to 9,000 tons. It also appears from the public calculation, that the country ships have exported from this country to the Indies, from Nov. 1799, to July 1800, of European commodities, 15,552 tons registered tonnage, which at least makes the value of the cargoes amount to no less than 483,651l.

Manufactures and Useful Arts.

THE Scotch herring fishery has been greatly injured by a large fish called Scath, which devours the herrings, and breaks the nets.

A very curious machine has lately been invented by Mr. Brunel of Lambeth. It is a writing machine, so contrived, as while a person is writing the machine will produce one or more correct copies nearly *fac similis*. The machine is complicated, but must be very useful to merchants.

We are told, that on account of the vast number of fishermen and their constant labour, that the Thames appears nearly destitute of fish, and should suggest, the expediency of prohibiting net fishing for a time. The present supply of fish is certainly small ; in Germany fish-ponds form a special part of husbandry ; the practice has been wisely introduced into Russia, and has become a great source of nourishment to the poor. This country, from the abundance of its reservoirs and canal navigations, is admirably calculated for the system, which we should rejoice to see generally adopted.

Lord Somerville, late president of the B. of Ag. is said to have discovered, that the excellency of the quality of the Spanish wool, is in part owing to the effects of a sort of *calcareous* earth mixed with argile, with which, instead of our tar, the Spanish shepherds are accustomed to rub their sheep very much.

A Mr. Gower, an officer in the India Company's service, has built a ship and rigged her with five masts. He asserts she will sail nearer to the wind than any vessel yet constructed. She has sailed from the river Thames to the westward on a trial.

The malt distillers near London, have come to a resolution not to distill any more from grain.

The starch makers have also come to the resolution to stop working until the meeting of parliament.

The woollen manufactory in the West of England, is, we are concerned to hear, in a state of decline ; which arises partly from the relative situation of the country, and partly from the progressive improvements which have taken place in other counties of England.

The cow pox has been introduced by Dr. Marshall into Gibraltar, where he has inoculated with it a great part of the garrison, who had not had the small pox, with great success. He is going from thence to Minorca to introduce that practice there.

Mr. Dodd, the engineer, has lately made two borings at Gravesend, one on the Kent, and the other on the Essex shores, by which he has been able to demonstrate with certainty, a passage under the River Thames, with a Tunnel, wholly in a chalk rock. The meeting of the committee on Friday at the London Tavern, came to the resolution of erecting a powerful steam engine, on the Kent shore, for the drainage of the works, to be erected with all convenient dispatch, after which, we are informed, the work will be proceeded on with the utmost vigour.

Natural Phenomena.

A SHEEP was killed at Galby, in Lincolnshire, to ascertain the cause of its not growing. The fat of one kidney was found to weigh 37lb. 4 oz. and the remainder of the carcass only 48lb.

At Brighton, a very extraordinary phenomenon was observed the latter end of September. In the evening, at about a quarter past seven, at which time a column of variegated light, at an equal distance from the horizon and from the moon, with which it was parallel, and which shone bright, appeared about S.W. The first streak to the west was a dark brown, the next a bright crimson, then a light lemon running off to the N. E. in a pale greenish tinge, something like the point of a triangle. It differed from the aurora borealis in the superior brilliancy, as well as permanency of its various colours, which continued without any material alteration for about 20 minutes, when the entire body gradually disappeared.

An American physician, (Dr Angelis,) supposes the yellow fever to proceed from the excessive use of peaches and cucumbers; he draws his inference from the circumstance of a great majority of his patients having eaten of these immediately previous to their illness.

In digging a well for a brewer at Chelsea, some time since, a stratum of loose coal was discovered about a foot thick, fifty feet beneath the surface, as it is a general rule, that when coal is once found, other strata are always found underneath, it is to be hoped this inquiry will be pursued.

An apple tree appeared in full bloom in a garden at Widcomb, early in October.

Notwithstanding the few insects we have been troubled with in England, in Scotland, especially about Dundee, where the heat and drought have exceeded every thing remembered for these twenty years, it has been otherwise. Myriads of insects have been seen, some of which only appear in such seasons, as the corn in fuz. A few very large papilios, or moths, have appeared.

A waggon on the road from Scarborough to York, was a few days ago, struck by lightning, and with its loading consumed. The passengers and horses escaped.

The summer season, at Hallifax in Nova Scotia, has been uncommonly unhealthy. They had no rain for two months, and the woods all round were on fire.

Seven hundred and eighty starlings were taken at one time a few nights since, in a dove cot at Charlton near Lincoln.

One of the kangaroos lately exhibited at Exeter 'Change, brought forth a young one on the 10th of Sept. last, which the mother concealed in a cavity or pouch, which nature had provided it with at the breast till the 14th of October, when it came out for some time to feed. It now comes out of its retreat to feed and returns again, and may sometimes be seen with its head and shoulders out only, eating such food as is given to it.

In the church of the Minems at Naples, there is an agate in the altar piece which represents a St. Francis with a beard, capucha, &c. all in their proper colours. In the church of Bethlehem are several columns of transparent jasper, on which are naturally portrayed the figures of various birds, fishes, &c.—there is also a fine transparent Indian stone of various colours, which when exposed to the beams of the sun, displays a man mounted on an elephant; these figures are said to be so very correct, as to be easily mistaken for a picture.

Agriculture.

Monthly Report of Agriculture, for October 1800.

THE very fine dry weather that we have been favoured with for several weeks past has enabled most of the farmers, even in the lowest fens as

well as the northern districts, to house their crops in good condition. The wheat seed sowing in most parts of the kingdom, is in a state of great forwardness, and the ground is in general in fine condition. Most of the early wheat plants look well, and notwithstanding the high price of seed, a greater breadth of land is sown in every district, except the fens, than usual. But as the wheats on the low fens have been destroyed two winters together, the farmers will scarcely venture to sow them with wheat this season, a circumstance which ought to be made very public, in order to move the occupiers of the highland districts to sow more, and also to excite, if possible, an increased importation. The fine wheat seed season, and other causes, have produced a rapid rise in the price of wheat, and grain in general; but as the wheat seed season will soon be over, and as Parliament are to be convened professedly to reduce the high price of provision, we may expect a speedy and great reduction in the price of wheats and provisions in general.

Most of the crops of turnips, rape and cole seed, were greatly injured by the dry weather, but since the rains commenced, they are improved to admiration.

The crops of potatoes got up are not abundant, and after the hot weather had killed the tops, the succeeding rains caused many of the roots to shoot afresh, and have produced many young potatoes among the old ones, and some of these are as large as the old ones, and others are so compactly conjoined to the old ones, that the first ripe, and the young potatoe, frequently constitute but one. But as the young potatoes will not keep well where they cannot grow to be ripe, the young ones should be carefully picked out; and such as will easily part from the first ripe, should be cut or broken off, and the young potatoe used first.

Good beef, mutton and pork, have rather advanced in the London markets, and are high in most country markets, but as soon as the abundance of grass fails, they may be expected to be considerably lower.

Lean stock in general, are somewhat higher in price, owing to the abundance of grass; but the excessive high price of grain, reduces the price of store hogs; and as soon as grass fails, other stock will probably be lower.

The great plenty of grass and other herbage, rather reduces the price of hay at present.

The hop markets are brisk and dearer. The wool sells rather higher.

Mr. Wright of Mark-lane, some time since endeavoured to establish a small farming society, but failed for want of patronage. The plan however, was approved of. From the information he then procured, it appeared, that within the last forty years, forty thousand small farms had been consolidated into large ones, to the destruction of so many families, besides part of the cottages dependent on them. Calculating them only at thirty thousand, their produce of small stock would have been 60,000 calves, 300,000 lambs, 800,000 chickens and 4,000,000 lbs. of butter, besides eggs, cheese, geese, ducks, turkies and pigeons beyond calculation, of which scarce one fourth would be procured on the same, when converted into large farms. It being well known that such farms, except for the use of their own families, raise little else but grain and hay.

One grain of tartarian oats, planted for experiment by Mr. Airy of Awber-ton, near Sheffield, this year produced on four stems 1,356 grains.

Twenty-four opulent land-holders of Kent, have entered into a resolution to supply the markets of that county, and to lower the present price of provisions.

The oca, a plant abundant in the low lands of America, is an excellent substitute for coffee, and is stated to exceed that grown in the West-Indies. The oca seed is toasted, ground, and prepared in the same manner as coffee, and in flavour, smell, and colour, cannot by ordinary persons be distinguished. The oca pods, when young, are generally used in the Carolinas to make soup.

