



THE  
*Commercial and Agricultural Magazine.*

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[VOL. II.

BUTTER-CHURNS ON A NEW PRINCIPLE.

BY C. HARLAND.

(WITH A DESCRIPTIVE PLATE.)

WE present to our readers, a sketch of an improvement in the manner of working the Butter Churn. The tiresome vertical motion of the common churn, and the awkward rotatory motion of the barrel churn, are here abolished, and supplied by a very easy muscular exertion, resembling in species that of a common pump handle.—By affixing a fly wheel, the agitation of the cream is necessarily performed in a more equable manner, and hence the butter is more perfectly separated from the whey. Persons unused to the effect of the fly wheel, in regulating any motion, may easily be convinced of its tendency, by ceasing to work the handle, in which case, the churn (with a regular diminution of motion) will continue to act for some time of itself.

The *barrel churn* (in the plate) is moved by the intervention of a multiplying wheel, to moderate its over violent motion. The head of the crank moving in the mortise (in the handle) causes the rotatory motion of the barrel with great facility. From experiments, it appears, that if the barrel be *fixed*, and the axis (in the inside) to which the dashers are attached, be made to *turn*, that the butter will be much sooner completed. The ingenious mechanic, whose inventions are before us, has a churn (with this alteration) in hand.

An improvement in communicating the vertical motion to the *common churn*, is also delineated in the plate.—The fly wheel and crank is applied, as in the other instance, and with the same equable effect. When we consider, that most butter is made in small quantities, and that the vertical motion of the common churn is so intolerably fatiguing, we cannot but consider this application of the invention as far the most valuable. Nor can we deny, that we feel a considerable partiality for the good old housewife's usual churn: if the barrel churn had been found equally successful, we think the old fashioned churn, 'ere now, must have been quite superseded.—The limits of the vertical motion, are (of course) double the length of the crank, whose end is inserted in the mortise of the handle. The same apparatus may be applied for making different quantities of butter, by placing a larger or smaller churn on the platform.

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It remains, to inform the public (as nearly as can be done) of the extra price charged for this improvement. A *barrel churn*, which will make four dozen of butter, usually costs about 3*l.* 10*s.*; with the improvement 5*l.* 5*s.* The *common churn* (with the additional apparatus) will cost 2*l.* 2*s.* for making 8*lb.* at a time; 3*l.* 3*s.* for making 12*lb.* and so on in proportion. As butter, by this facility of operation, may be made by the hands of the mistress, that circumstance will soon pay the cost.

The inventor and maker of these churns, is Mr. C. Harland, No. 163, Fenchurch street. Those who may want any novel invention executed by an intelligent man (himself an inventor) will find it their interest to employ Mr. C. H. who is at home in all sorts of machinery. E.

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### ON THE SURRY CANAL.

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

MR. EDITOR,

London, June 17th, 1800.

HAVING observed in a former part of your publication, a plan by Mr. Dodd, of what is there called, the Grand Surry Canal, it was natural to attempt to obtain more complete information on the subject of Canals, as an opening of new sources of wealth and prosperity to this vast Metropolis. In the perusal of authors who have published on this subject, it was impossible not to be struck with the evident propriety of these commercial conveniences, and still more with wonder, at the effectual opposition which interested individuals have always found means to create in the legislature against this national improvement. There is scarcely a third-rate town in England, which has not (more or less directly) foreseen and experienced the benefits of water-carriage. London owes her existence to the navigation of the Thames, and yet has never made the easy transition of ideas, that canal-navigation must augment her commerce more than the creation of another Thames, as a canal would convey commodities at a much lower expence than is incurred by the frequent shoals, and land-floods of the river.

This apparent blindness, probably, has caused much more real, than any peculiar inferiority of intellect in the merchants of London. From the date of canals in England (about the year 1760) London has been rapidly increasing her trade and population, and thence has been the less eager to establish new facilities of internal commerce. The increase of wealth in London, has indeed, outstripped even this augmentation of trade; and the merchants of Hamborough, Oporto, and of America, mostly depend for support on the large commercial houses of this metropolis. The money thus advanced, would, for the

present, pay *as much*, if spent in canals at home, and the future *increase* of trade and wealth would be in immediate prospect. But canals near London, have also been prevented by the very circumstance, which would ensure their productiveness if completed; by the immense population, and consequently, numerous houses and gardens which fill the environs. The expence of the purchase of these is at first heavy, but finally advantageous, as insuring vast business from the population, and consequent consumption of the remainder: the mischief springs from the numerous petty interests of individuals; who will not, or cannot, see the immensity of the public benefit, and raise a clamour too often successful against the public good. However, after the most strenuous opposition from sordid minds, we at length see some tokens of national improvement on the Isle of Dogs, and we may hope, that London will be no longer notorious for being at the same time the most *important*, and the most *inconvenient*, port in the world. Mr. Pitt, seems hitherto uniform in his wishes, to forward the execution of the wet docks and canals. Posterity will thank him, that in this instance, he has attended to something of a less dubious nature, than the temporary cares of warfare and finance.

Under these impressions, I was eager to see the more finished report of Mr. Dodd, on the Grand Surry Canal. Having obtained this "report," by favour of a friend, I perused it with some attention, and am pleased to hear, that it is likely to proceed. But, I could not help making certain remarks, which I hope your candour will communicate to Mr. Dodd and the public, through your Commercial Publication. I observe then, that Mr. D., seems to have taken a peculiar antipathy to favouring the public with any thing of his own production; insomuch, that in these few pages, he has been unable to refrain from acting the literary plagiarist. At p. 12, for instance, he has condescended to transcribe part of the preface of Mr. J. Philip's History of Inland Navigation. As to that part of his canal passing from Deptford to Vauxhall, it does not differ from a plan published last year by W. Tatham, except that instead of a *practical* ascertained line, Mr. D. (by the aid of his ruler) has accommodated the public eye with an *impossible* straight line. If this essential plagiarism of the plan of Mr. Tatham (published last year in a quarto, by Faulder, p. 364) is doubted, let a faint half-erased line be inspected, which extends from Battersea to the North West. This line, with the damning testimony of double evidence, ascertains, that the notorious name of Mr. Dodd is about to supplant the less known name of Mr. Tatham in these projected improvements of the metropolis. The public mind is not deficient in gratitude; but unhappily, it is too often

diverted by accident or artifice, into a wrong direction. *Fiat justitia, ruat cœlum.*

In p. 8, Mr. Dodd produces "an estimate, for which, if required, he has no objection to *engage* for the execution" of his projected canal. I think, the public would be much indebted to any gentleman, who would explain this phrase; Does it mean, that the undertaker is to pay any overplus sum out of his own pocket? If so (considering the many gross errors extant in former estimates) a heavy security is necessary from the projector; at least, to the amount of the estimate; if not so, the public is liable to be induced, by an estimate daringly low, to employ the very man, who, from impossible, and unfair promises, is the last who deserves notice. An estimate of this last description, was not long since offered to the company associated for tunnelling under the Thames, at Gravesend; but luckily, the grossness of the proposal defeated its own purpose.

DISINTERESTED.

We have inserted this accusation of Mr. Dodd, that he may be able to meet it in a proper manner: we shall have great pleasure in handing to the public any justification of his character from this bold charge.

E.

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PUBLIC SHOPS, &c.

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

SIR,

**Y**OUR ready insertion of my last communication on the Bread Laws, has induced me to forward to you other observations on the busy world of London. Perhaps a *short* residence is most conducive to pertinent remark: habitude blunts the apprehension; and what may be seen, done, or observed, on *any day*, by a permanent resident, is generally (to speak in parliamentary phrase) put off *sine die*.

Nothing has appeared more remarkable to me, in so large a trading metropolis, than the great variation of prices charged for the same article, in different shops. Shoes may be bought from 6s a pair to 16s. It has been explained to me, that house-rent so much depends on situation, in London, that the residents of Cheapside and the Strand are thence justified in charging higher than Holborn, or Oxford Street dealers. But the superior custom consequent on favourable situation, seems as if it must exactly countervail the higher rent, which is paid on that account. Hence I concluded that my informant had not hit on a happy solution of the difficulty. At the west end of the town, indeed, the habit of trusting to long dates sufficiently explains the enormous charge made on every customer. Where the majority of customers, and the habits of the dealer, tend to long

credit, a ready-money customer cannot expect adequate attention and encouragement. If a countryman might venture his remarks on the knowing Londoners, I should rather conclude that the absurd exorbitance of charge, in many shops, subsists solely on the propensity exhibited by all ranks, in London, to follow a leader; whence, after chance has affixed a run of business, and a general estimation of a shop, or street of shops, all kind of absurdities are swallowed, and the *invisible* quality of goods, in these favourite spots, operates like a charm, and justifies the speculation of the shopkeeper in raising his prices above the usual profits. I had some difficulty in adopting this opinion, till I had experienced, in many individuals, the high authority attached to vague unmeaning phrases.—“It’s generally allowed;” or, “It’s a known fact,” will satisfy the conviction of a Londoner, on any subject. Accurate information, demonstration herself is despised, when opposed to the mighty hydra of public cullibility; and, because a blunder has been asserted, in a circle of half a dozen, without contradiction, it spreads, with accelerated contagion, and gives the next age a fair scope of ridicule, at the *received* follies of their fathers. The most compendious access to reputation of knowledge is not by solid research.—Conversation supplies the flimsy chatterer, and he becomes annihilant, without the labour of turning a page, or forming any chain of reasoning in his happy intellect.

Be this as it may, I perceive a partial attempt to attract the notice to cheap shops, by ticketting each article with the price.—This is certainly a very fair expedient, and ought to be encouraged by the applications of every ready-money customer. For it is evident, that no person would ostentatiously expose an exorbitant price to the scrutiny of the public; and it is a presumption, *primâ facie*, that such a shop is really a cheap one. It has this recommendation, also, which applies to a very numerous class of customers—that, as people in general have some knowledge of the goods they purchase, the marked price must be a fair general price, and is not liable to those convenient additions which are made to articles, in which the appearance of the purchaser indicates he is not conversant. Thus a man, executing a female commission, must expect to pay about 10 per cent. extra: therefore prudence ought to lead him where the affixed price is the same to all.

Another mutual inconvenience in shopping is caused by the strange custom of often abating something from the charge—thus granting to culpable importunity, what is refused to the frank liberality of the man, who will not suppose he is dealing with a rogue. It ought to be understood by all people, that, to beat down a price in a fixed shop, is to degrade the dealer to a higher; and, consequently, to suppose his asseverations of value to be designing falsehoods. It ought so to be understood by the

shopkeeper, who should be justified by custom, as well as propriety, in asking a higgling customer, "Why he deals with a man he takes for a public cheat?" For what other title can he deserve, who extorts unequal profits from various persons? But this is an evil, probably, past remedy; and the only alleviation of its virulence is to prefer, on all occasions, those shops which openly proclaim a uniform price. I shall think mercantile honesty increases as these shops increase in number.

Another observation was forced on me the other day, by a rude blow from a brewer's dray, in the elbow, as I was walking the pavement. I looked down to ascertain the existence of a curb-stone, and perceived the wheel had not transgressed the due limit. I then discovered, on examination, that the transverse timbers (which support the barrels) project about two inches beyond the rim of the wheel. By this unjustifiable artifice, to obtain greater breadth, the passenger's clothes may be entangled, and himself exposed to the danger of the wheel. Can any of your correspondents inform me whether any act of parliament regulates the legal breadth of carriages? It is strange, if there is no such act; and if (as I believe) there is, whence have the London brewers acquired a privilege of blocking up the streets with these unsightly drays, which seem, by their unusual breadth, to have been formed for other roads than those of England, and of all possible employments, engaged in that which makes the most heinous nuisance in the streets of London.

I remain, Sir, &c.

RUSTICUS.

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### BLACKWALL DOCKS.

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

SIR,

June 10, 1800.

THE novelty of the attempt, as well as its importance, has induced me to visit, more than once, the wet-docks and canals, which are at length commenced betwixt Blackwall and Limehouse.—It is pleasing, to behold the capitalists of London about to avail themselves of such a vast improvement of the channel, through which all their wealth flows. A series of such improvements of easy execution, would insure to London, for some centuries, her present rank, as the grand emporium of the terraqueous globe. In the mean time, it would be much more pleasing, to see this national work proceeding more rapidly.—The report of the workmen agrees in stating, that not many more than six hundred men are employed. Years may pass away before this trifling number can complete the job. It may be said, that war has made hands scarce: this is true, but I think an easy arrangement might make war favourable to

rapid execution.—Our numerous militia, who are fauntering about the kingdom in listless idleness (at all times, except harvest) might here be usefully employed. What hinders, that six or eight thousand should not be encamped, or rather huted, on the Isle of Dogs? If they worked by turns, on alternate days, and the intermediate days were appropriated to military exercise, can any one think that discipline would be diminished? On the contrary, the spade and pick axe would renew their lost habits of industry, and in actual service, would render them much more expeditious in throwing up lines and redoubts. At present, invasion or insurrection is not feared, and the unimportant decisions of stationing troops here or there, might be profitably superseded by a prospect of real utility. Besides, London is sufficiently central to all points of possible hostile attack.—The men would willingly give up their pay on the days they were permitted to work by task, and government might calculate on some saving on that account.—If a peace should suddenly happen, no place could be more favourable for the absorption of extravasated population than the neighbourhood of London, where plenty of employ, and high wages, make honesty evidently the best policy to the many. As Mr. Pitt seems to expect, on firm grounds, much increase of revenue from these wet-docks, he may, perhaps, exert himself, to get over any impertinent objections which may be made with an air of specious importance to any novelty against official destination.

