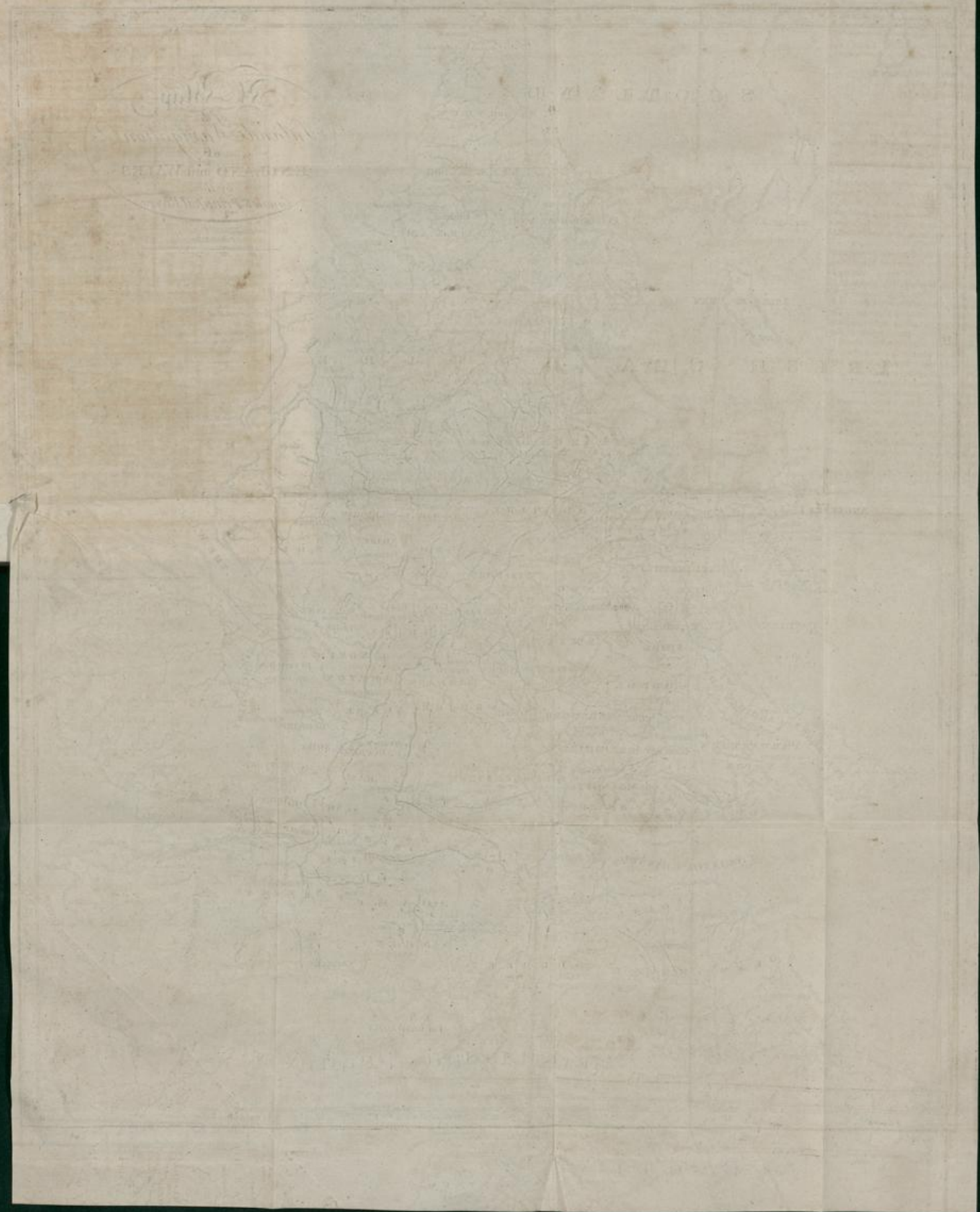


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[VOL. V.]

A CONCISE ACCOUNT OF INLAND NAVIGATION.

(Continued from our last, p. 10.)

[ACCOMPANIED WITH A MAP.]

IT is said that the Duke had planned this work before he came of age, and, with the consent of his guardians, had actually made some progress in the undertaking before that period. It confers a high degree of honour on this nobleman, that, at an age generally spent in dissipation by the young nobility, his attention was taken up with a work of such great importance to his country.

Having fixed in his mind the plan, and his surveyor having also completed his, he, in the year 1758, the thirty-second year of the reign of George the Second, obtained an act to make a navigable cut or canal from the township of Salford to or near Worsley Mill and Middlewood, and to a place called Hollen's Ferry, in the county of Lancaster; and being thus legally authorised began his work.

The first design of this intended canal was to convey coals from the Duke's mine on his estate at Worsley to Manchester, but his views enlarged as he advanced in the work. He began to cut therefore at a place called Worsley Mill, about seven computed miles from Manchester, when he first excavated a basin capable of holding not only all his boats, but a great body of water to serve as a reservoir, or head of his navigation. The coals are dug from a hill adjoining, to which works a subterraneous passage is cut large enough for the admission of flat-bottomed boats for three quarters of a mile, which are towed by hand rails. At the distance of three quarters of a mile from the entrance, the passage divides into two channels, which have been far extended, and may be carried further at pleasure.

This passage being a curious and interesting work of art, we shall describe it:—In some places it is cut through the solid rock, and in others arched with brick. There are several air tunnels cut through near forty yards deep, at certain distances, to give air: the entrance is six feet wide, and about five feet high above the water; it widens in some places for boats to pass. The coals are brought to the boats in low carriages, and as the passage is on a descent, although they hold a ton each, they are easily drawn along by men, on a railed way, to a stage over the canal, and then shot into the boats. These boats, which contain about

seven tons each, are easily drawn out of the passage, where two, three or more are linked together, and drawn by horses or mules to the place of their destination.

The canal is in some places carried over the roads on arches, and in places where the arch is not high enough for carriages to pass, the road has been sunk, at a great expence, for the convenience of the passage. But the most stupendous work on this canal is the bridge and aqueduct over the river Irwell. At Barton-bridge, three miles from the basin, is an aqueduct which conveys the canal over a valley for two hundred yards, and over the navigable river Irwell above 40 feet higher than the level of the river. The canal is carried over the meadows on each side of the river Mersey, and over a place called Saltmoor, at an incredible expence. Mr. Brindly proceeded thus: he caused trenches to be made, and then placed deal balks upright, so as to back and support each other, supporting them by other balks, laid horizontally in rows, and secured together; thousands of oak piles were driven in between them; he then threw in the proper quantity of earth and clay, and caused it to be well rammed in. Having thus completed about forty yards, he removed his balks and proceeded again. The bridge over the Irwell is of stone, and has three arches all of hewn stone; the center arch is sixty-three feet wide, and will admit barges to pass through with their sails standing. The river Medlock is raised, and supplies the canal with water by means of a fine wear, constructed in a curious manner.

The ingenuity displayed by Mr. Brindly through the whole of this work is surprising. His smiths forges, his carpenters, and his masons workshops, were covered barges, which floated on the canal, and followed the work as it advanced. The Duke had one great advantage, having all the necessary materials, timber, stone, lime, and coals, taken from his own estate.

In the session of parliament, 1758-9, the Duke obtained an act to make a navigable canal from Worsley to Salford, near Manchester, and to carry the same to Hollen's Ferry; but after he had completed the canal from Worsley to the highway between Warrington and Manchester, it was discovered that it would be more beneficial to carry it over the Irwell, and to extend it to Longford-bridge. An act was obtained for that purpose.

On a further survey it was discovered that it was practicable to extend the canal from Longford-bridge to a place on the river Mersey, called the Hempstones; a third act was obtained for that purpose. The whole navigation was then proceeded on and completed, being more than twenty-nine miles in length, and having, at its fall into the Mersey, locks which let boats down ninety-five feet, for it is so contrived as to be on a level the whole length to that place. It may be proper to remark

that the locks were formed at Runcorn instead of the Hempstones.

We cannot omit an anecdote of Mr. Brindly respecting the aqueduct at Barton. When the canal approached that place, it was supposed the undertaking would end, as the passage of the river was regarded as impracticable, and Mr. Brindly himself wished the Duke to take the opinion of some engineer of eminence. A gentleman was called in, who took a view of the spot, and exclaimed "That he had often heard of building castles in the air, but was never before shewn the place where one was to be erected." This severe sarcasm did not deter either the Duke or Mr. Brindly; they proceeded, and succeeded to their wish.

We cannot conclude this account of the Duke's undertaking, without observing, that it has a variety of good effects. The price of carriage of goods of all kinds, and of coals for the manufactories of Manchester, are very considerably reduced; the value of all the estates contiguous to the canal is considerably increased, and the Duke of Bridgwater has been recompensed by a princely addition to his fortune.

As coal mines form the great encouragement to canals, we then also introduce a description of the Duke's mines, by a person who has often visited them, especially as that description will give an idea of those mines in general:—

"You enter with lighted candles the subterraneous passage in a boat, made for bringing out the coals, forty-seven feet long, four feet and a half broad, including the gunwales, and two feet six inches deep. This boat, when loaded, carries about seven tons, and sometimes eight. In this manner you proceed up the canal to the lake at the head of the mine, distant three quarters of a mile: the two folding doors at the mouth are immediately shut on your entrance, to keep out too much air, if the wind blows; and you then proceed by the light of your candles, which cast a vivid gloom, serving only to *make darknefs visible*.

"But this dismal gloom is rendered still more awful by the solemn appearance of this subterraneous lake, which returns various and discordant sounds. At one moment you are struck with the grating noise of engines, which, by a curious contrivance, let down the coals into the boats. At another you hear the shock of an explosion, occasioned by blowing up the hard rock, which will not yield to any other force than that of gunpowder; immediately after, perhaps, your ears are saluted by the songs of merriment from either sex, who thus beguile their labours in the mine.

"When you have reached the head of the works a new scene opens to your view: there you behold men and women, almost in their primitive state of nature, toiling in different capacities,

by the glimmering of dim tapers, some digging the jetty ore out of the bowels of the earth, some again loading it in waggons, made for the purpose, others drawing the waggons to the boats.

“To a superficial observer such scenes serve only to amuse the eye by their novelty; but, to a reflecting mind, they afford ample matter of instruction. When we behold a part of our species deprived of sun-shine, the common inheritance of mankind, and buried in a dismal and confined cavern, in which they can scarcely stand upright, our feelings prompt us to commiserate their condition: but when we observe the lively ray of cheerfulness break forth in this scene of darkness and distress; when we behold the glow of health in the midst of damps and suffocation, we then cease to pity them, and begin to examine ourselves: we discover that our enjoyments above ground serve only to multiply our wants, and we are convinced of the truth of that maxim, which assures us, that happiness is every where, or no where.”

Although the boats which we have mentioned are only seven tons burthen, it may be proper to remark, that these boats are only employed for coals, and to pass on other canals which communicate with this, and where the locks will not admit vessels of greater breadth; but the boats principally used on the canal are of the burthen of forty or fifty tons, and are drawn by two horses, have a mast and sail, and cross the Mersey from Runcorn to Liverpool, even when the wind is fresh. They are, however, flat-bottomed, and can only venture the passage at certain times. The proprietors of the Trent and Mersey canal have made their canal of sufficient breadth to admit such boats as high up as Middlewich, in Cheshire. The Trent and Mersey, or Grand Trunk Canal, was the second undertaking of this kind in England, and which we shall proceed to describe.

The Duke having thus led the way, several other plans for navigable canals were immediately brought forward, and the success which attended the first essay prompted many to undertake the like works. The gentlemen, who reasoned properly, naturally concluded that every thing which caused a ready communication between one place and another would increase the value of their estates, and the manufacturer reasoned in the same way, with respect to the fall of his commodities. Among the noblemen and gentlemen who patronised the undertaking were Lord Gower, brother-in-law to the Duke of Bridgwater, Mr. Egerton, of Cheshire, and Mr. Anson, of Shuckborough, in Staffordshire. In a part of that country near Newcastle there are several towns near each other where the coarse earthen-ware then in use was manufactured, and which spot is, from that circumstance, called the Pottery. The inhabitants of this part clearly saw the advantage such an undertaking would be to them,

and readily joined in subscribing money, and assisting in the work.

To proceed properly in a work of such magnitude, a public meeting was called at Sandon, near Stone, in Staffordshire, at which the above named noblemen and gentlemen, with many of the neighbouring gentlemen, and persons concerned in the manufactories, attended. Among the latter was the late Mr. Wedgwood, then in a small way of business, in which we believe he had succeeded his father, in the Pottery. That gentleman had too much good sense not to see that such an undertaking opened the way for attaining wealth and independence, and he continued to the last day of his life to give every assistance to this work. Mr. Brindly had planned originally the great design of uniting the four great trading towns of England, London, Bristol, Hull, and Liverpool, by means of navigable canals; but in this part of his plan, the canal from the Trent to the Mersey, the gentlemen of Liverpool had been rather before-hand with him, and had employed two surveyors as early as the year 1755 to make a survey, which they completed; but Mr. Brindly was made choice of by Lord Gower to make another survey, which he did, in conjunction with Mr. Smeaton, and they both reported that the country was most admirably calculated for the purpose.

Their plans were laid before this meeting; but some difficulties being started, other surveys were advised, which were presented to a second meeting. Here were consequently two plans before the public, and the gentlemen who proposed to be subscribers approved of Mr. Brindly's, at an adjourned meeting held at Wolseley-bridge, in Staffordshire, on the 30th Dec. 1765.

This meeting was truly respectable, being attended by Earl Gower, who, as lord lieutenant of the county, was called to the chair; the two county members, and those for Litchfield, Newcastle, in Staffordshire, and several other places. Here they came to the following resolutions:

To apply to parliament for leave to make a navigable canal from Wilden, in the county of Derby, to the river Mersey.

To complete it on Mr. Brindly's plan.

To raise 101,000*l.* in shares of 200*l.* each, and to open subscription books at the great towns near which it was to pass. As this was the first public canal in England, it may be necessary to make some remarks on the advantages of Canal Navigation in general, as they are set forth in a work supposed to have been written by the late Mr. Wedgwood, on the peculiar advantages of the line taken by the canal, and some extracts from the clauses of the act, as this has served, with some alteration, as a foundation for all future canal acts.

The advantages attending navigable canals are great. Every person must allow that the stamina of our trade is the internal produce of the kingdom, and that the nearer the manufacturer is to the market the better price his goods will bring him. For instance, if a person manufactures a piece of cloth forty or fifty miles from the part where it is to be shipped, he must abate in his price the value it will cost to carry it by land carriage to the market; but the opening a water navigation will lessen the expence, and either enable him to sell his work cheaper, which is a national benefit, or give him more profit, which is a private advantage.

In case of invasion, government will, by these canals, be enabled to transport the heaviest cannon to any part of the country in a very short time; regiments also, and their baggage, may be conveyed in a safer and more commodious way than by long harrassing marches, through roads often impassable, and oftentimes circuitous. The saving in draught horses and the expence of baggage waggons will be great.

It has been objected that an inland navigation will destroy the breed of draught horses, since there will be little or no employ for them: to this it may be replied, that the number of horses should be decreased; but there can be no danger of their destruction; and the land saved from the growing of produce for the horses will feed thousands of poor families.

Nothing requires the attention of the people of this country more than husbandry: this will receive great advantages from these canals; the farmer will be able to send his corn to market at any time of the year, and this easy conveyance from one place to another will tend to bring it to a greater equality of price throughout the kingdom, and by this means that first necessity of life will be kept nearer a medium. If corn and other provisions be kept low, the manufacturers will be able to work cheaper, and sell more of their manufactures. Another advantage which will arise to the farmer will be, that, instead of employing his team in sending corn to market, he may transmit it by the canal, and his horses, mean time, "may be employed in improving his land, by carrying marle and manure to it: and he might inclose and till more lands, which are now waste grounds and commons." How greatly would agriculture be improved, and the increase and produce of our land fulfil the proverb of returning tenfold, and the shepherd made happy by the increase of his sheep. I cannot omit mentioning, before I conclude, the enumeration of these general advantages, that prodigious and immense convenience, that the merchants at the three ports will receive, from being able to send their merchandise by this canal from Bristol to Hull; which is in fact joining the east and west together, by which means they will both avoid

that most tedious and hazardous voyage of two months round the land's end, and also the expence attending those dangerous voyages, and find themselves considerable gainers.

I must here observe one very great and material advantage that inland navigation is of in keeping, through a whole country, an equimediate price of provisions; for, where any commodity is cheap at home, it may be carried to a more populous part to get a proper price for it, and when it is dear at home, it may be fetched from a cheaper market, and the poor will never be so liable to suffer by monopolisers.

The great advantage that this kingdom will derive from a less number of horses being kept for draught is prodigious, as the same lands that kept twenty thousand horses will, perhaps, now keep thirty thousand fat oxen; by which means butchers' meat will be always cheaper to the labouring poor, as well as to the labouring manufacturer; all which articles are very considerable, and of material moment in the price of our manufactures, as they, in a great measure, work their trade to rise and fall in price according to the cheapness of their materials and the necessaries of life.

Inland navigation will encourage old manufacturers to work with fresh vigour, when they can obtain their materials cheap; and will give opportunity to set up new trades and manufactures, as the materials may be conveyed to any part of the country whatever.

There are many large mines of valuable contents, that for want of carriage and conveyance are now useless; such as stones, iron ore, marble, and quarries of various sorts, that would then be opened and worked, and be productive, perhaps, of the greatest advantages to the proprietor, as well as to the various parts of the kingdom, in which they might be purchased at an easy rate.

The coasting trade seems to claim mention of the great advantages that will accrue to it by these navigable canals, as all or most of the goods that have usually gone by land carriage from London to these countries will now be sent by shipping to the ports, and from thence be dispersed far and wide by means of these navigable canals; for, the more you open a channel, the more water it draws from the head, and consequently works its way farther on.

They will certainly cause more shipping to be employed on the coasts, and more sailors to navigate them. I must here make one observation, that old men and worn out sailors may be employed on these navigable canals; and those whose constitution will not suffer them to undergo the hardships and severities of a sea voyage, yet may do very well to navigate these vessels on the canals: every boy in each village through which the

canals pass, will have a desire to become a sailor, and will be trained up in his early youth to hand a rope, and soon be fit to be of service on board a ship; by which means these canals will become one of the most natural nurseries for seamen for his Majesty's fleets and the protection of this island; as also for shipwrights upon an emergency; both which are great advantages to any state.

These canals will be of great advantage to the landed estates, as more persons will now come and settle themselves on many commons adjacent to the navigation, for the benefit and convenience of trade, and thereby improve and inclose those barren lands; and the present inclosed lands will reap great benefit, either by draining some that want it, or flooding others, which is reckoned a great improvement to meadow lands.

I think the result of every plan and scheme for the public service should ultimately terminate in giving assistance to the distressed of the poor, and relieving their wants by letting them have the necessaries of life at a cheap rate: this I term charity to our brother. This is the true strength of our trade, and a principal security for our present and future affluence.

It is impossible that the immense advantages that will accrue to this nation, in a variety of instances, from inland navigation, should be enumerated by one pen, as it is to number the sands on the shore: I shall, therefore, proceed to point out some local advantages to the manufactures only bordering on these canals.

The line of this canal is from the Mersey into the Duke of Bridgewater's canal at Preston, from whence it runs past Northwich, Middlewick, Sandback, Lawson, Burslem, Newcastle, Stoke Trentham, Stone, Sandon, Haywood, Wolseley, Wickner, Burton, to the Trent at Weldin. The price of land carriage in the neighbourhood of these towns is, upon an average, nine shillings per ton for ten miles; the charge on the canal will not exceed two shillings and sixpence, a saving which will alone enable the landholders to carry many things to market which are now useless. From Northwich to Lawson is a bed of rock salt, forty yards thick. Near the latter place is a mountain, containing four different kinds of useful stone. Near Wolseley-bridge is stone not at all inferior to Portland. Near Rudgley is coal, called cannel coal, and near the place where the canal joins the Trent is a vast mountain of lime-stone, and lime-stone in various other places; and not far distant, quarries of slate. Marle and other manure may be conveyed with great advantage to the land in the neighbourhood. Iron stone, copper, calamine, marble, white clay, &c. are all found at no very considerable distance from the line. Of manufactures and cultivated articles are timber, cord wood for charcoal and iron works, oak bark, wood, madder, hides, tallow, and provisions of all kinds, the ale of Burton, the

manufactories of the Pottery of Nottingham, Leicester, and Derby, the flour and clay to make the pottery ware, and the groceries to serve the towns on the line, will all be brought for near one fourth the expence of carriage which they have hitherto been carried at.

(To be continued.)

POPULATION OF FIFTEEN COUNTIES.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

AS you admitted into your Magazine for January last (p. 59) an attempt which had been made to ascertain the extent and population of some of the principal Counties, you may, perhaps, think the following table worth insertion. It includes only those counties from which the returns required by the Act for ascertaining the Population are, in the account laid before Parliament, supposed to be complete; the number of houses and inhabitants may, therefore, be considered as determined with as much accuracy as they are likely ever to be, and perhaps as much so as can be requisite for any useful purpose: the number of acres are taken from a late publication of the Rev. H. Beeke, who, from the attention with which he appears to have made the computation, has probably approached very near the truth.

Aug. 12, 1801.

J. J. G.

Counties.	Inhabited Houses.	Uninhabited Houses.	Proportion of uninhabited Houses.	Number of Persons.	Inhabitants to a House.	Acres.	Acres to a Person.
Northumberland	27,578	1,579	1 in 18	163,468	6	1,455,313	9
Durham	27,447	1,175	24	161,666	6	662,416	4
Westmoreland	8,014	315	26	42,387	5 $\frac{1}{2}$	502,780	11 $\frac{1}{2}$
Lancaster	101,723	3,115	34	588,711	5 $\frac{3}{4}$	1,173,618	2
Nottingham	25,256	529	49	133,727	5 $\frac{1}{4}$	511,896	3 $\frac{3}{4}$
Derby	31,822	1,369	24	161,147	5	697,761	4 $\frac{1}{4}$
Stafford	46,002	2,010	24	244,851	5 $\frac{1}{4}$	807,900	3 $\frac{1}{4}$
Warwick	40,258	2,916	15	204,651	5	624,530	3
Rutland	3,226	87	39	16,300	5	122,983	7 $\frac{1}{2}$
Huntingdon	6,814	135	51	37,449	5	216,970	5 $\frac{1}{2}$
Essex	38,407	1,027	38	226,638	6 $\frac{1}{2}$	1,050,243	4 $\frac{1}{2}$
Hertford	17,531	491	37	96,770	5	412,690	4 $\frac{1}{2}$
Bedford	11,888	185	65	63,393	5 $\frac{1}{2}$	293,059	4 $\frac{1}{2}$
Oxford	20,615	594	35	109,721	5 $\frac{1}{2}$	485,246	4 $\frac{1}{2}$
Devon	57,955	3,235	19	342,987	6	1,802,893	5 $\frac{1}{2}$

ON SMUT-BALLS, &c.