At Farnham, the hops average $2\frac{1}{2}$ cwt. per acre.—At Crondall, in the same neighbourhood, not more than 2 cwt.

The provincial prints are crowded with notices of intended applications for inclosures. It is the opinion of many enlightened men, that a general inclosure would be one great means of producing greater plenty of provisions, and consequently at less price. We cannot omit the following statements ascertained by the Agricultural Society of Lincolnshire, that “upon an average, rents have trebled by enclosure:”—in many instances they are eight times greater, as at Long Sutton, Holland Fens, &c. and in some, as Lincoln Heath, Kirton, &c. rents have increased in proportion of one to ten.

Within forty years upwards of 92,033 acres have been enclosed in twenty-seven parishes in Lincolnshire. The old rents amounted to 21,490l 16s 5d—they now let at 72,150l 15s 11d. being an increase, in consequence of enclosures, of 50,659l 19s 6d annually. These works cost 175,191l 13s 11d. and deducting the interest of this sum from the amount of improvement, leaves an annual net gain to the owners of 41,005l 8s 11d. Upon a moderate calculation, the yearly produce is three times the rent; and hence it follows, that by enclosures in question, the community is benefited to the amount of 216,451l 14s 6d annually.

In the neighbourhood of Belvoir Castle, a lordship thirty-two years ago was 300l. a year; it is now 1500l.—and an estate at Swinhop, in Lincolnshire, occupied by the Rev. Mr. Allington, which sixty years ago let for 95l now lets at 960l.

The increase of individual revenue, powerfully as it stimulates the immediate parties, is of the least importance, though, when proceeding from a proper source, entitled to much weight as a national consideration. It has been demonstrated, that infinitely the greater part of the commons, or as they are well denominated, the wastes of England, are wholly unproductive; and it must be self-evident, that even the best of them would be more beneficial, if properly cultivated, than in the rude state in which they have long remained. The question of enclosure, therefore, extends beyond the persons immediately connected with the commons; it comprizes the community, which, in obtaining more abundant and more reasonable sustenance at home, would retain several millions of its specie, which is at present annually exported to foreign countries.

Potatoes, we are sorry to say, have in general failed this year. Two instances, however, have occurred in which they have yielded to the proprietors 100l. and 120l. per acre. The London markets are chiefly supplied from the Humber, where the crops have been pretty good. The following remark on this useful species of food may be of service:—potatoes intended for sets, should be grown without dung, if on rich soils; and if on poor soils, with less manure than is given to those intended for the table, and with less earthing up, in order to prevent the curl, which is occasioned by the sets being grown under a system too rich and forcing.

Potatoes are excellent food for milch cows, but treading in the dung which they induce, is apt to make the feet of the animals tender.

An extraordinary ox has been bred, and is now exhibiting in America. It weighs 2996lb. from the nose to the tail, exclusive of the brush, it measures 17 feet 3 inches; its height is 6 feet 2 inches, and measures 9 feet 3 round the girth. It was bred in New Jersey.

A new species of *willow* has, we hear, been introduced into the island of St. Helena from the Brazils, which is represented to thrive beyond all expectation, and likely to prove a substitute for the gum wood trees, for the purposes of fuel.

At Brampton Bryan in Lincolnshire, six farms of ordinary size have, within a few years been engrossed into one, at the yearly rent of 1100l. On the six farms, 54 cows were kept, and on the consolidated farm, only 32. The decrease of pigs, poultry, &c. has been still greater.

Application is intended to be made next session to parliament, for leave to inclose Needwood Forest, in Warwickshire, which contains upwards of 9,000 acres of ground eligible for agriculture.

Planting wheat in rows by the hand, is now much practised in Suffolk. It is said, that half the usual quantity of seed will, by this practice, be sufficient, and that the crops always exceed those sown by the machine or broad cast.

A plant of Egyptian wheat on a rough corner of a hill, near Whitehaven, yielded fifteen heads, containing seven hundred and twenty grains.

At the Rutland county meeting at Uppingham, last week, it was resolved, in order to reduce the consumption of wheat, to sell rice to the poor at a low rate, and a subscription was opened for the purpose.

At Devizes the price of wheat during the last week advanced to 1*l.* per bushel, being 20*s.* per quarter higher than the preceding week, and 19*s.* higher than the exorbitant prices of the metropolis.

At Bath, on the 4th instant, wheat sold at 15*s.* 9*d.* per bushel, and the affize of the quarter loaf was fixed at 1*s.* 4½*d.* On Wednesday last the averaged price of the bushel of wheat amounted to 18*s.* 3*d.* and the quarter loaf was sold at 1*s.* 9*d.* a sum unprecedented even at this period of extortion and wretchedness; although at Worcester, Oxford, Devizes, and some other places, wheat is considerably dearer. At Bristol wheat sells at 13*s.* 3*d.* per bushel, and the shilling loaf weighs 3 lb. 2 ozs. 4 drs.

At Worcester wheat last week sold at 19*s.* 6*d.* to 22*s.* per bushel, being an advance of 1*s.* on the prices of the preceding week. At Exeter, Derby, Ashburne, and Oxford, it is likewise 8*s.* per quarter dearer; at Lynn 14, Chesterfield 16, Northampton 18, and Leicester near 25*s.* At Stamford and Warminster the advance has been confined to 6*s.* and at Salisbury to 4*s.* per quarter.

At Derby the shilling loaf of standard wheaten bread was on Wednesday reduced from 3 lb. 6 ozs. to 2 lb. 9 ozs. 12 drs. At Exeter the loaf of like description weighs 4 lb. 3 dt. At Norwich and Stamford the size of the loaf has experienced some diminution, and at Oxford the household quarter loaf sells at 1*s.* 4*d.*

An account of the quantity of foreign grain, meal, and flour, imported in to England from the 1st of Jan. to the 1st Sept. 1800.

Wheat	-	721,993 quar.	Barley	-	53,284 qrs.
Flour	-	176,352 cwt.	Beans	-	11,159 do.
Rye	-	114,176 quar.	Oats	-	308,347 do.
— Meal		11,18 cwt.	Pease	-	10,071 do.
Indian corn	-	4,179 quar.	Oatmeal	-	1,165 bolls
— Meal		425 cwt.			

The above is a correct account made up by the officers of the customs; and the imports since are supposed to make the whole of the importation of wheat amounting to 900,000 quarters. In this importation it has been remarked by some of the oldest men who have done business on the Corn Exchange, that this is the only importation (and in its extent much greater than any they remember) that has not lowered the prices of corn.

In consequence of the high price of potatoes, which have arisen in proportion to other provisions, a dealer in that article has engaged with the corporation of London to sell to the public at large the best potatoes at three farthings per pound, and an inferior sort at one halfpenny, provided the corporation furnishes him with warehouse-room for the purpose of retailing them, together with weights and scales, which they will be at liberty at all times to prove just.—The sale commenced on Tuesday morning in Honey-lane market, where large quantities were disposed of.—The good effect this plan is likely to produce, may be judged from what took place the following day. As soon as the other dealers found that all their customers applied to this new warehouse, they reduced their potatoes to the same price; boasting at the same time that they could afford, and would supply the public at the same rate as their new opponent.

Fine Arts, Science and Literature.

THE beautiful Bacchanal ion vase which was brought from Italy about twelve years since by Lord Cawdor, and sold at the sale of his lordship's museum to the Duke of Bedford for 700 guineas, has been removed by his Grace to Wooburn, to be placed in the centre of his large and beautiful new green house, designed and executed by Mr. Holland.

It is a circumstance worthy of remark, that notwithstanding the long continuance of dry and warm weather, fewer insects have been seen since than in any summer within the memory of man. Very few wasps have been seen, and the common fly has not been numerous; and although the domestic bee has thriven well, the wild bee has shared the fate of other insects.

From the memoirs of the Savans, who accompanied the French army to Egypt, we have a report respecting the celebrated column of Pompey at Alexandria. It is placed on a base; a centre of four feet six inches, in form of a square, serves as its sole supports. This centre is formed of the fragment of an Egyptian monument, and must have been brought from some other place, as the hieroglyphics are reversed. The pedestal is ten feet high, the shaft sixty-three feet, the capital nine feet ten inches, the diameter of the column diminishing from eight feet four inches, to seven feet two inches. The pillar is of Theban granite, the capital of the Corinthian order.