As I chanced, the other day, to look over the proposals of Sir J. Sinclair, about the Joint Stock Farming Society, I saw a print of certain cottages, covered by an arch of brick-work, instead of the usual roof. It struck me, that the warehouses intended to skirt the wet-docks, ought to be covered in this manner. As so much timber will be saved, it is not probable, that any additional prime cost will be incurred, and the duration of an arched roof, would go a considerable way into the probable duration of our planet. The wants of our ship-building, should stimulate to every possible œconomy of timber of any sort. If oak could be exclusively destined for shipping, we might still hope to keep a navy afloat for another century, independent of the distant forests of Norway and America.

Besides this consideration, it is easy to perceive, that fire would either be extinguished, or at least, stopped by an arch not permeable by air. If the contents of one warehouse were consumed, there the evil would stop. Two bricks thick would be enough for a semi-circular arch of considerable span, and the absence of the usual timbers which support roofs, would leave a considerable additional space for the stowage of commodities. As I suppose, several of the subscribers to the wet-docks read your publication, which has lately given proofs of considerable

commercial investigation, it is not impossible, the public (through you) may be benefited by these hasty observations.

I remain, Sir, your well wisher,

PHILOPATRIS.

*P. S.* Perhaps, Mr. Cartwright's clamp bricks might be usefully employed in flooring the warehouses.

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### HORIZONTAL MILLS.

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

MR. EDITOR,

**T**HE description of foreign machinery, invented for the improvement of the arts of life, cannot but prove a subject of general interest.—With this view, I send you an account of an Horizontal Water Mill, which I received lately from a Levant Merchant.

In my journey through the Crimea (says he) I had frequent opportunities of observing a Water Mill of very singular construction; and which, I learned, was used by the inhabitants for the purpose of grinding corn.

The diameter of the wheel, which is about three feet, was placed in an horizontal position, immediately beneath the surface of the water. In the periphery, ladles were placed in an oblique direction, which the stream acting upon, with a powerful impulse, gave it a brisk rotary motion. From the centre of the wheel arose a perpendicular axle several feet high, having a stone fixed at the top, which, revolving with the wheel, acted upon another beneath it, through which the axle passed without moving its position. The grain was introduced by a Hopper, and the subsequent operation similar to that practised in Europe.

I must confess, Mr. Editor, the simple construction, and ingenious mechanism of these Mills, particularly struck my attention; which, I think, in some instances, may be usefully applied to the improvement of the Arts in Britain, I am, &c.

I. F.\*.

I. F. congratulates the Editor on the excellency of the last No. (10) and recommends engravings of the same nature as those in No's 9, and 10, in preference to portraits. T. F. begs to remind the Editor, of the engagement he is under to give an engraving of the Threshing Machine.

\* The Mill here described is of the simplest construction; it is general in Spain, as well as in the Levant. The disadvantage attending its use, is, that as the water acts on it only by its velocity (exclusive of its weight) the total momentum is much lessened, or the expence of water much increased. E.

*For the Commercial and Agricultural Magazine.*

## THOUGHTS ON THE UTILITY AND FACILITY OF ASCERTAINING THE POPULATION OF ENGLAND (a).

AS the facility of the above measure is of no possible concern till its utility is previously ascertained, there is sufficient cause for giving the latter consideration the priority, in the following discussion.

The arguments which tend to demonstrate the advantages of an ascertained population, claim a superior attention from the reflection, that the wide diffusion of even a minute advantage may make a large sum total of public utility. It must also be allowed, that it is one of those things which do not contain a possibility of damage, so that the arguments in its favour may all be safely reckoned on the affirmative side, without any subtraction. It seems more convenient, on all accounts, to enumerate these arguments separately and distinctly. Such a method will take off the studied appearance of a laboured essay, and be quite in character in a proposal, whose adoption would infer many arithmetical calculations.

1. It will be intuitively granted, that an intimate knowledge of any country can be the only foundation of the legislation of that country, and also of its political relations to other nations.— Without *some* attention of this sort, we might, perhaps, see our legislature grant a bounty on the exportation of wheat, in the year 1800 (b), or the Isle of Man in unassisted hostility against Great Britain. If *some* knowledge of a country be more than useful, be even absolutely necessary, it cannot be denied, that, with the accuracy of such knowledge, legislation and politics must make proportional steps towards perfection—that, without the increase of it, they must be stationary—without its continuance, possibly even retrograde.

2. In the pursuit of this knowledge of political œconomy, let us consider what may be said to form the grand basis of the power and resources of a nation. Evidently not its extent—witness the endless plains of Tartary: not its fertility or mines—witness the contemptible, the defenceless state of Spanish America. The example of Holland first taught the astonished world what the present power of Britain still inculcates,—“ That an

(a) This treatise was written in 1796: additional notes accommodate it to the present day.

(b) Here might be inserted that famed anecdote of the ignorance of our ancestors; who, in Edw. III. laid on a parochial tax; which, at 11. 2s. per parish, they supposed would amount to 50,000 l. or their stupid laws against what they stigmatized under the name of usury.

industrious population is the first and most necessary requisite to the prosperity of nations." Is it fit that this all-powerful principle should be permitted to remain any longer in its present obscurity? Immediately subsequent to the conviction of the importance of population, naturally occurs the question, What is that population? But it is necessary to scrutinize more particularly the many cases in which an accurate answer to that question would be eminently useful.

3. In every war, especially in a defensive war, it must be of the highest importance to enrol and discipline the greatest possible number of men. In England this is already attempted, by the institution of the Militia, whose present good condition only proves the greater advantage to be derived from the farther extent of so excellent a regulation. As the Militia is not paid by the respective counties, there is no possible reason why its numbers should be determined by the wealth of any district, much less by so inaccurate an index of that wealth as is the land-tax. The effect of this inaccuracy is vulgarly stated to vary the proportion of different counties, from one man in twelve to one in twenty-six. Though this calculation is evidently hasty and inaccurate, in the general proportion (whose average cannot exceed one in fifty) yet the statement of the inequality of the burthen is not demonstrably, nor *probably*, false. Supposing it true, the remedy of this abuse would add about 20,000 men to the national defence; and, at the same time, do an act of justice in equalizing a burden too long partially borne. But nothing can be determined in this affair, till we know the separate total of each county. Here we must wait in darkness, till the population is ascertained (c).

4. Collateral to the last argument is the great importance of knowing (especially at the beginning of a war) the number of seamen in the kingdom. This would be ascertained by an ac-

(c) The Militia establishment has lately undergone many alterations: it was almost trebled by the Supplementary Militia Act, which tended to the desirable equalization, by augmenting the counties, according to the number of taxed houses. Though towns, and the country, would thus be very unequally reckoned, it was certainly an improvement on the old act; the dictate of indolent inaccuracy. Last year the opinion of our rulers suddenly changed, and they thought they had *too many* men in the Militia. The Supplementary Militia were virtually disembodied, and the men mostly went into the Regulars for a bounty. However, the counties were not reduced to their ancient establishment, but a certain aliquot part of the total old and new Militias retained in each; so that, at present, though the number of men is not very different from the old Militia, they are more equally raised on their respective counties. The discovery that has been made, that the English are not afraid to arm in their own defence, may hereafter annihilate the expence of both Regulars and Militia, by a permanent establishment of more numerous volunteers.

count of the population, which might be so directed as to include many momentous particulars in its execution (*d*).

5. The ever-varying price of corn is an evil which more than ever calls for the interfering hand of the legislature, which can only interfere by causing increased importation, or decreased exportation. The uncertainty of the price of corn is an evil to all men. To the consumer *immediately*; and, as soon as his rent is proportionally raised, the farmer and his labourers are included in the general sufferings. Happy if only so; but an accidental diminution of price absolutely ruins the farmer, who must then retire among his quondam labourers: they, once too ingenuous to seek relief from the parish, are driven, by hard necessity, to that fatal resolution: from that time their spirit is extinguished with their independence. They cease to have any property, and the genius of slavery consigns them to the habitual sloth which ever benumbs her debased subjects. The landlord, who feels, in every expence, the increased price of his tenants' corn, after the trouble and odium of an increased rental, is no richer than before, and the universal alteration of the price of every article is consummated, with much damage, and no possible advantage to mankind. These considerations must interest the feelings of every man (*e*). Already we see a board of agriculture established; but the human understanding cannot reason without proper data. No society can consistently pretend to provide the requisite quantity of food, till they know the number of consumers. Here, then, we obtain another view, in which our proposal would be of the utmost utility. On this foundation only can public granaries (emulating those of *ancient Rome* and *ancient Constantinople*) be erected (*f*).

6. Many important conclusions might be founded on the increase or decrease of the number of marriages in years past. The causes of their increase, and of consequent, population, might

(*d*) The number of seamen in the merchant-service, in peace, may be pretty well determined from the registry of tonnage; about one to twenty ton. But, after a peace, many must quit the profession: of these, the number should be known to Government.

(*e*) The imperious interests of our exported manufactures (the darling object of every Government) will force attention to this subject. The vend of them abroad cannot be continued, even by the superiority of English ingenuity and industry, in spite of dearness of provisions, and thence of labour, in England.

(*f*) At the death of Severus, Rome had, within her walls, corn for seven years, allowing to six men a Roman *modius* per diem. In modern times Berne and Geneva have felt the benefit of a similar arrangement. A pamphlet of the present year (by Arthur Young) has *asserted* that the expedience of such a measure has been refuted a hundred times. Would he condescend to suggest *where* or *how*, through the medium of your Magazine, Mr. Editor?

be successfully scrutinized, and attended to, by an intelligent administration. The sum total of human felicity and increasing population (fated eternally to accompany each other) would form a curious and interesting statement from the marriages of different times and places. The influence of the price of provisions in different years—of the price of labour, in different places—of war and peace—would all be ascertained with tolerable precision. On such a foundation what a glorious plan might be sketched by some happy intellect—what glorious superstructure might be raised, by a Government anxious for the good of its subjects (*g*)!

7. To descend from general topics to those particular considerations which persuade the execution of our proposed measure in England, we may venture to believe, that the real number of inhabitants, in England, is far beyond the usual estimate. Our exertions, in the last war, when we were (not unequally) opposed to half of Europe, without an ally, and our increased manufacturing towns, sufficiently prove that the vulgar statement (never, I think, reckoned at above twelve millions, in the three kingdoms) is very much below the truth. Even more than 100 years since, above nine millions (*h*) were supposed, by Petty, to exist in the three kingdoms. From the partial researches of modern observers, it is certain that many districts augment their inhabitants: from the constant importation of grain, in spite of potatoes, and other efficient agricultural improvements, we cannot doubt the general fact. Within the eighteenth century our tonnage of shipping, our commerce, both internal trade and exported manufacture, has more than doubled. Can we hesitate to believe, that an accurate knowledge of population would be the most (*i*) consoling gratification to every lover of his country?

8. We have seen the Government of England terrified by the attempts of certain obscure individuals, who could not have attracted its notice, but from a higher fear of more general disaffection. It would certainly tend much to the repose of any Government, if a general conviction of its inclination and attempts to promote the public good should pervade the public mind. Any such novel attempt as that recommended in this

(*g*) Though the public intellect far outstrips the tardy improvement of all Governments, yet even they have *begun* to discover the beneficial truth, that the happier their subjects are, the greater taxes may be raised by the Sovereign, more easily, on their increasing wealth and numbers. Lewis XIV. Frederic of Prussia, and the late Empress Catherine, certainly were now and then influenced by this consideration.

(*h*) Nine millions and a half, beside the plantations.

(*i*) France has certainly encouraged her own subjects, and alarmed Europe, by her vaunted 27 millions.

paper; which, from its nature, must be of the utmost publicity, would certainly promote this sentiment, which is little apt to be excited by the useful, but dull routine of office. A few *undoubted* improvements in the arrangement of the national police, might easily diffuse this sentiment beyond control. I would be understood to hint at a more severe or infamous punishment of false weights and measures—at an arrangement to prosecute all felons at the *county charge*, instead of that of the injured individual, doubly injured by the expence and trouble of the prosecution; and, therefore, usually, an unwilling prosecutor—at a systematic regeneration of the poor laws, especially that part of them which regards certificate men and removals (*k*). But I wander too long from our subject.

9. Another argument (which to some may appear too refined) I would deduce from the probability that a specimen of the kind proposed, might tend to make political œconomy (*l*) a more general study in England. Certain it is, that, at present, too small a portion of national intellect is engaged in patriotic speculations. A little attention of Government would produce great things,

10. At least we may be well assured, that the execution of the proposed measure would much facilitate many other useful enquiries. The mode of investigating population must somewhat resemble that of ascertaining the quantity of that fixed property assessed to the land-tax,—a tax, for so many reasons, the best of all possible taxes, that, doubtless, the only reason against its modern augmentation is the excessive inequality at present discoverable in its operation (*m*). Habits of enquiry

(*k*) This has been attempted in Mr. Pitt's Poor bill; but has not been acted on: the bill was so miscellaneous as to take off attention from any single object. A specific bill against vexatious removals, has been introduced this session, by Mr. Baker, but thrown out.

(*l*) Political œconomy may be defined to be the scientific application of statistical survey: the novelty of these phrases is only a proof of the novelty of any regular attempts to diffuse general happiness. The world is indebted for somewhat *more* than the phrase, for an effective illustration of its meaning, to Sir John Sinclair's Statistical Survey of Scotland. A work, performed with unexpected facility, considering it usefully fills thirty-one volumes.

(*m*) Our correspondent seems to have formed too favourable an opinion of the land tax. In a nation, without a national debt, and without trade, it should be the *only* tax. But are the creditors of the public, and the foreign trader, to be defended at the exclusive expence of the land-holder? The old land tax is nearly obliterated; and, if our legislators have the usual abilities of their station, we shall never see another without also taxing the interest of the funded property, *at least equally* with the land. It is not, indeed, necessary to lay a direct tax on the merchant; and, from the complex nature of his affairs, it can never be imposed accurately; and, to let him assess himself, is, indeed, “to lead him into temptation.” Witness the re-  
turns

might most usefully be turned to the solid investigation of the ascertainable property in the nation.

11. An additional argument may be drawn from the great improvement of the Life-Insurance Offices, from the execution of our proposal. The improvement of so useful an institution, in a nation full of various descriptions of annuitants, is not a contemptible argument.