We insert the following Letter in our Correspondent's own words. Mr. TREFFRY's Pamphlet, we had not before seen. *We have read it with admiration.* How strange it is, that such a man as its author, should be unknown among those who talk of agricultural improvements, while so many Quacks and mere Pretenders run away with ample rewards! Copious Extracts are subjoined.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I AM sorry to find, that in this neighbourhood and some other places, there is, this year, an unusual quantity of Smutty Wheat, as it must not only be an individual but public loss, at a time when every diminution of the produce will be of more than common importance; and when it is considered that, if, through ignorance or negligence, the needful care be not taken, this crop may produce one still worse next year. How desirable it is, that any useful information on the subject should be diffused as widely as possible before next wheat seed time, and that those concerned should be earnestly cautioned and recommended to take *especial* care where there is any reason to expect danger, either from the seed or manure, that the most effectual means be used to prevent it. One would think that interest alone would be a sufficient spur to adopt any easy plan that was pointed out; but experience shows how very slowly any new improvements or discoveries are brought into use, which require a little variation from ancient practice, or in any degree contradict opinions that have been before formed or adopted. A glaring instance of this attachment to former prejudice, or otherwise unaccountable supineness and negligence, is manifest in a near neighbour of mine, who, though he was a subscriber for one of the inclosed pamphlets, and has been in possession of it 7 or 8 years, yet, for want of taking the necessary care, has this year a crop of 12 acres or more of wheat, which, it is believed, is not much less than one * sixth part of it smut, the last harvest being a wet one, and the seed he used was smutty, and if it was washed at all, it was only once, and that by servants, that probably would not take half the trouble that such circumstances required.

The author of the inclosed pamphlet, if living, is an intelligent, reputable farmer in Devonshire, who spent a deal of time in this business, and having a family of ten children to provide for, he well deserved a much greater reward than he obtained; the subscribers (considering the importance of the discovery, and the

* Some people think a much larger proportion of this person's crop is smut, but I wish not to exaggerate, nor would I have it understood, that other people's crops are like this: I believe few are so bad, and some farmers are nearly, if not quite clear.

numbers interested in it) being comparatively very few, and consequently the public in general were not benefited by it; indeed, considering that there were so many as eight or ten subscribers of one guinea each in this neighbourhood, it is matter of surprize, it is still so little known, as the generality of farmers appear as ignorant as to the real cause of smut, or the best means to prevent it, as they were before the discovery was made.

If you should think proper to publish in your useful Magazine such extracts from the pamphlet as are necessary to give the needful information and caution, I hope the subscribers nor author will have any just reason to complain, the former having had 7 years to profit by it, and the latter, I suppose, cannot now expect further benefit, unless it be from the voluntary and generous bounty of Agricultural Societies, or that of individuals, who have a satisfaction in rewarding those who have contributed to the public weal.

Perhaps the remark P. Preston makes in your last Magazine, of wheat sown after potatoes being more smutty than others, may, if the seed was equally clean, be best accounted for from its being usual to use manure from the farm-yard for potatoe crops, see the pamphlet, page 14, for Treffry's Experiments.

I remain respectfully, your Friend,

Aug. 11, 1801.

A. D.

“ The roots and blades producing Smut-Balls, appear like those which yield wheat, but as soon as the ear comes forth, it appears somewhat different, and the balls of smut are to be found, though small, yet in a perfect form, before the grains of wheat appear in embryo, or the blossoms begin to hang at the outside of such ears and husks, as will contain wheat; for those ears which contain Smut-Balls do *not* issue forth blossoms at the outside of the husks, but, on opening them, the balls of smut are found, with yellow blossoms adhering to them; which balls are at first green, afterwards change to a smoaky colour, are nearly round, and contain a black powder, which in smell much resembles the Newfoundland cod-fish when salted, as doth the whole ear. It may further be noted, that some roots produce no ears but such as contain Smut-Balls only, whilst others produce an ear or two, in which are nothing but Smut-Balls; and again, Smut-Balls, and very fine grains of wheat, are not unfrequently found in the same ear; but *mostly*, all that proceeds from the same root, is either all wheat or all Smut-Balls.

“ The cause of Smut-Balls is simply this; every grain of wheat that the *dust* of these Smut-Balls shall touch and *adhere to* is thereby caused to produce Smut-Balls the next harvest, as certain as the small quantity of matter, put into the arm of any person who hath not had the small-pox, causeth such to have that disorder. This dust is of a very virulent nature, and wheat

being extremely susceptible, is liable to take the infection various ways, which, I believe, has been the means of producing such a variety of conjectures concerning it.

“ First, as the Smut-Balls come to maturity before the wheat, in wet seasons, some of them burst, and, mixing with the rain, impregnate the water, which entering the husks that enclose grains of wheat (if there are any in the same ear) and the wind blowing the ears one against another, all such as thus touch an ear which contains Smut-Balls, are liable to be infected, and in consequence thereof to produce Smut-Balls the next harvest, provided an *effectual remedy* is not made use of to prevent it. Likewise, when the wheat is cut, the binding it in sheaves, setting it up in shocks, loading it in carts, or waggons, laying it in ricks, stacks, or mows, and barns, threshing, winnowing it, &c. have each a tendency to break some of the balls, and to mingle their *dust* with the wheat. And what some might not suspect, even its being threshed in a barn, where smutty wheat has been recently threshed, winnowed on a floor, or sheet, laid in a granary, or carried in a sack or bag, where any of this *dust* may remain, every grain of wheat, which a particle of it shall touch and *adhere to*, is apt to produce Smut-Balls the next season.

“ But some may be ready to say, they have sown wheat, that they were certain never had a Smut-Ball amongst it, yet such produced Smut-balls the next season. Let such examine (not superficially, but studiously and carefully) the barns, the winnowing floors, or sheets, the bags, &c. and also whether they have not manured their fields with dung from a farm yard, where the straw or chaff of smutty wheat has been laid, and that at the time the wheat was sown, such dung has not been quite rotten, the dust of the Smut-Balls not being at that time returned to their primitive dust. For though putrified dead bodies communicate their noxious qualities to those which are living, yet when they have passed through the great chymical process of nature, they cease to offend, any more than such earth as was never animated by the breath of life.

“ I say, let such carefully and attentively examine, and then I believe they will find, it had touched some of this infectious matter, and that this was the cause of it.

“ I was informed by a person of great respectability in Somerset, that a neighbouring farmer who had many Smut-Balls amongst the wheat, winnowed some of it in a field of *his*, which he sowed with wheat soon after, the consequence was, that where the chaff and dust from this corn blew, very few ears of wheat were to be found the succeeding harvest, being *nearly all Smut-Balls*. The cause he attributed it to was, that the grains which produce Smut-Balls are of a much lighter nature than those which produce wheat, these blowing off the sheet with the chaff;

and the field being sown, soon after, with wheat, produced as before related. But the cause why the wheat *sown* on this spot did not produce wheat, was by him unaccounted for.

“ In Essex, two respectable farmers told me, that a neighbour of theirs, who had some Smut-Balls amongst his wheat the preceding year, had his barn swept at harvest time: the sweepings were accidentally thrown on a spot in a field then laying fallow, which was the next seed time sown with wheat; at the succeeding harvest, it was observed, that this spot produced very little besides Smut-Balls. Notwithstanding the cause appears so evident, I apprehend that neither the farmer or his neighbours did discover it.

“ In Rutlandshire, I was informed, that some small farmers, near one of their market towns, were scarcely ever free from Smut-Balls, let them sow whatever wheat they might be able to procure; but a neighbour of theirs who gave me the information, said, that *he* had seldom much, if any; that one of these neighbours of his, and himself, bought some wheat for seed of one man; that when brought home, it was parted indiscriminately, and each made use of the same preventative preparation before sowing: at harvest, my informant had very few Smut-Balls (if any) amongst *his* produce, whilst the other had such abundance, as to have difficulty in selling the wheat at five shillings a quarter below the price he made of his. This *alone* is a considerable loss, without estimating *the deficiency in quantity*; for where a ball of smut grew, a grain of wheat ought to have been produced; and further, it has been imagined by some whom I have confidentially made acquainted with my discovery, that *wheat infected with Smut-Ball Dust produces fewer plants, than such as is quite free from infection, and the plants which are produced are, in general, not so vigorous.* But do not insert it as coming within my own observation.

“ In Huntingdonshire, a farmer acquainted me that he never was without Smut-Balls, but always so few as *not to spoil the sample*, except the harvest of 1792, when he had (I think he said) ten acres, smutted to a considerable degree; notwithstanding the seed sown was the same sort, and prepared in like manner, to what he sowed the same season on other lands, which had produced but a small proportion. I enquired, what he manured his land with? and was answered, that he *always* folded sheep on such lands as he sowed with wheat; and that which produced so many Smut-Balls, *he additionally manured with dung from his farm-yard.*

“ These several circumstances led me to direct, that three cart loads of dung should be taken from near a barn door, where smutty wheat had been threshed and winnowed in the course of the preceding year, and lain on three separate spots, in a field intended to be sown with wheat, which was done; and the

effect was such as to discover where this dung was spread, Smut-Balls being produced there in abundance, whilst the surrounding parts were nearly free.

“ In the spring of the year 1792, I manured part of a field for potatoes with dung, taken from near the aforementioned barn door, and the *stable* dung-hill (my horses eating all kinds of chaff), and last Autumn, the potatoes being taken up, it was sown with wheat, amongst which, plenty of Smut-Balls were produced, whilst part of the same field laying fallow the preceding summer, and had no dung lain on it previous to being sown, produced but few; I say but *few*, for I wish not to be understood, as if I have the least desire to be supposed totally free from them. For, notwithstanding I have discovered the *cause*, and appear certain of the *remedy*, having many servants, I forbore to apply it to more than two bushels in a season, in order to avoid a premature discovery. I have therefore continued to prepare my seed, according to my *old* custom, which is that generally practised in my neighbourhood, and have sown such as has been sold to me for clean, though it hath not always proved to be what it was warranted.

“ From the several instances before recited, my readers will see, that although the wheat sown may be such as was entirely free from Smut-Balls when cut; or even unto the time it was deposited in the earth, it had touched no infectious matter; that notwithstanding it may have been previously brined, limed, &c. yet there is a possibility of its being infected afterwards, and is what I alluded to in the 9th page, where it is said, “ all those who are in possession of, or can procure, wheat free from Smut-Balls, may sow such, year after year successively, without using any preventive preparation, and yet not be subject to them in the least degree, *provided all things are free from infection.*”

“ The danger of infection from Smut-Balls growing amongst the wheat is not always equally great; for one year, when there was an extraordinary dry summer and harvest, I had Smut-Balls amongst my wheat, in stacking, mowing, housing, &c. it reeled, shed, or rushed out, much, which, being mixed with gravel, was not fit to grind; I therefore sowed it, and the produce was not more infected with Smut-Balls than that of wheat procured upwards of thirty miles distant, and purchased at an advance price, as being prime seed: this caused me to err exceedingly; for the next harvest except one was extremely wet, when some wheat, which had a few Smut-Balls amongst it, received so much rain after being cut, that it sprouted exceedingly; when I had considered much what was best to be done with it, I concluded to sow it, and allow an extraordinary quantity, to make up for the deficiency of the grains which had previously vegetated (having no greater expectation, then, of their vegetating the second time, or producing Smut-Balls, than I have now): the pro-

duce of this wheat was (I believe) about a fifth part Smut-Balls; my loss was therefore very considerable, having about sixty acres of it.

“ It was now I began to see that it is infectious, and that the infection is in the dust, which, in dry summers and harvests, is not so freely communicated, *less balls being broken, and the grains of wheat dry*, the infectious particles do not adhere to them, as in and after wet harvests, when the balls are *tender* and the grains *damp*.

“ From repeated experiments which I have made year after year, as well as from numbers of corroborating circumstances, and what I have gathered from several experienced farmers, with whom I have conversed, some of them celebrated for producing the best and cleanest wheat for seed every year, from thirty to fifty years and upwards, it fully appears, that the cause of Smut-Balls is not inherent with all wheat, though generally supposed so to be; but is, as I have already observed, *a contagious disease*. For in Bedfordshire, I was informed, that a farmer, upwards of eighty years of age, who had been in the farming line from his youth, never limed, brined, or made use of *any* of the reputed preventatives, but, notwithstanding, was *always* free from Smut-Balls; until he removed from one farm to another, about eight years since, when, the *first year* of his removal (if I recollect right), he had abundance.

“ I am fully convinced, and believe that most of my readers will soon be so, that wheat is not liable to this disorder, but by contagion, as is the case in the small-pox; and to those who may query from whence Smut-Balls at first proceeded? I think I may safely promise an answer to their question, on their informing me the origin of that contagious disorder. For it evidently appears, that where men have at their first entering into the farming line had wheat for seed, *free from Smut-Balls, and their barns, &c. all free from infectious matter*, and not being in the practice of *unnecessarily* changing their seed (as too many are) they have continued clear, whilst perhaps several of their neighbours have many times been often pestered with it, although they have frequently changed their seed (a part of it every year) at a great expence, giving an advanced price in the purchase, and having it brought from a considerable distance.

“ I come now to treat of the manner of cleansing such as is infected (for better cannot be done, than *leave what is well alone*).

“ When I first supposed that the cause of Smut-Balls was owing to their dust adhering to the grains of wheat, I took four gallons of wheat, which abounded with them, and rubbed all well together with my hands, by which most of the balls were broken, and the grains of wheat tinged with the dust; in this state it was sown. And believing that something of *a cleansing nature*

was all that is necessary to remove the cause, I took two bushels of the same parcel of wheat, which, after being well winnowed, was taken to a brook and washed in the following manner, viz.

“A gallon at a time was put into a wire sieve, which had eight bars to an inch; at first it was gently immersed a few times in the water, by which every Smut-Ball amongst it, was easily discovered and taken away; this being done, the sieve was whirled round briskly in the water, for about a minute, then all being washed in the sieve, and thrown into a tub with some water, was stirred round with a broom; and lastly, put into the sieve again, a gallon at a time, and washed in the brook, expecting that the remaining particles would sink through the bottom of the sieve, and be carried away with the stream.

“This was sown in the same field with the former, where no different kind of manure could have the least tendency to produce Smut-Balls, amongst either this, or that; but at harvest, the difference in the crops astonished every one who saw them, the first produced as many Smut-Balls as grains of wheat; but the latter was almost perfectly free from them.

“The next year, I took some grains of wheat which had been *rubbed out* of ears that contained both wheat and Smut-Balls; and sowed half of them in that smutted state; the remainder was well washed in water, and then sown near the unwashed grains, in a separate drill: at harvest, the produce of the two was opposite; the first yielded *exactly* twenty-four ears of Smut-Balls to one ear of wheat, the other *about* twenty-four of wheat to one ear of Smut-Balls.

“The same season, two bushels of the under part of the heap, and the sweepings, mentioned in the 14th page, were washed, and sown like those mentioned in the 20th page; the produce was very similar, both being *nearly* free from Smut-Balls.

“The reason why washing did not *immediately wholly* remove the cause, and cleanse *every* grain of such wheat as I had made the experiments on, was, in my apprehension, because they were made on such grains as grew in the same ears with Smut-Balls, or were part of a crop which abounded with them: having observed, that sometimes, in wet seasons, the Smut-Balls burst, as described in the 10th page; I concluded that the *few* which were found amongst the produce of the *washed* wheat was owing to some of the grains sown being impregnated with the infectious matter, before they came to maturity. But the dust which adhered to the *outside* of the grains of wheat, I expected would be effectually removed by washing in water, if repeated in proportion to the degree of infection.

“Such who may be induced to wash part of a sample of wheat, which they have smutted with this dust, in order to prove the truth of my assertion, are requested to be *very* cautious, not to let the wheat touch any thing which is in the least degree *greasy*,

whether it be a *bat*, cullender, bason, spoon, &c. for this dust incorporates freely with grease or oil, but subsides in water. A very minute particle of dust remaining with a grain of Wheat, is enough to cause infection; and it being evident that *cold* water, will not easily eradicate *greasy* matter, the intention will be frustrated, and this simple method of washing, which has been clearly proved in many counties, to be effectual to such wheat as was infected by the dust, *after the wheat came to maturity*, will be set lightly by.

ACCOUNT OF THE ISLE OF SHEPPY.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

THIS Island, situated near the confluence of the Thames and Medway, is about nine miles long and four broad. It is considerably less than it has been formerly; the sea continually washing away the earth of the cliffs; so that in all probability it will in length of time be intirely destroyed. The inhabitants of Minister pretend that in the reign of Queen Elizabeth, the width of that part of the island was near four miles greater than at present; but this seems rather doubtful. That it has been considerably wider than it is now, is however pretty certain, and this is a circumstance very much in favour of the story which is told of Lord Shoreman.

The island contains eight parishes, in one of which there are but three houses, the inhabitants of which, always discharge their servants a few days before Michaelmas-day, and hire them again a few days after, that they may not have any poor to maintain: there is an old chapel in this parish, but service is never performed in it, as the minister usually only comes there once, which is when he takes possession.

Part of the island consists of low marshy grounds, on which they graze sheep and cattle; but the middle, which is much higher, is very fertile and pleasant; the east end is rather barren. The chief places in it are Queenborough and Sheerness.

The TOWN of QUEENBOROUGH contains about an hundred houses, an old church, a mill, and an antient brick market-house. It is chiefly inhabited by oyster dredgers, and governed by a Mayor and Corporation, who lay out considerable sums every year in purchasing oyster spat for replenishing the beds in the Swale, from whence no one has a right to take an oyster who is not free of the Queenborough Company, under the penalty of one penny for every oyster.

SHEERNESS or SHIRENESS is about two miles from Queenborough. Exclusive of the fort and dock-yard, it is a dirty irregular.

lar village of about fifty or sixty houses. There is here a neat Methodist meeting-house, and an inclosed well for supplying the garrison with water. Before this well was dug, which is not many years since, they were under the necessity of sending to Chatham for fresh water. It is 10 feet in diameter at the top, and 347 feet deep, besides 14 feet of bore; and the workmen having dug and bored to this depth, broke into such a fine vein of water, that they had not time to make the signal for being drawn up, but were obliged to leave their tools at the bottom, and came up floating in the water by means of the cork-jackets which they had on till they nearly reached the top, which was in about an hour's time. It is asserted that since this well has been dug, some other wells on the opposite shore of Essex have been found to lower considerably, from whence it has been inferred that they must be from the same vein, and that it must of course run under the sea; the water of this well is said to be very well tasted, but of a whitish colour, which may possibly be owing to its running through a bed of chalk.

MINSTER is a very small village, about four miles from Sheerness. The old Monastery is partly pulled down, and part converted into a farm-house. The Church is more than 650 years old, and appears to have been part of the monastery. The most remarkable tombs in it are, one under an arch in the wall, of Lord Shoreman, of whom there is a figure lying on his back, in armour, but without any inscription. Near to this a flat stone on the ground with the effigies of some venerable old gentleman and his lady, in copper; and in a part of the church, which is separated from the rest, there is on one side the tomb of Lord Thomas Cheiney, who by the arms appears to have been related to Lord Shoreman, and who was prime-minister to Edward the sixth, and Queen Elizabeth, Lord Warden of the Cinque Ports, &c. This tomb is of marble, and the sculpture appears to have been well executed, but is now much spoiled by the people cutting their names thereon; Lord Shoreman's is in the same state. On the opposite side is the tomb of the Spanish general who commanded the land forces of the Armada, who was taken by sir Francis Drake, and died on board a ship at the Nore.

THE CLIFFS near Minster are in some places about 100 feet in height. They are composed of clay and blue marle, pieces of which falling frequently on the shore, are worn smooth and rounded by the motion of the sea, and after lying there for some time, harden, and become the Pyrites or Copperas-stones, which are gathered by the poor of the island every spring, for the Vitriol works at Queenborough, Deptford, and other places. That this is the true origin of the Pyrites cannot be doubted, as pieces of marle may be observed on the shore in all the different degrees of hardness, shape, &c. from the rough state in which

they fall from the cliffs, till they become perfect pyrites; and as there are trees and bushes growing on the top of the cliffs, it is not at all extraordinary that these pyrites are often found to contain a piece of wood, and sometimes a hazle-nut, or other vegetable production. On the shores are found very large pieces of septaria, and many pieces of it may be taken out of the cliffs, with the lepastrum and trichestrum in the cracks or separations; from which it is evident that these two curious species of selenite, which till very lately were thought peculiar to this spot, are formed in the earth, and not on the open shore. The lapis syringoides is also exceeding plentiful here, with petrified vertebræ of fish of various sizes, sharks-teeth, turbinitæ, and some few nautili and echini. Several of the poor who collect the copperas stones preserve such of these extraneous fossils as they happen to meet with, and will dispose of a considerable quantity for a trifle. The shells of the cuttle-fish are numerous on the shore, with great numbers of the five-finger or star-fish, and crabs.

There are two ferries for crossing the Swale; Hartey-ferry to the Feversham-road, and King's-ferry to the Milton-road. The latter being supported by government, passengers are carried over gratis.

G.

THE BRITISH MERCHANT. No. VIII.

HISTORY OF COMMERCE DURING THE ELEVENTH CENTURY, AND TO THE RISE OF THE HANS TOWNS IN THE TWELFTH.

IN the eleventh century some degree of order and regularity appeared in the middle and southern parts of Europe, the northern were but little advanced in civilization. Germany was improving fast. Bremen was become a place of great importance; the merchants were taken under the emperor's immediate protection, and they were permitted to hold two great fairs in the year: by one of the charters it appears, that silver uncoined was used as a medium of commerce; about the year 1010 this city was fortified.

The ravages of the Danes in England still continued; they penetrated into the inland parts, and burned Oxford and Cambridge, and were bribed with money by King Ethelred to retire. To raise this money, the tax called *Danegeld* was established; but the contest ended in the Danes making a conquest of the kingdom. In the relation of this contest it appears that London had a bridge of timber in 1016. London must have been now a place of considerable consequence, for of eighty-two thousand pounds raised by King Canute to pay his army, London paid fifteen thousand.

A. D. 1120. Amalfi, in the kingdom of Naples, became so famous for the great number of trading ships which repaired thither, that the Saracen califf of Egypt gave the Amalfians a safe conduct to trade in his dominions, and they had also liberty to build a church at Jerusalem. Two circumstances respecting England deserve notice: the one is, the mode the Saxon Kings used to support their fleet; which was by calling on the various towns, both inland and on the sea coast, to find certain ships, men or commodities: thus Warwick supplied the King with four boatswains and four pounds in money; Gloucester paid its quota in iron; Leicester sent horses to convey the arms from place to place. The other circumstance respects what is commonly called Usury, which had been prohibited by Edward the Confessor, and must certainly have been a great check to commercial concerns. By usury they then meant all kinds of interest for money.