A Roman pavement has lately been discovered in a meadow called Pitt Mead, between Warminster and Heytesbury. It is very beautiful, twenty-two feet square, and possibly more may be discovered in the neighbourhood.

A grand botanical garden, established many years since, in the vicinity of Colombo, the celebrated Dutch botanist Loten, has attracted the attention of the Medical Board, and every improvement is making there, by forming collections from every part of India, and making experiments.

A great variety of fine and beautiful articles have been lately imported from India, and are designed as presents for the royal family. They are most of them from Seringapatam, part of the plunder of the unfortunate Tippo.

Much has been published in France respecting the savage of Aveyron, found in the forest of Tarn. A M. Bonaterre has written on the subject, and states, that fifteen persons have been found of similar descriptions since 1554, in different parts of Europe. M. Secard is endeavouring in the education of this child, to elucidate the intellectual faculties of man. For nine months he has been employed in getting his young savage to wear clothes, to eat dressed food, and to sit in a chair, instead of squatting on the ground like an ape.

The class of the moral and political science in the national institutes of France, had a variety of excellent memoirs read before them at their last sitting. One on the geography of Greece; on the scourges attendant on slavery; on the character of Plato; on Cato the censor. Some politics, moral views; on the intellectual and moral faculties of the negroes; on the republic of Athens; on the French laws and manners in the fifth century; history of the establishment of the common law in France; on sepultures.

M. Salmon, a physician in the military department of Rome, and member of the Physical Mathematical Academy at Rome, has lately read before the Academy, a memoir relative to the volcanic basalt. In the formation of these specimens, he recognizes the successive actions of fire and water, whence he deduces a new theory of the earth.

Morals and Manners.

THE Provision Committee of Bath, on the termination of their labours, found they had distributed 60,000 quarts of soup, 200 barrels of rice, 200 sacks of potatoes, and 300 chaldron of coals.

The sessions at the Old Bailey [this month have exhibited a dreadful system of human depravity; so many prisoners were tried, as kept the court sitting near a fortnight. At the close, no less than fifteen received sentence of death.

The London Flour Mill Company have taken Alderman Hammerton's mills at Lea Bridge, at a rent of 4,500*l.* per annum.

The Corporation of Worcester have instituted a society for the purpose of ensuring to that city a regular supply of provisions. There are one hundred members, each subscribing twenty-five guineas. The Mayor, county and city Members, the Dean are amongst the patrons of the plan.

Caution. A boy went down a well in the neighbourhood of Stilton, and shortly calling for assistance, a man went down and fastened the rope round the boy, who was immediately drawn up and recovered; but the poor fellow perished by the foul air.

The accidents which have lately happened by persons being buried alive, should attract the attention of the legislature. A man at Limerick, and another at Brussels have been lost by mistakes of this kind.

A gardener has lately been convicted for robbing his master of three exotic plants. This, we hope, will be a caution to others, and every servant; that what they deem trifles, are as much the property of their master, and ought to be as carefully preserved by them, as other articles. Robberies of fine fruit has been long complained of. A prosecution or two for that crime will be of service to the public.

Among the methods adopted by the various cities and towns to raise funds to supply the poor with unadulterated flour and bread, at reduced prices, that of Bristol seems to be the best digested. Each subscriber pays one guinea; and, to open to the poorer sort the benefit of this institution, the sum may be paid by instalments of 1*s* per month, and each share entitles the holder to 1*s* worth of bread and flour weekly; by this means it is thought the industrious poor will have bread at half the present price.

At Leicester sessions, two women were sentenced to be imprisoned fourteen days in a solitary cell, for rioting in the butter market. At Morpeth sessions, two women were sentenced to one month's solitary confinement for persisting to glean a wheat field before the grain was carried, and for assaulting the farmer who warned them off. At Peterborough quarter sessions, J. Rogers was sentenced to three months confinement for forestalling. At Surrey assizes two persons were tried for rioting, one at the house of Mr. Weaver, in the Borough, was sentenced to six months imprisonment, and another received the like sentence for rioting at Kingston. An infamous old woman was sentenced to the pillory for keeping a house of ill-fame at Mitcham, into which she enticed young girls of the neighbourhood who were there debauched.

A baker at Dorchester was fined 5*l.* for demanding a halfpenny more than the assize for a quartern loaf, and 5*l.* more for selling the loaf in question before the appointed time.

A barn at Marlborough was lately set on fire wilfully, and a considerable quantity of grain destroyed.

At Marlborough session, a miller was fined 50*l.* for defrauding his customers.

At the same assizes, an overseer of the poor, and a person who keeps a house for travellers, were fined for ill treatment of a poor Irish woman, and turning her out on a rainy night when sick. The former was fined 50*l.* and the latter 10*l.*

A temporary allowance is to be made to the clerks and others in inferior situations in the public offices.

Some of the benefit societies of Worcester have agreed to set apart some portion of their funds to be returned to their members.

Subscriptions are going forward in Suffolk to build life-boats to preserve shipwrecked seamen on that coast.

At the Oxford county meeting, at which the duke of Marlborough, Lord

Macclesfield, the Bishop of Durham, Sir C. Willoughby, Sir C. C. Dormer, and other magistrates were present, it was resolved, "that if the tenantry should continue to require such high prices as at present for their corn, it will become necessary for the land-owners, in justice to themselves, to change their mode of letting their lands, by substituting a CORN RENT, that will vary with the times, in the place of a fixed and money payment." It was further resolved, "that an act of parliament to enforce a sale of corn in bulk in open market, to direct the registering all sales thereof, and to prohibit, under heavy penalties, the re-sale of corn (except in small quantities) within a certain distance, to be fixed by the legislature, would in our judgment be highly expedient and beneficial." Other resolutions instituted a fund for the prosecution of forefallers, &c. and for reducing the consumption of wheat by a mixture of other grain in making bread.

At the Westminster sessions on Friday, Oct. 25, John and William Marshall, two brothers, butchers, in Carnaby-market, were indicted for selling unwholesome meat. It appeared in evidence that Mr. Webb, a brewer, of St. Giles's, had a diseased cow at his country-house at Hampstead, who sent a person, a journeyman butcher, to kill her. This man purchased her of Mr. Webb, under the pretext of selling the flesh for dog's meat, but instead of doing so, he took it to Newgate-market, entered it in the name of Mr. Page, a respectable butcher at Hampstead, and sold it to the defendant, John Marshall, at a low rate. It was removed to the shop of the two defendants near Carnaby-market, and there sold by William Marshall to one of the officers of the Police-office in Marlborough-street, who, on information being given, was sent by the magistrate for that purpose. Both the defendants were found guilty, and immediately sentenced to pay a fine of 5*l.* and to be imprisoned six months.

BANKRUPTCIES AND DIVIDENDS,

Announced between the 20th of Sept. and the 20th of Oct. 1800.

BANKRUPTCIES.

BATMAN, S. M. Turwheel lane, merchant
Berridge Robt. Bishopgate street, merchant, [Mounsey Castle street, Holborn]
Bowley, J. Bow street, auctioneer, (Allingham, St. John's square)
Bishop, Matthew, Sherborne, baker, [Dyne, Serjeant's inn]
Chapman, S. Norwich, soap merchant, [Blake, Norwich, Tibury and Redford, Ely place]
Ewen, A. E. Nantwich, Cheshire, grocer, [Luckett, Basinghall street]
Edwards, E. Pevensey, Sussex, dealer, [Bland, Racket court, Fleet street]
Farrant, W. Sheerness, butcher, [Ledwich, Queenhithe]
Grimham, T. Hartley Whitney, Southampton, coach maker, [Rennel, Odham, Hants]
Garner, J. Bermondsey, wool comber, [Heard, Goodman's fields]
Greenall, W. Hardshaw, Lancashire, chapman, [Rowson, Prefcot; Leigh, New Bridge street]
Glasbrook, T. Wigan, shopkeeper, [Higson, Manchester; Ellis, Compton street]
Holt, J. jun. Manchester, rope maker (Knights, Manchester; Ellis, Curfitor street)
Hamlin, W. Upper Cleveland street, victualler, (Trickey, Queen Ann street)
Jackson, T. Stratford, Essex, shopkeeper, (Bishop & Co. Essex street)
Jeffery, R. Bristol, hat maker, (Tanner, Bristol; Jenkins, New inn)
Keller, T. Birmingham, baker, (Low, Birmingham; Sanderson, Pallgrave place)
Keller, T. Birmingham, wire worker, (Webb, Birmingham)
Kilmington, W. Gloucester, stone mason, (Wilkinson, Gloucester)
King, R. Clerkenwell, victualler, (Young, Carlisle street)
Loughbottom, N. Halifax, grocer, (Coulthurs, Bedford row; Swainson, Halifax)
Mc Kowl, A. fen. Great Wild street, (Allingham, St. John's square)
Parkinson, J. jun. Great Yarmouth, shopkeeper, (Forster & Co. Norwich)
Powley, R. Hornsea, Yorkshire, dealer, (Lockwood, Beverley)