12. Having gone through all these particular arguments, I shall give a concluding one, which is of a cumulative nature.— I would call the attention to *all* the authors, who have written on the state and politics of any nation. Few of them will be found who have not, on some occasion, assumed a certain population of the nation in question. They have not done this for a uniform purpose: indeed, for very different purposes; but all of them tending to demonstrate, by the use they have made of bare supposition, what superior value they might have given to their calculations, had they possessed a foundation of solid materials.

13. HAVING now attempted (at sufficient length) to convince the reader of the utility of the knowledge of British population, it is time to conduct him to the practical part: in introduction to which it will not be incongruous to notice the most famous attempts of a similar nature. The manner in which the usual Census (*n*) of Roman Citizens was formed, seems to have been by collecting them in their respective municipia, and simply enumerating all who made their appearance. The careful policy of Augustus seems first to have improved this rude method into much utility, at the well-known period of our Saviour's birth. At that time twenty commissioners were dispatched into the various provinces (*o*) (Cyrenius to Judæa); and, from their information, property and occupations were ascertained, and the tributes of this mighty empire were equalized. This measure, of course, included an exact enumeration of the people, subjects as well as citizens. The inconvenience which affected Joseph and his wife, and caused their child to be laid in a manger, seems not to indicate much attention in this mode of procedure, to the comfort of individuals, who were dragged far from home, each "to his own city." However that was, the enumeration

turns of commercial income, in 1799. Besides, if not taxed, his profits will be charged so much lower to the consumer. It is the same final charge to the public, whether they pay a higher taxation, or suffer an enhancement of all commodities. E.

(*n*) All the various enumerations of the Census yet extant have been collected, and ably commented on, by that eminent philologist, Mr. Moyle.

(*o*) Florus has probably preserved to us the very words of their official instructions:—*Ut omnia patrimonii, dignitatis, ætatis, artium, officiorumque discrimina in tabulas referantur. Flor. Ep.*

was (no doubt) sufficiently accurate. The succeeding emperors seem to have neglected the continuance of this salutary measure, since, in the decline of the empire, the tributes were again become arbitrary and unequal (*p*). This caused them to diminish so much, that the army and empire went to ruin together.

14. A man, to whom the Romans would have given the appellation of barbarian, seems next to have perceived the advantages of such an undertaking. With a mixed view to military and civil arrangement, Alfred caused the land and inhabitants of his dominions to be ascertained (*q*). The extensive crownlands, reserved by the Norman Conqueror, put him beyond the necessity of taxing his associates, when become proprietors; but he thought it expedient to enumerate the knights' fees, with a military view only. This resolution of his produced the domesday book. An opinion has been formed, that some of our Kings (Edw. I. and IV. and Hen. VIII.) undertook a similar task; but of their attempts no trace remains (*r*). In the 24th year of Elizabeth (in fear of Spanish invasion) a muster was made in England, of all men able to bear arms: the return was 1,172,000 (*s*). This, multiplied by four, gives, for total population, 4,688,000. But, as actual enumeration must always be under the real number, we may safely conclude that England (without Scotland and Ireland) then contained five millions. From that time to the present day nothing beyond conjecture has been attempted.

15. In modern times, Prussia has been the first to enumerate her inhabitants; then America; and, lastly, France (*t*). This has been done by an actual enumeration; but this method (fraught with trouble and expence) attempts an accuracy not necessary, or indeed attainable, in a fluctuating subject. It is, perhaps, possible to point out a mode by which all useful purposes might be obtained with little trouble indeed.

16. Though England has, indeed, neglected to enumerate her inhabitants, she possesses materials of the best kind for such an undertaking. I allude to the parish registers, first instituted by T. Cromwell (Henry VIII's Vicar General) for ecclesiastical purposes, with reference to wills:—though parish registers, in general, do not date higher than the middle of the sixteenth

(*p*) See Gibbon's Decline and Fall of the Roman Empire.

(*q*) Since the Dane-gelt was collected at so much per hide of land, it is probable other assessments were levied in the same manner.

(*r*) At least none is public. I have somewhere heard, or read, that Henry's attempt lies unheeded among other ancient records in the Tower. Perhaps Mr. Abbot may hereafter recover these valuable remains.

(*s*) See Sir Walter Raleigh's Essay on the first Invention of Shipping.

(*t*) Austria, Naples, and Tuscany, have made similar attempts, with tolerable success.

century.—Thus, for 250 years, we have an accurate account of the births and burials of all England.—The name of every benefice which possesses a register, might be obtained from the bishop's offices, who for their own profit, are not inaccurate in the list of parishes within their respective jurisdictions.—This done, I would propose a printed letter to be directed “to the Officiating Minister” of every benefice.—If the bishop's countenance in the affair could not be obtained by the Premier, an Act of Parliament (*u*) must compel an answer, which should contain the births, burials and marriages for the last ten years; distinguishing male and female, and any thing else which may be thought necessary.—Then let three or four distant parishes in each county, be chosen for their insulated situation, where almost every man is deposited in his own church yard. An exact enumeration must be made of these parishes. From the proportion of their burials (*x*) to their population, sufficient foundation is established, to ascertain by a simple arithmetical operation, the population of the whole nation.

17. We will now attempt to compute the probable expence of the execution of this scheme.—Say, ten thousand printed letters, at 1d. each, about 40l. travelling expences for the partial enumeration, perhaps 300l. Two years might complete the operation, during which time it would be necessary to allow some salary to the person or persons employed,—suppose 400l. more. These added expences amount to 740l.—A sum which constitutes about one hundredth part of the *daily* expence of any future peace establishment. Trifling indeed, must be the benefits of any information, which will not compensate such an invisible expence!

18. It may be perceived, that an extension of this method might inform us (with sufficient accuracy) of the relative state of population at any period, from the days of Elizabeth. The average burials of five or seven successive years, would create an important fund of information on the various influence of the national affairs, which have diversified so long a period (*y*). The civil war, the revolution, the continental wars of William and Anne, the energies of various ministries would be all re-

(*u*) Some sort of compulsion is necessary.—A person in the North, who sent to thirty ministers, a civil request of similar statements, received answer from no more than fourteen! An astonishing instance of brutal manners in a class of men of liberal education.

(*x*) As Dissenters do not baptize in the church, and therefore, are not registered on that occasion, the account of burials only would answer our purpose.

(*y*) It is not unobserved, that many parish registers are deficient; it is presumed, that enough remain to compare with the modern registers of a great number of parishes, whence general inferences might be safely drawn. It would be proper to ask for a statement of dates, &c. of each register, in the communication of births, &c. to be required of each officiating minister.

viewed by this new scale of rectitude.—He who cannot see the momentous consequences of such a scrutiny, can have little penetration; he who has the power of instituting it, without its adoption, can have no spark of patriotism.

19. It may be expected, that this paper should not conclude without some approximating guess at the present population of these nations.—If we have reason to think, that the industry and value of our countrymen, is double that of our rivals, the French; and if the last war proved our resources *equal* to theirs, aided by the silver of Spain, the languid interference of the Dutch, and our previous losses in America; it seems not doubtful, that we must exceed half the French population.—I would guess, that Scotland and Ireland contain about five millions, England about ten millions, and that our eastern and western colonies (with other absentees) complete another million. In all sixteen millions. It is not want of examination that makes me neglect to produce a firmer basis of my supposition. It is, that examination has afforded nothing valuable. The vague result of what I have seen, is, that our numbers have increased as seven to four in this last century.

20. As this treatise contains arguments and facts, rather than rhetoric, no other conclusion is requisite, than a hint to those, who from its perusal, feel a conviction of the *UTILITY* and *FACILITY* of ascertaining British Population, that they should not neglect each to forward its execution by word and deed, with the strenuous emulation of good Patriots.

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*For the Commercial and Agricultural Magazine.*

MR. EDITOR,

London, June 5th, 1800.

**H**OW long shall we mortals continue to jostle each other unnecessarily in life? Even in the streets how often do hostile shoulders cause needless execrations, and useless apologies? Seriously, is it not strange, that the eternal crowd of this metropolis has not yet settled permanent laws of mutual convenience to facilitate speedy passage in the streets? Vehicles of all descriptions have bowed to necessity; and the fear of serious damage, and the regular decisions of the law, have taught them to drive on the left side of the road; but pedestrians have not yet learnt the convenience of invariable decision in their meeting. It is usually said, that we should give the left-hand, that is, keep on the right side of the pavement in proceeding. I have sometimes fancied, in Cheapside, and some other streets, that I have seen this rule pretty generally observed; but much oftener is it violated, without distinction. I have sometimes considered with myself the cause of this common inconvenience, and think I can

satisfactorily trace it, to the politeness of the British nation. Safety and cleanliness incline females to prefer taking the wall; and the civility of the male half of the creation, often grants it, improperly, to the eloquent or supplicating eye of a timid fair-one. But this civility is doing a thing without considering its consequence—which is, inevitable confusion to all passengers, and, to the favoured lady, much more inconvenience than she has escaped. The file of march is broken, and no commander is acknowledged who can rectify the disorder.

The remedy to be applied can only be of a preventative nature, and I shall therefore try to set before your readers certain pertinent observations on the subject.—Females ought to consider how improper it is that civility should be repaid by such a sad effect of its acceptance; much less should they seem to desire such a dear-bought preference. Besides, in England (and perhaps in England only) nothing can be added to the propriety of general behaviour towards the sex. They experience much complaisance, but little gallantry; thus politeness extends as far as it can, without injuring the interests of virtue. It cannot be better in Utopia, nor in any of our neighbour planets, if sexual difference exists there. Hence gratitude, as well as justice, (and much more than their own convenience), will induce females, who are convinced of these truths, to keep the wall only when they find it on their right-hand. As to such women who forget their native timidity, and chuse to be eminent by the annoyance of the public streets, it hardly seems necessary to remember their sex, when themselves have forgotten it, but to combine in reducing them to order, as well as men, who presume to offend a rule for the public accommodation. The respectable, and summary authority of the mob, that is, of all passengers, should be exerted as decisively as in the case of a pickpocket, to remove (with some feeling animadversion) such walking nuisances from the King's high-way. Thus half a mile *per* hour in distance, and twice its value in comfort, would result to the hurrying pedestrians of the metropolis, from the simple enforcement of this regularity.

In rainy weather, the admirable invention of umbrellas affords to us a comfort under dripping houses, unknown to our forefathers. The umbrella-discipline is not yet settled; and the endangered eyes of the luckless passenger, (unguarded by a similar machine), beside the mutual damages of clashing umbrellas, make some fixed regulations of meeting requisite. Therefore, be it enacted, by the aforesaid authority, (of all passengers), that the file of people on the outside of the pavement *raise* their umbrellas *over* the opponent umbrella. If shortness of stature prevents this movement, the umbrella to be turned down side-ways (for the instant) towards the street, catching the descending stick in the unengaged hand. It must be perceived, that the person

next the wall cannot (if short) raise his umbrella over that he meets, nor can he turn it down, without breaking the shop windows. Thus the laws of necessity are rather enforced in this arrangement than any novelty proposed—but their execution is adjusted and accelerated. In case of meeting the undefended eyes of others, the umbrella-bearer should always raise it, since he must allow another's eye-sight more important than his own indulgence of heedless idleness. It is very seldom that the stature of two human beings is so unequal as to prevent the rise of the umbrella being sufficient. Mr. O'Bryen does not walk the streets.

I think, Mr. Editor, that by publishing this you can injure none but umbrella-menders. If all who read it, would look on its recommended regulations as fixed, that opinion would soon effectually fix them. At least you will have the glory of first proposing "the Discipline of the Umbrella," much more important than "the Discipline of the Fan," which so agreeably fills many pages of "the Spectator." If you hesitate on the insertion of this letter in your publication, recollect, that to facilitate "the commerce of life," is quite in point in a *Commercial Magazine*. I remain, &c. &c.

PASSAVOLANTE.

We know the importance of little arrangements to the comfort of life; and, besides inserting this letter ourselves, propose to send a copy of it to all the London newspapers for insertion, if they chuse to become instrumental in introducing our Correspondent's proposed rules to the public. E.

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

Extract from a Pamphlet, entitled, "Cursory Account of the various Methods of Shoeing Horses." By W. MOORCROFT.

#### OF SHOEING HORSES WHICH CUT.

**T**O prevent a horse from striking the foot or shoe against the opposite leg, by which it is often bruised or wounded, is an important point; inasmuch as this accident occurs very frequently, and as it not only blemishes and disfigures the leg, but also endangers the safety of the rider.

The parts struck in the hind leg, are the inside of the fetlock joint, and the coronet; in the fore leg, the inside of the fetlock joint, and immediately under the knee; which latter is called the speedy-cut, from its happening only when a horse goes fast.

Young horses, when first backed, generally cut their fore legs, although naturally they may be good goers. This arises from their placing the foot on the ground too much under the

middle of the breast, in order the better to support the burthen to which they are unaccustomed; but by degrees they acquire the method of balancing the weight, with the foot in the same direction it would naturally have were they without it. It may therefore be laid down as a general rule with such horses, that till they regain their natural method of going, the edge of the inner quarter of the shoe should follow exactly the outline of the crust, but should not be set within the crust, nor should the crust itself be reduced in thickness: as both these practices tend to weaken the inner quarter, and to deform the hoof. And here it must be observed, that the outer edge of the shoe should, in all cases of sound feet, follow exactly the outer edge of the crust, except just at the heel, where it should project a little beyond the line of the hoof.