Pisa became about the middle of this century a most flourishing republic. Genoa had great power and commerce also. We find from our traveller, Ingulphus, that a large fleet arrived (1064) this year from Genoa at Joppa, in which he embarked for England. England in 1066 was conquered by the Normans, who introduced the feudal law in all its strictness; consequently, as that law is by no means friendly to commerce, it declined.

The pound of silver and the pound of account we have undoubted authority were now the same in England, and so continued until the reign of Edward the III. To William the Conqueror the Cinque Ports owe much of the consequence they maintained for a long series of years. He granted them many privileges on condition of finding a certain number of ships, and appointed a Warden over them. There seems to have been but little coin in England, as we are assured that all large sums were paid by weight and *touch*, or proof of being standard. About this time a pasture ox was worth in England three shillings. Of the state of the cities and towns, as they are distinguished, we find at this time nothing very favourable. It seems to be generally allowed that those places are called cities; which had a bishop's fee, and were counties in themselves. The towns had now little means of rising to opulence, but under the protection of the King, or some great Lord. At the time of the publication of Doomsday-book, it is supposed that London and Winchester were the only two places whose citizens could be strictly called free. These two cities afterwards procured greater, and other towns equal privileges from succeeding monarchs.

Towards the latter end of this century Mr. Anderson thinks that merchants or fraternities, called *guilds*, and by us corporations, were introduced into Europe.

In 1090, the Duke of Este, granted a charter, with great privileges, to the city of Mantua, in Italy.

In England these guilds had exclusive privileges, most of which still remain; the companies of London in particular are complete monopolies.

The commercial towns of Europe, of Italy in particular, reaped a great profit from lending out their ships for the expeditions to the East, commonly called the Crusades; they were not only well paid for transporting the princes, lords, and great men, with their soldiers, arms, and provisions, but many of the former granted them great privileges. During this century the Jews in England are said, by their traffic, to have gained great wealth, much of which was forced from them in the subsequent reigns. In old times, not only this persecuted people, but all foreigners, were looked on with a jealous eye in England—a jealousy which does not seem yet to have been rooted out.

In the twelfth century the commercial prospect brightens; the cities, which had been built on the south shores of the Baltic, opened new sources of commerce, and enlarge the communication between the various parts of Europe. A second crusade found full employment for the ships of the trading powers, but certainly for a time checked their commerce.

A. D. 1101. In the first year of the century, our King, Henry I. granted the citizens of London very considerable privileges, and appointed a standard ell for the measurement of cloth, &c.; halfpence and farthings, which were before square, were now coined round; and the public registers began to be preserved; all which tend to shew that the state of the country was improving.

Hackluyt tells us, that a large fleet of vessels, called *busses*, from England, Denmark, Antwerp and Flanders, with seven thousand men on board, arrived at Joppa, and after the passengers had made a pilgrimage to Jerusalem, returned home again with the same cargo.

1106. Among the guilds or companies erected in England we find the weavers arrived to a considerable degree of importance, so as to enter into disputes with the city of London respecting their privileges. In England and Scotland we have authentic proofs at this period that the silver coin was kept to its just weight, that is, that a pound of accounts or of coin, still contained one pound troy of silver. Money however must have been scarce in Germany, as in some parts they traded, and paid taxes and imposts in linen, their staple commodity.

The states of Italy continued to amass considerable wealth by the assistance they gave the christian princes in their wars in the East; the Venetians had a fleet sufficiently strong to raise the siege of Joppa.

The first Norman kings ascending the throne by precarious titles, courted the people, and we now find a number of charters, granting considerable immunities to several great towns.

1130. About this time Roger the II^d. king of Sicily, having taken Athens, Corinth, and Thebes, brought away from thence all who wrought in the silk manufacture, and settled them at Palermo, where they taught the Sicilians to breed the silkworm. From this place that art was transplanted to Italy, Spain, and, in process of time, to France. Du Thou places this event later. The people of Palermo improved on their masters, and soon manufactured better silks than the Greeks.

1135. Hitherto the kings of England had received the rent of their demesne lands in kind: about this time it began to be paid in money; a proof that the wealth of the country was increasing.

1137. Bristol began now to rise to notice; William of Malmisbury, calls it a *famous town*. About the same time, we find, that there were vineyards in England of considerable extent, particularly in the county of Lincoln.

In 1140, the celebrated commercial city of Lubec was built, and, in a few years, began to be a place of great consideration, and in time to be the most celebrated commercial city in Germany. Other towns on the Baltic, seeing the success of Lubec, were led to follow her example. This prosperity drew on them the envy of the kings of Denmark and Sweden, and other princes of Germany, which obliged these towns to enter into an alliance to each other, and hence arose the famous *Hanseatic league*, which afterwards became so powerful and so much celebrated. Lubec was declared the head of this league, which however was not completed until the close of this century.

Bremen also rose rapidly, and was now become so considerable in point of shipping, that (1147) they fitted out a fleet to assist the emperor Conrad in his wars against the Moors of Spain, and succeeded in taking Lisbon.

Sugar was now produced in very considerable quantities in Sicily, with which the Venetians traded to the ports in the Ocean. The sugar had before been brought from Egypt, from whence the sugar canes, which were planted in Sicily, are said to have come.

[To be continued.]

ON INCLOSURES.

To the Editor of the Commercial and Agricultural Magazine

SIR,

ON a former occasion I gave you some information respecting Inclosures of Cheshunt and Edmonton Commons, which have lately taken place in our neighbourhood—Cheshunt Common was ploughed during the winter, and is now chiefly under oats, the appearance of which crops are uncommonly luxuriant, rising on the average of the whole to above six quarters per acre.

I have been informed of one piece of land of two acres which sold for twenty-four pounds per acre, the oats now growing upon which have been estimated at nine quarters per acre, being nearly equal to the fee simple of the land. They were merely harrowed in on one ploughing. These facts are decisive in regard to the utility and importance of inclosures. The average price at which the land sold was twenty-five pounds per acre. I observed a crop of Tartarian oats, which promise remarkably well.

The Bill for the inclosure of Endfield-Chace and Common Fields passed at the conclusion of the last sessions. I formerly noticed the clause in the Edmonton Bill which gave a corn-rent in place of tythes. I shall now state what has been done in the Endfield Bill on this interesting subject, which in some respects differs from the Edmonton act,

The proportion of land given for tythes is one fifth of the arable, and two seventeenths of the meadow and pasture. Where the proprietors are possessed of common field, or marsh land, the tythe owner insisted on having land in place of tythes, and would only consent to a corn-rent, in cases where the property of the inhabitants consisted only of old inclosed land, to part with which in small parcels was considered as likely to prove injurious to their estates. But as every proprietor would have an allotment of land from the Chace, *this* was in the first place to be given up in lieu of tythes, as far as it would go, and the remainder only was to be satisfied by a corn-rent. The commissioners were to ascertain what had been the average price of corn for the last twenty-one years from January 1801, and from thence to fix what should be paid for the next twenty-one years ensuing. At the expiration of this time the bill provides for a similar calculation.

A power has likewise been granted to the Church, which I am informed has never yet been allowed in any Inclosure Bill, and that is to sell part of their allotments to the amount of three thousand five hundred pounds, in order to defray the costs and charges of such buildings, barns, and out-offices, as may be necessary for the proper occupation of the land given in lieu of tythes. This was so novel a clause, as the Church has not been allowed to alienate any of its property, that we were apprehensive it would be the means of throwing out our Bill in the House of Lords. It was however consented to, on condition that the money should be repaid in the course of forty years, by an annual payment to be made every year, after which the monies thus arising were to be re-invested in land.

The rights of the cottagers will be considered by the Commissioners, as the smallest tenement will be allowed an equal share with the largest mansion. These common rights will be valued at twelve shillings per annum each, and will have an

allotment of land equal to nearly an acre, or to half an acre, or to one rood, according as its quality and situation may affect its value.

The Bill gives to the inhabitants a power to sell these common rights, previous to the division of the Chace, and the Commissioners will lay them with the allotment of the purchaser. I have myself bought up several at fifteen and sixteen pounds each, in order to secure my own premises, which extend for three quarters of a mile along the Chace.

The timber and underwood on the Chace will be valued to the proprietors of the several allotments of land, and the money arising from the sale of the same will be invested in the funds in the Accomptant General's Office, the interest to be applied in aid of the poor's rates. It is expected that nearly thirty thousand pounds will arise from the sale of the timber.

*White Webb Farm,
Endfield Chace, Aug. 22.*

A. WILKINSON, M. D.

A SKETCH OF THE LAST EASTER LEIPSIC FAIR.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

THEY sold lately in Paris a caricature with this legend (*La Bascule Anglaise*), the English see-saw, where Mr. Pitt is tumbling down from the upper end of the beam, while the English people are seen at the lower end groaning under its weight.

It is worthy of notice, that another caricature of a see-saw, with a similar inscription, was likewise exposed in public in the late Leipsic fair, where, instead of Pitt falling as in the other, they have represented the well-known goddesses of Trade and Commerce. The fair itself was swinging at a prodigious rate, and little should we wonder, therefore, to hear of many down-falls and bruises! But who was to be placed at the lower-end of the beam? There was scope for the fancy; they only placed three figures, a Frenchman levying (contributions) forced loans, then Admiral Nelson, and an excise officer with an ukase* in his hand, who, from the 1st Jan. 1801, takes an account of the importation of all foreign goods in the Empire of Russia, and lays enormous taxes over them.

For the last twelve years and more, no fair was so completely falsified in payments and exchanges as the late Leipsic fair. The causes are innumerable, it is true. It may be asserted, however, in general, that it was owing to the most wicked of all wars, the fruits of which are reaped at this day. In the mean time, let us shew the source of this evil in the three chief causes which have been alluded to, with a great deal of good sense, in the

* An order from the Senate.

print above. All the southern part of Germany, as well of the rich and powerful provinces of the Austrian monarchy, and the little, but very important for the occasional trade, free states of Switzerland found themselves, after the late just concluded peace, so depressed and exhausted, that they could appear at the fair as purchasers, but with very scanty sums of money. The French transactions at the end of the unfortunate winter campaign of 1800, 1801, had drained the people of the last drops of their vital blood. Swabia, a land blessed both by nature and the industry of its inhabitants, according to a computation no ways exaggerated in the National Chronicle, paid, during these times of trouble, no less than 30 millions. The loss of Salzburg and Upper Austria was with respect to the shortness of the time that the thunderbolts of war hung over them, still more considerable.

The history of the Easter Frankfurt fair is known already from the accounts given of it; but from the opening to the conclusion of it, which lasted out to the very middle of the Leipzig fair, it is proper to add a few words in this place.

The Swabian, Bavarian, and Upper Austrian States could not pay in specie alone the heavy contributions laid upon them by a victorious enemy, provoked to greater demands from the hardships of a tedious winter campaign; a part of which they discharged in *billets de banque* and *lettres de change*, drawn upon the best Frankfurt houses. But the French pay-masters had deposited before that time considerable sums of money in the hands of the bankers. The stocks of course rose at every call upon them. All this must have been realized by the Frankfurt houses all at once, at the beginning of the fair, or as they call it, the *Geleits week*: which made the people give the French the odious name to paralyse the whole fair, as the balance happened to be in favour of the English alone; but however unfriendly the intentions might be against them; as the term goes, it is denied in a way demi-official, and proposed as an English intrigue, a word always to be understood in France in a bad sense. The French government, for instance, wished to erect Mentz into a free state, if the smuggling inhabitants had not protested against it themselves; so little pleasure could they find on account of the loss which urgent necessity and immediate orders from Paris had made an obligation of, as an indispensable measure, to the great displeasure of the pay-master who thereby saw his profits lessened. In short the Rix and French dollars came out of Frankfurt in heavy waggons, and with them the nerve and strength of trade for that time. The houses Muhler and Bethman, had alone three millions of livres to pay down for Upper Austria, which was the case, also, with Heider, and other great houses. They were forced to buy then

from 12 to 14 percent. The French dollars were hurried away, post haste, from Hamburgh, Leipsic, and other commercial places. The little tradesmen who brought papers could not realize them at first, though ever so good; and a discount of one-half, or at least of one-fourth per cent. was requested for them.

Great mercantile houses availed themselves of the four days respite merely to gain time. This caused a great deal of embarrassment and obstruction, which of course must have been felt afterwards in Leipsic. But after the French armies had left little money, and began to receive their salary on the other side of the Rhine, all the money having been drained off the country before; it was then that the want of specie must have been most felt all over Upper Germany, the time not being come yet, that they who had enriched themselves *per fas et nefas*, ventured to make free with their superfluities: and there were even some men too weak to resist their childish fears, or the love of their gold, who kept back considerable sums of money, and hoarded them up in their iron chests. There was no such thing to be found, one may say, in the Leipsic fair, as whole or half dollars of French money. Gold, on the contrary, was to be met with in great plenty, and therefore had fallen a little upon the change. All this was the result of the French address in making requisitions in the south of Germany!

England gave a proof of the contrary in the well-known note of Mr. Haugwitz to Lord Carysfort, with an armed fleet under the command of Admirals Parker and Nelson, which profited of the jealousy of the Swedes in requesting the *toll-money* of the Sound, to pass it and storm the lines before Copenhagen. This spread the alarm upon the coasts of the East and North seas. The Danish army in the Duchy of Holstein came with forced marches, and took possession of Hamburgh and Lubec. Prussia seized upon the Electorate of Hanover. The Elb and Weser were blocked up. War became thus here also the watch word of the day, and a stop was put to all trade in the North of Germany before a change took place in Petersburg, and one could know what might be the result of the English engagement with the northern coalition. The nobility of the Duchy of Holstein were forced to fit up and mount their peasantry. The well-meaning moneyed men were also in a state of perplexity, and forced to renounce capitals which they had laid by for trade. The Danish bank paid with 15 per cent. loss. They threatened the English warehouses in Hamburgh and Altona. It caused a few turbulent nights in the former place, when the English goods and their corn even changing the names of their owners, brought every thing quiet again, and the Danes contented themselves with threats. Nevertheless was the Elbe blocked up for six weeks. A vast quantity of northern ships were detained in the English ports, and the English merchant

himself was excluded the continent, at least with regard to his exportation goods.

All this could not fail having a very unfavourable effect upon the Leipzig fair, where there was, properly speaking, no exchange with England. There were certainly English goods, and a good sale of them, but all these dated previous to the embargo at Hamburgh, and were nothing but a shadow of the prodigious affluence and sale for those goods at the preceding fair. In fact, the whole of the traders of the North were kept back this time. There were hardly forty Russian and Polish merchants of note on the spot. They had heard long before of the general obstacles to be thrown in the trade, which were to take place in all the old as well as new acquired provinces of the Russian Empire, with the first year of the century; they had therefore provided an abundance of all kinds at the Easter fair of the preceding year, and still more so at the remarkably brilliant Michaelmas fair of 1800, so as to stop up all their storehouses; of course there was no longer a call for goods, as every intelligent merchant of Leipzig had judged before hand, from the affluence in the preceding year. Add to this, also, an unaccountable scarcity of specie throughout the Russian Empire, which every day swarmed more and more with paper-money, and occasioned the greatest embarrassment in the foreign trade: yet the last channel, the trade with England, subsisted still, as long since the greatest and most important article of exportation, that of corn, had been thwarted in its execution. In the mean time all this should have inclined the more the Russian and Polish merchants to fresh speculations upon the Leipzig fair, had that catastrophe, the incalculable consequences of which can hardly be guessed at to this day, taken place two months sooner. For the Russian merchant must begin his travels at the time when the rivers are frozen, and by means of a late winter, and above all, wants a long time to dispose himself for it. When the Emperor Paul died, it was too late to think of travelling, particularly as the fair began sooner this last time; hardly would they cherish the hope given out in the newspapers, that the Midsummer fair would fetch what had remained of the Leipzig fair. The first great effects of the new mild system of Alexander could not be felt before the Michaelmas Leipzig fair, where the Spanish Piastres found their way again to Russia, and the system of economy which the new Emperor endeavours to introduce in all the branches of administration, recovered the sunken credit of the paper-money. The apprehension that no English goods should be forwarded to the Leipzig fair, contradicted the appearance on all sides. The Elb had remained open almost the whole winter, and the well-informed merchants in England had yet, before the last colds broke out, taken care that the warehouses along the Elb should be filled up to the roofs. Goods that were

come too late to Francfort went immediately as *passage goods* to the Leipzig market, and what, at the beginning of the fair, had not yet been forwarded in great quantities, came towards the end of it in whole trains of loaded waggons from Hamburg. How great the quantity must have been of the cottons, Indiennes thicksets, and such like, manufactured in England and Scotland, particularly in Glasgow, may be judged from the inconceivable cheapness of the muslins at this fair. The manufacturers from Saxony could stand no price against them, and a considerable merchant of Plauen affirmed that he regretted nothing so much as not having a handsome capital, so as to enable him to buy ready made cottons from England, as the profit by retailing them would be incalculable, and they could never be manufactured so cheap. This made the English merchants so tractable, that they did not disdain the retailing part of trade, contrary to their former custom, and sold half pieces themselves: which caused many, out of ignorance, to make the silly observation, that the English Cabinet had caused the ruin of the manufacturer by so low a sale; but were we to consider the immense sums with which the English push forward those manufactures, how simplified they are by means of their machines, which are every day brought to a greater perfection, and by chemical discoveries in bleaching and dying their stuffs, we could then form a right idea of what otherwise must be a riddle to us. So far it is plain that the Germans, and especially the cotton manufacturers from Saxony, could not stand long such journeys. It has been advanced yet lately as a proof of the flourishing state of the cotton factories in Saxony, that in Plauen * alone, in the year 98, on simple English yarn machines, 18,444 pounds, as were declared by the excise man, had been worked. The quantity in the last two years has rather augmented than decreased; but this time this purchase has obstructed them, and the manufacturers from Saxony felt the impossibility with the cheapest foreign yarn itself to cope with the goods manufactured in that foreign country. The English sent vast quantities too from Leipzig into France, as had been the case already in Francfort. The rage of the French *beau monde* to wear nothing but English stuffs surmounts every representation, and the dangers incurred by the smugglers have no other effect, but to make the balance of trade more uneven against France. For the English purchaser must pay the foreign and adjacent trader who incurs those risks. Such is the case also with the goods of the West Indian Colonies. It may rightly be inferred, from the annihilation of so many manufactures in the interior and the great quantity of ships along the coasts of France, that if a total change does not take place in less than three years, almost all the sums drawn by France out of Germany must return in to the hands of the English. Thus the great pot-pourri of the English table, and wines of the English cellars, as they are called, of Mr.

* A famous place for manufactures.

William Cole, on the late Newmarket, were no less inviting and alluring this time for the German *badauds* than formerly, and found no less a sale. Truly, this extraordinary Madeira, which travels twice to the East Indies, and is hardly to be drunk in Europe (to use the tone of the puffing *announce* of Mr. Cole) costs now three French dollars a bottle: And the Bengal Rose-oil, *which used at all times to be half cheaper* seems from its price to be rather a true Guinea essence; but the fowler is once more in wait, and the Saxon blackbirds and goldfinches could not possibly resist this English allurer. It was a pleasant sight to see a puny little fellow, from Frankfort or Dresden, with a piece of Cheshire cheese, and a bottle of porter before him, and a London hat bought in his own place, cocked in the highest London style, come out of this tavern and give himself for a true Bond-street lounge.

The French silk-merchants and milliners could not naturally through a total absence of the northern amateurs supply large stocks this time. Out of necessity they took in some degree very moderate prices, which made their ruin looked upon as the more certain. It was reported generally that many a great house in Lyons had failed already, or was at the eve of doing it; that the raw materials of silk itself were of an excessive price. The early store goods had been wasted before. This time they wished to deprive the poor manufacturer of the fruits of his labour: the latter preferred not to work at all, inlisted themselves for soldiers, or associated into large gangs of robbers. They have, it is true, endeavoured lately in Brittany and Normandy, with the assistance of English weavers, who found different ways to abandon their country on account of the excessive dearness of all necessaries, to establish English manufactures and engines; but these foreign plants will hardly thrive on French soil. On account of the Point Laces lasting so long in fashion, merchants had yet a great deal of business with the *Points* of Brabant and Alençon: among the latter they sold a great quantity of those called according to the terms of their arts *Points d'erezeau*; and the Argentines still better as they are more fit for veils and all sorts of trimmings. It may have been observed that for want of rich Russians and Poles, who made this traffic of *Points* so interesting in the preceding fair; the finest assortment went to the magnificent Town of the Emperor. They noticed especially in many *Reviews* the pleasing State of Vienna itself at this fair. The transaction by which that court bought twelve millions of florins of state-obligations which caused an extraordinary rise of them, soon proved here its good effects. Now the news which spread about towards the middle of the fair, that Austria's pride and patron, Arch-Duke Charles, lay without any hopes of recovery, threw a cloud over the serene face of the Austrian patriots. As to what

concerns the Point trade, there was a sensible design to prefer the foreign to the home made; and to brave in that particular the rooted National hatred. The (*Dentelles d'Angleterre*) English laces, which are known to be made of nothing but silk, were brought to Paris in great quantities, and to large amounts; while for the Points (*en fil*) thread-lace, large commands from England, proved that for these fine contrabands many sly-corners, and masks can be found out. In fancy and fine furniture articles, as well as some stuffs and objects of fashion just arrived from Paris, the Nile above all attracted the eye with all its wonders, gods and fancies intermixed in a manner often ridiculous, with the elegancies of the Seine instead of the late yet fashionable lyre and bow of Apollo. In the head and shirt dressing pins, you saw the dog Anubis-like heads of the gentlemen and ladies, and hawk-bills, as figured upon old Egyptian idols. The toilette looking glasses are surrounded with leaves, and the elegant watch cases, ornamented with costly gildings, are supported by sphinxes. Even those lovely and delicate little drawers which seem to have been reckoned to be made for a lady, of common size, when for the pigmy Bebe at the Court of King Augustus, from Poland, even these new fashioned duodecimal drawers had intended hieroglyphics in their partitions, and the newest colour all around the chest, and the drawers was called (*brun terre d'Egypte*) Egyptian ground colour. Thus did the mode trifle with a land upon which at the present moment two powerful European nations cut one another's throats, to the great satisfaction of their common enemies the Turks and the Mamelukes, and with rivers of blood decide the question, if the obstacles of the trade to the European continent shall be multiplied or removed for ever. Letters were received in Leipzig from Macedonia and the Levant, which make it evident why this time the trade of all cotton stuffs, and all other goods which arrived from those parts to Leipzig, was entirely stopped, which will not make one wish the English to have the exclusive right of in the Nile and Levant. Most part of the Parisian Ware-sellers, even those who called themselves Print or Booksellers, had brought a good provision of fine china to the market, and made a considerable sale of this article. The once so flourishing and renowned (*Seve-china*) Porcelain manufacture, from Seve, has degenerated into so many channels and branches, out of which these productions come. They talk, however, of re-establishing the head manufactory itself. The newest taste is for the cups and tea sets, a dark flamed ground, and this they call *caillouté*. They sold most of this kind. It was chiefly in the gilt, polish, and brightness, that the French Porcelain surpassed all our home-made, and chiefly that of Meissner's. Of late, since the active professor, Schubert, superintends the part which requires taste, it has indeed improved very much in the elegance of shapes and pictures, and the tea-sets

and table services painted with arabesks, met with a considerable sale, even for the north; yet by less labour and stiffness in the forms, might the ancient reputation of the Meissner porcelain revive, a manufactory which none of its rivals has yet been able to cope with in the fineness of the materials, become still more useful.