Samson, T. Beningholme Grange, Holderness, (White, York; Barton, Gray's inn)
Symons, J. Birmingham, factor, (Ekington, Birmingham; Tarrant, Chancery-lane)
Sier, J. & W. Mitchell, West Cowes, shipbuilders, (Gilbert, Newport)
Thompson, J. & C. Mc Adam, Liverpool, merchants, (Ozrel, Liverpool; Cowper & Co. Southampton row)
Taylor, G. Marlborough, barge owner, (senior, Charles street, Covent garden)
Taylor, J. Mortlake, coach maker, (Trickey, Queen Ann street)
Vallet, V. Halliwell, Lancashire, chemist, (Hardman, Bolton)
Vine, J. Holborn, linen draper, (Parry, Theaves inn)
Watson, R. Oxford street, silkman, (Mounsey & Son, Cast street)
Watson, J. Ashton-under-Line, Lancashire, cotton merchant, (Milne & Co. Manchester; Milne, Hare court)

DIVIDENDS ANNOUNCED.

Anderfon, W. London muslin manufacturer, Nov. 4
Anderfon, A. & D. Robertson, Coleman street, merchant, Nov. 15
Andrews, H. Elstead, Surry, meal man, Nov. 4
Baty, J. Grocer's Hall court, warehouseman, Nov. 15
Budd, T. Lindhaigh, Southampton, shopkeeper, Oct. 7
Brock, S. & R. Webber, Morley, Yorkshire, merchants, Nov. 8
Bainbridge, W. Gerard street, Soho, carver, Nov. 8
Clark, J. Fancies lane, tailor, Oct. 25
Collier, W. Reading, carpenter, Oct. 20
Collier, A. North Shields, chemist, Nov. 6
Cooper, J. Henley on Thames, money scrivener, Dec. 9
Coburn, W. Bath, linen draper, Dec. 18
Creek, J. Kintbury, Berkshire, clothier, Nov. 8
Duckworth, J. B. Ashford, Kent, wine merchant, Oct. 28
Daniel, W. York, coach maker, Oct. 20
Drury, T. & R. Gibbons, Bread street, ribbon weavers, Nov. 4
Dalton, W. Brayhead, Kent, haberdasher, Nov. 5
Davis, A. W. George street, Hanover square, portrait painter, Nov. 22
Ellis, J. H. Vidwedg, and Lewes Hughes, of Tynyton, Glamorganshire, horse dealers, Dec. 1
Foster, E. Blackburn, Lancashire, grocer, Oct. 22
Fox, W. H. Laytonstone, apothecary, Nov. 17

Fisher, W. Swine, Yorkshire, and E. Fisher, Weyton, Yorkshire, dealers, Nov. 10
 Grefric, W. Gray's inn lane, tile maker, Nov. 4
 Gearing, W. Water lane, Fleet street, innholder, Nov. 6
 Ginger, R. Queenhithe, falter, Nov. 6
 Gevers, W. Pentonville, rable keeper, Nov. 5
 Green, R. Liverpool, merchant, Nov. 11
 Good, T. Shrewsbury, jeweller, Nov. 6
 Hayes, J. M. Ludlow, woollen draper, Oct. 29
 Harper, R. W. Sutton, Yorkshire, dealer, Oct. 21
 Hilden, Geo. Bocking, Essex, shopkeeper, Nov. 5
 Hilton, W. & J. Jackson, Oxford street, linen drapers, Nov. 5
 Hayes, J. M. Ludlow, woollen draper, Nov. 4
 Hudson, J. Huddersfield, Yorkshire, clothier, Nov. 6
 Johnson, T. Friday street, Cheapside, warehouseman, Nov. 4
 Jackson, W. Cambridge, apothecary, Nov. 10
 Jones, D. Bridgend, Glamorganth. shopkeeper, Nov. 11
 Lingham, A. Bedwardine, Worcesterth. glove maker, Nov. 19
 Lagodern, J. St. Martin's lane, Cannon-street, merchant, Nov. 4
 Le Lievre, All end, Finch lane, lane, London, Oct. 31
 Lythan, J. Icu, & R. Lythan, Coventry, woollstaplers, Oct. 27
 Mundell, E. Scarborough, and H. Skaff, Whitby, linen drapers, Oct. 28
 Mundell, E. Scarborough, & J. Mundell, New Malton, linen drapers, Oct. 28
 Metcalf, G. Kingston upon Hull, dealer, Nov. 5
 Mey, A. W. Liskeard, Cornwall, shopkeeper, Nov. 12
 Parlett, J. West Smithfield, grocer, Dec. 6
 Pashley, R. Wood street, wine merchant, Nov. 8
 Pratt, C. Cambridge, hair dresser, Nov. 10
 Pavey, J. Horley, Gloucester, clothier, Nov. 5
 Palmer, T. Newcastle, Staffordshire, butcher, Nov. 1
 Pritchard, E. Shrewsbury, dealer, Oct. 31
 Parker, J. St. Paul's Church Yard, goldsmith, Nov. 1
 Palmer, T. Wallingford, maltster, Oct. 20
 Randall, E. Stompant, barge owner, Nov. 6
 Ruff, H. Worcester, dealer, Oct. 21
 Snel, J. Hexey, Lincolnshire, cornfactor, Oct. 23
 Shevers, S. Nicholas lane, merchant, Nov. 5
 Scott, J. London, merchant, Oct. 25
 Swincock, T. Ramflea e, mail keeper, Nov. 7
 Skith, J. Ramsfield, innkeeper, Oct. 31
 Sandover, T. Tamerton, Devonth. dealer, Nov. 1
 Teare, F. Sater's Hall court, merchant, Nov. 3
 Toye, W. jun. Bridge Road, Lambeth, grocer, Nov. 4
 Tremlett, T. Exeter, and J. Hall, Uphingham, Devonshire, merchants, Nov. 6
 Twiddle, J. King street, Soho, tailor, Nov. 18
 Thomas, H. Neath, Glamorganth. ironvener, Dec. 18
 Vale, J. Birmingham, toy maker, Nov. 4
 Wills, J. & H. Hall, Christ Church, Surrey, soap makers, Nov. 9
 Wignell, A. Settle, Yorkshire, dealer, Oct. 21
 Watts, W. Whitehaven, dealer, Nov. 9
 Wilson, R. Colchester street, merchant, Oct. 8
 White, J. Leicester, falter, Oct. 31
 Wills, J. and T. Holborn Bridge, jewellers, Nov. 15
 Winter, T. W. Kingston upon Hull, innkeeper, Oct. 25
 Waring, R. Bridlington, grocer, Nov. 4
 Whalley, T. & W. Friday st. warehousemen, Nov. 4
 Young, C. Dover, coach maker, Nov. 29

LONDON PRICES of GRAIN for Oct. 1800.

MARK-LANE, Monday, Oct. 1.

THE supply of Wheat from Essex and Kent was rather short, which is principally owing to the Farmers being employed in getting the seed into the ground. Wheats may be esteemed full 10s per quarter dearer than last Monday; indeed, grain in general has experienced an advance in price; Oats, near 2s. Barley and Boiling Pease, full a shilling.

Price of Grain, on board Ship, as under:

Wheat	—	84s to 92s	Boilers	—	76s to 84s
Fine	—	94s to 100s	Suffolks	—	86s to 90s
Very fine	—	105s to 110s	Ditto Pearl Pease	—	94s to —
Rye	—	40s to 48s	Horse Beans	—	60s to 74s
Fine	—	50s to 52s	Ticks	—	54s to 64s
Coarse Barley	—	36s 48s to 54s	New	—	48s to 50s
Malting Ditto	—	60s to 74s	Oats	—	28s to 34s
Malt	—	60s to 76s	Fine	—	36s to 40s
Fine	—	80s to 84s	Polands	—	40s to 42s
Hog Pease	—	48s to 54s			

Monday, October 6.