Horses with narrow chests have their legs near together, and are apt to cut when they begin to tire; and with these, the practice just mentioned should always be employed. Horses that turn their toes much outwards, are of all others most subject to cut. It has been asserted, that this defect also happens to such as turn them much inwards; however, the author does not recollect to have met with a single instance of this kind, in the course of his practice. In horses of the first description, it has been long observed, that the inner quarters of the hoof were lower than the outer, and that the fetlock joints were nearer each other, than in horses whose feet pointed straight forwards. These two facts probably led to a conclusion, that if the inner quarters were raised to a level with the outer, and so much the more as they were made proportionably higher, that the fetlock joints would be thrown farther apart, so as to admit of the foot passing by the supporting leg without striking the joint. Accordingly, for the two last centuries at least, it has been usual to make the inner quarter of the shoe higher than the outer; and not only has this been the general practice, but it has been regularly recommended by almost every writer, from that time to the present. And notwithstanding this method has very frequently failed of success, yet repeated disappointment appears never to have led to the circumstance of questioning the truth of the principle. Nay, indeed, the reliance placed upon it has been so strong, probably from the simplicity of the reasoning on which it was founded, that in the cases where it most particularly disappointed expectation, its failure was generally attributed to the practice not being carried sufficiently far; and accordingly the shoe has been still more raised on the inner quarter, and the edges of the crust and shoe have been filed away. When with these expedients it likewise failed, the last resource has been, a circular piece of leather placed round the joint to receive the blow of the foot.

It is now about four years since, that a shoe, with the outer

quarter thick, and the inner one thin, was for the first time, in the practice of the author at least, employed, in a case which baffled many attempts on the old plan.

On the first trial the horse ceased to cut, nor has he ever done it since; which can only be attributed to his having constantly worn the same kind of shoe. This circumstance did not then excite in the mind of the author, any doubt, as to the propriety of a practice which had so long and so generally been acknowledged, but was rather considered as an extraordinary exception. However, other bad cases, which occurred occasionally since that period, were treated in the same way, and with the same success. These facts, at length, led the author to conclude, that a practice, which was so uniformly followed by success, in cases where the established one as uniformly failed, must necessarily repose on a better principle; although for a long time he was completely at a loss how to explain it. For if the action of cutting did principally depend upon the faulty position of the fetlock joints, and the feet, with respect to each other; and it appeared to be generally agreed, that such was the fact, it should seem, that a means which, by raising the outer quarters, must throw the fetlock joints still nearer to each other, would necessarily increase the defect in question; but as the reverse of this actually takes place, it might induce a suspicion, that there exists some other cause of cutting, which has been hitherto overlooked.

A minute examination of this point would far exceed the limits allotted to this division of the work; and therefore, at present, the author will confine himself to that part of the subject alone, which is absolutely necessary to be understood. For horses, therefore, which cut their hind legs, the shoe, at the outer heel should be from half an inch to an inch in thickness, according to the kind of horse, and to the degree in which he may cut. The web of the shoe should gradually become thinner till it reaches the toe, which should be of the ordinary thickness, and from which it should slope off, and end like a tip in the middle of the inner quarter\*. This shoe, in point of effect, would be equally proper for the fore feet, were it not that in such horses as are used for the saddle, the fore feet being more charged with weight than the hind feet, are more particularly subject to be injured, and a horse thus shod on the fore feet, might go unsafe; therefore, it is expedient to let the inner quarter of the shoe be thin, and reach to the heel, but the outer edge should be bevelled off, so as to slope inwards. The same kind of shoe is equally well calculated to prevent the speedy-cut; observing to bevel off, still more strongly, the part which strikes, and not to put any

\* For horses which cut only in a slight degree, a shoe of the same thickness throughout, but reaching on the inner quarter only as far as the middle of the foot, will in most instances be found sufficient.

nails thereabouts. And here, it may be proper to remark, that in sound feet, the heel of the shoe should reach as far on the heel of the hoof, as to admit of the angle formed by the crust and the bar resting fully upon it; but it should not be carried quite as far as the end of the heel of the hoof.

In order to ascertain what would happen to a horse shod with different kinds of shoes, the following trials were made.

EXPERIMENT I.—A horse with a narrow chest, who had never cut, and having parallel shoes on his fore feet, was trotted at about the rate of eight miles an hour in a straight line, over ground sufficiently soft to retain slightly the impressions of the shoes, but not to admit the feet to sink into it.

Two parallel lines were drawn along the track, including between them the prints of the shoes. By these it was found, that there was regularly a distance of nine inches and a half between the outer edge of the near fore shoe, and that of the off fore shoe.

EXPERIMENT II.—Shoes thick in their inner quarter, and like a tip, reaching only half-way on the outer quarter, were then used, and it appeared, that the distance between the outer edges of the prints of the shoes, taken as before, was regularly reduced to eight inches and a half.

EXPERIMENT III.—The same shoes were afterwards placed on the opposite feet, so that the thick heel was on the outer quarter; and the result, under circumstances exactly the same as in the foregoing experiments, was, that the distance between the outer edges of the prints of the shoes, was regularly increased to eleven inches.

To account for these results, it is necessary to attend closely to the different effects produced by the weight of the fore part of the body acting upon the two fore feet, when raised on the inner or outer quarters, during the opposite states of rest and action. And first, with regard to shoes raised on the inner quarter: whilst a horse so shod, is standing still, the fetlock joints are certainly thrown farther apart than when any other kind of shoe is used. Hence, it was concluded, that the limb which supported the body would have its fetlock joint thrown so much outwards, as to keep it completely out of the way of the foot in motion. But it appears, that the impressions made on the ground by such shoes, are an inch nearer together than those made by parallel shoes, and two inches nearer together than those made by shoes raised on the outer quarter. And this may be thus explained: when the horse is at rest, the weight is supported equally by the two fore feet, but the instant one fore foot quits the ground, the weight is suddenly transferred to the other; and by the outer quarter being lower than the opposite one, the fore part of the horse has a tendency to fall over to the outside. To prevent this, the moving foot is suddenly brought close to the fetlock of the supporting foot, in order

to relieve it by catching the weight, and the foot itself is placed on the ground, too much under the middle of the breast. The same circumstance occurs to both feet in their turn. And the horse being thus in constant danger of falling to one side or to the other, is constrained to bring his feet near together to preserve his balance, and in doing this, strikes the foot against the opposite fetlock.

It frequently happens, that the more the toes are turned outwards, the nearer the fetlock joints are brought together, and the more the horse is disposed to cut. However, this is true only to a certain extent; for if this faulty position of the lower part of the leg be carried artificially beyond a given point, instead of producing an increased degree of cutting, in most instances it remedies the defect altogether. The reason of this is just the reverse of what takes place when the inner quarter is raised; that is to say, when the weight of the fore part of the body rests only upon one leg, it bears too much upon the inner quarter, from its being lower than the outer quarter; and thus the horse has a tendency to fall over to the inside of the supporting leg.

To prevent this, the moving foot is thrown farther from the supporting leg, in order to maintain the balance; and thus the foot misses the fetlock joint.

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*For the Commercial and Agricultural Magazine.*

MR. EDITOR,

*Lisbon, May 2d. 1800.*

**H**AVING understood from you, that any information about the Commerce and Agriculture of Portugal, &c. would be acceptable for the use of your Magazine, I transmit to you such particulars as have already come to my knowledge on those topics.—I learnt from a fellow passenger in the packet, that the Spanish Abridgment of Adam Smith, has already been suppressed.—It is probable, that though the Spanish licensers of books were not immediately aware of the tendency of that work, a farther consideration has opened their eyes.—Adam Smith is, indeed, a bitter libeller of commercial stupidity, and Spanish arrangements. Spain is not ripe for enlightened ideas of any kind.

They have also suppressed a translation of “Buchan’s Domestic Physician,” because he manifests no reverence for the *passing bell*; indeed, he has ventured to say, that it is a ridiculous custom, which sometimes kills the sick by terrifying them. This opinion, was thought to favour too much of the heretical origin of the book.

In Portugal, the great novelty is paper money, *a la mode Anglais*.—I know not the exact date of its birth; but I hear, that the Government had but a mean opinion of their own bantling; as they offered the poor young thing to the public at

six per cent discount! It is now fallen to 20 per cent discount. Hence arose a very new scene among the Portuguese sailors. Having received this money in payment of their wages from Government, at *par*, and feeling the loss of 20 per cent. on every purchase, they kicked up a riot, and shouted out, *Liberty and Bonaparte!* This happened only a fortnight since; the rioters were quelled by the aid of the English troops here, and some of the supposed ringleaders are in custody, but no punishment is likely to be inflicted.—Certainly, none is merited for resisting a palpable cheat.

If the Portuguese Government had the sagacity to receive their paper-money at *par*, in payment of all taxations, its credit would remain firm.—At least, in England, that simple expedient supported the Bank-paper in the most dubious times.—Forgery has also attended this paper-money.—A German of talent and some respectability is in custody (in England) for the crime. The Portuguese have not enough refinement in villainy for such a task.

Another great commercial innovation has been attempted, and partly executed.—A mail coach has been established to run to Oporto, and it actually reaches Coimbra.—When the road is completed, it will proceed to its final destination. I have actual English evidence from a passenger in it, that it travels eight miles an hour. It is of course, a national regulation, and as government are unwilling to lose by it, the price is charged very high to defray the expence of slaughtered mules, and repair of roads.—With a moderate charge it would have support, as the road is sufficiently frequented; but while the fare is equal to that of the usual post chaises of the country, few are so much hurried as to take a place in it. However, good roads must result, and perhaps, their filthy inns may begin a little improvement in consequence.—Time will shew. But it is seen that the price must be lowered, or the Royal Mail Coach stop.

A late regulation has added a new article to the list of prohibited imports, to the great annoyance of all passengers for Portugal. This article is *Irishmen!* The Portuguese were so alarmed at the narrative of the Irish Rebellion, that all strangers are detained at a fort in the river, till they have proved their birth not Irish. A nephew of a settler here, was sent back by the ship he arrived in, because he was born in Ireland! Counsellor Sampson landed at Oporto; and after a month's quiet residence, was arrested, brought here, and imprisoned at Belem. Some of his countrymen solicited permission to visit him. It was answered, "O yes! as many as please may see him; but then they must stay with him!"—and they actually did shut up one person for his visit.—Sampson has since been sent to Hambro'.

An imposition of some consequence takes place on passengers at Falmouth. Four guineas are taken by no authority what-

ever at the pass-port office.—They say it is a post-office charge, and that the money goes to some *charity!* Perhaps, a Spanish captain of a packet, gave a more accurate account of this imposition, who, to an observation that the Post-Office could not have put this on, replied, “No, but I do.” Perhaps, however, it may be seen, that the Post-Office can take it *off*, if they cannot put it *on*. If your publication of this anecdote, produces this effect, you will facilitate the passage to Lisbon and Corunna, and correct a flagrant injustice.—I intend, at leisure, to transmit to you any farther observations on this country, which may seem to your purpose,—and remain, your obedient humble servant,

INDAGATOR.

*For the Commercial and Agricultural Magazine.*

Our perusal of the following letter has not convinced us of the fitness of any alteration in the conduct of our Magazine; nevertheless, we have given it admission, because it is well written, and contains valuable matter. We were not at liberty to insert it, unless entire. E.

STRICTURES ON THE PLAN OF THE MAGAZINE, QUERIES, &c. BY A LANDED GENTLEMAN OF LEICESTERSHIRE.

SIR,

I HAVE embraced the earliest opportunity allowed me by various, and at this time, somewhat troublesome, avocations, to acknowledge the receipt of your circular letter, accompanied by the Prospectus of an intended Periodical Publication, to which you may rest assured, I shall be very happy, not only to become an occasional Contributor myself, but to employ whatever influence I may have amongst my neighbours, to engage their assistance also, in an undertaking which I really esteem, as of a public and patriotic tendency.

Being yet upon the threshold, I must beg leave to be indulged in a few remarks, of merely a general and preliminary nature, assuming that freedom of discussion which is the characteristic of him who writes for public ends, and which you, as a faithful trustee for the public, will not only excuse, but prefer. I may be probably bold enough to dissent from you, in respect to your plan, on certain material points: for such dissent I shall submit my motives to your serious deliberation.

That there is really an opening for a new Publication, of which Agriculture will form a principal feature, I think must be generally allowed; and it may be safely allowed, without the most distant idea of disparagement to the Agricultural works already established. Nobody can be more ready than myself to acknowledge their merits, no one has been more forward to offer

his mite of professional intelligence towards their support: but can it be yet asserted with any degree of confidence, that the laudable endeavours of their authors have been rewarded with a proportionate degree of success? No,—we have a most striking proof that it cannot. Even the Editor of those annals, the celebrity of which has pervaded the seats of learning throughout all Europe, with a frankness highly becoming his character, has acknowledged his disappointment. With a mind wonderfully capacious and profound, the readiest pen in England, general and unbounded information, a co-operation and support, such as no man but himself ever received, he has failed in his meritorious and favourite project of general instruction. The merit of leading the higher classes in the pleasant and profitable paths of Agricultural pursuits, and a transcendent one it is, in a national view, indubitably belongs to him; but the common farmer, the great body of the tenantry, are still uninfluenced, or averse to his writing and his doctrines; or, more properly speaking, a great majority are totally ignorant of them. Urged no doubt by mortifying considerations like these, a most improper step has been taken, to the sincere regret of all well-wishers to the spread of Agricultural information in the country. An advertisement has twice appeared upon the wrapper of a certain periodical work, requesting in plain terms, of the landlords of England, to COMPEL their tenants to purchase the said work, on pain of a refusal of all favours in case of default! The experience of this great man might have taught him, that the people reluctantly submit to have either creeds, wars, or knowledge, thrust upon them, without the ceremony of consulting their inclinations; unless indeed, he, like many others, is labouring under the fatal delusion, that the forbearance of the inferior orders of mankind, is without all bounds. As a friend to the work in question, I shall be happy to find this highly-objectionable requisition discontinued; it has already excited considerable disgust.