Among the productions of art which first came to market, the embroideries of the royal embroidering manufactory in Hanover, deserve a most honourable mention. The inventive Mrs. Klockenbing who is at the head of this manufacture where they keep above fifty skillful young women, was present herself and proved by facts, that all what been spread about in the public papers in favour of this *German* embroidering manufactory was perfectly well grounded. There were a great quantity of remarkably elegant linen and muslin dresses all white, made up with *flat seams*. The prices were by no means inferior to the works, and the commands the inventor herself received during the fair proved that people knew how to value them. The plaited and coloured straw works from the Dresden manufactories and neighbouring places rivalled each other in elegant inventions; but, through an almost degrading submission to the tyrannical laws of fashion, hats, caps, bonnets, helmets, and so on, of shamois-leather, were worn with rich embroideries, very unbecoming in some articles.

If we turn our attention to the market for horses, we shall find it in the same state of obstruction and embarrassment. The main trade is always carried on here with horses from Holstein or Jutland, which are brought to Leipzig by Jews, as well as Mecklenburg horse-dealers. The horse-dealers, Gadike, two brothers, sold a great deal at the fair without much show, for the greater part of their stalls are in adjacent villages, from whence they recruit themselves now and then. They have, however, the grand procession of the horses through the town on every Sunday of the fair, a custom which dates from the times that the Polish kings and princes visited regularly the fair, which the present count Marcolini, master of the horse, will not suffer to be abolished from good motives, and for the better keeping up the breeds of the elector, which are of great advantage to him, a quite useless parade, unless men wish to know the total number of horses brought to this fair. The horses were dearer than might have been thought from the present circumstances, at this moment, that there are in Saxony many more artillery horses than wanted in a pacified country. But the horses on account of the hard times became valuable by the expence they had put their masters at during the scarcity of forage the preceding winter. This occasioned great many pairs to be bought at the beginning for upper Germany, especially for the upper Palatinate of Swabia, &c.

War and requisition of all kind had extraordinarily lessened the number of horses as well as other cattle; and the French at the time spread about in the papers that the army of the Rhine was going to be reinforced with 6000 horse, as they departed; and what did not the horrid winter campaign destroy! A very interesting show proved to amateurs, the riding-place, and trapping warehouses, which lieutenant von Tenecker has opened; supplied with so many ingenious improvements in the saddle and girth works, &c. and by which he proves sufficiently that the Germans do not want fancy and aptitude for improvements, though they have no patent privilege, as in England, to insure the property of invention. Tenecker has been long known as a very useful writer to the amateurs of horses; his various knowledge in bringing up horses, appears always in detached pieces as well as from his *Mess-Geschenk*, Fair-Gift, for the amateurs of horses; a little work which appears periodically full of very useful descriptions and plates. A work which on account of its great beauty, will recommend itself, is his *Thoughts for Horse-Drawing*, in the first part of which have been published twelve black and twelve coloured plates of the largest size. He has contracted as a writer, with the bookseller, Theodore Sieger, in Leipzig, whose warehouses contain almost every thing what is new upon the subject horses, and at whose house, during the late fair, sold remarkably well, the fifth number of a work called *le Manège*, the author of which is the Horse painter, Hesse, (the same who acquired the favour of the late Emperor Paul, for having made a picture of the Cossacks in their march) an example given to the public of a speculation upon an article of literature, which ought oftener to be taken into consideration in the book trade; for it is only by drawing the attention upon something new, that some good can result. Tenecker's improved horse-implements, deserve therefore the greatest commendation, since they do not debase, as the well-known Bendix, and so many other coach and harness-makers in *Bruble*, the German works by affixing the term *English*, nor slavishly comply with the prejudice that our coachmen and postilions can neither be elegantly or safely equipped but with what comes from that country. Thus did act among others, Hest of Berlin, who boasted his home-made Berlin goods as being of English manufacture. When Hamburgh for these two years gives to its coach-maker, going backwards and forwards to London, so many thousand marks for a reward; it is right in that. The *middle-man* from Hamburgh knows how to make himself be well reimbursed by England; but is this the case with the Berlin and Leipzig trader? Besides the book trade, which deserves a single glance, all the works of the artists that could be brought from the interior as well as abroad, are no wise to be looked over. What collection did not Auerbach offer

house to the amateur! The Archduke Charles and Buonaparte were in all the shapes and branches of the art, the heroes of the fair. In the art of Rost—yet composed with much judgment, the Grand Consul was to be seen not only after the newest busts, and in the little but expressive copper-plate of Tardieu, after Habey's picture, but also in a very *mechanical* stile. Next to him, was seen drawn by the hand of Loyalty and Art, the bust of the Archduke Charles, from Professor Dauneker, in Stuttgart. People considered with esteem that of Buonaparte; cheapened with grateful feeling the expressive bust of the beloved Archduke, who gladly laid his laurels by the endearing palm of peace; and bought a box with the portrait of Iffland, which made the novelty of the day.

A Mosaic picture, representing Homer and Pindar, and a Madona painted in caustic upon stone, which was exposed to sale at the book-binder's Liebeskind, for 250 ducats, met with neither visitors nor purchasers. It is a great pity that the English amateur H. Tomkins, who lately discovered such wonderful pictures upon some walls by Sahara in Egypt, as was announced in the first papers, was no longer in Leipsic. The Madona painted upon stone would have had a fine pendant in his king, crowned with the ox diadem from Appelles! On all sides were exposed to sale, image-works, prints, pictures, &c. The well-known M. Drapeau, in Sticalizeus house; Osterwald, from Paris in Schießgraben; and a third in Rusterschen house, by the new market, sold French images and prints. Happily for them they had also fashionable articles, such as gauzes, porcelain and laces in great quantities, and these found a well disposed public, willing to purchase. A Parisian of the name of Renouard, who appeared as a promoter of the Stéréo types, assured us that he would not have saved the mere expence of his journey, had he not had the good fortune to provide himself besides with a good stock of gauzes and silk stuffs from the manufacture of his elder brother in Paris. With regard to the former, people came hastily for the catalogue spread to no purpose, whereas hundreds of milliners came with handfuls of money to buy his antistéréo type stuffs. It fared a good deal worse with the English artist Schiavonetti, who had the good fortune to sell however his *paint-boxes*; and Boydell, the speculative London Alderman, who will hardly venture to come a second time to this fair, as his Shakespear and Milton galleries, his River Thames, and other splendid works, are not sufficiently valued by our people; and the agent of trade, *H. Harrison*, lost, besides, a considerable sum of money, by trusting too easily a certain Gauner, who gave himself for a picture merchant. The mighty sea fights of Lord Howe, St. Vincent, &c. found here neither admirers nor purchasers. The Chal-

cographic company of Dessau, acting prudently, had only ventured to come forward with a few new articles, and yet these were master-pieces; Pichler gave us at last the celebrated and long-waited for Venus, from Titian, in the Dresden gallery. Haldewany from Dessau gave us a large Claude Lorrain, and shewed by this so carefully engraved print the variety of his talents. He obtained for this plate, which he had in hand two years, 2800 dollars: Connoisseurs, however, did not find in it the brightness and beauty of the celebrated views of Italy from Gmelin. Perhaps the fact was partly owing to the original also. The active Frauenholz, from Nuremberg, brought, in spite of all obstructions, from abroad, a quantity of interesting novelties. Among the engravings, the beginning of a set of scenes from Oberon, drawn in Rome, by Koch, and engraved by Schuman, attracted the notice so much the more, as the grand pieces attempted by the English to erect monuments through the art of engraving, to their Shakespears, Miltons, Thomsons, were publicly exposed this time by Boydell; and the Germans should have remembered how far behind they are in this kind of gratitude towards their first writers and poets; Frauenholz had suffered under the direction of the extraordinary Mr. Muller of Stutgard, whom Leipzig reckoned this time among its foreign visitors, a copy to be taken of the death of Major Pierfon, the famous pendant to General Wolf's, and the learned English artists could not refuse their approbation of the excellence of this print, which in Francfort on the Main alone, found fifty-eight subscribers.

A master-piece in a brown manner, after a drawing of Professor *Caucig* of Vienna, engraved by Devian and Galimberti; Herodes frightened from the subterraneous flames, coming out of the vaults of the temple, pleased so much an English artist, on account of its horrid aspect and effect, that he bought immediately from the publisher, the extraordinary large plate, which will cause therefore the impressions to be scarce even in Germany. It was with pleasure that the numerous admirers of the noble Mr. Garve, whose correspondence with one of his Leipzig friends makes a part of the liveliest productions of this fair, saw his portrait drawn to the life by Count Von Schlotterbeck, and the German patriot rejoiced to see close by it, as it was a striking likeness, the proof print in the black stile of a portrait, by *Leete of Wrenk*, of Archduke Charles, acknowledged, not only in the superscription, but according to every one's opinion, for the friend of humanity and the founder of peace. Among his numerous services, we are indebted still to the active Frauenholz for the classical drawing book of Volpato and Morghen, and for a new one after geometrical principles of Fuger, where he endeavours to make the science easier of acquirement, and to employ his

leisure hours to the advantage of the arts. Many were the sumptuous works of which the first parts were to be seen at this fair, such as Hoffman's subterraneous Hartz-Flora and the Franco-nian Ornithology (a true enchanting sight to the eye), the landscapes of Hohenheim, and the very interesting *Populaire Zoologie*, by its associating beauty to usefulness, might with no disadvantage appear against similar works abroad. Besides his purchases of cabinets of artists, which will amount to seven in the course of the summer, he made fresh acquisitions at this fair, and while he was transacting for the sale of the celebrated cabinet of *Praunschens*, which he had bought a short time before for 37000 florins, he took steps in annexing the branch of the Rost-trade, to relieve the people of Leipzig from the anxiety that one of the best collections of the art should not yet be bought at the fair. The fair itself was favoured with many sales of collections of artists' works. Osterwald put up to sale in Schießgraben, the remainder of many a gallery from the Netherlands, or France, which had once seen better days. The high sounding names of great artists could not give a sufficient relish to this medley. They hardly ventured to send us any thing good from France. In Paris, lately, the Parisian amateurs themselves overbid the monstrous great offer of the English in the sale by auction, of the celebrated cabinet of pictures which had been in the possession of Robit; one paid for two little *Morillos*, 40,000 livres, and in the course of the auction bought to the sum of 800,000 livres. They did not act so rash with the auction of pictures at Leipzig. The sale of the gallery of Appelles in the Red College, had began already in the last Michaelmas fair. The 145 pieces which had remained for the late fair, consisted mostly of pictures of the Flemish and French schools. They brought altogether 3272 louis d'or. A third auction took place in the *Maria*, a house so called in the *Grimmish* street, where they sold four hundred and fifty pieces equally ascribed to the first masters. The connoisseur-like faces of many a non-connoisseur would have proved a very interesting subject for a Philonomist.

Finally, did the picture-seller, T. J. Rauh, in Auerbach-house, put up two auctions. There came at the end of the fair, a second collection of eighty-five pictures, among which were a few pieces of distinguished merit, even a Corregio and a Caracci. The best part fell to the banker Lohr, in Leipzig. Two Claude Lorrains, were paid near a thousand dollars. The sales of artist's works however happen to be subject to mistakes. The long experience of a Kreichauf or Huber, ought to serve as an example to great many.

A certain class of strollers which used to try to entertain the public at the fair, with their perilous or merry past-times or shows, did not choose to make their appearance this time, at a fair where there were neither men nor money, where the first

inns announced in the papers their vacant apartments. There were neither rope-dancers nor English riding-masters, no Panorama, or show of wild beasts. The concert hall, unmercifully shut to the travelling artists, opened only on certain appointed days, when two foreign wind-instrument artists, the Fagottist Reinick, from Dessau, and Roskowsky, on the hautboy, altered the old monotony. With much more force did the Abbé Vogler in his journey over Germany, shew his talents upon the organ, once at the University, twice in the church St. Nicolas. This man, according to his own declaration*, has brought a total change in the present mode of building organs, and will for the future remove the useless parade of the pipes. The description of his new-invented orchestra must throw every one in astonishment. But what is most wonderful is his concertos in four acts, which on announcing the fall of the Walls of Jericho, and other similar thunder storms, must carry horror and fear to the soul. How deplorable it is that a man of such distinguished abilities should merely, to beg the suffrage and money of an ignorant public, so degrade himself by petty arts, which are excusable in a Federl, who this time again gave a specimen of his parts, and promised to have his wheel-barrow concert, as it is called, augmented with ten or fifteen instruments. Vogler drew from his organ heart-melting tones whenever he renounced his ridiculous pictures and popular trivial descriptions. Nothing was above the simple adagio to which he gave the name of an African funeral convoy, nothing above the grandeur of the march of the seraphic knight, as it is called in Stockholm, nothing above the sublime of the hallelujah of Handel. Why should the extraordinary artist covet the fame of a mountebank? On the Leipzig Boulevards at the horse market, the Bavarian puppet-shows, the virtuoso Schutze and Dreher, had three times in the day an immensity of spectators. It was the *bon ton* to laugh at the nonsensical *bons mots* of Casperl and his wire-drawn images, or to wait for hours together, in his penned up broiling caravan, the ballet and pas-des-deux of the last dance of the wooden figures. What man from Leipzig can now reproach those of Vienna that they frequent Marinelli and Schikaneder, for it was particularly the Leipzig belles and the *beau monde* which were to be met in crowds here with the foreign visitors. On the contrary, the hall of Mr. Salleneuve which lay opposite, with sixty-two wax figures, was as cool and little frequented. It was as silent as the retreat of a king. Even the attractive graces of the naked Venus could not excite the curiosity of the beholder.

The fortunate Saxons could neither coin medals of peace, or celebrate its festival. A grand illumination was to have taken

* See Allgemeine Musikalische Zeitung, No. 32, 34; und ein in der Breitkopf-Harteufchel-handlung aufgegebenes Blatt, "über die Umschaffung der St. Martin Organ in Berlin.

place in honour of it, on the third Sunday of the fair, in the romantic solitary Grosbosch-garden. The speculating proprietor had almost announced his, under the pleasing name of a festival of peace, but found himself from a notice intimated to him from a higher place, forced to change his feast of peace into a general rejoicing. Yet the Allegory which had been painted for the purpose, by the skilful artist Schnorr of Leipzig, appeared as transparent with all the richness of colours. The Saxonian Mars was the principal figure in it. The graces had forced the Medusa's head from his shield. At his feet lies the globe of fortune covered over with moss. The shepherd sleeps by the side of his sweetheart, at the foot of his *pedestal*: many a wit found in the sleeping figures the emblem of the late fair. We owed this time at least to the prudent directions of the vigilant and active director of the new erected Leipzig drawing-academy, Professor Tischbein, the worthy follower of the memorable Oefers, the most advantageous arrangement in the halls of the academy disposed upon the the place called Trotzer in Pleisenburg.

He had a long time before arranged very judiciously for the time of the fair, the yearly exposition of the Leipzig school, for which they could not find room; and when this time again, a want of room prevented from satisfying the candidates with respect to the number and choice of the pieces, a new career has been opened a-fresh to the noble emulation of both the young and old artists. The eye of the foreign visitor rested with pleasure upon a lovely group, which were Tischbein himself and family, and upon the lap of a venerable old man, a daughter of his leaning upon him. In the architecture-rooms where the pupils of the learned Siegel, the architect of the university, had exposed their productions; particular notice was taken of a model of rare invention and execution from Schorr, representing *Huon* and *Annada* at the moment when she has tasted the bitterness of the engaging fruit, and a laying nymph from Schletter, a sculptor whom the art of Rost has made the acquisition of. There were likewise from Schnorr some drawings which have been executed for an elegant edition of the poem *Scama* and *Galmory*, published by Wolfe in Leipzig. The life which is diffused all through Schnorr's works was observed in every piece.

In some inns of the suburbs where the watchful eye of the police cannot always pierce, the gamesters rifled many a piece of gold: in the town they contented themselves with cheating the unwary at the ordinary Pharo table. The money hunters of an inferior class, the thief and pick-pocket, owing to the little affluence of people, had but little to do. They entirely cleared, however, the lodgings of a jew who dealt in small valuable articles, when he was at prayer on the evening of the sabbath-day; but by means of a ready subscription from those of his per-

suasion, a sum of a few thousands was soon collected, and put a stop to his great grief.

The Jewish merchants shewed themselves particularly generous at this fair in joining to support by voluntary donations and subscriptions, useful establishments, such as that in Dessau for the education of the Jewish youth; an example worthy of being imitated by their Christian brethren.

N. B. The valuable communication above, arrived at so late a time in the month, that the translation of it, from the elegant German in which it was originally written, has been necessarily executed, by a foreigner, in a degree of haste, in which full justice could not be done to its sense and eloquence.

BRITISH MERCHANT-SHIPPIING.

To the Editor of the *Commercial and Agricultural Magazine*.

SIR,

THERE are a few things which a sincere well-wisher to this country can take greater pleasure to contemplate, than the extent, the activity, and the opulence of the seafaring trade of the British Empire.

These have long been to me favourite subjects of reflection and enquiry. Yet, till lately, I must own, I was never able to obtain that ample and correct information respecting them, which can alone fully satisfy the ingenuous curiosity of the PATRIOT and the PHILOSOPHER, while it is accommodated to the best utilities of the man of *commercial and financial business*. Such information, I have, at last, in common with the rest of the public, found in the first number of Lloyd's Shipping List, a work which is, it seems, to be periodically continued.

You may perhaps suppose that to write so, I must be touched with some whimsical enthusiasm, or must have a desire to make your MAGAZINE the vehicle of interested and extravagant applause of the work I mention. Only hear what use I make of that List, and then, in candour and reason, can dissent from my approbation, condemn it.

1. In the year 1665, the whole shipping of England was, by a very accurate and able calculator, estimated at no more than 500,000 tons. In the year 1687, the whole tonnage of the Royal Navy was but about 45,000 tons. Even so late as the middle of the 18th century, the whole shipping of the port of London was not above 600,000 tons. The shipping of all the other ports of Great Britain was not then, more than 600,000 tons: and at the utmost, the whole tonnage of the British Trade, certainly did not, then, exceed 1,500,000. But, Sir, the *Merchant Shipping List* to which I refer you, enumerates, of vessels of above 20 tons burthen, between 13,000 and 14,000 belonging to the ports of these kingdoms. These, not to take the labour of counting their tonnage particularly, may be estimated, one with another, at an average of 250 tons burthen each. It

follows, that the sum of our merchant-shipping-tonnage is not under 3,000,000. Add the tonnage of the Royal Navy, and of our canal river and coasting shipping of all sorts under 20 tons burthen; and you shall find, that the whole tonnage of our British navigation considerably exceeds the sum of 4,000,000!!!

2. In regard to the augmentation of the trade and shipping in different ports which were anciently, in comparison with the rest, much less considerable than they now are—I find in the same List, materials of most curious information. London, Bristol, and a few other capital ports engrossed, at no great distance of time backwards, almost all the maritime trade of this island. In the progress of our trade with America and the West India Isles, Liverpool and Glasgow have grown to an opulence in shipping, inferior only to that of London. On the east coast of England, Yarmouth, Newcastle, Hull, Shields, have gradually risen during the last 160 years to the possession of that shipping and trade which now belong to them. Whitehaven, Workington, and Maryport had, before the present century, very little shipping. By means of the coal and coasting-trade, they now possess, in small craft, a very considerable tonnage. Leith, Dundee, Aberdeen, Inverness, Thurso, Stromness, and all the north west coast of Scotland from the Clyde to the Pentland-frith, were, comparatively, places of no navigation and trade till late in the 18th century. Greenock, Irvine, Ayr, and the Scottish ports in the Solway-frith, were alike inconsiderable. The extension of our colonies, the improvement of our manufactures, the advancement of wealth and industry in the countries adjacent, the amelioration of our rural and political economy, have gradually effected those advantageous changes. I learn from *this publication*, how extensive, how important the changes are, and how admirably the augmented shipping is distributed among the different ports according to those laws of natural or artificial convenience for trade, by which Philosophy might, *a priori*, have expected the distribution to be regulated.

3. The particular nature of the trade of each port is an object highly worthy of curious observation. I have the greatest pleasure in being enabled for the first time to trace it clearly, by the help of Lloyd's Shipping List. The port of London possesses the East India trade, the principal part of the West India, and the American trade, much of our trade to the Mediterranean, no inconsiderable part even of that which we carry on with the ports of Germany and of the Baltic, a prodigious coast trade in the supplies for its own consumption and for exportation, as well as in the distribution of its imports, to be consumed in other parts of these kingdoms. Its German and Baltic trade is produced for the greater part by the re-exportation of its East India and West India imports, and by its demands for materials of ship-building.

which the countries on the Baltic the most plentifully supply. The ports again on the east side of the island, by their situation and by the nature of those commodities which the country adjacent yields, are confined chiefly to a coal-trade with London; and with one another, and to the trade with the opposite eastern ports on the German Ocean, in the Baltic, and in the North Seas. The ports on the west side of the isle have the Irish trade; a share in the American, the West India, and the Mediterranean trade, a great coast trade, and for the convenience of ship-building and the disposal of their manufactures, even take part in the trade to the North Seas and the Baltic. The *Fisheries* belong to the northern, to the north east, and to the north west ports; and have been prodigiously advanced by the ruin of the Dutch Navy, during the present war. The detail of these truths appears in a manner admirably satisfactory to a reflecting mind, in the List I quote. The relations between each particular port and the use of its ships, the lengths of its seamen's voyages, the nature of the manufactures which are encouraged near it, the most interesting objects of curiosity in mercantile enquiry; are to be studied with ease and success by the aid only of such a *List*.

4. The distribution of the property of the shipping of Great Britain is certainly a matter of important concern. I am glad to learn from the same source, that it is not exorbitantly monopolized by the indolent and inactive rich; but belongs, in no small share to men who themselves either are or have been active mariners; and is divided in moderate capitals, among numbers, not accumulated into a few vast ones. In short, it is as it ought to be; and sailors are effective proprietors of a due proportion of our merchant-shipping.

5. The *structure* of our ships is of the highest importance to our trade and national security. I perceive by this List, that we possess a few ships of 40 years of age, a greater number of 30 years and upwards to 40, a number still more considerable of from 20 to 30, a vast number of from 10 to 20 years, but by much the greatest number of from 1 to 10 years. There is something curious in the very idea of such a *bill of mortality* as this List exhibits of our shipping.