THERE was this day a tolerable large supply of Wheat, both from Essex and Kent; and the chief of the runs were sold in the early part of the morning, at prices rather lower than last Monday; but the few that remained, sold (before the market finished) at considerable high prices. Barley comes slow to hand, and of course has a ready sale. Pease, Beans, and Oats, were but thinly supplied, and the last mentioned, 2s per quarter dearer.

Price of Grain, on board Ship, as under:

Wheat	—	80s to 90s	Boilers	—	76s to 80s
Fine	—	85s to 100s	Suffolks	—	86s to 90s
Superfine	—	105s to 108s	Ditto Pearl Pease	—	94s to —
Rye	—	44s to 50s	Horse Beans	—	60s to 76s
Fine	—	52s to 54s	New	—	53s to 57s
Strained Barley	—	40s to 60s	Ticks	—	54 to 69s
Malting ditto	—	65s to 74s	New	—	52 to 55s
Malt	—	60s to 70s	Oats	—	30s to 35s
Fine	—	80s to 86s	Fine	—	36s to 40s
Hog Pease	—	45s 50s to 60s	Poland	—	42s to 46s

Monday, October 13.

OUR supply of Grain, this day, was in general short, and prices rather on the advance,

Fine runs of Wheat obtained from 1s to 2s per quarter more than on Friday.

Rye is in demand, and has risen 4s or 5s per quarter.

Barley and Malt continue very scarce.

Pease, Beans, and Oats, are 2s. per quarter dearer, owing to the shortness of the supply.

Wheat	—	80s to 96s	Boilers	—	76s to 86s
Fine	—	100s to 112s	Suffolks	—	90s to 94s
Superfine	—	116s to 130s	Pearl Pease	—	98s
Rye	—	48s 54s to 60s	Horse Beans	—	55s to 62s
Barley	—	42s to 64s	Old	—	76s
Fine	—	70s 75s to 78s	Ticks	—	50s to 58s
Malt	—	60s to 76s	Old	—	70s
Fine	—	80s to 88s	Oats	—	34s to 36s
Hog Pease	—	50s to 68s	Fine	—	40s to 42s
			Polands	—	44s to 48s

Monday, Oct. 20.

OUR supply of Grain, this day, was in general short, particularly Wheat, which, being chiefly of an inferior quality, occasioned fine samples to obtain higher prices.

Rye, Barley, and Malt, remain nearly the same as last week.

Fine boiling Pease are much in demand, and have advanced considerably price.

Beans, about the same as last week; but fine samples of Oats are dearer.

Prices of Grain on board Ship, as under:

Wheat	—	80s to 100s	Ditto Pearl Pease	—	108s to —
Fine	—	102s to 114s	Horse Beans	—	60s to 65s
Superfine	—	116s 130s to 136s	Old	—	80s to —
Rye	—	50s to 60s	Ticks	—	56s to 60s
Stained Barley	—	42s to 64s	Old	—	76s to —
Malt	—	70s to 78s	Oats	—	34s to 40s
Hog Pease	—	56s to 64s	Fine	—	42s to 44s
Boilers	—	90s to 98s	Fine Polands	—	45s to 48s
Suffolks	—	100s to 104s			

Monday, Oct. 27.

THE supply of English Wheat this morning was not large, and the quality in general very ordinary, being much grown and smutted, that some prime runs sold early at small advance, but the sale became heavy towards noon; and those of the above description could hardly be sold, though offered at a considerable decline from last week.

Barley was more plenty than it has been lately; and prime bright parcels (of which there were but few) sold dearer, but the second and third qualities were much cheaper.

Hog Pease and New Tick were cheaper, and the latter plentiful; but boiling Pease, with small Beans, and fine Malt, sold much as last week.

Fine Rye is scarce, and dearer, and, having a few arrivals of Oats, they have experienced an advance, near 2s per quarter since this day se'nnight; but a foreign supply is expected.

Price of Grain, on board Ship, as under:

Wheat	—	70s to 90s to 100s	Hog Pease	—	56s to 62s
Fine	—	120s	Boilers	—	80s to 100s
Superfine	—	136s	Fine	—	100s
Rye	—	56s to 65s	Ditto Pearl Pease	—	—
New	—	70s	Small Beans	—	56s to 55s
Barley	—	36s to 50s	Old	—	78s
Fine Ditto	—	60s to 70s	Ticks	—	50s to 58s
Superfine	—	73s	Old	—	68s
Malt	—	50s to 70s	Oats	—	30s, 36s to 40s
Fine	—	80s	Fine hard	—	46s
Superfine	—	88s	Polands	—	50s

Prices of Grain, Meat, Seeds, &c. (Last week, Sept.) 313

Return of Wheat in Mark-lane, from Sept. 14th to the 20th Sept. inclusive.

Total, 14,898 quarters.—Average, 91s. 10½d. — 7½d lower than last return.

Return of the Prices of Flour, from Sept. 13th to Sept. 19th inclusive.

Total, 10,298 sacks.—Average, 96s. 11½d. — 2s. 11½d. lower than last return.

Hence results the Price of BREAD.

Quatern loaf at 1s 4¼ — Against the Baker 7½d.

Imports of Grain last Week.

Wheat 4,635 qrs.—Oats 1,230 qrs.—Barley 5,190 qrs.—Clover feed 80 cwt.

Price of Hops.

Bags.		Pockets.	
Kent	14l to 16l	Kent	15l to 17l 18s
Suffex	14l to 16l	Suffex	15l to 17
Essex	14l to 16l	Farnham	18l to 22l

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

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

Head of Cattle this day) — Beast about 2,000 — Sheep Lambs and 11,500.

Price of Leather.

Butts, 50 to 16lb.	25d to 26d	Calf Skins, 40 to 50lb. p.do.	26d to 29d
Ditto, 60 to 90lb.	26d to 27½d	Ditto, 60 to 80lb. do.	26d to 29d
Merchants Backs	25d to 26d	Ditto, 80 to 120lb. do.	21d to 26d
Dressing Hides	21d to 22d	Sm. Seals (Greenland)	70s to 80s p. doz.
Fine Coach Hides	22d to 23½d	Large do.	140s to 160s do.
Crop Hides for cutting	23d to 24d	Tanned Horse Hides	16s to 26s p. hide.
Flat Ordinary	22d to 23d	Goat Skins	30s to 70s p. doz.

Price of Bark per Load, 19l to 19l 11s.

Raw Hides.

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

Price of Tallow.

St. James's Market	3s 9½d	Russia ditto (Soap)	60 to —s
Clare Market	3s 8½d	Melting Stuff	53s 54s
Whitechapel Market	3s 8d	Ditto rough	36s 38s
Per stone of 8lb.—Average	3s 8½d	Graves	12s
Town Tallow	64s 0d	Good Dregs	11s
Russia ditto (Candles)	62s 63s	Yellow Soap, 72s—Mottled, 80s.—Curd, 84s	

Prices of Hay and Straw on Saturday, Sept. 27.

St. James'—Hay	4l 6s to 6l 10s	Average	5l 8s
Straw	1l 13s to 2l 2s		1l 17s 6d
Whit. ch.—Hay	4l 10s to 6l —		5l 5s
Clover	6l 6s to 7l 3s		6l 14s 6d
Straw	1l 14s to 2l 0s		1l 17s

Newbury, Sept. 25.

Wheat	63s to 116s
Barley	37s to 53s
Oats	24s to 47s
Beans	43s to 69s
Pease	43 to 59s

Reading, Sept. 26.

Wheat	80s to 116s
New	—s to —s
Barley	40s to 64s
Oats	30s to 44s
Beans	50s to 68s
Pease	60s to 65s

Henley, Sept. 24.

Wheat	98s to 110s
Barley	38s to 70s 6d
Oats	28s to 40s
Beans	54s to 63s
Pease	56s to 64s

Salisbury, Sept. 23.

Wheat	100s to 120s
Barley	34s to 56s
Beans	54s to 76s
Oats	28s to 36s

Devizes, Sept. 25.

Wheat	80s to 124s
Rye	—s to —s
Barley	36s to 66s

Oats	32s to 44s
Beans	58s to 74s

314 *Prices of Grain, Meat, Seeds, &c. (First week, Oct.)*

Return of Wheat in Mark-lane, from Sept. 22d to the 27th inclusive.
 Total 10,450 quarters.—Average 88s. 3 $\frac{1}{2}$ d.—3s. 6 $\frac{1}{2}$ d. lower than last return.

Return of the Prices of Flour, from Sept. 20th to the 26th inclusive.
 Total 13,426 sacks.—Average 90s. 2 $\frac{1}{2}$ d.—6s 9d lower than last return.