The labours of patriotic individuals, and of societies, both British and foreign, for a number of years past, and of our Board of Agriculture of late, have wrought a great and glorious change in the practice at least of husbandry. Farming, and the production of domestic animals, in the highest possible state of perfection, both for beautiful symmetry and public use, have become the favourite pursuit, and the fair subject of emulation amongst a very great number of our land-holders, and men of property, in every degree; barren wastes and delusive unproductive commons, maugre the dreams of idle and ignorant declaimers, have been inclosed and converted into sources of fruitful and permanent production; to the vast emolument, or, in more proper terms, the necessary subsistence of a numerous and increasing population. The noble science of husbandry may be exultingly described, as verging very near to perfection: so near indeed, that

its more general diffusion in the present state, is an object of much nearer and greater consequence, than any farther improvement; beside that improvement will naturally follow extension. Since that we are unhappily disappointed in our expectations of a Bill for the general cultivation of the waste lands (from what accident, or influence, is a proper object of enquiry to the people of this country) our most effectual remedy, in the present times of scarcity and exorbitant price, is the endeavour to obtain the greatest possible product, from the breadth of land already under our culture. This desirable end can only be attained, by using every possible endeavour to propagate the doctrines and practice of that excellent system, styled the New Husbandry throughout the whole Island; to banish unprofitable fallows, to familiarize the hoe culture, and the use of the most modern and best adapted implements, to encourage the breed and feeding of cattle, by the introduction of the most productive crops for winter subsistence; which plan has the double excellence of producing both flesh meat, and bread in equal proportion.—Were these improvements adopted by the majority of our farmers, in an equal degree, with our most skilful and enlightened cultivators, there is no risk in asserting, that great as is our population, and immense the extra demand occasioned by the war, corn might not only be afforded at a reasonable rate, but even a surplus would remain equal to any moderate demand for exportation. What an excitement to exertion is this, in a country, where the greatest grievance is the excessive price of the articles of first necessity, and where, abundantly fruitful as the country is, there seems to be a constant necessity of importation from foreign parts! The saving of the importation alone would be immense; nor would the interests of the farmers be at all impaired, since the bountiful earth, in its increased produce, would render them ample amends for the reduction of price, and they would happily supersede foreigners in the business, to us so disgraceful, of growing food for Englishmen.

You see, Sir, the laudable, perhaps, arduous and difficult task, you have undertaken to communicate the light of scientific practice to the middle ranks, through the medium of that assistance to be derived from the superior. Of the assistance of men of science, ability and practice, I think you need entertain no doubt; there is ever a liberal and emulous desire in such, to open their treasures to the public, which will ensure their communications. On your own part, you will also take the necessary steps to obtain that, on which, as the only firm base, the reputation and success of your Journal must depend; and I hope, as in fair and equal justice it ought to be, your own ends and the public will exactly coincide. But, confining myself to the subject of Agriculture, your greatest difficulty, at the same time, most important duty, will be

to engage the great body of farmers to become readers; that grand point, on which all your predecessors have failed. You are, however, not without your advantages. The charm of novelty, the moderation of your price, the ideas of opposition, or, if you please, emulation and competition, which always act, in some degree, as a stimulus upon the torpor of the public mind, will have their natural effect in your favour; nor will your co-labourers in the vineyard be at all injured by your success: the world of agriculture is large enough for you all.

With a liberty, which every other correspondent, I hope, will assume, and of which we all ought to allow you, reciprocally, as the arbiter, I pretended to find fault with your plan. Why the COMMERCIAL and AGRICULTURAL only; and wherefore not add MISCELLANEOUS MAGAZINE? I have a number of reasons, and those, I conceive, of weight, to adduce in favour of this extension of title; but as I have already taken up, I hope not altogether wasted, too much of your paper, I shall confine myself to one. Judging by my own feelings, I conceive that people, who are destined to the reclusive life of the country; who see, hear, and read so little variety, would be much more easily tempted, by a miscellaneous and pleasant publication, than by one everlastingly laden with the same tiresome professional and scientific details. Besides, is there not a fair example in the delightful monthly recreations of one of your worthy rivals, and in the strenuous politics of another? The Doctor, with a latitude, which will stand as the everlasting apology of all moderate deviations, has, in his last number, actually treated us with a luscious bosom and lip scene, in pastoral courtship, by way of kindling the analogy of passion for the plough, the feed-bed, and the dibble!—nay, has even initiated us *un-illuminés* of the country in the wonderful and useful craft and mystery of breeding one-eared cats!!—Pity, but from the influence of *Cyclopi*an analogy, he had not carried this useful science a degree farther, and taught us to place the one ear exactly in the centre of the cat's forehead: we might then have raised a breed of *Cycearian* cats, to the inestimable comfort and gratification of all curious Christians, and the no small emolument of the renowned Mr. Pidcock, of Exeter 'Change.

But there is a sentence in the Prospectus, against which, as far as my individual vote, in quality of purchaser and contributor will go, I shall give a most determined negative. "*Politics, in every sense of the word, will be systematically proscribed.*" A stranger to your person and views, any other wise than they are delineated upon the paper, which has been handed to me, I shall in common candour, adopt the most favourable interpretation. I shall not, forthwith, class you among the base and servile herd

of editors of the public prints, who meanly prostrate, cringe and fawn, and lick the dust, before the proud and domineering faction of the day, who see only with aristocratic eyes, and hear but with aristocratic ears; who, faithful to the fordid character of the times, have no other motive than "*l'argent, beaucoup de l'argent.*" I only say, why seek to narrow the sphere of your utility? Why, to diminish your own fair resources, are you such an adept at splitting hairs, that you can distinguish and divide the north of politics from the north-east of political œconomy? Or do you mean to proscribe and banish them both, in the lump? Reflect, Sir, seriously, how you can be, at all times, able to instruct your readers on commercial and agricultural topics, in all their various and contingent relations, with the total exclusion of politics; or how manage with your useful and honorary correspondents, who may not be always disposed quietly to submit to the arbitrary *imprimatur* of an editor. There is a respectable, because an able class of contributors, with whom the correcting and curtailing system will not go down, as many declining prints have experienced to their cost. Speaking of politics, I do not design the narrow and contemptible *dicta*, or the base, interested, and malignant slanders of party and faction. I mean those great public principles of human action, which ought to be open and common to *all*. Such politics, whenever they might occasionally occur, would be particularly acceptable and useful to country readers of all descriptions, the most in need of information.

Craving pardon of you, Sir, and humbling myself before the well-worn patience of your readers, I desire to conclude my address with the following important agricultural queries; which, in the most respectful manner, I beg leave to propose to the professional correspondents of the Magazine:—

On what ground, or from what motives, public or partial, has the General Cultivation Bill been laid aside?

Has not the inutility of constant fallows been so well established, as to warrant the intire omission of such obligation, in all cases?

Is there any settled principle of form for the domestic animals; and what is it in each?

Have oxen been proved equal with horses, at plough, in point of expedition; or is there any probability of obtaining such advantage?

Is the hop-culture favourable to individual, or national profit?

What is the chief obstacle to the abolition of tythes?

Ought not the Wool Bill to be re-considered; and, on that question, are not the landed and the public interest in perfect unison?

What has been the late progress of draining?

What has been the late progress of irrigation?

Is there any certain and permanent profit to be made from bees, in this climate?

Is the mode of shoeing horses, adopted by the Veterinary College, practicable with the generality of road and post horses; and in what degree has the practice prevailed?

What is the *pabulum*, or food of vegetables, and in what state ought dung to be laid upon the land?

What is the best winter-food for cattle of each description, upon clays?

What is the best winter-food for cattle of each description, upon sand?

The most profitable stock on each?

I am, with respect and good wishes, Sir,

Your faithful humble servant,

LEICESTRIENSIS.

*Market-Harborough, Aug. 21, 1799.*

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*For the Commercial and Agricultural Magazine.*

CAUSES OF A COUNTRY'S GROWING RICH: FROM A FOREIGN PERIODICAL WORK.

I. **T**HE first cause of a country's flourishing is, the fruitfulness of the soil, to produce the necessaries and conveniences of life, not only sufficient for the inhabitants, but for exportation into other countries.

II. The second cause is, the industry of the people, in working up all their native commodities to the last degree of manufacture.

III. The third is, the conveniency of safe ports and havens, to carry out their own goods as much manufactured, and bring in those of others as little manufactured, as the nature of mutual commerce will allow.

IV. The fourth is, that the natives should, as much as possible, export and import their goods in vessels of their own country.

V. The fifth is, a free trade with all foreign countries, which will permit them, except those that are at war with their own state.

VI. The sixth is, by being governed by laws made with their own consent; for, otherwise, they are not a free people.

VII. The seventh is, by improvement of land, encouragement of agriculture, and thereby increasing the number of people, without which any country, however blessed by nature, must continue poor.

VIII. The eighth is, by conferring all offices of honour and profit, or trust only, on the natives, or, at least, with very few exceptions, where strangers have long inhabited the country, and are supposed to understand and regard the interest of it, as their own.

IX. The ninth is, when the rents of lands, and profits of employments, are spent in the country which produced them, and not in another; the former of which will certainly happen, where the love of our native country prevails.

X. The tenth is, by the public revenues being all spent at home, except on the occasion of a foreign war.

XI. The eleventh is, when the people are not obliged, unless for their own conveniency, to receive any monies, except of their own coinage by a public mint, after the manner of all civilized nations.

XII. The twelfth is, a disposition of the people of a country to wear their own manufactures, and import as few incitements to luxury, either in clothes, furniture, food, or drink, as they can conveniently live without.

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

SIR,

As a long lease upon equitable terms, is one of the most powerful motives to move a tenant to improve his land, and thereby enable him to raise a greater quantity of provisions for the public; and as Mr. Kent is perhaps, the best author on this subject, therefore, I trust, you will render the public an essential service, if you will condescend to convey to your numerous readers, the following pages, compiled from the General View of the Agriculture of the County of Norfolk, by N. Kent Esq. and you will much oblige,

Sir, your humble servant,

A CONSTANT READER.

#### THE ADVANTAGE OF LEASES.

**T**HE ancient feudal tenures had undoubtedly a strong tendency to enslave mankind, by subjecting tenants to the control and power of an arbitrary lord; but, like all other things, there were some advantages to be found in the system. Every man who held land, had a certainty in it, as the tenant generally held his possession for life. When these tenures were discountenanced, by the liberal spirit of modern law, some new compact became necessary, and terms of years were substituted in lieu of the former; for as land, properly managed, requires great expence in one year, it was but reasonable that the man, who applied his judgment, devoted his labour, and ventured his capital, should have some reasonable time allowed him to reimburse himself, and derive some proportionate reward for what he had done.

In the course of time, this term began to be reduced into a

regular number of years. As most of the land was formerly under the regulation of two crops and a fallow; the time allowed was from three to twenty-one years; and the latter in the end, became the most general limitation, and is the most prevalent term for leases at this time.

Mr. James remarks, that "leases most assuredly, may be granted, for too long a period as the contrary. That just equilibrium of interest, which is so essential between the landlord and his tenant, would be in danger of being destroyed, by running into either extremes: if a lease is for a short period, the latter is without any stimulus to employ his capital in improvements of any kind, and it very frequently may prove a temptation to injure the farm, by withholding even those which are absolutely necessary; on the other hand, if the lease is for too long a term, the tenant is likely to become too independent—twenty-one years I conceive to be the true medium. But that any should be mad enough, and so completely blinded to their own interest, and that of society, (for a connection there certainly is, and I have before observed,) not to grant any leases at all, is scarcely to be believed.—Trace this to its source, and you will discover it to proceed from prejudice, the legitimate child of ignorance and pride."

That leases are the first, the greatest, and most rational encouragement that can be given to agriculture, admits not of a doubt, in my opinion; but, of late years, there are very strong prejudices entertained against them. In this county, it is rather the fashion to grant leases, which in a great measure, accounts for the improvements that have taken place in it; most of the great estates have been made from it: for, without leases, no marling to any extent would have been undertaken, nor so much ground brought into cultivation, by one third, as there now is. The Holkham estate alone, strongly proves this assertion, as it has been increased, in the memory of man, from five to upwards of twenty thousand pounds a year, in this county only, and is still increasing like a snowball. Mr. Coke, the present owner of it, is a real friend to agriculture, and justly considered as one of the best landlords in the county. Mr. Baillie very strongly observes here, "that Mr. Coke is one of the best friends to agriculture, in all its variations, that this island affords, and is deserving of being held out as a pattern." From my particular knowledge of him, I can say, that at least two years before his leases expire, he puts the tenant upon a footing of certainty, by stating to him, the terms he expects for a renewal of his lease, that he may have time to look out for another farm, in case he does not like the conditions that are offered to him; but, though the advance of rent is often very great, I have never seen an instance of any tenant leaving him, unless grown too far in years to be able to continue. The stipulations and reservations in his

leases are founded, too, upon principles of equity, and consist in no unnecessary restrictions, or unreasonable exactions, being couched in plain terms, such as ought to compose a liberal contract between a gentleman and an industrious tenant; which may be worth imitation, in those who are fond of crowding their leases with overbearing compulsory clauses, tending more to create obedience and servility in their tenants, than to promote good husbandry. Mr. Strachey thinks, "a full abstract or copy of one of these leases will be useful." A short abstract shall accordingly be inserted.

There are some few estates in this county, of a very considerable size, where leases are entirely withheld; but it is evident, that these estates are obliged to be let for, at least, 20 per cent. less than what they would be, if leases were granted. Mr. Wagstaff says, "this doctrine of leases, with the subsequent remarks on their expediency, is founded on facts, not, I believe, to be overthrown, as indeed the positions induced from these facts, are warranted by reason, and are established on the basis of the facts themselves."