I should have been glad to obtain from it still more information than it affords, respecting the proportion of those ships which are *foreign-built*, and that which is the work of our own ship-carpenters at home. It is of infinite importance to Britain to preserve to itself, as exclusively as possible, the business of constructing its own ships. In these which are built at home, I should wish to know, what proportion of British, and what of foreign wood is employed? In the time of Queen Elizabeth, little else but timber of British growth, was used by the ship-carpenters in the ports of England. A strong prejudice was for

almost a whole century later, entertained against foreign timber from the Elbe and the Baltic, as being *much less durable than English oak*. At the æra of the Revolution, one-fifth of English oak to four fifths of foreign timber was used in building ships for the Royal Navy. But, we shamefully neglect our forests, and now depend for ship-timber almost wholly on foreign supply.

I must decline further detail for the present, though both the *book* and the *subject* suggest many more important reflections.

Wishing you and your readers to have your particular attention upon a matter on which our national prosperity so wholly depends;

I remain, yours, &c.

Yarmouth, Aug. 8, 1801.

L. B.

AN APPARATUS TO THE HISTORY OF THE COMMON PRACTICES OF DYEING. BY SIR WILLIAM PETTY.

(Concluded from our last.)

THE next mineral salt is salt-petre, not used by ancient dyers, and but by few of the modern. And that not till the wonderful use of aqua-fortis (whereof salt-petre is an ingredient) was observed in the bow-scarlet: nor is it used now, but to brighten colours by back-boiling them; for which use argol is more commonly used. Lime is much used in the working of blue-fats, being of lime-stone calcinated, and called calke, of which more hereafter.

Of the animal family are used about dyeing, cochineal (if the same be any part of an animal). Urine of labouring men, kept till it be stale and stinking; honey, yolks of eggs, and ox-gall. The three latter so rarely; and as the conceits of particular workmen, and for collateral uses (as to increase weight, promote fermentation, and to scour, &c.), that I shall say very little more of them in this place, only saying of urine that it is used to scour, and help the fermenting and heating of woad; it is used also in the blue-fats instead of lime: it dischargeth the yellow (of which and blue, most greens are compounded), and therefore is always to spend weld withal. Lastly, the stale urine, or old mud of pissing places, will colour a well scoured small piece of silver into a golden colour, and it is with this (and not at all with the Bath water) wherewith the boys at Bath colour single pence; although the generality believe otherwise. Lastly, it seems to me that urine agreeth much in its nature with tartarous lixivium; not only because urine is a lye made of vegetables in the body of animals; nor because urine discharges and abrades colours as the lixivium of tartar, or the deliquated salts of tartar do; but because tartar and sulphur lixivium

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do colour the superficies of silver, as we affirmed of urine; and the difference I make between urine and tartarous lixivium is only this, that though the salts of both of them seem by their effects in dyeing, in a manner the same; yet that urine is made and consists of salt and sulphur both.

Before we enter upon the vegetable materials for dyeing, we may interpose this advertisement, that there are two sorts of water used by dyers, viz. river-water and well-water: by the latter I mean in this place the pump water in great cities and towns, which is a harsh water wherewith one can scarce wash one's hands, much less scour them clean; nor will soap dissolve in it, but remains in rolls and lumps: moreover the flesh boiled in it becomes hard and reddish. The springs rising out of large covered spaces (such as are great cities) yield this water, as having been percolated through more ground than other water, and consequently been divested of its fatty earthy particles, and more impregnated with saline substances in all the way it hath passed. The dyers use this water in reds, and in other colours wanting restringency, and in the dyeing of materials of the flacker contextures, as in callico, fustian, and the several species of cotton-works. This water is naught for blues, and makes yellows and greens look rusty.

River water is far more fat and oily, sweeter, bears soap; that is, soap dissolves more easily in it, rising into froth and bubbles, so as the water thickens by it. This water is used in most cases by dyers, and must be had in great quantities for washing and rinsing their clothes after dyeing.

Water is called by dyers white liquor; but there is another sort of liquor called liquor absolutely, and that is their bran liquor, which is one part of bran and five of river water, boiled together an hour, and put into leaden cisterns to settle. This liquor when it turns sour is not good, which sourness will be within three or four days in the summer time. Besides the uses afore-named of this liquor, I conceive it contributes something to the holding of the colour; for we know starch, which is nothing but the flour of bran, will make a clinging paste, the which will conglutinate some things, though not every thing, viz. paper, though neither wood nor metals. Now bran liquors are used to mealy dyeing stuffs, such as mather is, being the powder or fecula of a root; so as the flour of the bran being joined with the mather, and made clammy and glutinous by boiling, I doubt not but both sticking upon the villi of the stuff dyed, the mather sticks the better by reason of the starchy pastiness of the bran flour joined with it.

Gums have been used by dyers about silk, viz. gum arabick, gum dragant, mastick, and sanguis draconis. These gums tend little to the tincture of the said silk, no more than gum doth in

ordinary writing ink, which only gives it a consistence to stay just where the pen delivers it, without running abroad uncertainly: so gum may give the silk a glassiness, that is, may make it seem finer, as also stiffer; so as to make one believe the said stiffness proceeded from the quantity of silk close woven: and lastly to increase weight; for if an ounce of gum, worth a penny, can be incorporated into a pound of silk, the said penny in the gum produceth three shillings, the price of an ounce of silk. Wherefore we shall speak of the use of each of the said four gums, rather when we treat of sitting and stiffening, than now, in a Discourse of Dyeing; where also we may speak of honey and molasses.

We refer also the descriptions of fullers-earth, soaps, linseed-oil, and ox-galls, under the head of scouring, rather than to this of dyeing.

Wines and aqua-vitæ have been used by some particular artists; but the use of them being neither constant nor certain, I omit further mention of them. The like I say of wheaten flour and leaven.

Of cummin seed, fenugreek, fenna, and agarick, I have as yet no satisfactory account.

Having spoken thus far of some of the dyeing stuffs, before I engage upon the main, and speak more fully of those which have been but slightly touched upon already, I shall more synoptically here insert a catalogue of all dyeing materials, as well such as I have already treated upon, as such as I intend hereafter to describe.

The three peculiar ingredients for black are copperas, filings of steel, and slippe.

The restrigent binding materials are alder, bark, pomegranate pills, walnut rinds and roots, oaken sapling bark, and sawdust of the same; crab tree bark, galls, and sumach.

The salts are alum, argol, salt-petre, sal armoniack, pot-ashes, and stone lime; unto which urine may be enumerated as a liquid salt.

The liquors are well water, river water, wine, aqua-vitæ, vinegar, juice of lemon, and aqua-fortis: there is honey used, and molasses.

Ingredients of another class are bran, wheaten flour, yolks of eggs, leaven, cummin seed, fenugreek seed, agarick, and fenna.

Gums are gum arabick, dragant, mastick, and sanguis draconic.

The smecticks or abstersives are fullers-earth, soap, linseed-oil, and ox-gall.

The other metals and minerals are pewter, verdegrease, antimony, litharge, and arsenick.

But the colorantia colorata are of three sorts, viz. blue, yellow, and red; of which logwood, old fustick, and mather, are the polychresta in the present and common practices, being one of each sort. The blues are woad, indigo, and logwood: the yellows are weld, wood wax, and old fustick, as also turmerick, now seldom used: the reds are red wood, brazil, mather, cochineal, safflowers, kermes berries, and sanders; the latter of which is seldom used, and the kermes not often. Under these arnotto and young fustick, making orange colours, may be added, as often used in these times.

In cloth dyeing wood foot is of good use.

Having presented this catalogue, I come now to give or enlarge the description and application of some of the chief of them, beginning with copperas.

Copperas is the common thing used to dye blacks withal, and it is the salt of the pyrites stone, wherewith old iron (having been dissolved in it) is incorporated. The filings of steel, and such small particles of edge-tools as are worn away upon the grindstone, commonly called slipp, is used to the same purpose in dyeing of silks (as was said before), which I conceive to be rather to increase the weight than for any other necessity; the particles of copperas being not so heavy as these are: for else why should not these later-named materials be as well used about cloth, and other cheaper stuffs?

We observe, that green oaken boards by affrication of a saw become black; and that a green four apple, cut with a knife, becomes likewise black; and that the white grease wherewith coach wheels are anointed becomes likewise black, by reason of the iron boxes wherewith the nave is lined, besides the ustulation or affrication between the nave and the axle-tree. Moreover we observe, that an oaken stick, by a violent affrication upon other wood in a turning-lath, makes the same black.

From all which we may observe, that the whole business of blacking lies in the iron, as if the salt of the pyrites stone in copperas served only to extract the same; and withal it seems to lie in a kind of singeing and ustulation, such as rapid affrications do cause: for alum seems to be of the same nature with vitriol; and yet, in no case that I know of, is it used for black colours: and the black colour upon earthen ware is made with scalings of iron vitrified. Note, that wherever copperas is used, either galls, sumach, oak sapling barks, alder bark, walnut rinds, crabtree bark, or green oak saw-dust, must be used with it; all which things physicians call austere and stiptick.

Red wood must be chopt into small pieces, then ground in a mill between two heavy stones, as corn is. It is used also in dyeing of cloth and rugs, and those of the coarser sort: the colour is extracted with much and long boiling, and that with

galls. The colour it makes is a kind of brick colour red; it holdeth much better than brazil. The cloth it dyeth is to be boiled with it: wherefore only such matters as are not yet prejudiced by much boiling are dyed herewith.

Brazil is chopped and ground like as the red wood: it dyeth a pink colour or carnation, imitating the colour of cochineal the nearest: it is used with alum for the ordinary colour it dyeth; and with addition of pot-ashes, when it is used for purples.

Brazil steeped in water giveth it the colour of claret wine, into which a drop or two of juice of lemons or vinegar being put, turneth it into the colour of sack; in which particular it agreeth with cochineal. This colour soon staineth, as may appear by the easy change which so small a quantity of acid liquor makes upon it. A drop of spirit of vitriol turneth the infusion of brazil into a purplish violet colour, even although it hath been made yellow before, by the addition of juice of lemons or vinegar; and has the same effect which pot ashes also produce, as we said before.

Mather is a root cultivated much in Flanders: there be of it two sorts: pipe mather, which is the coarsest; and bale mather, otherwise called crap mather: this mather, used to the best advantage, dyeth on cloth a colour the nearest to our bow dye, or the new scarlet; the like whereof safflower doth in silk; insomuch as the colours called bastard scarlets are dyed with it. This colour indures much boiling, and is used both with alum and argol; it holdeth well. The brightest colours dyed with this material are made by over-dyeing the same, and then by discharging part of it by back-boiling it in argol.

Mather is used with bran-liquor, instead of white liquor or ordinary water.

Cochineal is of several sorts, viz. silvester and mestequa: this also is used with bran liquor in pewter furnaces, and with aqua-fortis, in order to the scarlet dye. It is the colour whereof the like quantity effecteth most in dyeing; and colours dyed with it are said to be dyed in grain. Rags dyed in the dregs of this colour are called turnsole, and it is used to colour wines; cochineal being counted so far from an unwholesome thing, that it is esteemed a cordial. Any acid liquor takes off the intense redness of this colour, turning it towards an orange, flame, or scarlet colour: with this colour also the Spanish leather or flocks are dyed which ladies use. The extract or fecula thereof makes the finest lake.

Arnatto dyeth of itself an orange colour, is used with pot ashes upon silk, linen, and cottons; but not upon cloth, as being not apt to penetrate into a thick substance.

Weld, called in Latin *luteola*: when it is ripe (that is to say, in the flower) it dyeth, with the help of pot-ashes, a deep lemon

colour, like unto ranunculus, or broom flower; and either by the smallness of proportion put into the liquor, or else by the slightest tincture, it dyeth all colours between white and the yellow aforesaid.

In the use of this material, dyers use a cross, driven down into their furnace, with a screw to keep it down, so as the cloth may have liberty in the supernatant liquor, to be turned upon the winch, and turned out with the staves: this weed is much cultivated in Kent, for the use of the London dyers, it holdeth sufficiently well but against urine and tartarous liquors. Painters pink is made of it.

Wood wax, or *genista tinctoria* (commonly called grasing weeds by the dyers,) produces the same effect with *luteola*, being used in greater quantities: it is seldom made use of as to silk, linen, or cottons, but only as to coarse cloths: it is also set with pot ashes or urine, called by the dyers *figge-fustick*; of it there be two sorts, the young and the old; fustick is chopped and ground, as the other woods abovementioned are.

The young fustick dyeth a kind of reddish orange colour; the old, a hair colour with several degrees of yellowness between: it is used with slacked lime. The colours used with old fustick hold extremely, and are not to be discharged, will spend with salts or without, and will work hot or cold.

Soot of wood. Soot containeth in itself both a colour and salt: wherefore there is nothing added to it to extract its colour, nor to make it strike upon the stuff to be dyed; the natural colour which it dyeth of itself is the colour of honey; but is the foundation of many other colours upon wool and cloth; for to other things it is not used. Woad is made of a weed, sown upon strong new broken land, perfectly cleared from all stones and weeds, cut several times by the top leaves, then ground, or rather chopped, with a peculiar mill for that purpose; which being done several times, it is made up in balls, and dried in the sun; the drier the year is, the better the woad.

When it is made up in balls, it is broken again and laid in heaps, where, if it heat too fast, it is sprinkled with ordinary water: but if it heat too slowly, then they throw on it a quantity of lime, or urine. But of the perfect cultivating and curing of woad, we shall speak elsewhere.

English woad is counted the strongest; it is commonly tried by staining of white paper with it, or a white limed wall, and if the colour be a French green it is good.

Woad in use is used with pot-ashes, commonly called ware, which, if it be double refined, is called hard ware (which is much the same with kelp), or seed weeds, calcinated and burnt into the hardness of a stone, by reiterated calcinations.

Lime, or calke, which is strong lime, is used to accelerate the fermentation of the woad, which, by the help of the same pot-ashes and warm liquors kept always so, in three or four days will come to work like a kive of beer, and will have a blue or rather greenish froth or flowing upon it, answering to the yeast of the kive. Now the open quantity of ware, fretting too much upon the woad, is obtunded or dulled by throwing in bran sometimes loose, sometimes in bags.

The making and using woad is one of the most mysterious, nice, and hazardous operations in dyeing: it is one of the most lasting colours that is dyed: an intense woad colour is almost black, that is to say, of a damson colour; this colour is the foundation of so many others in its degree, that the dyers have a certain scale, or number of stalls, whereby to compute the lightness and deepness of this colour.

Indigo is made of a weed of the same nature with woad, but more strong; and whereas woad is the whole substance of the herb, indigo is only a mealy concrete juice or *fæcula* dried in the sun, sometimes made up in flat cakes, sometimes into round balls: there be several sorts of indigo.

Logwood is chopped and ground like other of the woods abovementioned: it maketh a purplish blue; may be used without alum: it hath been esteemed a most false and fading colour; but now being used with galls, is far less complained of.

ENUMERATION OF PATENTS LATELY ENROLLED.

1801. **J**OHN Edwards, of Chelsea, Middlesex, Gentleman; *May 2.* for new-invented collars for horses, on an improved construction.

— 2. William Pritchard, of Shrewsbury, Salop, Hatter, and Thomas Willmore, of Birmingham, Warwickshire, Joiner, for an article for the use of hats, soldiers caps, helmets, &c.

— 2. Barker Chifney, of the city of London, Gentleman; for an improved method of preparing and laying diamond and other slates in covering houses and other buildings, and for preparing slates for other purposes.

— 12. Joseph Chirm, of Birmingham, Warwickshire, Pump-maker; for a machine, on an improved construction, for the purpose of boring timber for water-pipes, and other purposes.

— 12. Edward Walker, of Rathbone-place, Middlesex, Vintner; for a portable stove or kitchen, for the purpose of dressing and cooking victuals.

— 14. William Hase, of Saxthorpe, Norfolk, Engineer; for a steam-engine on an improved construction, by

which a considerable reduction will be made in the consumption of coals.

May 16. Sebastian Erard, of Great Marlborough-street, Westminster, Middlesex, Musical Instrument-maker; for improvements in the construction of harps and piano-fortes. -

—— 21. Walter Inglis, of Chelmsford, Essex, Sadler; for a method of forming and making a saddle upon a new and improved construction.

—— 21. James Glazebrook, of Coalbrook Dale, Salop, Engineer; for his further improvements upon the methods of working and giving power to machinery by means of the properties of airs; which methods were originally invented by him, and for which he obtained former letters patent.

—— 21. Thomas Bagnall, of Worsley, Lancashire, Gentleman; for a mill or machine to chop bark, and grind, and riddle, and pound it. To beam or work green hides and skins out of the mauling, or drench, and make them ready and fitting for the use of bark liquor. To beam sheep skins, and other skins, for the skinners use, and for scouring or taking the bloom off or from tanned leather when in the currying state.

June 2. Thomas Wakefield, of Northwich, Cheshire, Esq.; for a new method of refining sugar.

—— 2. Thomas Winter, of Shacklewell, Middlesex, Gentleman; for a new manufacture for covering the floors of rooms, for covering and packing goods and merchandizes, and fit to be used for various other purposes.

—— 2. Thomas Howard, late of Manchester, Lancashire, but now of Leeds, Yorkshire, Soap-boiler; for a new method of making a British barilla and pot-ash, and of obtaining a greater quantity of alkali than hitherto discovered.

—— 2. Josiah Longmore, of Birmingham, Warwickshire, Gun-lock-maker; for a patten or clog.

—— 2. Thomas Robert Guest, of Portsmouth, Hants, Artist; for boxes of a new and improved construction, of various forms and sizes, to contain certain new and improved materials, and other necessary articles, for drawing and painting; likewise an entire new and improved method of arranging, on scientific principles, the colours to be contained in the said boxes. Which arrangement will be of the greatest utility to officers of the army, and engineers, for reconnoitring sketches or plans; to the navy for signal cards, as well as to professional men and private persons.

—— 5. Timothy Lane, of Lincoln's-inn-fields, Middlesex, late of Aldersgate-street, London, Apothecary; for measuring-glasses for compounding medicines.

CRITICAL CATALOGUE.

- I. *Travels in Portugal, and through France and Spain; with a Dissertation on the Literature of Portugal, and the Spanish and Portuguese Languages.* By HENRY FREDERICK LINK, Professor at the University of Rostock, &c. Translated from the German by JOHN HINCKLEY, Esq. 9s. Boards, Longman and Rees.

THE preliminary journey through France and Spain cannot be expected to have afforded opportunity for cultivating a very particular acquaintance with those countries; the account of it, however, is by no means devoid of interest and information. In the former country the author had frequent occasion to observe the effect of the events which have taken place, particularly, that the small country towns are now much more lively, and in a better situation than the great manufacturing towns, where complaints, disappointment, and discontent, are general, arising from the loss of trade, which has been the consequence of the war. This however was not universally the case; at Montauban the Woollen manufactory, particularly in coarse cloths, appeared very brisk, and, notwithstanding all the disturbances the place had suffered, it was still very populous. "In *Quecy* the cultivation of *Maize*, which may be sometimes met with in warm valleys in the midland parts of France, is very common; and the bread made of it, which is here very good (being of a yellowish white, but too dry and sweet), constitutes a part of the daily food of the peasants. In France the general name of this kind of corn is *blé d'Espagne*, probably because the cultivation of it was derived from that country; it is certainly inferior to wheat, but much preferable to the food of the peasants in some other parts: in the mountains of the *Limousin* great part of the country is planted with chestnut-trees, the fruit of which constitutes a large proportion of the food of the inhabitants; the small and often very bad ones, being simply boiled in large kettles, and then thrown out upon the table to the hungry labourers, who devour them like cattle; the villagers in these parts look extremely miserable and sickly, which might naturally be expected from such indifferent nourishment."

If trade languishes in France, we cannot expect to find it in a more favourable state in *Spain*; at *Talavera*, however, there are manufactories of silks, and of gold and silver cloth, which are in a flourishing condition. The Olive and Vine are the principal objects of culture, and when peace shall be restored, it is probable that more attention will be paid to the produce of the latter as an article of foreign trade; "no country possesses wines so strong, and yet so sweet; of which, however, extremely little is exported, or even known in foreign countries."

The importance of *Spanish-Wool* to the principal manufacture of Britain, and the attempts which are making to produce it here, render the following account particularly interesting. "Immediately after quitting *Talavera* we found many wandering flocks of sheep, which come down from the frontier mountains of *Castile* and pass the winter here, where it is the finest season of the year. Round *Truxillo* the country was full of them, as also farther on along the banks

of the Guadiana. These ill-looking animals, whose fine and costly wool forms a dirty crust full of cracks round their bodies, are thickly spread over the open wide-extended fields, fill the air with their bleatings, and convert the country into a vast common, where they leave nothing, but a few poisonous bulbous plants, the broom and the gnidium. It is utterly false that fragrant plants abound here, that may be the cause of their fine wool; which entirely arises from their race, and profuse sweating. In this naked country no habitations are seen, but a few huts made of earth, in which the shepherds live, and which are announced at a distance by the barking of the great dogs that never leave them."

Portugal, with a climate and soil highly favourable to agriculture, has much neglected these advantages, if the account here given of the husbandry of the country be correct. Wheat is commonly sown in the neighbourhood of Lisbon, but Rye is scarce, and only grown for cattle; Barley is also sown, but no Oats. The fallows are ploughed in autumn, a second time in May, and lastly at seed-time, after the first rains in autumn have rendered the earth soft. Light earth is dug, but the heavy is ploughed with oxen, which throughout this peninsula attain a size, strength, and beauty, seldom seen in France, in England, or in Germany. The harvest is in May, and the corn is threshed as with us; for which purpose a floor is made in the fields. Manure is not commonly used, or at most putrified plants are laid on. Rye is often in ear in February and March, but is cut down before it is ripe generally for fodder. Round Coimbra and throughout Beira, Maize or Indian-corn is produced in larger quantities than in the southern provinces, in which the soil is too dry and too light; great numbers live on the bread made of it; it also affords good fodder for cattle. Rice is grown in the marshes along the Mondego, but not in any considerable quantity. Potatoes are not at all cultivated, but imported from England and Ireland; perhaps the present prohibition of exporting this useful root may induce the Portuguese to attempt its culture, of the success of which there cannot exist a doubt. The common people eat *lupins* in great quantities: these are sown in fallows, and the pulse are soaked in running water to destroy their bitterness before they are dressed. Garden fruits are produced in great abundance, and of a very good quality, especially common beans, and another kind of bean, called monk's beans, which are met with in great quantities all over the kingdom. These beans much resemble the common bean, but are smaller, and do not taste quite so good, yet the cultivation of them is said to be very productive.