Hence results the Price of BREAD.

Quartern loaf 1s. 3 $\frac{1}{2}$ d.—Against the Baker 6 $\frac{1}{2}$ d.

Imports of Grain last Week.

Wheat 1,150 qrs.—Flour 660 cwt.—Hops 87,912 lb.—Barley 220 qrs.—Oats 1750 qrs.—Clover seed 140 qrs.

Price of Hops.

Bags.		Pockets.	
Kent	15l 15s to 16l 16s	Kent	16l 16s to 18l
Suffex	15l to 16l 4s	Suffex	16l to 17l 16s
Essex	15l to 16l —s	Farnham	18l to 22l

Seeds.

Red Clover (per.cwt.)	20s to 130s	Cinque Foil, do.	20s to 30s
White Clover, do.	20s to 120s	White Mustard Seed (p. bush.)	12s to 14s
Trefoil, do.	5s to 40s	Brown do. do.	12s to 14s
Turnip (per bushel)	10s to 40s	Canary Seed do.	12s to 14s
Rye Grass (per quarter)	20s to 30s	Rape Seed (per last)	40l to 50l

Meat. Smithfield. Monday, Oct. 6th (To sink the offal. per stone of 8lb.)

Beef	4s od to 5s 2d	Veal	4s 8d to 6s 4d
Mutton	4s to 5s 4d	Pork	5s od to 6s 4d

Lambs 4s to 5s 8d.

Head of Cattle this day)—Beast about 1,800—Sheep and Lambs 13,000.

Price of Leather.

Butts, 50 to 60lb.	25d to 26d	Calf Skins, 40 to 50lb. p. doz.	22d to 29d
Ditto, 60lb. to 90lb	26d to 27 $\frac{1}{2}$ d	Ditto, 60 to 80lb do.	26d to 29d
Merchants Backs	25d to 26d	Ditto, 80 to 120lb. do.	21d to 26d
Dressing Hides	21d to 22d	Sm. Seals (Greenland)	70s to 80s p. doz.
Fine Coach Hides	22d to 23 $\frac{1}{2}$ d	Large do.	140s to 160s do.
Crop Hides for cutting	23d to 24d	Tanned Horse Hides	16s to 26s p. hide.
Flat Ordinary	22d to 23d	Goat Skins	30s to 70s p. doz.

Price of Bark, per Load 19l. to 19l 11s.

Price of Tallow.

St. James's Market	3s 9 $\frac{1}{2}$ d	Russia ditto (Soap)	60s
Clare Market	os od	Melting Stuff	53s 54s
Whitechapel Market	3s 9d	Ditto rough	36s 38s
Per stone of 8lb.—Average	3s 9d.	Graves	12s
Town Tallow	64s od	Good Dregs	11s
Russia ditto (Candles)	62s 63s	Yellow Soap 72s. Mottled 80s. Curd	84s

Prices of Hay and Straw on Saturday, Oct. 4.

St. James's—Hay	4l 14s 6d to 6l 14s	Average	5l 14s 3d
Straw	1l 19s to 2l 11s	—	2l 5s od
White-ch.—Hay	4l 4s to 6l os	—	6l 2s od
Clover	6l 10s to 7l 7s	—	6l 18s 6d
Straw	1l 12s to 1l 18s	—	1l 15s od

<i>Newbury. Oct. 2.</i>	<i>Devizes. Oct. 2.</i>	<i>Warminster. Oct. 4.</i>
Wheat 82s to 140s	96s to 132s	Wheat 112s to 136s
Barley 30s to 59s	5s to 65s	Barley 40s to 66s
Beans 4s to 74s	35s to 40s	Oats 28s to 36s
Oats 22s to 46	68s to 84s	Beans 74s to 88s

Prices of Grain, Meat, Seeds, &c. (Second week, Oct.) 315

Return of Wheat in Mark-lane, from 29th Sept. to 4th Oct. inclusive.
Total 19,531 Quarters—Average 90s 11d.—2s 7½d higher than last return.

Return of the Prices of Flour, from Sept. 27th to Oct. 3d inclusive.
Total 21,543 Sacks.—Average 89s 11½d.—2½d lower than last return.

Hence results the Price of BREAD.

Quartern loaf 1s 3½d—Against the Baker 3½d.

Imports of Grain last Week.

Wheat 1,258 qrs.—Flour 200 cwt.—Barley 1,360 qrs.—Oats 280 qrs.

Price of Hops.

Bags		Pockets	
Kent	15l 15s to 16l 16s	Kent	16l 16s to 18l —
Suffex	15l to 16l 4s	Suffex	16l 10s to 17l 16s
Essex	15l to 16l	Farnham	18l to 22l

Seeds.

Red Clover, (per cwt.)	20s to 130s	Cinque Foil, ditto	20s to 30s
White Clover, ditto	20s to 120s	White Mustard Seed, p. bu.	12s to 14s
Trefoil, ditto	5s to 40s	Brown, ditto do.	12s to 14s
Turnip, (per bushel)	10s to 40s	Canary Seed, do.	12s to 14s
Ry. Grass, (per quarter)	20s to 30s	Rape Seed, (per last)	46l to 50s

Meat. Smithfield, Monday Oct. 13th. (To sink the offal, per stone of 8lb.)

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

Lambs 4s 0d to 5s 4d.

Head of Cattle this day) —Beast about 1,800—Sheep and Lambs 14,000.

Raw Hides.

Hides (per stone)	3s 6d to 3s 8d	Heavy calf	10s 6d each
Middling	3s 2d to 3s 4d	Light Calf	7d p. lb.
Ordinary	3s 0d		
Sheep Skins	2s to 3s 4d	Lamb Skins	1s 8l to 3s 6l

Price of Leather.

Butts, 50 to 60lb.	24d to 25d	Calf Skins, 40 to 50lb. p. doz.	27d to 30d
Ditto, 60 to 90lb.	25d to 26½d	Ditto, 60 to 80lb. do.	26d to 29d
Merchants Backs	24d to 25d	Ditto, 80 to 120lb. do.	22d to 26d
Dressing Hides	22d to 23d	Sm. Seals (Greenland)	70s to 80s p. doz.
Fine Coach Hides	22d to 23½d	Large ditto	140s to 160s doz.
Crop Hides for cutting	23d to 24d	Tanned Horse Hides	16s to 26s p. hide.
Flat Ordinary	22d to 23d	Goat Skins	30s to 70s p. doz.

Price of Bark, per Load, 19l. to 19l. 11s.

Price of Tallow.

St. James's Market	3s 11d	Russia ditto (Soap)	60s to —
Clare Market	3s 10d	Melting Stuff	57s
Whitechapel Market	3s 9½d	Ditto rough	36s a 38s
Per stone of 8lb.—Average	3s 10d	Graves	12s
Town Tallow	65s 67s	Good Dregs	11s
Russia ditto (Candles)	62s 0d to 63s	Yellow Soap, 72s. Mottled	80s—Curd 84s

Newbury, Oct. 9.	Reading, Oct. 10.	Northampton, Oct. 11.
Wheat 94s to 140s	Wheat 90s to 143s	Wheat 126s to 142s
Barley 33s to 60s	New —s to —s	New —s to —s
Oats 30s to 43s	Barley 50s to 70s	Barley 30s to 88s
Beans 56s to 74s	Oats 34s to 48s	Oats 26s to 38s
	Beans 60s to 75s	Beans 44s to 80s
	Pease 64s to 70s	Rye 72s to 82s

Devizes.

Oct. 9	Warminster, Oct. 11
Wheat 112s to 140s	Wheat 116s to 140s
Barley 40s to 65s	Barley 40s to 66s
Beans 68s to 80s	Oats 30s to 40s
Oats 36s to 46s	Beans 74s to 88s

316 *Prices of Grain, Meat, Seeds, &c.* (Third week, O &)

Return of Wheat in Mark-lane, from 6th Oct. to 11th Oct. inclusive.
 Total 17,298 Quarters—Average 9s 10³/₄d.—11³/₄d higher than last return.

Return of the Prices of Flour, from Oct. 4th to the 10th of Oct. inclusive.
 Total 15,951 Sacks—Average 90s 2¹/₄d.—3¹/₄d higher than last return.

Hence results the Price of BREAD.

Quartern loaf 1s 3¹/₄d—against the Baker 6¹/₄d.

Imports of Grain last Week.