In many other counties the prejudice is so strong, that an owner would almost as soon alienate the fee simple of his estate, as demise it for a term of years. I will not be so harsh as to say, that this dislike to leases arises from obstinacy or want of sense, but it is certainly an unfortunate prejudice, which the proprietor takes up, and tends greatly to injure the public. One of the arguments made use of, is, that it makes the tenant insolent and independent. There may be some few instances of this sort, but they ought not to be allowed to operate to the general injury of a country, however indifferent a gentleman may be to the advantage of his own purse. A man of large landed property owes, in my opinion, something to society, and ought to get rid of his prejudices where they affect the community. Providence, who put him in possession of his property, undoubtedly meant that he should in some sort act as a public steward, and it cannot be right that he should wrap up the talent entrusted to his care in a napkin. It grieves me to go into a country, which I often do, and find it almost in a state of nature, because, the soil being wet and expensive to cultivate, the tenant cannot afford to do it without encouragement, and the owner's insurmountable objection to leases, keeps him from granting the sort of encouragement which is essentially necessary. The yeomanry, in such parts, are upon a wretched miserable footing; the public sustains a vast loss, and the owner has in lieu of the comfort he might bestow, and the good he might do, no other consolation than that he has the county more at command. But even this is a mistake; for I have, except in few instances, always found a tenant as oblig-

ing and well behaved to his landlord, when he had a lease, as when he had not. The arguments in favour of leases seem to me so powerful, that I could not, on this occasion, suppress giving my full sentiments relating to them; and it seems unreasonable to the greatest degree, to expect a tenant to hazard all he is worth, and devote the best part of his life, upon an estate, which upon the death, or perhaps, the mere caprice of his landlord, he is liable to be turned out of at six months notice.

I will not, however deny, that there may be some reasonable exceptions against the practice I wish to recommend, where lands lie near a gentleman's house, part of which it may be an object to take into hand; or if a minor be very near of age, or if there be any immediate design of selling an estate, it is not prudent to grant leases, because, in the latter case, a purchaser may wish to enter into immediate possession, and may have particular objects in view, which will induce him to give a higher price than he would, under the idea of purchasing merely to pay him a reasonable interest. But, except in these instances, leases, in my opinion, cannot be too strongly recommended; for I am certain, that, where estates are under an entail, or in a family that has no idea of parting with them, leasing is, unquestionably, the most effectual means of raising their value, as the owner, by this means, has it in his power to stipulate for improvements, in what manner and proportion he pleases, which he cannot do by any other means so well.

Mr. Baillie says, "this is most liberal and excellent reasoning: it is only in very few parts of this island where we find good farming, except under long leases."

Mr. Dan observes, that "there are such striking instances of the advantage to the landlord, by granting leases, that I hope they will have a proper effect on those who are prejudiced against the practice."

[*To be continued.*]

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## ON STATISTICAL PHILOSOPHY.

BY SIR JOHN SINCLAIR, BART.

**I**T is now about forty years, as we are informed by Professor Zimmerman, in his Political Survey of Europe, that a branch of political knowledge, which has for its object the actual and relative power of the several modern states, the power arising from their natural advantages, the industry and civilization of their inhabitants, and the wisdom of their governments, has been formed, chiefly by German writers, into a separate science. It used formerly to be improperly connected with Geography; and it was but superficially treated amidst the topographical and descriptive details of the larger geographical works. By the more

convenient form it has received, and by its growing importance, this science, distinguished by the new coined name of STATISTICS, is become a favourite study in Germany. The best account of the origin of statistical inquiries is given in Baron Bielfield's Elements of Universal Erudition.

In regard to the words *statistic*, or *statistical*, they may either imply inquiries connected with the state of a country, or respecting matters of state: the first is the point of view in which I propose to consider them. The particular term made use of, however, is of little consequence. As to the thing itself, it may be sufficient to remark, that the inquiries instituted in Germany, of a *statistical* nature, were merely for the purpose of ascertaining the political strength of a country, and not the quantum of happiness it enjoys, and far less the means of its future improvement\*. This is a *new* branch of politics, therefore, the superior utility of which many of the most respectable characters in Germany, and in other parts of Europe, have acknowledged in the most flattering terms, and which a great American warrior and statesman, the President of the American Congress (General Wainington) in a letter to the author, has thus characterized. "I cannot but express myself highly pleased with the undertaking, in which you are engaged (that of drawing up a *statistical* account of Scotland) and give my best wishes for its success. I am fully persuaded, that when enlightened men will take the trouble to examine so minutely into the state of society, as your inquiries seem to go, it must result in greatly ameliorating the condition of the people, promoting the interests of civil society, and the happiness of mankind at large. These are objects truly worthy the attention of a great mind, and every friend to the human race must readily lend their aid towards their accomplishment."

If all GOVERNMENTS were impressed with a proper sense of this important duty, it would be of less consequence what the particular form was; only that form would be the most desirable where such inquiries were most likely to take place; namely, in a well-regulated Monarchy, in which the people had a proper organ by which they could act; for, under that form, as soon as the existence of the duty above alluded to was known and acknowledged, the Prince, for the sake of the glory and the satisfaction resulting from *statistical* investigations; and the peo-

\* Sallust, in his Orat. ad Cæsarem de Republ. Ordin. has clearly explained the objects of ancient statesmen. "In republicâ cognoscendâ, multam, magnamque curam habui, uti quantum *armis, viris, opulentia* ea possit, cognitum haberem." From Townsend's Travels to Spain, it appears, that, in 1575, Philip II. proposed making similar researches, on a very great and extensive scale; but they never seem to have been brought to any conclusion. In France, in Prussia, in Sweden, in Saxony, in Sardinia, and in Tuscany, such plans have been attempted; but with a view of ascertaining the present state, rather than the means of future improvement.

ple, from feeling the advantages to be derived from them, would take care that any necessary inquiry into the state of the country should not be neglected. It does not require the spirit of prophecy to foresee, that, as soon as the present war is over, such inquiries will become general in Europe. The attention of the people will then be diverted from delusive phantoms of ideal liberty, to those objects which constitute the real happiness of the individual, and the solid interest of the state.

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*For the Commercial and Agricultural Magazine,*

We extract from the first volume of "Communications to the Board of Agriculture;" the following New Theory of Roads, by Robert Beafon, Esq. To pronounce definitely on a proposal before experiment, is far from our intention; but we say, without hesitation, that no Theory ever promised more fairly, and that the inconvenience of bad roads, and the expence of repairing them is so great, that the public attention cannot be directed at a more valuable purpose, than the general and more solid amelioration of roads. E.

NEW THEORY OF ROADS.

**T**O differ from the generality of mankind, or to attempt pointing out any thing new upon a subject that has engaged the attention of many of the most ingenious men in the universe, may, to some people, appear a species of presumption, that requires an apology. Nevertheless, as the sole aim of these observations, is to state, what at least, appears a rational way of forming and constructing roads, in order to ascertain and preserve those necessary qualifications, which constitute a good road, I shall therefore, proceed to explain, as briefly as possible, in what manner it is probable they may be attained.

From nature, one may learn the most useful lessons in every situation in life, and in every project formed by the mind of man. On nature, therefore, I shall build my Theory of making roads; for as yet, it is but theory, having never, so far as I know, been put in practice.

Every person who has paid the least attention to the structure and formation of the different *strata* of the earth, must have observed, that some of the *strata* are of so close a texture, as to be impenetrable to moisture; others again, are so porous, that water will easily run through them in every direction, till it meets with some obstacle, or finds a vent. Of the first sort, some are less dense, and of the latter, some less porous than others; consequently, as they partake more or less of these qualities, the water or moisture will the more or less quickly penetrate through them.

To illustrate this more clearly, and to apply these principles

to the construction of roads, suppose Fig 1. the section of a Hill



or eminence, composed of a number of *strata*, 1, 2, 3, 4, &c. If the upper *stratum* or surface soil, marked 1, is of a porous nature, it is evident, that any water which falls on it, will penetrate through to the *stratum* marked 2, where, if it can go no farther, it will glide along the surface till it finds a vent at the bottom of the hill B. If the *stratum* 2 is hollow at A, and continues on towards F, the water will lodge in that hollow, and form a sort of pool or bog, as is sometimes observed on the tops of hills; but if in this hollow place there is a communication with the porous *stratum* 3, as at A, no water will lodge there, but it will penetrate through, and glide along the upper surface of the dense *stratum* 4, till it finds a vent on the side, or at the bottom of the hill as before. Hence, it is an easy matter, sometimes to drain bogs and pools on the tops of hills, merely by boring to a *stratum* through which water will penetrate; but where the water burts out, or is supplied from below the surface, and it is wished to get rid of it, another plan must be followed, which very much depends on a proper knowledge of the different qualities of the *sub-strata*, as explained in another work, when treating on the new system of draining, lately discovered\*.

By the above figure, it will also appear, that if the upper *stratum* 1, is of a close texture, or clay, any water falling upon it, will not only lodge in the large hollow A, but in the smaller ones C, D, E, and in all the other irregularities or concavities that may happen to be on the surface. Hence, also, it is evident, that in order to keep dry the surface of any such piece of ground as represented in the figure, it matters not of what shape or form that surface is, or whether it be convex or flat, provided there is a communication with some under *stratum*, sufficiently porous to carry off the water below; but it is of some consequence, the form of the upper surface of that *stratum* upon which the water is to run, for the smoother it is, the water will of course the more easily flow away.

*Construction founded on this Theory.* By these data, taken from the works of nature, it is obvious how to apply the same principles towards the construction of roads.—In my apprehension, it may be done as follows:—When a new road is to be formed, let it be done in the first instance, nearly in the usual manner, with such materials as are on the spot, and the nearer

\* See Practical Treatise on Rural Improvements.

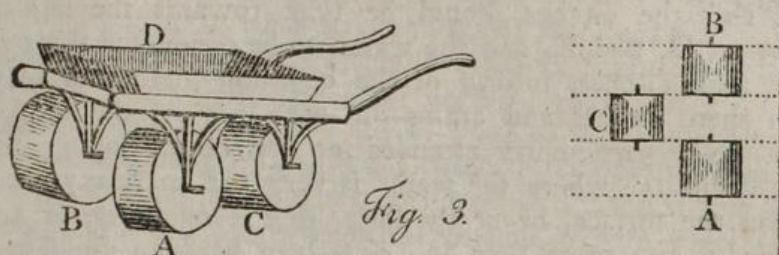
the quality of these approaches to *clay*, the better. Instead, however, of forming it convex, as is generally done, let the lines A, B, and B, C, fig 2, be quite straight, and meet in an angle or



ridge at B, in the middle of the road, having a slope from thence to each side of about an inch in the foot. A, and C, are small drains for the more easily conducting away the water that may be collected at those places. The road being thus formed, must be allowed to harden and settle for some time, before any other materials are laid on, great care being taken while in that state, to let no carriages or cattle upon it, and it should be rolled with a long wooden roller, that will reach at once from A, to B, or from B, to C. This roller should be loaded with a box of stones to make it sufficiently heavy, and that it may be the more portable when that box is taken off; and it may be so contrived, that by changing the horses from one side to the other, there will be no occasion to turn the roller, in order to make it roll the same space over again. Being rolled in this manner, will consolidate the materials composing the ridge A, B, C, and prepare it for receiving those to come afterwards, for it is a most absurd practice, laying hard materials in the common way, upon this first form or basis of a road, before it is sufficiently firm to bear them.

Being thus formed and properly settled, the next step to be taken, is to imitate the works of nature in dry soils as nearly as possible, by forming a *stratum* penetrable by water, composed either of *sand*, or sandy gravel, or any other substance easiest to be got, that is sufficiently porous to admit water to pass through it. This *stratum* should be laid quite level, and extending from one side of the road to the other, filling up the small drains also, as shewn by the dotted part in the figure. Over this are to be laid the best materials that can be got for completing the road, consisting either of stones, broken very small, or of the best gravel. This coat of hard materials need not exceed above six or seven inches in thickness, which being much less than is commonly used, will be a considerable saving, and it may even still be less, if the directions hereafter given are strictly attended to. If this covering consists of broken stones, they should afterwards be laid over with sand, or fine gravel when easily procured, so as to fill up all the cavities betwixt them. The sand or rubbish from a free-stone quarry is excellent for this purpose, provided there is no mixture of earth in it, which should be carefully guarded against in every step taken after the road is first formed. These finishing materials being properly laid on, and smoothed with a rake, the whole should now, before any carriages or horses are

admitted on it, be well rolled with a heavy iron roller, divided into three parts, and constructed as shewn in fig. 3. where A, and B, represent the two hind divisions of the roller, and C, the front or middle division, to the framing of which the shafts are fixed, and so contrived that it turns in the manner of the fore wheels of a waggon.—D, is a box for holding stones to increase the weight when necessary; but in adding this weight, it must be observed, to lay about two thirds of it over A, and B, and only one third over C, otherwise, the pressure will not be equal.



Iron rollers are sometimes made in three parts as above, but being all in a line and close together, are apt to be choaked by gravel and small stones, which cannot happen in the construction here recommended. If such a roller were generally used upon roads, especially when newly made, it would save a great deal of expence in repairing them; for it cannot be expected that any new road will immediately bear wheel carriages, or continue long in repair, when composed entirely of loose materials, without the smallest pains being taken to consolidate them together. Frequent and heavy rolling would therefore produce the most beneficial effects, and would tend very much to keep the road free from deep ruts and holes; besides, there is nothing could contribute more effectually to promote and preserve firmness and solidity, two qualities without which it is impossible any road can, with propriety, be called a good one.

*Advantages of this Construction.* The advantages of a road formed and constructed in this manner, are as follows: by being level on the surface, every part of it is equally commodious for carriages, consequently, it will all be equally travelled upon, and the deep ruts so frequent in other roads, will almost entirely be prevented.

It will, therefore, be much easier kept in repair, and if properly managed at first, will be made at less expence than the common roads, especially in a sandy soil, or where sand and gravel is easily procured. The draught will be much easier in such a road. And one important advantage is, by having an under *stratum*, through which water can penetrate, and the cavities among the harder materials being filled with the same porous substance, no water can ever lodge on the surface, nor can it ever become so dirty as the other roads are in wet weather; all the water that falls on the surface, (unless perhaps, in very

heavy rains), being conducted away underneath, and in every part. It may here be observed, that from the small drains on each side of the road, cross drains at D, and E, *Fig. 2*, should be carried through the fences marked F, F, provided the level of the ground will admit of it, at the distance of every ten or fifteen yards. These cross drains may be made of wood, with about an inch bore, or of stone, if preferred.