The Orange tree is well known to be one of the most striking and valuable of the trees of Portugal. It requires much water, which is supplied to the plantations by channels, which are filled by water wheels of a particular construction. In December and January the oranges begin to turn red, and at the end of January and in February, before they are ripe and sweet they are gathered for exportation. Toward the end of March, and in April, they are very good, but delicate persons will not eat them till the beginning of May; at which time they begin to be perfectly sweet and well flavoured. They continue throughout June and July till August, and at length become

scarce and over-ripe. One tree frequently bears 1,500 oranges, and examples are not wanting of their bearing 2,000, and sometimes, though rarely, 2,500.

"In Portugal, internal commerce, which alone gives life and vigour to a country, is almost entirely neglected. The foreign trade of some individual towns is certainly considerable, and, though it is said that the trade of Portugal is in the hands of foreigners, the expression is very vague. Their European trade is mostly carried on in foreign ships, but that of Brazil exclusively in those of Portugal. Foreigners are prohibited from trading with the colonies; and though the Portuguese houses may, in some instances, lend only their names to foreigners, who in fact carry it on, this is by no means general; for, though there are considerable foreign houses in Portugal, yet none of them have very large capitals, whereas there are many very rich Portuguese houses." The writer appears sensible that the want of inland trade renders the foreign commerce of Portugal of comparatively small importance; there are, however, some few manufactories noticed by him in the course of his tour. At Alcobaca cambrics and other fine linens are made, but the woollen manufactory is more important, as also one for spinning wool. This manufactory enjoys a good sale, although woollens are also made in Lisbon, and a spinning manufactory is established at Tamar. At Braga there is a hat-manufactory, which supplies a great part of Portugal with hats for the common people, which are not bad, though they do not equal the English.

The tract of land on the banks of the Douro, called Upper Douro, is somewhat above four geographical miles in length by three in breadth; in 1781 the population amounted to 44,660, there being 12,895 houses and 78 parishes. This is the tract of land that produces port-wine, the annual produce of which is reckoned at 90,000 pipes. The particulars respecting the culture of the vine, and the establishment and progress of the Company of *Alto Douro*, must be interesting to all persons in the Portugal Wine trade; indeed there are few who can peruse this volume without gaining considerable information from it, though it will afford the greatest pleasure to those who have a taste for botanical researches, which was the chief object for which the journey was undertaken.

II. *Lloyd's Monthly Shipping List; including also an improved List of the Royal Navy of Great Britain.* 1s. 6d. Phillips.

We have long had periodical lists of the Navy and Army, but the immense number of the trading vessels employed in carrying on the present extended commerce of Britain to all parts of the globe, appeared too formidable an host to be brought into such a methodical arrangement with any degree of accuracy. The Register books, for the use of Underwriters, were compiled with great labour, and being attended with a heavy expence and adapted to a particular purpose, are necessarily confined to few hands; it was reserved for the enterprising spirit of the publisher of the present List to offer, at a moderate price, to the many thousands interested in the shipping employed in trade, a comprehensive, and, as far as we can judge, a correct monthly account thereof, containing not only the name, description,

and tonnage of each ship, and the port to which she belongs, but likewise the Broker or owner's name, and *the present situation or destination of the ship.*

The total number of vessels belonging to the British empire amounts to about 19,000, of which however a large proportion consists of coasters and other small vessels which never go on foreign voyages; yet even of these we find a considerable number included in the list, which on the whole appears much more complete than might have been expected in the commencement of a work of such an extensive and peculiar nature. In addition to the list of shipping, it contains a variety of other useful matter connected therewith, among which are the regulations of Lloyd's Coffee-house, Premiums of Insurance, a list of the principal Underwriters of London, also of Ship Brokers and Notaries, lists of Ship-owners and Brokers at Aberdeen, Dundee, Glasgow, Greenock, Falmouth, Exeter, Bristol, Hull, Leith, Newcastle, Paisley, Poole, Penzance, Southampton, Stockton, and Yarmouth; abstracts of the Manifest Act, Convoy Act, and acts relating to Ship-owners; a list of new vessels registered in July, and of American ships announced to sail in August: the latter we conceive may be usefully extended to other trades; the account of casualties, likewise, if carefully continued, will be very interesting to many persons.

III. *Essays and Notes on Husbandry and Rural Affairs.* By J. B. BORDLEY, Philadelphia, Dobson. London, Mawman. 8vo. 600 pages, with plates.

Mr. Bordley, in middle life, retiring from public employments to a farm in Maryland, became enthusiastically fond of farming. He studied the best European writers on agricultural subjects, and made his husbandry a system of experiments for the application of the principles and rules of Duhamel, Young, Marshall, Bakewell, &c. to the climate, soil, and circumstances of America. After a long course of successful experience, he has published, in this volume, an account of his principles, his plans, and the results of his various trials.

His book is one of the most sensible works on husbandry which have fallen into our hands. From its illustrations of Anglo-American farming in *practices* and *views*, in which it differs from that of Britain, we select the following extract. In a future Number we shall probably be induced to add others.

“TREADING WHEAT.—This is an universal practice within the peninsula of Chesapeak; and in the early ages was performed in the old countries by oxen; as it still is in Barbary and some other countries. In Britain, and in all the American states northward of Maryland, the flail is the common instrument for threshing out wheat: both modes are fixed habits in the respective countries. Oxen have been tried in Maryland, by a person who had been used to tread with horses; and he found them very exceptionable. I have had wheat from Barbary, which was extremely dirty.

“Accounts of treading out small corns with horses may entertain persons who are unacquainted with the practice; and the method following may assist farmers in general who are used to treading wheat, with some particulars for improving their practices. Until some other as speedy a method shall be discovered and introduced, treading cannot be dispensed with wherever the destructive white moth-fly abounds.

“Prejudices against treading wheat are great, in those who are unacquainted with the superior methods of performing it: mine were so whilst I was but beginning to be a farmer in a country where the flail was very little used, and when treading, as far as I knew, was conducted in a slovenly manner. Some farmers still shift their treading-floors from field to field; from whence much rough-feeling dirty wheat goes to market. Those who have a proper earth, in a perpetual floor used for treading crops of wheat, year after year, will have it glossy, and the wheat from it will have no more dirt than if threshed on plank with flails; provided they are attentive in taking off the horse-dung directly as it is dropped, and let not the horses stop, to stale, until each journey ends, and they are led off, and provided that as soon as the treading season is over, they cover the floor thick with straw or rubbish, to remain till a week or two before they are to tread in the next season. They may fodder cattle on it all winter, and thus improve the floor to be harder, more glossy, and perfect. When horses in halts are led in ranks, each rank kept as far apart from the other as can be, time is given for taking off dung dropt before the next rank trample on it: and in this detached way of travelling the horses are kept cool. It is important that they do not close their ranks.

“I was always much hurt by the injury done the horses in my former aukward manner (the common practice of the country) of driving them loose; and withal their driving, kicking, and jostling each other, helter-skelter; but am now quite pleased in treading wheat, since haltering and leading them in ranks prove the labour or injury is less than for ploughing them half a day in a maize field. The above are the only objections occurring to me against treading wheat with horses. The advantages are—an entire crop of wheat beat out before the end of July, which perfectly secures it against the moth-fly; leaves but little opportunity to pilferers, and is ready for an early market, often the best. To hire threshers or put my labourers to thresh it out with flails, the time spent would give abundant opportunity for thieving, which is avoided by the speedy method of treading, when in about a fortnight three thousand bushels may be secured, instead of near a hundred days that flails would require.

“Treading floors are sixty to a hundred feet diameter. Some are only forty feet; others again, a few, one hundred and thirty, or more. The larger the diameter the easier to the horses, I never knew a horse disordered on a large floor, but on a floor sixty feet or under, it is not uncommon. The track or path, on which the sheaves are laid and the horses tread, is twelve to twenty-four feet wide, or more. In common, the floors are inclosed by fences; and the horses are driven, between them, promiscuously and loose, each pressing to be foremost to get fresh air, jostling, biting, and kicking the others with bitterness. Their labour is thus in the extreme. Small floors have a center staff, to which hangs a rope, or a pole and swivel, and four or five horses being fastened together, travel round, upon the sheaves, abreast.

“I presume not to offer instruction to farmers who are experienced in treading on large permanent floors properly kept and with horses in regular ranks: but to the less experienced and judicious, I submit the method I have used of late, as the best within my knowledge. My

floor is unincumbered with any fence. A barn sixty feet square is in the middle of it; around which the horses travel, on the bed of sheaves about twenty-five feet broad; so that the diameter of the whole is one hundred and thirty-five feet.

“ Previous to laying down the sheaves of wheat, the present state of the air, and probability of its continuing, during the day, dry and fair, or its threatening a thunder gulf with rain, is considered. If the conclusion be to tread, then the morning is suffered to pass away till the dew is off the stacks and floor. A row of sheaves is first laid flat on the floor, with the heads and butts in a line across the track of it as a bolster for receiving other sheaves with their heads raised on it; and these sheaves range with the path and circle, the butts resting on the floor. Other sheaves are in like manner ranged, with the heads raised on the former sheaves, till the whole floor be filled, and appears to be nothing but heads of wheat, sloping a little upwards. The thickness of the bed of wheat depends partly on the length of the straw, and closeness and high range of sheaves on the bed. Upon laying down the sheaves for the bed, their bands are cut with a knife. It is wished that the wind come from the westward, when treading. From the eastward it is generally damp. It is preferred to place the stacks eastward of the floor, for giving a free passage to the better winds from the westward.

“ In my treading, twenty-four horses are formed at some distance from the floor into four ranks; and when the floor is ready laid, one of the ranks has the word given to advance. For the sake of order and regular work, the boy who is mounted on one of the horses advances in a walk with the whole rank haltered or tied together, and enters on the bed of wheat, walking the horses upon the track laid with wheat: another rank is ordered to follow, as soon as the first is supposed to have obtained a distance equal to a fourth part of the circumference of the bed: and so of the other ranks. They are forbid to go out of a walk; till having walked upon the bed five or six rounds, word is given to move on in a sober, slow trot, and to keep the ranks at their full distance from each other, as the four cardinal points of the compass. Regularity and deliberate movements are necessary, for preventing confusion. The gentle trot is continued till the horses have travelled eight or nine miles; which is their first journey, and then they are led off to be foddered, watered and rested, while the trodden light straw is taken off as deep as to where the sheaves still lie somewhat close and but partially bruised; this is called the first straw—or first journey.

“ As soon as this first straw is off, one-third of the width of the bed is turned over on the other two-thirds from the inner side or circle of the bed; which narrows the track of the next journey. The horses are again led on, and trot out their second journey, till the straw be again light and clear of wheat. It is then taken off, as deep as to what lies more close. The horses are again foddered, and allowed to rest whilst the outer third of the bed is turned upon the middle part of the bed. Then tread the bed a third journey, till enough. This straw being taken off the whole remaining bed is turned up from the floor and shook out with forks and handles of rakes. The horses tread this well, which finishes their journies; un-

less it be to run them awhile on the chaff and wheat, the better to separate them. The whole being now shoved up from the floor, with heads of rakes turned down, the wheat and chaff are put up into heaps on the floor, five or six on my great floor: and thus is finished the day's work; in which most of the time is taken up in breaking the stacks, laying down the sheaves, carrying off the straw, turning and shaking the grain out from amongst the straw; and lastly collecting the chaff and grain into secure heaps on the floor, which is also swept for saving scattered grains in separate parcels to be next day cleaned separately from the general masses of chaff and wheat.

"The first journey is the longest and most laborious; but in the whole of the journies, the horses travel but about twenty-five miles; and that is soberly, with frequent intervals of rest and nourishment. The heaps ought to be put up in a sharp conical or sugar-loaf form, with more care than slovenly people allow them; the sides even and free from hollows; and suffer none of the sweepings to be thrown on the heaps. If rain falls on them, the wet edges next the floor ought to be shoveled up and thrown on the heap. It is better to clean and store the wheat without thus exposing it to rain; yet, through necessity, I have had a great heap of trodden wheat and chaff which yielded near nine hundred bushels of clean wheat, exposed in the open air above two weeks without damage, notwithstanding some heavy rains fell on it. Now that I have a house at the treading floor, the wheat and chaff are shoved together into it, from being once fanned; and afterwards the wheat is well cleaned. As long as the weather was dry it was found best to continue treading till the whole crop was trod out.

"I know of but three or four farms having houses within the circle of treading floors. Mr. Singleton's invention is quite new. Four rows of stout locust posts deep in the ground, form three lengthy divisions; the spaces between them being ten feet. The middle part receives the straw from the treading floor: the other two are for wintering cattle, which feed at pleasure on the straw, through rails let into the posts, and which are moveable. The pitch is eight feet; and the whole building covered with thatch, is thirty feet wide, one hundred and twenty long, besides circular ends, according to the shape of the treading floor, for holding chaff, &c. The width of the track, round this building, is about sixteen feet; and the circumference of the floor or track is about 440 feet; of which 240 is nearly a straight course, and 200 circular from rays of 30 feet. Some farmers have a barn close to the east, the south, or the north side of their treading floor. Two instances occur of treading *under cover*: but their owners earnestly wish their wheat, whilst treading, exposed to the sun.

"A neighbour, viewing the treading of wheat on my floor as above practised, said the method is admirably easy to the horses, and that most of the time is spent in taking off and carrying away the straw: but he thought it would be a saving, if the outer half of the bed should be trod till enough; and then shift the horses on the inner half of the bed; and whilst this is treading, the straw to be carried off from the outer half, first trodden."

HISTORY.

National Transactions,

CIVIL AND MILITARY.

EAST INDIES and CHINA.—Our intelligence from the former country is rather important. In China there can be little doubt but some convulsion, or perhaps revolution, is at hand. The permission given to the subjects of that country to emigrate to Europe and other parts, cannot fail to give new ideas to those who go aboard, which will in time be communicated to the mass of the people.

The disturbances we noticed in India if proper precautions are taken, will not, it is hoped, be followed by any serious commotion. The very great military establishment of the English will probably defend them from any thing but a general confederacy of the country powers, which is not now much to be dreaded. But we have the mortification to find, that no sooner is one disturbance quelled than another arises. No sooner had the Mysore army defeated Doondeah, than they received intelligence that the Catiote Rajah was in a state of hostility, and they were preparing to march against him.

Accounts from Hanamsagur, on the borders of the Nizam's country, state, that after Colonel Stephenson had withdrawn his forces from that quarter, a considerable body of banditti, who had been cut off from the army of the late rebel Doondeah, and had taken refuge in the jungles, began their depredations in the defenceless villages, and possessed themselves of much grain, cattle, &c. in consequence of which, a detachment of the Nizam's forces marched against them, and coming up with them in the night, dispersed them with very considerable slaughter, their flight being so precipitate as to occasion their abandoning the principal of their stores and baggage, brace pots, and other utensils in abundance, together with several fine horses, camels, &c. Colonel Stephenson is to succeed Colonel Wellesley in the command of the Mysore army.

A pedestrian statue of Marquis Cornwallis was erected at Fort St. George by the gentlemen of that fortress, to perpetuate their gratitude and respect for that exalted character, in the month of February last. He is represented in a military uniform, covered with Peerage robes, with an emblematic figure of Victory on one side, and of Britannia on the other, receiving the sons of Tippoo Saib as hostages. It is an exquisite piece of workmanship, by Mr. Banks. Lord Clive and his whole Staff, with his body guard, went through many military evolutions on the occasion, in testimony of the high estimation in which that distinguished Nobleman is held by them.

TURKEY and EGYPT.—Among the various reports from Egypt, it is with some difficulty we can arrive at a clear account of the situation of affairs in that country. It seems to have been the object of the French, by a rapid motion, to attack the Grand Vizer, and, after defeating him, to try their fortune against the Capitan Pacha and General Hutchinson. In the first we are told they have failed.

On the other hand, it is confidently asserted, that Alexandria is garrisoned by an army of six or seven thousand men, well provided and well secured in an entrenched camp; that Cairo is equally well secured, likewise, by a large garrison and entrenched camp. From Venice they assert positively that Admiral Gantheaume has landed a very large reinforcement on the coast of Barca, within about sixty miles of Alexandria. Yet our latest accounts from Mr. Tooke, the East India Company's agent at Constantinople, are

much more favourable; they assure us, that Cairo, after several actions, in which two thousand Frenchmen fell, surrendered with a garrison of 4000 men, who are prisoners of war.

The last mail has brought us some very important news from the frontiers of Turkey; it is, that Passowan Oglou has cut the army of the Grand Signor, which was opposed to him, to pieces.

ITALY.—At last this country seems to breathe from the horrors of war: The presence of the French troops in the kingdom of Naples will secure that country such a state of peace which it could never hope from the folly of its own sovereign. The Pope does all he can to improve his territories, and the new Cisalpine republic, and the still newer kingdom of Etruria, will peacefully enjoy their charming climate under the protection of France and Austria. Of all the countries of Italy the Pope seems now to be dispossessed, except Piedmont, and it is more than probable that the Archduke, late Grand Duke of Tuscany, if he fails in getting an indemnity in Germany, will procure them.

SPAIN and PORTUGAL.—The peace between Spain and Portugal has been ratified: by one article Spain acquires a territory called the province of Olivenza, which we believe gives it all the land east of the river Guadiana, and makes that river of course the boundary of the two kingdoms. The coast of Spain has been witness of two very gallant actions: the first an attack made by Sir James Saumarez on some French ships at anchor near Algeziras, in which that officer was foiled, and lost to the enemy the Hannibal, a ship of seventy-four guns, and had all his other ships much damaged. In the second action he was more successful, and in making an attack on the Spanish ships sent from Cadiz to convoy the prize and the crippled ships round from Algeziras, he succeeded in taking a seventy-four, and two Spanish first rates caught fire in the action, and were consumed, and near 2,400 men who were on board perished.

The peace between France and Portugal is not yet made, and it appears that the French army still hovers on the confines of Portugal, and will in the end invade.

FRANCE.—The French government seem now employed in beginning to put their new constitution into activity. This being the year, the ninth of the republic, in which the elections are to take place, there seems to be no small difficulty in adjusting the mode; and we think we may, without the gift of prophecy, foretel that so truly ridiculous a system can never stand long.

The contest between the great military officers of France seems to be subsiding. Bonaparte has found means to reconcile himself to Carnot and Moreau, which will probably enable him to maintain his power some time longer; but we think if he cannot accomplish a peace with this country, his fate will soon be determined. The coast of France has been insulted by a British Squadron, under Lord Nelson; but the damage done to the enemy is scarcely worth the powder that has been expended. In a second attempt Lord Nelson has not been so successful, having been repulsed with considerable loss.

GERMANY.—The disposition of the Emperor of Germany is still unknown.

The following has been circulated in Germany:

Extract of a Dispatch from the Minister for Foreign Affairs of the Republic, addressed to Bacher, from Paris, 14th July.

“You will complain to the Diet, that the English are procuring recruits in every part of the empire; a proceeding which is manifestly contrary to the spirit and text of the treaty of Luneville; and you will insist that the most rigorous measures shall be taken to prevent such illicit recruiting.

“In the absence of the Minister, and in virtue of the Arrêté issued by the First Consul, on the 28th of June.

(Signed)

“CAILLARD.”

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It is supposed, that the subject of this note will be taken into consideration at the first sitting of the Diet.

The Elector of Cologne died at Vienna, on the 27th of July, in the 46th year of his age. He was much respected, and had considerable influence at the Court of Vienna. The Elector was uncle to the present Emperor.

The report of a misunderstanding between France and Prussia has, we think, little foundation; as a proof of our opinion, the King has lately caused a whole committee of French emigrants to be seized. That monarch also seems but little disposed to quit Hanover. Indeed if we reflect, that Prussia, hated by Russia, dreaded by Austria, and on no good terms with England, we must conclude, that no trifling circumstances can detach her from France. Prussia has, however, acceded to the terms of the convention between England and Russia.

NORTHERN POWERS.—Sweden and Denmark having acceded to the terms settled between Great Britain and Russia, the fleets and seamen of those powers detained in Great Britain have been released.

The Emperor of Russia is busily employed on internal arrangements, among others we hear of the following:

“On the 15th of June last, an act of the Russian Senate, highly important to the interests of freedom and good government of that empire, received the sanction of his Majesty the Emperor Alexander. The following are its chief provisions:—

“1. An act of the Empress Catherine II. had declared householders in towns, and the persons of all those which are denominated the first and second classes, to be no longer liable to suffer corporal punishments. An act of the 3d of January, 1797, declared not only those persons, but criminals of all ranks, to be subject to the knout. This last law is by the present act rescinded; and the regulations of the late Empress are restored.

“2. A decree of the 4th of May, 1797, abolished the right of the collective inhabitants of towns (a right formerly recognised in them) to petition the Sovereign in body, and forbade any petitions to be presented which were signed by more than a single person. By the present act the former freedom of petitioning is also restored.

“3. Imperial decrees of 1779 and 1780 forbade the reception of peasants into the condition of burghesses or merchants, who shall not previously give security for the due payment of the taxes. Those decrees are by this act confirmed.

“4. The rents from mills, meadows, public squares, and baths, in towns, are by this act assigned to be a fund of public revenue to the towns to which they respectively belong.”

AMERICA.—The following will shew the present state of politics in this country.

On the 5th of March last the inhabitants of the town of Providence, in the state of Rhode Island, sent a congratulatory address to Thomas Jefferson, Esq. President of the United States—it was forwarded by a committee of the town, to whom the President sent the following answer; an answer which contains those just and enlightened sentiments, which ensure to the people of America an administration, founded on the principles of their own free constitution, and which cannot fail of being read with great satisfaction by every description of persons who feel an interest in the peace and freedom of the world:

“GENTLEMEN,

“I return my sincere thanks for your kind congratulations on my elevation to the first Magistracy of the United States. I see with pleasure every evidence of the attachment of my fellow citizens to elective government, calculated to promote their happiness, peculiarly adapted in their genius, habits, and situations; and the best peaceable corrective of the errors or abuses of those entrusted with power. The constitution on which our union rests, shall be administered by me according to the safe and honest meaning

contemplated by the plain understanding of the people of the United States, at the time of its adoption; a meaning to be found in the explanations of those who advocated, and of those who opposed it; and who opposed it merely lest the constructions should be applied which they denounced as possible.

"These explanations are preserved in the publications of the time, and are too recent in the memories of most men to admit of question.

"The energies of the nation, so far as depends on me, shall be reserved for improvement of the condition of man; not wasted in his destruction. The lamentable resource of war is not authorized for evils of imagination, but for those actual injuries only, which would be more destructive of our well-being than war itself. Peace, justice, and liberal intercourse with all the nations of the world, will, I hope, with all nations, characterise this commonwealth.

"Accept for yourselves, Gentlemen, and the respectable Citizens of the town of Providence, assurances of my high consideration and respect.

"THO. JEFFERSON.

"Messrs. Eddy, Russell, Thufbe, Wheaton, and Smith."