Wheat 776 qrs.—Flour 320 cwt.—Clover Seed 79 cwt.—Barley 1,644 qrs.—
 Oats 1,400 qrs.

Price of Hops.

	Bags		Pocket	
Kent	15l 15s	to 16l 16s	Kent	16l 16s to 18l
Suffex	15l	to 16l 4s	Suffex	16l 10s to 17l 16s
Eff'x	15l	to 16l	Farnham	18l to 22l

Seeds.

Red Cloyer, (per cwt.)	20s to 13s	Cinque Foil, ditto	20s to 31s
White Clover, ditto	30s to 122s	White Mustard-seed, p. bu.	12s to 15s
Trefoil, ditto	6s to 38s	Brown, ditto do.	12s to 14s
Turnip, (per bushel)	11s to 40s	Canary-seed do.	13s to 20s
Rye Grass (per quarter)	20s to 30s	Rape-seed, per last	45l to 50l

Meat. Smithfield. Monday, Oct. 20. (To sink the offal, per stone of 8lb.)

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

Head of Cattle this day)—B. aft about 2,000—Sheep and Lambs 13,000.

Raw Hides.

Hides (p. ft.)	3s 6d to 3s 10d.	Heavy Calf	10s 6d each
M ddling	3s to 3s 4d.	Light Calf	7d per lb.
O. dinary	2s 8d to 2s 10d.		
Sheep Skins	2s 8d to 3s 3d		
Lamb Skins	1s 9d to 3s 6d		

Price of Tallow.

St. James's Market	4s	Ruffia ditto (Soap)	58s to —
Clare Market	4s od	Melting stuff	52s
Whitechapel Market	3s 11d	Ditto rough	36s 37s
Per stone of 8lb.—Average	3s 11 ¹ / ₂ d	Gravels	12s
Town Tallow	67s 68s	Good Dregs	11s
Ruffia ditto (Candles)	62s 63s	Yellow Soap, 72s—Mottled 80s—Curd 84s	

Prices of Hay and Straw on Saturday Oct. 18.

St. James's—Hay	5l —s to 6l 14s	Average	5l 17s od
Straw	1l 19s to 2l 8s	—	2l 3s 6d
Wht. chap.—Hay	5l —s to 6l 10s	—	5l 15s
Clover	6l 10s to 7l 7s	—	6l 18s 6d
Straw	1l 18s to 2l 8s	—	2l 3s

Newbury, Oct. 16.

Wheat	92s to 146s
Barley	33s to 64s
Oats	26s to 43s
Beans	64s to 75s

Reading, Oct. 17.

Wheat	90s to 145s
Barley	48s to 68s
Oats	34s to 48s
Beans	60s to 78s
Pease	60s to 74s

Henley, Oct 15.

Wheat	128s to 150s
Barley	38s to 72s 6d
Beans	5s to 7s
Q's	30s to 44s
Pease	59 to 68s

Devizes, Oct. 10.

Wheat	120s to 152s
Barley	44s to 70s
Oats	36s to 44s
Beans	66s to 84s

Warminster, Oct. 18.

Wheat	122s to 146s
Barley	48s to 70s
Oats	30s to 40s
Beans	78s to 90s

Prices of Grain, Meat, Seeds, &c. (Fourth week, Oct.) 317

Return of Wheat in Mark-lane, from the 13th Oct. to 18th Oct. inclusive
 Total 15,835 Quarters—Average 95s 11d.—4s ½d. higher than last return.

Return of the Prices of Flour, from 11th Oct. to the 17th, inclusive.
 Total 14,796 Sacks—Average 96s 9d.—6s 6½d higher than last return.

Hence results the Price of BREAD.
 Quartern loaf 1s 4½d.—In favour of the baker 1s 3d.

Imports of Grain last Week.

Wheat 9,900 qrs.—Oats 2,200 qrs.—Beans 420 qrs.—Barley 560 qrs.
 —Clover Seed 130 cwt.

Price of Hops.

	Bags		Pockets
Kent	15l 15s to 16l 16s	Kent	16l 16s to 18l
Suffex	15l to 16l 4s	Suffex	16l 10l to 17l 16s
Essex	15l to 16l	Farnham	18l to 22l

Seeds.

Red Clover, (per cwt.)	30s to 131s	Cinque Foil, ditto	20s to 31s
White Clover, ditto	20s to 122s	White Mustard Seed, p. bu.	12s to 15s
Trefoil ditto	6s to 39s	Brown, ditto do.	12s to 14s
Turnip, (per bushel)	11s to 40s	Canary Seed do.	13s to 20s
Rye Grats, (per quarter)	20s to 30s	Rape-seed, (per last)	45l to 50l

Smithfield. Monday, Oct. 27. (To sink the offal,—per stone of 8lb.)

Beef	3s 4d to 4s 8d	Veal	4s 8d to 6s
Mutton	4s 0d to 5s 2d	Pork	5s 0d to 6s 0d
	Lamb 4s 0d to 5s 0d.		

Head of cattle this day)—Beast about 1,900.—Sheep and Lambs 12,000.

Price of Leather.

Butts, 50 to 60lb.	25d to 26d	Calf Skins, 40 to 50lb. p. doz.	26d to 27d
Ditto, 60 to 90lb.	25d to 27d	Ditto, 60 to 80lb. do.	26d to 28d
Merchants Backs	23d to 24½d	Ditto, 80 to 120lb. do.	22d to 26d
Dressing Hides	20d to 21d	Sm. Seals (Greenland) 71s to 80s p. doz.	
Fine Coach Hides	22d to 23d	Large do.	140s to 160s do.
Crop Hides for cutting	21d to 23d	Tanned Horse Hides	17s to 26s p. hide.
Flat Ordinary	19d to 20d	Goat Skins	30s to 70s p. doz.

Price of Bark, per Load, 19l. to 19l. 11s.

Price of Tallow.

St. James's Market	3s 11½d	Russia ditto (Soap)	57s
Clare Market	4s 1½d	Melting stuff	52s 53s
Whitechapel Market	3s 11½d	Ditto rough	36s to 37s
Per stone of 8lb—Average	4s 0d	Graves	9s
Town Tallow	67s 68	Good Dregs	8s to 9s
Russia ditto (Candles)	61s to 62s	Yellow Soap 73s—Mottled 81s—Curd 85s	

Raw Hides.

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

Prices of Hay and Straw on Saturday, Oct. 25.

St. James'—Hay	5l to 6l 9s	Average	5l 14s 6d
Straw	1l 10s to 2l 5s		2l 0s 6d
Whitech.—Hay	5l to 6l 8s		5l 14s 0d
Clver	6l 10s to 7l 7s		6l 18s 6d
Straw	1l 16s to 2l 4s		2l

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

From the Returns received in the Week, ending OCT. 18, 1800.

COUNTIES INLAND.

COUNTIES.	Wheat.		Rye.		Barley.		Oats.		Beans.		Pease.		Oatmeal.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Middlesex	121	6	55	0	62	3	39	2	64	8	65	8		
Surry	118	4	54	6	64	10	41	8	54	0	54	0		
Hertford	120	8	60	0	64	0	33	1	55	3	50	6		
Bedford	143	5	89	6	71	7	33	3	64	4	61	6		
Huntingdon	141	3			76	0	30	8	47	10				
Northampton	126	0	80	6	67	0	31	0	71	0	62	0		
Rutland	111	6			66	6	33	6	57	0	52	0	73	2
Leicester	101	8			65	9	38	3					63	0
Nottingham	107	8	71	8	73	0	39	6	87	6				
Derby	108	0			68	8	42	0	83	4			59	7
Stafford	104	2			69	0	37	9	86	6			59	8
Salop	110	8	80	8	65	8	36	2			67	6	87	7
Hereford	107	4	76	8	60	9	36	11	56	6	54	10	100	0
Worcester	138	6	52	2	69	10	36	9	67	0	71	6		
Warwick	128	5			70	1	44	6	68	8	80	0	67	8
Wilts	124	4	63	0	54	6	36	0	73	8	64	0		
Berks	126	0			55	4	38	7	62	6	62	8		
Oxford	116	3			56	4	34	2	59	6	58	7		
Bucks	126	8			57	0	36	8	59	6	55	3		
Brecon	107	2	80	0	64	0	28	4			48	0	61	5
Montgomery	95	11			48	0	32	10			51	1	76	4
Radnor	100	2			56	11	29	9					74	9

Maritime Counties.