It would be of great advantage to this sort of road, as well as to every other road, where the ground is inclosed on each side, that the ditches should be sunk towards the fields, as shewn at D, and E, and the water to be conducted through to these sunk ditches, instead of the common method of leaving large open ditches and drains on each side of the road. It must also be particularly attended to, that on all sloping roads, on a declivity, where the water is very apt in heavy rains to run on the surface, or at the sides, that it ought never to be allowed to run more than ten or fifteen yards in the same direction, but at that distance, to be conducted away to a side into the main drains. It will then do little or no harm, as it can never increase beyond a very weak stream; but if it is allowed to run two or three hundred yards, it will probably be increased to such a size, before it reaches the bottom, that it will wash away a great deal of the materials, and may, besides, very much injure the road, or the banks on each side of it.

A road on the construction we are now treating of, need not be quite so wide as roads in general are made, for the whole surface of it will be in use from one side to the other, and therefore, from twenty to twenty-four feet wide is quite sufficient, unless near populous towns, or extensive works, where great numbers of carts or waggons are employed. In the interior part of the country, twenty feet in width will answer every purpose required. I have observed in several places where the roads have not been above eighteen or twenty feet wide, and properly made from side to side, that they were in a much better condition than the neighbouring roads, from thirty to forty, or fifty feet wide. On these roads, formed in the usual way, there is seldom more than eight or ten feet in the middle of them, generally made use of. The remainder, on each side, being occupied by heaps of stones, scrapings, and other rubbish, which although they may partly be of use sometimes in repairing the roads, ought on no pretence to be allowed at all times, or at any time to lie there; such rubbish being not only disgraceful on the sides of a public highway, but even dangerous, particularly in the dark, for either carriages or horses. What an immense deal of valuable land is thus foolishly and uselessly occupied, merely for the convenience of road-contractors and their dependants; or perhaps, what is even worse, and

often productive of the most serious losses to the neighbouring farmers, is, that these untrodden parts of the public roads, are allowed to be over-run with thistles and other noxious weeds, whose downy seeds, when come to maturity, are wafted through the adjacent country by every breeze, and fill the farmer's fields with their pernicious produce, however industrious he may be to prevent it.

Throughout the kingdom at large, I make no doubt, there are thousands of acres of fertile land thus lost to the community, merely, by making roads so much wider than necessary. Near populous towns, the roads should unquestionably be of a suitable and convenient wideness: perhaps, thirty or forty feet. Near the metropolis, they are in some parts, with great propriety, much more; but to make roads forty or fifty feet wide, as is sometimes the case, through a thinly inhabited part of the country, or near the most pitiful villages, where even twenty feet would be sufficient, is a mere waste of ground for no purpose, and occasions a very great additional expence in making such roads, which certainly might be avoided.

Suppose the medium necessary width of roads to be seven yards, or twenty-one feet, and that the medium width now made is eleven yards, or thirty-three feet: this is upon that supposition, four yards wider than is necessary, which in every mile, is a loss of one acre, one rood, and two perches; and supposing there are 5000 miles of such roads in the whole kingdom, here is a loss of more than 6300 acres, which, if estimated the same as the improved value as the waste lands, at 27l. per acre, and at thirty years purchase, would produce 255,150l. a sum, which if laid out in improving the roads, and making easy communications through different parts of the kingdom, would be of the greatest public advantage.

#### ON THE COW POX.

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

SIR,

THE Veterinary Art being a very essential branch of Rural Economy, I must beg leave to propose the following important question to the learned doctors, in correspondence with your Magazine.

A learned and worthy physician of Bath, having lately made the wonderful discovery, that the Cow Pox, now of such wide spreading notoriety, actually derives its origin from the matter of grease in the heels of horses, is it not perfectly rational to suppose, that a reciprocity of infection exists, and that the application of cow-pox matter to the horse, would with no less certainty produce the grease?

COM. & AGRI. MAG.

A MEMBER OF THE COLLEGE.

I i i

## POETRY.

We extract for our Poetical Department two short pieces by Mr. G. Dyer. The world is in daily expectation of a volume of poems from this author; the promised preface and notes of which may be expected to convey much critical information, since few have laboured through such a minute investigation of classical and English poetry as has this benevolent and disinterested character. E.

### DEMOCRITUS JUNIOR;

OR,  
THE LAUGHING PHILOSOPHER.

THOUGH life declines, and Time, the thief,  
Has stolen my bloom away,  
I charge thee, fly these haunts, pale liver'd grief!  
Nor think, if shine my locks all silver-grey,  
That I, like dotard old, will fall thy sickly prey.

Light was my heart, when days were young,  
As kid o'er verdant plain,  
I laugh'd and danc'd, I snigger'd, toy'd  
and sung,  
The lads and lasses joined my gamesome strain,  
And Age stood smirking by, as growing young again.

Where are those days? They are not fled;  
My comrades flourish still;  
Old bald-pates oft we meet, by humour led:  
We call up school-boy days, with wizard skill;  
Repeat our merry pranks, and then a bumper fill.

Ye men, who worship hoards of gold,  
Yet pleasure dare not taste,  
Can I but laugh such men-moles to behold?  
Or such as riches only know to waste;  
Mere squirrels, cracking nuts, and squandering them in haste.

Philosophers, who wink and blink,  
With close-glaz'd peeping eyes,  
Can I but laugh, profoundest sirs, to think,  
What pride 'mid those meek looks in ambush lies;  
How Folly screens her face 'mid Wisdom's fair disguise.

Ye mag-pye poets, chattering rhymes,  
And ye who strains of woe,  
Like whining ring-doves, eke against the times,  
Magging with faucy clack at all you know,  
Or soothing poor dear-selves, in sonnet sadly flow;

Whether, good sirs, ye rail or pine,  
What boots it all to me?  
To sit and prate like mock-bird shall be mine,

To chatter moans like you; then off I'll flee,  
And jeer you all at once in some high laughing glee.

Ye patriot souls, so wondrous grave,  
So loving, good, and wise,  
Boasting your country you but wish to save;  
Ye lanky spiders, soaring silly flies,  
Oh! how I sit and laugh to trace your silken lies!

And while I laugh, good Joan, my wife,  
Shall sport like damsel gay;  
For Joan, kind soul, has laughed with me through life,  
And still, like two old lutes, in tune we play;  
And while our hearts are blithe, ne'er dream of life's decay.

Thus, Falstaff-like, I'll live and die,  
Laugh long as I can see;  
And when death's busy hand shall close my eye,  
This bag of jokes I leave the doctor's fee;  
Then doctor, when I'm dead, laugh thou, and think of me!

### TO THE NIGHTINGALE.

SWEET songstres, that unseen, unknown,  
Dost pour the softly varied strain,  
Why dost thou wander still alone?  
Why to the silent woods complain?

Oft have I lingered in the grove,  
To hear thy melting, soothing song;  
To me it seem'd a song of love,  
Nor could I think the darkness long.

“But oh! sweet bird, why shun the  
“light?  
“Why still repeat the lonesome lay?  
“Those notes, that smooth the brow of  
“night,  
“Might kindle bright the face of  
“day.”

Thus have I cried, but cried in vain,  
For soon the songstres of the grove,  
As though the morn awakened pain,  
More faintly breath'd her song of love.

But though she shuns my wistful sight,  
So softly, sweetly, does she sing,  
I deem her not the bird of night,  
But hail the poet of the spring.

## CRITICAL CATALOGUE.

- I. *Communications to the Board of Agriculture on Subjects relative to the Husbandry and internal Improvement of the Country. Vol. 1. Nicol. 1797.*

AT a period considerably antecedent to the date of the first number of our publication, this volume was presented to the world. According to general rules, it would, therefore, be somewhat disorderly to notice it in our Critical Catalogue. But as a second volume, (produced this present year), proves that its predecessor is to be considered as the first of an important series of a national work, we have ventured to introduce our reader to a book, which, if not new, is very important. Whatever future benefits may chance to flow from the institution of a Board of Agriculture, will cause the public to look back with solicitude to the narrative of its origin, so nearly prevented by the various political motives which enter into parliamentary discussions.

The preliminary observations, which are from the pen of Sir John Sinclair, form an authentic record of these circumstances. It is known that the proposal originated from this gentleman. He begins with disclaiming (with much magnanimity) all merit which may be imputed to him for the novelty of the idea: and very truly says, that the Board of Agriculture can only be esteemed an extension of that practice which was begun with the institution of the Royal Society, and the Board of Trade. Besides, the felicity of the invention is of small value, compared with the assiduous attention and abortive labour of years, which exercised the patience of the first projector of this particular board.

After a tour through the north of Europe, (in the year 1786), Sir John Sinclair returned to his native country with ardent ideas of national improvement; but, from some political coolness subsisting between him and the present administration, was compelled for some years to confine himself to exemplify in miniature (on his own estate) the great improvements which may be fostered into existence by the exertions of one intelligent individual, of constitutional benevolence, and adequate information. At the end of a laborious publication, given to the public in the year 1790, our author intended to have added a comprehensive sketch of the state of the nation; but his inquiries for this purpose only informed him, that it was impossible to compile any satisfactory chapter on that subject, without much deeper research than had hitherto been made. Hence, in his next visit to Scotland, he proposed to the clergy to communicate to him parochial information; and hence originated that statistical account of Scotland, which is perhaps *unique*, in combining the almost incompatible merits, of being at once a novel idea, and a fixed model for all future enquiries of the same description. Nine hundred individuals contributed their assistance to this work, which proves, that if our northern countrymen are not yet so much improved, that the spirit of improvement is much more general and more active there, than in the more favoured climate of South Britain.

At length, in the year 1792, Sir J. S. came up to London, at the commencement of the session, determined to succeed in establishing a Board of Agriculture, or to retire for ever from the unprofitable dia of politics to the improvement of his own estate. In opposition to the administration, dissuaded from the attempt by all his friends, he had to prepare for an uphill fight. Mr. Dundas, however, aided his countryman's proposal, and, on May 15th 1793, the requisite motion was made in the House of Commons. Mr. Pitt professed and maintained complete impartiality in the affair, and followed the decided sense of the house in afterwards forwarding the institution. But, even with this assistance, the forms of office were not completed till August 23d; and nothing more than a formal assembly of the members (on September 4th) was done till the regular meetings commenced in the month of January 1794. The original estimate of annual expence was lowered down from 10,500l. to 3000l.; a sum totally inadequate to any useful purpose, had it not been augmented by the voluntary contributions of some patriotic members of the Board. For, of the first 3000l., no less than 1189l. was paid for *fees* on the letters patent; and it appears in the account, (Appendix 1), that more than half the remainder returned into the Treasury in the shape of the paper-exise, advertisement duty, and postage revenue. The refusal of Mr. Pitt to grant to such an institution an immunity from the last charge, puzzles us exceedingly. It was impossible that such immunity could have been abused: and, without it, all exact survey of the country has been prevented. It is highly probable, that three-fourths of the possible utility of a Board of Agriculture has lain dormant from this impediment. To the granting of public money serious consideration is requisite, and all objections are to be attended to: but to frank future letters, which certainly will not exist, if they are not all franked, does not injure the revenue a penny. We forbear to enter on this subject farther than to observe, that if Mr. Pitt has any respect for the decisions of posterity, he is imprudent in not informing the public the motive of such an apparent caprice. It has withered the solitary germ of national improvement, which has met with delusive encouragement during his long administration. When shall mankind be blessed with statesmen, who shall snatch a few minutes from the low concerns of temporary policy?

In the various appendixes to the Prolegomena, Sir J. S. has proved that his scientific utility is adorned with classical information and literary habits. Appendix F is an interesting address to the clergy on statistical researches. A note at the bottom of the page develops the origin of this science, which will never be mentioned by posterity without a silent benediction on Sir John Sinclair. We have copied it in the preceding part of the magazine, as an agreeable and authentic document for the honour of the eighteenth century. It would much exceed our limits, even to catalogue the numerous heads of a business of such detail, as the collection of statistical information. We think that the world cannot be many years older before the intrinsic excellence of the object will conquer all obstacle, and these papers be fully and extensively circulated through the kingdom.

The first part of the Communications to the Board is composed of various descriptions, plans, and elevations of farm buildings. Thirty-

three copper-plates illustrate this division of the volume. As only men of considerable domain can have need of reference to this part, and as they may be supposed to possess the publication, we do not dwell farther on it than to say, that the descriptions are perspicuous, and the plates well executed. Much benefit will result to posterity from the gradual adoption of convenient buildings; but the nature of this benefit is *prospective*. What is said of granaries makes us believe that Du Hamel is forgotten; his inventions and experiments for the preservation of corn, we shall therefore take some early opportunity to insert in our publication.

The Second Part is occupied about cottages, and displays much humanity as well as ingenuity. The Third Part relates to roads. This being a more immediate and practicable improvement, is proportionally more interesting. An extract in our present number is only a *specimen* of the many luminous ideas contained under this title.

Part the Fourth is filled by foreign communications. For the encouragement of this excellent species of information, a Public Board is peculiarly proper. The various methods of cultivation, in various places, form a mass of grand experiments, far more imposing on the old-fashioned farmer, far more conclusive with the scientific agriculturist, than any insulated experiments, too often misrepresented by the enthusiasm of the projector. The first paper under this head is from Jerley, and proves that intelligent men compose a society there for agricultural purposes. The excellence of the sea-ore (there called *le varech*) for manure, is fully established. The neglect of this resource on the coasts of Britain, forms what old Hartlib would have called a *deficiency* in our practice. The effect of this manure is only visible in the first crop.