A very important cause has been tried at the Circuit Court of the United States for the eastern district of Pennsylvania, held at Philadelphia on the 18th of May last: it was determined, upon a full and deliberate trial, in the case of *Hollingsworth v. William Duane*, that a person in the United States of America, previous to her independence, and afterwards leaving the country and residing in Great Britain or Ireland, and on his coming of age, or as soon after as he conveniently could, not taking upon himself the character of a citizen of the United States, is not an American citizen, but an *alien*, and a subject of the King of England.

Commercial Affairs.

THE late Mission to Sirinaghur has been attended with the most beneficial consequences to the commercial concerns of the East India Company; the Rajah, in compliment to the English Government, having remitted the customary duty on a variety of valuable articles. In this valley is the famous Temple of Buddrenaat; and here the principal Hindoos hold their durbars, and exercise the laws and duties of their religion, without any apprehension from foreign intruders. They can at any time seclude themselves from all interruption by removing the joolahs, or rope bridges, which form the communication across the Alacknundra; and that stream is so rapid and dangerous in most places, as to be otherwise impassable. Here are some valuable copper mines, which are worked seven or eight months in the year, affording an abundance of rich ore; a moiety of which used to go to the revenues of the Rajah: There are likewise some lead and iron mines, which promise at some future period to be exceedingly productive.

In the reports of the trade of Ceylon, it appears that though the quantity of sugar-cane planted at Calitura is very small, and employed only to produce spirits, it is sufficient to prove that if this article were encouraged, it might be cultivated in sufficient quantities to supply the demands of the Island, and supersede the necessity of importing it from Bengal and China.

The natives have long since found a method of drawing a portion of saccharine juice from the buds of the tree called kitone, the pith of which is a little inferior to the sago of the Eastern Isles.

Almost all the cocoa trees in Candy have been destroyed, in consequence of the breed of elephants, which inhabit the woods, and are by order of the King forbidden to be destroyed in his dominions.

The Island Macassar, near Amboyna and Banda, has of late been the particular object of the attention of Government, on account of its being at all times capable of furnishing an abundance of provisions for our shipping; it lying exactly in the outward and homeward bound track of the China ships.

The importation of linen during the last week, comprised 1,233,308 yards from Ireland, 1,654,660 yards from Germany, and 3,183,000 from Russia.

The price of rice continues to fall—the best Carolina now sells at 26s. per cwt. ; a short time since it was upwards of 60s.

A general survey of the highways is to be made throughout Great Britain, in order to decrease the excess of serpentine, which will shorten distance, add much land to cultivation, diminish the keep of horses, and be an infinite saving in the wear and tear of carriages.

The following decisions of the Board of Trade, relative to the Bonding of Spirits, under particular circumstances, are of moment to the importers of West India produce :

“ SIR,

“ *Council-Office, Whitehall, Aug. 10, 1801.*

“ The Lords of his Majesty’s most Honourable Privy Council, having had under their consideration your letters of the 6th instant, stating the injury sustained by Messrs. Ewart and Rufston, by the delay that has occurred in warehousing 400 puncheons of rum, stated to be the produce of the British West Indies, but imported in a British ship from Charlestown to the port of Liverpool ; and that said Messrs. Ewart and Rufston are willing to bear every expence of warehousing the rum in question, and to enter into bond to any amount to secure the due exportation thereof, so that the revenue may not be put to any expence or hazard : I am directed to acquaint you, that a letter has been written to the Secretary of the Treasury, conveying a recommendation from their Lordships, that, under the particular circumstances of this case, the warrant issued from the Treasury, dated the 15th July, for warehousing the said rum on bond for six months, should be carried into effect : but that the present indulgence is not to be considered as a precedent in any future case. And I am also to acquaint you, that, in consequence of a representation from the Commissioners of Excise, against extending any farther the indulgence, which has been lately granted of permitting spirits to be warehoused under the King’s and Merchant’s locks, on security being given for exportation to Africa only : the Lords of the Privy Council have approved of the said representation of the Commissioners of Excise, and will not attend to any application of a similar nature in future ; and I am to desire, that notice of their Lordships’ resolution, in both the above cases, may be given to your correspondents, and generally to the Merchants concerned at the port of Liverpool or elsewhere. I am, Sir,

“ Your most obedient humble Servant,

“ *Simon Cock, Esq.*

“ STEPH. COTTRELL.

“ Agent to the Merchants at Liverpool.”

The present Sovereign of Persia is devoting himself with success to revive the trade of his empire, and has caused several vessels to be built on the Caspian and Persian seas. The alarm excited by the movements of the Russians having subsided, the cities of Gangi and Tiffig, which had been nearly deserted, are again in a flourishing state ; and Aggai Mahommed Khan having retreated from Masshad, the capital of Kohraistan, to Tabran, tranquillity is generally restored. The Emperor, in compliment to the English, has prohibited the sale of horses throughout the Persian dominions, for exportation, to any others than the agents of the India Company.

The trade between this country and *Portugal*, which is likely to suffer a temporary suspension, was formerly a very beneficial branch of our Commerce, but has decayed much of late. The balance, which some years ago was greatly in favour of this country, being estimated on an average of 30 years previous to the peace in 1753 at 800,000l. per annum, declined to nothing, and was latterly against this country. The export of grain from Great Britain to Portugal was very much reduced previous to the commencement of the present scarcity and consequent prohibition: the exports consisted almost wholly of British produce and manufactures, the total value of all the

goods exported from this country to Portugal being in 1792, according to the Custom House accounts, 760,655*l.* of which 720,984*l.* was British manufactures. The import from Portugal has increased in cotton wool, wines, and indigo; but the merchants frequently remit cash and bullion to this country, in payment of their debts in trade with other countries, though this has not been the case so much lately as formerly. In 1785 the quantity of gold and silver imported into this country from Portugal was 1,101,700*l.*; in 1795 it was reduced to about 186,900*l.*

The following account of the number of Ships which entered inwards in all the ports of Great Britain from Portugal, and which cleared outwards for that country, during the last twelve years, will give some idea of the present extent of this trade, and of the effect which the war has had, with respect to the employment of neutral vessels.

Inwards.			Outwards.	
British.	Foreign.	Years.	British.	Foreign.
495	7	1789	215	9
505	6	1790	225	11
553	8	1791	267	17
561	9	1792	285	17
300	29	1793	162	26
345	23	1794	224	28
344	35	1795	211	90
254	26	1796	216	106
294	63	1797	185	73
265	61	1798	229	69
374	57	1799	180	75
270	70	1800	203	126

Account of the Gross and Nett Produce of the Revenue of the Post-Office for the year ending 5th Jan. 1801.

Gross.			Nett.	
£.872,697	1 0 $\frac{1}{4}$	Inland	£.578,757	5 6 $\frac{1}{2}$
94,837	3 7 $\frac{1}{2}$	Foreign	50,972	6 8 $\frac{1}{2}$
38,229	8 2	Penny Post	15,889	1 4
100,612	1 3	Scotland	79,449	9 7 $\frac{1}{2}$
28,939	9 8	Ireland	11,508	7 1
<hr/>			<hr/>	
£.1,135,315	3 8 $\frac{1}{2}$		£.736,576	10 3

Agriculture.

AGRICULTURE REPORT, for AUGUST, 1801.

THE very fine harvest weather has caused the wheat, in all the early districts, to be carried in fine condition; a few Farmers, however, have carried too soon after it was cut, and the wheats, except such as are affected with the smut and mildew, prove extremely good.

The barleys, oats, and beans, are very fine crops, and many are already carried in good condition. Most grass lands want rain; notwithstanding store stock continue very high in price, and fat stock are very dear, and likely to continue so.

Many potatoe crops are very good, and not a few are very indifferent, but the quality of potatoes in general is very excellent this year. The wool trade is rather heavy, and the crops of apples very unproductive. Most wheat fallows are in fine condition for the approaching wheat-feed time.

The young coleseed plants look remarkably well, especially in the fens where this very valuable vegetable is most extensively cultivated. The young turnips look tolerably well.

Hops continue on the decline in price, in consequence of the extraordinary promise of the growing crops, and the recent abundant importations. Seven hundred weight were, during the last week, received from Petersburg, and a liberal supply from Holland.

Chatteris, Aug. 24, 1801.

J. SCOTT.

SUSSEX AGRICULTURE MEETING.

The Anniversary Shew of Cattle and Sheep for the premiums given by the Sussex Agricultural Society, held at Lewes, Aug. 11th, was numerously attended. Among the company were his Royal Highness the Prince of Wales, the Stadtholder, the Dukes of Richmond and Bedford; the Earl of Egremont; Lord Pelham, and the President of the Board of Agriculture (Lord Carrington), with a long train of the Nobility and Gentry, and Breeders of Cattle from every part of the United Kingdom.

After the judges had examined the cattle exhibited, and the company gratified their curiosity in the field, they adjourned to the Star Inn, where between two and three hundred set down to dinner. The Earl of Egremont, President of the Society, took the chair, and after having received the report of the judges, in a handsome speech, made their decision known to the company.

His Lordship then presented a piece of plate given by the Society, to Mr. Alfrey, and, after complimenting him upon the breed of stock he had shewn, challenged the cup himself, as did also Sir Thomas Carr. Lord Egremont afterwards noticed the very liberal offer of a silver cup, value five guineas, from Mr. Ellman, of Glyde, for the best one-year old South Down Ram, got by a ram of the same breed, and with an appropriate address presented the cup to Mr. Packham, of Charlston.

Mr. Ellman then informed the meeting, that it was his intention to give a cup every year, of the value of five guineas, upon the same conditions as the one then disposed of.

The Earl of Egremont next read a challenge from Sir Henry John Mildmay to produce of the Devonshire breed at this meeting a yearling bull, a yearling heifer, and a three year old heifer for five guineas each, and ten guineas the main, pay or play, against an equal number of the Sussex breed, which challenge had been accepted, and the stock produced by Mr. Alfrey. Sir H. Mildmay did not produce any stock, thereby tacitly ceding the proud palm of superiority to the Sussex breed. The company then repaired to the field to view the several prize animals, which were detained there for the purpose.

Sir Thomas Carr's stock made a distinguished figure; he exhibited nearly four score oxen, twenty yoke of which were driven in one chain; and also produced a considerable number of sheep.

Mr. Ellman produced for competition only one yoke of oxen, for which the judges awarded him a premium. Twelve of Mr. Ellman's ewes and three rams were driven into the shew field, and were much admired by the amateurs.

We understand the sweepstakes for the best pen of twelve South Down stock ewes were gained by the following subscribers, viz.

Mr. Anger, East Bourne,	best, six guineas.
Mr. Scrafe, Withdean,	2d, five guineas.
Mr. Hamshar, Pachham,	3d, three guineas.
G. Gilbert, Esq. East Bourne,	4th, two guineas.
Mr. Gorriage, Kingston,	5th, one guinea.

Mr. Lester, of Northampton, exhibited in the field a chaff engine upon an entire new principle, which, from its simplicity, expedition, and accuracy of work, met with universal approbation, as being the completest and most useful machine for that purpose ever seen in the county of Sussex.

THE HARVEST.

The wheat harvest is general throughout the country, and in many places finished; the produce is considerably better than an average crop, and

more than double the crop of 1799. Oats and barley are beyond example abundant, and finely sowed.

At Turnham Green, Twyford, Reading, Beaconsfield, Chelmsford, and several places in the vicinity of Maidstone and Cuckfield, the wheat has been carried, and the ground on which it grew laid down for turnips; which, and in fact vegetation generally, have been greatly benefitted by the late rains.

In some parts the hay has been injured by the rains, but the damage has been limited, and more than compensated by the improvement of the after-grass.

About Wallingford and Maidenhead, some fields of oats have yielded more than ten quarters per acre.

A gentleman, who lately returned to town from a tour to Edinburgh, Glasgow, Belfast, and by Dublin and Kilkenny to Cork and Killarney, and thence by Limerick, Dublin, Holyhead, Chester, Lichfield, &c. to London, reports that in the entire of his journey the appearance of the harvest exceeded any thing he had ever before witnessed, and that the people with whom he had conversed, declared that for many years there had not been such heavy crops.

New Rye was sold at Cambridge Market last week at 7s. per bushel; and a farmer, a few miles from that town, contracted to sell his whole crop of Barley at 35s. per quarter.

GLEANNING.

Four women were bound over to stand their trial at the next Ipswich Quarter-Sessions, charged with gleaning at unseasonable hours, and before the corn had been carried from the field.—The offence, we are given to understand, amounts to a felony; and, as great depredations have been practised under the pretence of gleaning, Magistrates are determined to inflict a heavy punishment.

The practice of gleaning is of great antiquity, although we do not find it sanctioned by any statute; yet custom has established it as a right, and we do not wish to see any of the little privileges of the poor abridged. Gleaning, however, is the occasion of much fraud, and, if pursued with honesty, will rarely recompense the labour it engages.

It often happens that the reaper will perform his work in a slovenly manner, because his children follow to glean the produce of his waste, and the children, with this example of dishonesty for their government, glean from the sheaf as well as stubble.

The usage in Prussia is for the landholder, by means of a large field-rake, to clear the ground of all waste corn, and to divide the produce, one half of which he reserves for the trouble of collecting it, and the remaining moiety is divided amongst the poor. We wish some similar practice was introduced into this country; and we are convinced, if the whole gleaning were given to the poor, or if an allowance of so much per acre, instead of gleaning, the farmer would find his advantage in the change.

At the annual shew of Sheep, at Eastmarden, near Chichester, there were forty-three Candidates for the several Prizes, which were adjudged as follows, viz.

A silver cup, value five guineas, to Mr. Pinnix, for the best pen of Six South Down Ewes.

A silver cup, value five guineas, to Mr. Brinstead, for the best pen of South Down Ewes, two years old.

A silver cup, value five guineas, to Mr. Souter, for the best pen of six South Down Ewes, three years old.

A second cup, of the same value, to Mr. Pinnix, his being deemed the best of three pens of Ewes.

A silver cup, value five guineas, to Sir H. Featherstone, for the best South Down Ram, one year old.

A silver cup, value five guineas, to his Grace the Duke of Richmond, for the best South Down Ram, two years old.

A silver cup, value five guineas, to Mr. Pinnix, for the best South Down Ram, three years old; and

A silver cup, value five guineas, also to Mr. Pinnix, his being deemed the best of the three prize Rams.

At Lansdown Fair, there was a tolerable shew of fat and lean cattle; the former experienced a ready sale, but extravagant prices being demanded for the poorer sort, the greater part remained unsold. Eight prime Herefordshire oxen, fine in stature, and in good condition, fetched 200*l*. Sheep and lambs were dear. Of horses there were but few, and those chiefly of low quality.—There was a large quantity of cheese, which sold at the following reduced prices: best Coward from 44*s*. to 54*s*. per cwt. Half Coward from 32*s*. to 36*s*. and a considerable part remained on hand.—The fineness of the day attracted an immense number of people on the Down, and the light-fingered gentry were very active; one farmer was eased of eighteen guineas, and another of 80*l*.

At Pocklington fair last week lambs of that description which three years since sold for 10*s*. found a ready sale at 30*s*. Horses and cattle went very cheap.

The crops of rice in Bengal have this season exceeded every thing remembered by the oldest inhabitant, in consequence of which a great number of public granaries have been erected on a new principle.

Manufactures and Useful Arts.

A NEW mode of mounting window-sashes has been lately invented, and found a general adoption in America. It discards the troublesome apparatus of lines, weights, and pulleys. The new invention merely consists in this:—three or four holes are bored in each side of the ascending sash, into which common bottle corks are inserted, leaving a projection of one sixteenth of an inch beyond the surface. This simple contrivance is found to answer every purpose, as the elasticity of the cork is of itself sufficient to keep up the sash at any required height.

On the Malabar coast, instead of launching vessels in the manner practised with us, they are boused down in the following way:—When the vessel is ready for launching and the ground prepared, a number of round timbers are laid parallel to her keel; over those are placed two large beams under the fore and after part of the keel for the vessel to rest upon. These are firmly lashed to two corresponding beams on the upper part, or through the port-holes, to keep her in an upright position. She is then swiftered, a proper purchase rove and attached to anchors laid near low water mark, the fall leading to a crab. When the blocks are all removed, and a strain hove upon the purchase, with screws placed to the stem, there are four large pieces of timber slung to strike the two cross ones, the force of which will start the vessel four or five inches at a time, particularly as she lays with a considerable descent, being, we believe, in the proportion of one inch to a foot. This process, though tedious, is perfectly secure.

Mr. Mushet, of the Clyde iron works, has lately taken out a patent for a new and expeditious method of converting iron into steel by combining it with more precision than heretofore, with various proportions of carbon, and by subsequent cementations, to give the steel the valuable properties of welding and malleability.

The high duty on paper has been found to be extremely prejudicial to the printing and bookselling businesses. The large edition of the poets of Great Britain, which the book-sellers had in hand, is laid by, although near 10,000*l*. worth of paper had been purchased for the purpose.

LONDON PRICES OF GRAIN for Aug. 1801.

MARK-LANE, Monday, Aug. 3.

We have had a few fresh ships in since last Monday; but buyers being of opinion things will be cheaper, caused our Wheat Market to go off much the same as this day se'nnight.—Rye continues steady.—In Barley and Malt little or no alteration.—Peas and Beans are very plentiful, and rather cheaper.—Oats are brisker, and full as dear as last week.—Flour much the same as last week.

Price of Grain, on board Ship, as under :

Wheat	65s to 90s	Malt	50s to 76s	Fine	to 34s
Fine	to 115s	White Peas	50s to 56s	Superfine	38s to —s
Superfine	to 130s	Fine	to 60s	Small Beans	44s to 48s
Rye	50s to 60s	Hog Peas	44s to 48s	Fine	to —s
Barley	28s to 30s	Fine	50s to —s	Tick ditto	36s to 44s
Fine	to 45s	Oats	20s to 26s	Fine	to —s
Superfine	to 6s				

Monday, Aug. 10.

We have had a few fresh arrivals of Corn in since last week, but the major part of it remaining unfold, and buyers being still of opinion Grain of every denomination will be lower, caused our Wheat Market to be full 20s. per quarter cheaper from this day se'nnight, and 8s. from last Friday.—Rye is much the same as last week.—Barley is full 3s. per quarter cheaper.—Oats fully maintained last Friday's prices, the sale, nevertheless, very dull.—White and Grey Peas are very plentiful, and rather cheaper.—Tick and Small Beans are full 2s. per quarter lower.—Flour is 5s. per sack cheaper.—N. B. It is impossible to quote the prices with accuracy at this critical period.

Price of Grain, on board Ship, as under :

Wheat	60s to 95s	Malt	50s to 72s	Fine	to 34s
Fine ditto	to 105s	White Peas	48s to 55s	Superfine	—s. to —s
Superfine	to 110s	Fine	to —s	Small Beans	40s. to 46s
Rye	48s to 56s	Grey ditto	42s to 44s	Fine	to —s
Barley	28s to 36s	Fine	—s to —s	Tick do.	36s to 40s
Fine	to 45s	Oats	20s to 26s	Fine	to —s
Superfine	to 58s				

Monday, Aug. 17.

We have had some fresh arrivals of Corn in since last week, and owing to the large quantity of American Flour we now have on sale, caused our Wheat Market to decline in price full 20s. per quarter since this day se'nnight.—Rye, Barley, and Malt, continue pretty steady.—Although we had a good many Oats at market, yet the prices continued much the same as on Friday last.—Both Peas and Beans are full 4s. per quarter lower.—Flour is full 10s. per sack cheaper.

Price of Grain, on board Ship, as under :

Wheat	55s to 70s	White Pease	50s to 56s	Superfine	to —s
Fine do.	to 84s	Fine Suffolks	to 60s	Small Beans	36s to 40s
Superfine	to 90s	Grey Pease	40s to 45s	Fine	to 44s
Rye	48s to 56s	Fine	—s to —s	Tick ditto	30s to 36s
Barley	28s to 44s	Oats	20s to 32s	Fine	to 40s
Fine	to 58s	Fine	to 36s		
Malt	50s to 74s				

Monday, Aug. 24.

Our market this day was but thinly supplied with English Grain, and although our Foreign supply was rather large, yet our buyers being more numerous than they have been for these three weeks past, caused Wheat to advance full 5s. per quarter since this day se'nnight.—Rye is very dull, there being but few sales made.—Barley and Malt are rather brisker, but not dearer.—Oats are full 2s. per quarter dearer.—In White or Grey Peas, or Small Beans, little or no alteration; but Ticks are full 2s. per quarter higher.

Price of Grain, on board Ship, as under :

Wheat	54s to 70s	Malt	45s to 76s	Fine	to 28s
Fine do.	to 80s	White Peas	50s to 56s	Superfine	—s to —
Superfine	to —s	Grey do.	40s to 44s	Polands	30s to 36s
Rye	36s to 40s	Fine	—s to —s	Small Beans	40s to 45s
Barley	28s to 45s	Oats	20s to 26s	Tick ditto	38s to 42s
Fine	to 60s		U		

146 *Prices of Grain, Meat, Seeds, &c.* (First week, Aug.)

Return of Wheat in Mark-lane, from July 20th to July 25th inclusive.
 Total, 12950 quarters.—Average, 123s. 10 $\frac{1}{2}$ d.—os. 11 $\frac{1}{2}$ d. lower than last return.

Return of the Prices of Flour, from July 18, to July 24 inclusive.

Total, 6241 sacks.—Average, 121s. 8 $\frac{1}{2}$ d.—os. 7 $\frac{1}{2}$ d. lower than last return.

Hence results the Price of BREAD.

Eighty Quatern Loaves at 1s. 8d 13s 4d.—Against the Baker 4 $\frac{1}{2}$ d.

Price of Hops.

Bags.			Pockets.		
Kent	—	5 ^l 5s to 8 ^l 0s	Kent	—	5 ^l —s to 6 ^l 10s
Suffex	—	5 ^l 0s to 7 ^l 7s	Suffex	—	5 ^l —s to 6 ^l —s
Effex	—	5 ^l —s to 8 ^l 8s	Farnham	—	5 ^l —s to 6 ^l 10s

Seeds.

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

Meat. Smithfield, Monday, Aug. 3. (To sink the offal. per stone of 8lb.

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

Head of Cattle this day)—Beasts about 1,900—Sheep and Lambs 8,500.

Price of Leather.

Butts, 50 to 56lb. each	19 $\frac{1}{2}$ d to 21d	Calf Skins, 30 to 40lb. p. doz.	18d to 21d
Ditto, 60 to 66lb. each	22d to 23d	Ditto, 50 to 70lb. do.	22d to 26d
Merchants Backs	20d to 20 $\frac{1}{2}$ d	Ditto, 70 to 80lb. do.	22d to 25d
Dressing Hides	—	Sm. Seals (Greenland) 30d to 33d p. lb.	
Fine Coach Hides	17d to 19d	Large do.	100s to 140s p. doz.
Crop Hides for cutting	15d to 17d	Tanned Horse Hides	14s to 26s p. hide
Flat Ordinary	—	Goat Skins	21s to 65s p. doz.