Essex	115	4	50	3	61	2	38	6	49	1	47	0		
Kent	111	2	53	0	49	9	35	3	57	1	57	0		
Suffex	93	0			52	3	30	3			52	0		
Suffolk	93	10	56	0	52	9	34	6	49	3	58	2	87	5
Cambridge	110	7	68	0	44	9	23	6	40	0				
Norfolk	85	11	50	6	46	6	30	10	43	10	52	11		
Lincoln	96	11	46	6	60	8	26	8			100	0		
York	89	4	59	9	55	1	32	5	74	7			67	11
Durham	96	9	56	10	49	2	28	4						
Northumberland	95	8	64	0	50	1	31	9	64	11				
Cumberland	107	5	66	8	63	1	42	3					59	4
Westmorland	129	1	82	0	58	2	51	6					50	10
Lancaster	1	7	4		66	3	42	9	64	3			38	11
Chester	96	10					42	9					39	8
Flint	101	9			72	1	33	11						
Denbigh	90	2			74	11	33	0					71	4
Anglesea	None		bought		f. Sale									
Carnarvon	123	6	96	0	56	0	30	0					79	6
Merioneth	96	5	83	3	59	11	27	6					54	10
Cardigan	90	10			51	4								
Pembroke	89	0			50	2	27	2						
Carmarthen	100	0			53	4	25	9						
Glamorgan	88	3			54	6	35	6						
Gloucester	126	5			68	3	38	8	64	5	60	5		
Somerset	119	2			58	8	38	0	75	0				
Monmouth	119	2			69	0	40	0	68	3	104	0		
Devon	98	0			48	11	28	0						
Cornwall	83	7			46	3	26	0						
Dorset	103	7			52	11	31	6	72	0				
Hants	97	2	108	0	55	5	39	11	60	1				

PRICES OF COALS AT THE COAL EXCHANGE, LONDON,
FROM SEPT. 20 TO OCT. 20, 1800.

Names of Coals	Frid.	Mon.	Wed.	Frid.	Mon.	Wed.	Frid.	Mon.	Wed.	Frid.	Mon.	Wed.	Frid.
	19th	22d.	24th.	26 h.	29th	1st.	3d.	6th	8th	10th	13th	15th.	17th
	S. D.	S. D.	S. D.	S. D.	S. D.	S. D.	S. D.	S. D.	S. D.	S. D.	S. D.	S. D.	S. D.
Benton	46 9	42		47	46 6		46 6	46	47		48 6		51
Byker									46 6				
Blyth					47		47	47 3	47 9				
Brandling	46 6	46		47 6					47 6		48 6	48 6	50
Bladon Main													
Biggs's Main	48 3	47 3	47 9	48	47 9	48	48	48	48		49 6	50	52
Baker's Main											48 6		
Benwell													
Greenwich Moor													
Gate's-head Park													
Hartley				48	47 6		49		47 9		49		
Holywell Main	46	45		46 6	45 9				47 0		48		
Howard's Main													
Montague Main		45 6		47	46 3		46 3		47 6		48 6		50 6
Pontop	45 6	45 6		46 6				46	46		47 9	47 9	
Windfor's													
Simpson's													
Silvertop													
South Moor		44 6		46		45 3			46		47 6	47 6	47 9
Sheriff Hill				46									
Pill's Tanf. Moor		46		47	46	46	46		46		48		48 6
Adair's Main		45 3			45 6		45 9				48	48	
Bowes's Main									46 3				
Team		44 6		46 6				45 6			47 6		
Walker	48 0			48	47 9	47 9	48	48	48 6		49 6	50	
Willington		47 3	47 6	48	48	47 9	48	48	48 6		49 6	50	
Wall's End	49	49	48 6	49 3	49		49	49	49		50	50 6	52
Walbottle Moor											48		
Wylam Moor		44 6		46 6		45 3	46		46 6		48		
Heaton Main	47 9	47 6	47 6	48					48 6	49 6	49 6	50	52
Hebburn Main	48 0	47 3		48	48		48		48 6	49 6	49 6	51	52
SUNDERLAND													
Boundry													
Burn Moor	46 9	45 6	46 6	44 6	46	45		46	46 6		48 6	48 6	
Biddick new Main					44			44 9					
Newbott. Bo. Moor		45		46 6	45 6			45 6	46		48		
Rectory					44 6			44 6			47 6		
Ruffill's Main				46 6	45 9				46 6		48 6		50
Wharton Main					45 9								
Washington													

AVERAGE PRICE OF SUGAR,

From the Returns made the Weeks ending 22d Day of October is 70s 10½ per cwt.
Inclusive of the duty of Customs, payable thereon on the importation
into Great Britain.

A TABLE of the Prices of STOCKS in Oct. 1860.

No.	Bank Stock.	3 per Ct. Bs. Red.	3 per Ct. Consois.	4 per Ct. Confol.	5 per Ct. Navy.	New 5 per Ct.	Long Ann.	Short Ann.	Imp. 3 p C	Do. for 2 1/2 Yrs.	Irish 5. Cent.	Om-nium	India Stock.	English Ticket	Irish Ticket	Con. for Acct.
30	Aut.	66 1/2	65 1/2	66 1/2	99 1/2	97 1/2	18	5-16	65 1/2	12 7-16	94 1/2	4 1/2	204 1/2	16 13	8 8	66 1/2
1		66 1/2	65 1/2	66 1/2	99 1/2	97 1/2	18	5-16	65 1/2	12 7-16	94 1/2	4 1/2	204 1/2	16 13	8 8	66 1/2
2		66 1/2	65 1/2	66 1/2	99 1/2	97 1/2	18	5-16	65 1/2	12 7-16	94 1/2	4 1/2	204 1/2	16 13	8 8	66 1/2
3		65 1/2	65 1/2	65 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	95 1/2	5 1/2	207 1/2	16 13	8 8	65 1/2
4		65 1/2	65 1/2	65 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	95 1/2	5 1/2	207 1/2	16 13	8 8	65 1/2
6		65 1/2	65 1/2	65 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	95 1/2	5 1/2	207 1/2	16 13	8 8	65 1/2
7		65 1/2	65 1/2	65 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	95 1/2	5 1/2	207 1/2	16 13	8 8	65 1/2
8		65 1/2	65 1/2	65 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	95 1/2	5 1/2	207 1/2	16 13	8 8	65 1/2
9		65 1/2	65 1/2	65 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	95 1/2	5 1/2	207 1/2	16 13	8 8	65 1/2
10		65 1/2	65 1/2	65 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	95 1/2	5 1/2	207 1/2	16 13	8 8	65 1/2
11	166 167 1/2	63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	19	1-16	64 1/2	12 5-16	95 1/2	4 1/2	206 1/2	16 13	8 8	64 1/2
13	166 167 1/2	63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	19	1-16	64 1/2	12 5-16	95 1/2	4 1/2	206 1/2	16 13	8 8	64 1/2
14	166 167 1/2	63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	19	1-16	64 1/2	12 5-16	95 1/2	4 1/2	206 1/2	16 13	8 8	64 1/2
15	166 167 1/2	63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	19	1-16	64 1/2	12 5-16	95 1/2	4 1/2	206 1/2	16 13	8 8	64 1/2
16	166 167 1/2	63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	19	1-16	64 1/2	12 5-16	95 1/2	4 1/2	206 1/2	16 13	8 8	64 1/2
17	167	63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	19	1-16	64 1/2	12 5-16	95 1/2	4 1/2	206 1/2	16 13	8 8	64 1/2
18	Holiday	63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	19	1-16	64 1/2	12 5-16	95 1/2	4 1/2	206 1/2	16 13	8 8	64 1/2
20		63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	94 1/2	4 1/2	205 1/2	16 13	8 8	64 1/2
21	167 1/2	63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	94 1/2	4 1/2	205 1/2	16 13	8 8	64 1/2
22		63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	94 1/2	4 1/2	205 1/2	16 13	8 8	64 1/2
23	167	63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	94 1/2	4 1/2	205 1/2	16 13	8 8	64 1/2
24	165 166 167	63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	94 1/2	4 1/2	204 1/2	16 14	8 8	64 1/2
25	Holiday	63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	94 1/2	4 1/2	204 1/2	16 14	8 8	64 1/2
27		63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	94 1/2	4 1/2	204 1/2	16 14	8 8	64 1/2
28		63 1/2	63 1/2	63 1/2	99 1/2	97 1/2	18	5-16	64 1/2	12 5-16	94 1/2	4 1/2	204 1/2	16 14	8 8	64 1/2

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