Price of Tallow.

St. James's Market	—	3s 2 $\frac{1}{2}$ d	Russia ditto (Soap)	—	54s to 0s
Clare Market	—	3s 2 $\frac{1}{2}$ d	Melting Stuff	—	49s to —s
Whitechapel Market	—	3s 3d	Ditto rough	—	32s to —s
Per stone of 8lb.—Average		3s 2 $\frac{1}{2}$ d	Graves	—	20s
Town Tallow	—	57s 0d	Good Dregs	—	12s
Russia ditto (Candles)	—	55s 56s	Yellow Soap, 72s.—Mottled, 80s.—Curd, 84s		
			Candles, per dozen,	—s 0d	Molds, —s 0d

Prices of Hay and Straw on Saturday, Aug. 1.

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

Prices of Grain, Meat, Seeds, &c. (Second week, August.) 147

Return of Wheat in Mark-lane, from 27th of July to Aug. 1st, inclusive.

Total 6966 Quarters 4 Bushels—Average 117s 2d —6s. 8½d. lower than last return.

Return of the Prices of Flour, from July 25th, to July 31st inclusive.

Total 5832 Sacks—Average 113s 8½d.—8s lower than last return.

Hence results the Price of BREAD.

Eighty Quartern loaves at 1s 7d 6l 6s 8d—In favour of the Baker 11½d.

Price of Hops.

Bags.			Pockets.		
Kent	—	5l —s to 7l 7s	Kent	—	4l 10s to 6l 6s
Suffex	—	5l —s to 6l 6s	Suffex	—	4l 10s to 5l 12s
Farnham	—	4l —s to 8l —s	Effex	—	4l 10s to 5l 12s

Seeds.

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

Meat. Smithfield. Monday, Aug. 10. (To sink the offal. per stone of 8lb.

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

Head of Cattle this day)—Beasts about 1,700—Sheep and Lambs 8,500

Raw Hides.

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

Price of Leather.

Butts, 50 to 56lb. each	18½ to 20½	Calf Skins, 30 to 40lb. p. doz.	18d to 21d
Ditto, 60 to 66lb. each	22d to 23d	Ditto, 50 to 70lb. do.	22d to 26d
Merchants' Backs	—d to 19½	Ditto, 70 to 80lb. do.	22d to 25d
Dressing Hides	15d to 17d	Sm. Seals (Greenland)	30d to 33d p. lb.
Fine Coach Hides	17d to 19d	Large do	100s to 140s p. doz.
Crop Hides for cutting	17d to 19d	Tanned Horse Hides	14s to 25s p. hide.
Flat Ordinary	15d to 16d	Goat Skins	2 1s to 6 5s p. doz.

Price of Tallow.

St. James's Market	—	3s 3d	Russia ditto (Soap)	54s —s
Clare Market	—	3s 3d	Melting stuff	50s —s
Whitechapel Market	—	3s 3d	Ditto rough	32s —s
Per stone of 8lb.—Average		3s 3d	Graves	20s —s
Town Tallow		57s 0d	Good Dregs	12s —s
Russia ditto (Candles)		55s 57s	Yellow Soap, 72s—Mottled 80s—Curd 84s	

Prices of Hay and Straw on Saturday Aug. 2.

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

148 Prices of Grain, Meat, Seeds, &c. (Third week, Aug.)

Return of Wheat in Mark-lane, from Aug. 1d to the 7th inclusive.

Total 100,67 quarters.—Average 113s. 10d.—3s. 4d. lower than last return.

Return of the Prices of Flour, from Aug. 3d to the 8th inclusive.

Total 8,958 sacks.—Average 112s. 2½d.—1s. 6d. lower than last return.

Hence results the Price of BREAD.

Eighty Quarter loaves 1s. 6½d.—9l 3s 4d—Against the Baker 10½d.

Price of Hops.

Bags.				Pockets.			
Kent	—	5l —s to	7l 7s	Kent	—	4l 10s to	6l 6s
Suffex	—	5l —s to	6l 6s	Suffex	—	4l 10s to	5l 12s
Farmham	—	4l —s to	8l —s	Essex	—	4l 10s to	5l 12s

Seeds.

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

Meat. Smithfield. Monday, Aug. 17. (To sink the offal. per stone of 8lb.)

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

Head of Cattle this day—Beasts about 2,000—Sheep and Lambs 8,500.

Raw Hides.

Hides (per stone)	—	3s 4d to	3s 6d	Heavy Calf	—	10s 0d each.
Middling	—	2s 6d to	2s 8d	Light Calf	—	6d per lb.
Ordinary	—	2s 0d to	2s 4d	Sheep Skins	—	1s 0d to 1s 6d
			Lamb Skins			1s 9d to 3s 0d

Price of Leather.

Butts, 50 to 56lb. each	18½ to	20½	Calf Skins, 30 to 40lb. p. doz.	18d to	21d
Ditto, 60lb. to 66lb. each	22d to	24d	Ditto, 50 to 70lb do.	22d to	26d
Merchants Backs	18½ to	19½	Ditto, 70 to 80lb do.	22d to	25d
Dressing Hides	16d to	18d	Sm. Seals (Greenland)	30d to	33d p. lb.
Fine Coach Hides	17d to	19½	Large do.	100s to	130s p. doz.
Crop Hides for cutting	17d to	19d	Tanned Horse Hides	16s to	26s p. hide
Flat Ordinary	15d to	17d	Goat Skins	21s to	65s p. doz.

Price of Tallow.

St. James's Market	—	3s 3½d	Ruffia ditto (Soap)	—	54s —s
Clare Market	—	3s 4d	Melting Stuff	—	50s —s
Whitechapel Market	—	3s 3d	Ditto rough	—	32s —s
Per stone of 8lb.—Average	—	3s 3½d	Graves	—	20s 0s
Town Tallow	—	57s 0d	Good Drugs	—	12s 0s
Ruffia ditto (Candles)	—	55s 57d	Yellow Soap 72s. Mottled 80s. Curd 84s		

Prices of Hay and Straw on Saturday, Aug. 15.

St. James's—Hay	4l 0s to	6l 0s	Average	5l —s 0d
Straw	2l 14s to	3l 3s		2l 18s 6d
White-ch.—Hay	4l 12s to	6l 6s		5l 9s 0d
Clover	6l 10s to	7l 4s		6l 17s 0d
Straw	2l 10s to	3l 3s		2l 16s 6d

Prices of Grain, Meat, Seeds, &c. (Fourth week, July.) 149

Return of Wheat in Mark-lane, from the 10th Aug. to 15th inclusive.

Total 10280 Quarters—Average 94s. 10d.—19s. 0d. lower than last return.

Return of the Prices of Flour, from 8th Aug. to 14th inclusive.

Total 9426 Sacks—Average 99s 0d—13s 2½d lower than last return.

Hence results the Price of BREAD.

Eighty Quartern loaves at 1s 4½d. 5l. 10s. 0d.—Against the Baker—1s 0d.

Price of Hops.

Bags.				Pockets			
Kent	4l	4s to 6l	0s	Kent	—	4l —s to 5l —s	
Suffex	—	4l 0s to 5l 5s		Suffex	—	4l —s to 4l 8s	
Farnham	—	4l 0s to 8l 0s		Essex	—	4l —s to 4l 10s	
Duty 190,000l.							

Seeds.

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

Meat. Smithfield, Monday, Aug. 24, (To sink the offal—per stone of 8l b.

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

Head of Cattle this day—Beasts about 2,000—Sheep and Lambs 11,000.

Price of Leather.

Butts, 50 to 56lb. each	18½d to 20d	Calf Skins, 30 to 40lb. p. doz.	18d to 21d
Ditto, 60 to 66lb. each	22d to 24½d	Ditto, 50 to 70lb. do.	22d to 27d
Merchants Backs	19d to 19½d	Ditto, 70 to 80lb. do.	22d to 25d
Dressing Hides	16d to 17d	Sm. Seals (Greenland) 30d to 33d p. lb.	
Fine Coach Hides	17d to 19½d	Large do.	100s to 130s doz.
Crop Hides for cutting	17d to 19d	Tanned Horse Hides	14s to 25s p. hide.
Flat Ordinary	15d to 17d	Goat Skins	25s to 65s p. doz.

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

Raw Hides.

Hides (per ft.)	—	3s 0d to 3s 4d	Heavy Calf	—	10s 0d each
Middling	—	2s 4d to 2s 8d	Light Calf	—	7d per lb.
Ordinary	—	2s 2d to 0s 0d			
		Lamb Skins	—	1s 9d to 3s 0d	
		Sheep Skins	—	1s 9d - to 3s. 0d	

Price of Tallow.

St. James's Market	—	3s 5d	Russia ditto (Soap)	—	54s to —s
Clare Market	—	3s 5d	Melting Stuff	—	50s —s
Whitechapel Market	—	3s 2d	Ditto rough	—	32s —s
Per stone of 8lb —Average	—	3s 4d	Graves	—	20s to —s
Town Tallow	—	57s 0d	Good Dregs	—	12s
Russia ditto (Candles)	—	55s to 57s	Yellow Soap 72s Mottled 80s Curd	—	84s
		Candles per Doz.	—	—	10s 6d

Price of Hay and Straw, Aug. 22.

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

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 AUG. 15, 1801.

COUNTIES INLAND.

COUNTIES.	Wheat.		Rye.		Barley.		Oats.		Beans.		Pease.		Oatmeal.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Middlesex	123	1	57	8	47	10	37	9	46	10	53	0		
Surry	125	8	56	0	47	6	35	4	54	0	50	0		
Hertford	111	0	60	9	45	0	34	9	58	4	59	7		
Bedford	120	9	73	6	80	0	53	0	41	8	48	0		
Huntingdon	107	11			50	0	25	4	44	8				
Northampton	120	0			67	0	29	8	55	0				
Rutland	100	6			72	0	38	0	58	0			75	6
Leicester	114	7	86	8	55	11	31	4	62	7	106	0	73	2
Nottingham	116	10			60	0	37	6	55	0				
Derby	129	4					38	6	64	0				
Stafford	137	9			77	4	39	11	71	1			63	7
Salop	121	7	87	6			40	6					100	4
Hereford	130	1	81	0	79	11	43	1	67	2	66	1	105	11
Worcester	134	6	97	8	69	0	41	6	68	1	74	8		
Warwick	125	11			74	0	37	3	62	5	98	8	83	11
Wilts	110	4			53	6	33	0	63	0				
Berks	112	11			49	9	32	8	51	0	45	0		
Oxford	122	2			62	2	33	0	55	0				
Bucks	114	8			57	6	37	0	52	8	61	3		
Brecon	153	9	112	0	96	0	40	0					89	1
Montgomery	115	4					38	3					76	4
Radnor	142	3			89	3	34	6					125	9

Maritime Counties.

Essex	107	4	46	6	43	9	31	3	40	3	39	0		
Kent	112	6			48	6	32	0	45	3	49	0		
Suffex	125	0					36	0						
Suffolk	111	0			33	6	31	1	39	3	40	4	99	11
Cambridge	104	2	58	0			22	2			80	0		
Norfolk	109	5	72	0	37	3	28	0						
Lincoln	109	3	71	0	71	3	30	0						
York	123	2	85	4	64	2	30	11	53	6	85	4	71	4
Durham	126	6	59	6	40	8	41	0						
Northumberland	125	1	72	0	58	2	38	8			62	8		
Cumberland	143	4	84	4	71	7	47	4						
Westmorland	139	5	105	6	83	0	44	11					38	11
Lancaster	127	9					39	5					32	7
Chester	103	8											31	0
Flint														
Denbigh	131	4			73	6	38	4					40	8
Anglesea														
Carnarvon	120	0	84	0	67	4	36	0					74	8
Merioneth	140	2			78	0	41	4					78	8
Cardigan	125	5			82	4								
Pembroke	132	10			83	4								
Carmarthen	140	4			100	0								
Glamorgan	126	6					38	5						
Gloucester	135	9			92	1	37	11	60	2				
Somerset	134	11					34	0						
Monmouth	156	0												
Devon	146	1			75	11	32	10						
Cornwall	130	10			77	4	27	10						
Dorset	131	6					32	0	72	0				
Hants	126	9			55	0	33	5	61	9	80	0		

BANKRUPTCIES AND DIVIDENDS,

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

BANKRUPTCIES,

ASHETON, T. N. Liverpool, merchant and under-writer. (G. Orrell, Liverpool)

Bowdige, T. Lime-treet, factor. (Flahman and Pringle, Ely place)

Bratley, T. Wigan, shopkeeper. (Windle, Bartlett's Buildings)

Blehaard, R. Gnat Bank, Bamford, Middleton, Lancashire, miller. (Messrs. Aiden, Clement's inn)

Baldwin, W. Wigan, scrivener. (J. Hodgson, Chancery lane)

Crosby, J. Oxford street, mercer. (Auber, Elder street, Spital square)

Chalmley, Wm. Liverpool, merchant. Barrett, Manchester

Charmley, Edm. Liverpool, merchant. (Barrett, Manchester)

Collin, M. and T. Lewis, Hatton Garden, navy agents. Gale, Bedford street, Holborn

Coleman, J. Bow street, Covent Garden, bricklayer. (Jones, Duke street, Lincoln's inn fields)

Clay, J. Batley, drysalter. (Battye, Chancery lane)

Collier, Geo. Shrewsbury, scrivener. (S. Stanley, Newport)

Davies, John, Callington, linen-draper. Batten and An-
nie, Temple

Day, Wm. Cheap-side, man's mercer. (Bleakdale and Alexander, Hatton court)

Damerum, Jas. Portsmouth, baker. (Watts, Symond's inn)

Evans, John, Black-frod, victualler. (Sharp and Eccles, Manchester)

Firth, J. Sowerby, Halifax, cornfactor. (Cardale, Hall-worth, and Spear, Gray's inn)

Field, Benj. Union street, Bishopsgate street, upholsterer. (Hall, Poultry)

Griffiths, Thomas, Hensbridge, victualler. (Dyne, Ser-
jeant's inn)

Gandar, Wm. St. John's street, plasterer. (Welchou, Furnival's inn)

Griffin, Edw. St. Michael, in Bedwardine, grocer. (J. Aiken, Worcester)

Gilks, T. Warwick, cornfactor. (Smart, Staple's inn)

Gore, Thomas, College Hill, London, warehouseman. (Boulstead, Savage Gardens)

Harper, R. Newcastle-upon-Tyne, scrivener. (Good, Tooting)

Holmes, T. Oxford, cordwainer. (Philpot, Red Lion square)

Holmes, J. and J. Palmer, Craven street, army bro-
kers. (Dyne, Serjeant's inn)

Hardy, H. Snow hill, card maker. (Leverfedge, Fore
street)

Horne, Jas. jun. Woodbridge, corn merchant. (Bromley
and Bell, Gray's inn)

Keighly, Jas. J. F. Ferguson, and Wm. Armstrong, Lon-
don, merchants. (Messrs. Shawe, Tudor street)

Kelly, Mich. Camden row, Pancras, warehouseman. (Aldingham, St. John's square)

Macher, Wm. Parker's row, Brompton, baker. (Dav-
ies, Warwick street, Golden square)

Marden, Wm. and C. Tongue, Liverpool, merchants. (Lee, Temple, and Gregson and Smart, Angel court, Throgmorton street)

Mottingham, S. Manchester, cotton-manufacturer. (Edge, Manchester)

Marsden, W. Manchester, merchant. (Atcheson, Ely
place)

Muddocks, R. Barge yard, Bucklersbury. (Hurd, Fur-
nival's inn)

Muddocks, R. and Wm. Barge yard, Bucklersbury,
warehousemen. (Cruickshank, Basinghall street)

Miller, P. and J. Home, Manchester, dealers in Welf. (Ellis, Currier street)

Middlewood, Jas. Manchester, fruiterer. (Ellis, Currier
street)

Mathews, J. Gargrave, Yorkshire, dealer. (G. and J. Crump, Liverpool)

Nunny, W. Lanesford, parish of Burrington, Somerset. (Blandford and Sweet, Temple)

Phillips, J. Walcot, baker. (Sandys and Horton, Crane
court, Fleet street)

Richardson, W. Sutwood, whitster. (Kaye, Bolton-le-
Moore)

Robinson, Jas. Crosby square, merchant. (Smith and
Lawton, Great St. Helens)

Stanley, J. Liverpool, merchant. (Barrett, Manchester)

Somerton, S. M., Birmingham, merchant. (A. Isaacs, Bury
street)

Seagram, G. Tiverton, grocer. (Lys, Tooker's court, Chan-
cery lane)

Swallow, D. Rotherhithe, victualler. (Willet and An-
nie, Ely place)

Mervall, M. G. Carey court, Carey street, taylor. (Windle, Bartlett's buildings)

Somevail, Jas. Liverpool, merchant. (Daree, Fenchurch
street)

Sherriff, Jas. Hatton Garden, merchant. (Johnson, Ely
place)

Thomas, J. Bathwick, dealer. (Shepherd and Adlington,
Gray's inn)

Toy, Thomas, Penryn, linen draper. (Cardale, Hallward,
and Spear, Gray's inn)

Wilmot, T. Woolwich, linen draper. (Nethesole, Essex
street)

Wood, John and Joseph, Wednesbury, gunlock makers. (Bourne, Dudley)

DIVIDENDS ANNOUNCED.

Allen, W. Birmingham, druggist, Sept. 15

Banton, Edm. Lancashire, merchant, Aug. 21

Battier, J. R. and J. J. Zornlin, Devonshire square, mer-
chants, Nov. 7

Bonney, W. Liverpool, soap boiler, Aug. 25

Bratt, C. Warrington, linen-draper, Aug. 25

Bennett, J. Wootton-under-Edge, carrier, Sept. 5

Beeston, J. Manchester, merchant, Sept. 9

Clifford, Geo. and J. Blanckenhagen, London, merchants,
Aug. 29

Coals, J. Wellieborough, grocer, Aug. 17

Cooper, J. Epsom, brewer, Aug. 22

Carden, W. Bristol, merchant, Aug. 31

Davies, F. Bell yard, Doctor's Commons, coal merchant,
Aug. 15

Dade, T. Great Yarmouth, merchant, Aug. 26

Eldridge, C. Cheltenham, victualler, Aug. 28

Farloe, J. Hereford, mercer, Sept. 5

Faehing, R. Blakeney, merchant, Sept. 7

Glover, G. Paternoster-row, warehouseman, Dec. 1

Gratsbrook, T. G. and B. Wigan, grocers, Aug. 29

Gowan, Geo. Great Ormond street, merchant, Aug. 28

Gard, Josias, North Taunton, merchant, Sept. 18

Grine, J. Wandsworth, corn chandler, Sept. 8

Harle, J. Bolton, brewer, Aug. 22

Heathcote, P. Walfall, Skinner, Aug. 31

Hampton, R. Rotherham, shopkeeper, Sept. 9

Hillman, Jos. jun. Exeter, Fuller, Sept. 17

James, J. Old Burlington, street, taylor, Aug. 11

Jardiner, A. St. Mary, Haverfordwest, shopkeeper, Au-
gust 29

Jones, Wm. Cheltenham, victualler, Aug. 28

Jackson, J. Temple Sowerby, banker, Aug. 27

Ireland, W. N. Calvert, J. Overend, and C. Tomlinson,
Lancaster, merchants, Sept. 4

Kinble, S. and W. Spens, Norfolk street, Strand, mer-
chants, Nov. 5

Kirkpatrick, J. Church passage, Cateaton street, Aug. 28

Lane, J. Stratford, Essex, corn chandler.

Leabon, G. Stow Market, draper, Oct. 24

Lowe, Wm. and Wm. Brooks, Pemberton, sustain ma-
nufacturers, Sept. 18

Lawton, S. Rotherhithe, carver, Aug. 18

Martin, E. Bristol, mariner, Aug. 26

Mallam, J. Fleet street, merchant, Oct. 10

Maudon, J. Moretonhamstead, targe maker, Aug. 11

Mure, H. R. Mure, and W. Mure, Fenchurch street,
merchants, Aug. 29

Mathail, R. King's Lynn, bookfeller, Aug. 28

Mason, A. Lynn Regis, corn dealer, Aug. 29

Machamara, J. London, merchant, Sept. 19

McEwan, Jonah, Cable street, East, Oxford market, cab-
inet maker, Sept. 8

Needham, J. H. St. Neots, draper, Oct. 22

Hutton, R. St. John's square, Clerkenwell, coachmaker,
Sept. 5

Pendred, J. Wellingborough, leather cutter, Aug. 18

Parry, T. Birmingham, haberdasher, Oct. 19

Parry, T. R. Byrchall and J. Tombs, Union street,
Bishopgate street, cotton manufacturers, Oct. 10

Fradie, Thomas and John, Osbourne, Snow hill, cheese-
mongers, Sept. 8

Reilly, Jas. and Jas. Collins, Mead's court, Bond street,
tailors, Aug. 29

Roberts, Wm. Robert-town, Yorkshire, blanket maker,
Sept. 2

Rogers, E. and J. Rodd, Bread street, woollen factors,
Sept. 5

Seaborne, G. W. Narrow street, Limehouse, mast maker
Sept. 22

Salmon, J. Sunderland, coal fitter, Sept. 10

Stringer, J. Stockport, cotton manufacturer, Sept. 21

Sims, R. W. Liverpool, merchant, Sept. 14

Terry, J. and Wm. Richards, Birmingham, button and
buckle maker, Aug. 31

Taylor, A. Wenlock street, thimble maker, Sept. 8

Verlille, T. Leadenhall market, butcher, Oct. 10

Willatts, Fred, Brewer street, Golden square, cheese-
monger, Sept. 5

Walton, J. Birmingham, rope maker, Aug. 28

Whitty, G. New Malton, horse dealer, Aug. 27

Willis, J. Pudding lane, merchant, Aug. 29

Wilkins, J. Paganhill, corn dealer, Aug. 25

Zachary, H. Lawrance lane, Irish factor, Aug. 20

A TABLE of the Prices of STOCKS in August 1801.

Bank Stock.	3 per Ct. Red.	3 per Ct. Conols.	4 per Ct. Confol.	5 per Ct. Navy.	5 per Ct. Loyalty	Long Ann.	Short Ann.	Imp. 3 per Ct.	Imperial Ann.	Irish 5 per Ct.	Omn.	Eng. Tick.	Irish Tick.
1	59 1/2	58 1/2	78 1/2	92 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		6 1/2	15 15	
3	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
4	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
5	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
6	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
7	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
8	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
10	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
11	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
13	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
14	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
15	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
16	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
17	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
18	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
19	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
20	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
21	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
22	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
25	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
26	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
27	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	
28	59 1/2	58 1/2	79 1/2	93 1/2	94 1/2	18 1/2	5 3-16 1/2	58 1/2	11 1/2		7 1/4	15 15	

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