When we pass over into the continent, the assiduity of the president in forming correspondences becomes more evident. Flanders, Germany, Denmark, Sweden, and Russia, all indicate, by their intelligent replies to judicious questions, that the happiness of mankind must rapidly increase in the approaching century. Even Naples and Portugal manifest an inclination to improvement. From the East Indies is inserted some very curious evidence relating to the high antiquity of the *drill husbandry* among the natives. From America the communications are very respectable; Mr. Jay, Dr. Priestley, and the Father of his country, Washington, have all contributed. Dr. Priestley's letter is curious, as relating to Mr. Cooper, a self-taught farmer. To this man's exertions we are inclined to ascribe higher credit than does Dr. P., when he compares him to Mr. Bakewell. The decisive experiments for the more early maturation of grain, are of much more importance than Mr. B.'s improvement of cattle. There is reason to suppose that soon a very high value will be justly attached to early ripe seeds. General Washington promises that his retirement from public business shall be employed in the pursuits of improved agriculture—But the world has since lost in him one of her best citizens! A letter from Hanover concludes the foreign communications. From it, we learn with surprise, an old and deep rooted custom in Germany, of establishing a long course of future crops. This is there called the *Schlag* or *Koppeln* management. Such a system is a bar to improvement; and, therefore, has not our approbation. Our

precient speculators in this line did not know whom they were imitating!

The concluding Appendix opens with a very excellent circumstantial memoir on the art of building in Pisé: that is with hard rammed earth. It is general in the neighbourhood of Lyons, and is sometimes seen in Spain; it is an invention of the Moors. The durability of this mode of building is astonishing to us, who have always seen, with regret, the wretched mud walls of the English construction. But the evidence is incontrovertible. If it be found possible, some abbreviation of this memoir shall soon appear in our magazine. We wonder the experiment has not yet been made by some opulent patriots. The expence is little; the benefit might be immense. If any thing could speedily replace our awkward farm-houses, with higher conveniences, it must be some such discovery how to build cheap. The conclusion of the volume is a specimen of very pleasing detail, in the account of a happy cottager near Tadcaster. Instruction can never assume a more pleasing shape than personal anecdote. Honest Britton Abbot's œconomy may perhaps diffuse happiness among millions hereafter. It gives stability to an important maxim, (page 409) "That five unlighty, unprofitable acres of waste ground, would afford habitation and comfort to twenty such families as Britton Abbot's."

The foreign communications are of much less value on account of the want of marginal explanations of the different measures and weights. We suppose the beauty of the page was too much regarded on this occasion. In our next number we shall review the second volume of this splendid publication. It may naturally be expected to increase in importance, from the longer establishment of the Board of Agriculture.

II. *A poetic Survey round Birmingham, accompanied by a magnificent Directory.* By J. BISSET, Price 6s. with proof plates 10s. 6d. coloured 1l. 1s. printed also in colours 2l. 2s.—Among the various inventions which daily spring up at Birmingham, who could have expected the literary invention of a poetical dictionary? However, such a phenomenon is now presented to the public.—The many unpromising applications of poetry, which have extorted wonder as well as applause, made us careful not to determine prematurely, that even this innovation might not have received a sterling stamp from a master's hand.—In the present instance, indeed this is not the case; but the limping rhymes of Mr. B. cannot prevent the involuntary smile of good humour at the familiar comicality of the author. We are introduced to him by an address, which informs us, that he has before given some poetry to the world, whose success made him project the present work; and that he is so much engaged in business, that correctness of versification is not to be expected. A farther introduction affirms, that he offered to resign the happy thought of a Poetical Directory to the execution of any wiser head than his own—but finding none, he commences with a Poetic Survey.—Should any travellers alight at a Birmingham Inn (where they will find excellent accommodations) the author volunteers his services as the willing Cicero of the place. This, with his gratuitous exhibition of his museum, marks him at once, as one of those good-natured, familiar characters, which contain indeed nothing of the sublime, but much accommodation to all

the little desires of their fellow-creatures. When he gets us on St. Philip's tower, he begins his task with a cursory mention of all remarkable objects in view, and these are not a few, in and near Birmingham.—In general, it is a mere catalogue, somewhat adulterated with rhyme; but the notes contain valuable information. It would be unfair not to copy a few lines from the 11th page.

Close by yon' lake's pellucid stream, behold  
A Gothic pile which seems some cent'ries old,  
Vulcanic fancy there display'd her taste,  
And rear'd the fabrick on the barren waste;  
The FORGE materials for the work provides,  
Rude cinders clothe the front, compose the sides.

Except that a lake is not a *stream*, there is little to object to in this favourable specimen—*Vulcanic fancy* is very happy.—When we have completed the circuit of prospect from St. Philip's, we return to our inn, where the author promises to amuse us with a fable.—Though of late, English poetry has been so nearly weeded of mythological fable, that it has become justly ridiculous in serious composition; yet we think it happily introduced on this occasion.—Apollo, Mercury, and Bacchus descend from Olympus, and visit Vulcan at his residence, Birmingham.—His good cheer makes them all very jolly,

As Nectar, Bacchus praised the amber ale,  
Apollo sung, and Hermes told a tale.

They agree to inspect the curiosities to-morrow, and the conversation naturally falls into that channel. Vulcan descants with pleasure on the excellent police of Birmingham; says that it contains 80,000 inhabitants, and raises 30,000l. per annum for the poor-rate. They have two or three places of amusement, two libraries, plenty of stage-coaches, and a self-arranged establishment of hackney-coaches.—The banks remained unharmed in the late discredit of bank-paper.—Vulcan says, the fires and smoke of Birmingham *purify* the atmosphere.—This is *Vulcanic doctrine*.—The word *shop*, has probably, some peculiar provincial meaning in p. 26—where 10,000 shops are reckoned to 15,000 houses. If strangers stay long enough in the town, time will reconcile them to the rough pavement,—But what a foot-rending novice! We do not understand Apollo's arithmetic about the number of public-houses,—Hermes should have explained—Are there 400 or 500?

In the *Morrow's Ramble*, the Gods *wonder* at every thing.—The consumption of coals, the pin-works, the button-works, Mr. Boulton's inventions at Soho, the stained-glass, and letter-foundry. The author's museum is omitted in a modest hiatus. Guns and swords, buckles and whips, and patent inventions innumerable, pass the celestial review with applause.—Birmingham is pronounced (happily we think) “the toy-shop of the world.” The Gods bestow a benediction on the town, take a glass with Vulcan, and return with a fund of anecdote to the skies.

The author adds a postscript of unjustifiable tendency, inasmuch, as it renews the clamour of Birmingham, to compel the public to wear buckles.—So that buckles are not made for the purpose of being worn, but the public exist for the purpose of wearing buckles! That workmen in fancy trades are liable to a casual dullness of demand, they

know when they engage, and must then try to acquire some other handicraft.—During this war, they have, in this case, turned soldiers,—while somebody must be idle, and fight at the expence of the public, it signifies little who it is.—Many people of genius find no employ at Birmingham; because (probably) so many *do* find employ there, this crowd of genius is allured thither. The author is of opinion, that many able minds are extinguished for want of encouragement, which he solicits for them. We must be allowed to retain considerable reverence for the strong exertions of the Goddess Necessity; her stimulations are seldom so severe as to be fatal.

After the reference to the plates and an index, the author draws an ideal inference in rhyme. He augurs that foreigners, kings, literati, and savages, may, through the medium of his Directory, become acquainted with the origin of those English manufactures which constitute the luxury of the savage,—and truly observes, that exported tools, looking-glasses, &c. have their origin at Birmingham. If they are not excellent, compared with more expensive fabrics, they are really so in every other point of view. If cheap commodities are called for, they must be made coarse.

The copper-plate directory (which forms the last half of this volume) is well executed, and contrives to introduce many sketches—of these, the buildings will be a pleasing reference in future times; and the tools, glass-house, &c. must interest the present inquisitive generation. Those views which occupy whole prints, are of course, the most pleasing.—But the necessary insertion of names made this improvement of *every* print impossible..

Considering this work as a subordinate attempt at topographical information, we applaud the tendency, and hope that it will be an inducement to abler pens, to solicit encouragement in the various districts of Great Britain, to delineate separately, the prominent features of each remarkable place. Manchester has produced such a work, though by this time, it wants a supplement. If this rude sketch of Birmingham, while it gratifies, whets an appetite of farther information, and exhibits some omissions easily filled,—we hope other towns will throw in with confidence their contributions to general information.—So shall a basis of the interesting detail of our superlative industry and resource, promise a good superstructure from some future masterly hand.

III. *An Historical and Practical Essay on the Culture and Commerce of Tobacco.* By WILLIAM TATHAM. *Vernor and Hood.* 1800.—After a manly preface, tinged with the well-earned independence of an American, the author says, very pertinently, that the prevailing ignorance of the culture of a common commodity has induced him to give this volume to the public. The most remarkable feature of the tobacco-plant, is its extreme exhaustion of the soil, so that scarce any manure or cultivation can fit the common earth for its production. The putrid soil, formed by the annual deposition of leaves in the eternal forests of America, must be aided by the powerful manure of the wood-ashes from the felled timber, before sufficient nutriment is insured for this most voracious plant. Hence we see, that by a happy coincidence, the prohibition against planting tobacco in England, dictated for the purposes of taxation, is not less proper in an agricul-

tural view. We have no manure to spare: wheat is not *too plenty* in England, When we farther consider (from the information contained in the volume before us) what assiduous labour is bestowed on this unnecessary production, we have still more cause to rejoice, that British industry is more profitably exerted. The plant-beds (technically, *plant-patches*) are ingeniously defended from the fly, by sowing around them mustard-seed, which attracts these ravagers in preference. The intended tobacco field being in a rough state, from the late destruction of the timber, is thrown into shape by the hilling-hoe, which, worked in a circle round the leg of the labourer, leaves *hills* at a distance, guessed at four feet by three. When the *season* for planting (that is, a sufficient quantity of rain) has made the ground sufficiently moist, all hands are eagerly employed in *pitching* (that is, in planting) the crop. This is done, if possible, in May; and the best size of the young plants for transplantation, is when the leaf is not less than a dollar. When the tobacco-plant, aided by perpetual weeding and pulverization, is well grown, it is *topped*, to prevent its running to seed. If nature makes another attempt at seeding, by throwing out suckers from the stem, a second operation, called *suckering*, is also necessary. If the plant escapes a blight, called *spring*, it is cut (at maturity) by a strong knife, and left some days to dry on the ground. It is then removed to an occasional edifice, prepared for *getting it in case*, called a tobacco-house, of rough construction, and by joists accommodated to the reception of the plants, hung on sticks, four feet long. It is thus *cured*; then *stripped, bundled*, and stowed in hogsheads for the market, or rather for the legal inspector, who decides on its quality. To this purpose the hogsheads are broken up, and a severe and expensive scrutiny takes place. If judged not marketable, the tobacco is burnt; but, on the other side, if approved, it immediately becomes ready money in Virginia, by means of *tobacco-notes*, issued by the inspectors. It appears that the rent of the land is estimated at one-third of the value of the crop; the provision for the slaves and materials at another third, and the labour completes the total. It appears, therefore, that the gross amount of the produce is only *three rents*; that is, that the landlord shares but one *third* for this extreme exhaustion of his soil; in the arable lands through England he probably receives the *fourth* for a perpetuity. We have thus given a general idea of the cultivation of tobacco; but its circumstances are so distant from any native production, that even its *carriage, its packing, and its inspection*, fill many pages of interesting information.

The commerce of tobacco dates from the year 1586, about thirty years after the Spaniards had discovered it in America. Sir Walter Raleigh is well known as the first *smoker* in England; and King James I. made himself as conspicuous by a royal publication, entitled, "A Counterblast against Tobacco." However, the good king's apprehensions for the health of his subjects seem to have been unfounded, and tobacco remains a harmless luxury of the lower orders of society. At that time it appears that tobacco (though almost duty free) sold for three shillings *per pound* in England. This temptation made the Virginian colony more attentive to tobacco than to corn; which caused many restrictions on the quantity to be planted, and many

frauds in selling damaged tobacco. Hence inspectors were appointed in 1639. This document of Virginian legislation is given at length.

The lighterage, manner of stowing on board, freight, &c. is then detailed; and, pursuing the tobacco in its voyage, the author then proceeds to give the arrangements of British finance on this article. This part of the work is of course more useful than entertaining: but quite necessary. It seems that we consume in Great Britain about 11,000,000 pounds *per annum* of tobacco, besides what is introduced by smuggling, which, however, is not (at present) any large quantity. Mr. Pitt has been attentive to reforming the tobacco department of the Custom-house, and has succeeded in his attempt.

We read no part of this volume with more pleasure, than the promise of a continuation of the subject into the manufacture of tobacco; if that be as accurately performed as the present work, we shall have a resource of standard information on one subject more. Much foreign information will be requisite to the task; but the author has given happy symptoms of assiduity in research. His long residence in Virginia stamps authority on the present volume, in which are four well executed copperplates for necessary elucidation. Those who are in the habit of collecting all valuable modern publications, will find this volume a reputable addition to their library.

IV. *Letters and Papers on Agriculture, Planting, &c. Selected from the Correspondents of the Bath and West of England Society. Vol. 9. Cruttwell, 1799.*—This publication, far the most ancient and most extensive of our agricultural societies, and from which indeed they have all emanated, is well worthy of its origin. It is prefaced by a long introduction by the Secretary, Mr. Matthews. After a very modest exordium, which professes that the most valuable part of the succeeding pages is copied from the substance of what he had learnt from the conversation of various members of the Society, Mr. M. proceeds to discuss, in an able manner, the increase of population, the size of farms, planting of timber and orchards. Live stock, he justly observes, has been a peculiar object of the Society; and the intended annual mart at Bath, for *model* live stock, promises an extensive increment of utility in this article. We consider the idea as remarkably happy: the world is much obliged to its unrecorded author. The arguments for the various breeds of sheep could not have been so ably concentrated, without very extensive observation. A moderate mixture of the Chinese breed with our English swine, is approved of; and the utility of this animal, in the scarcity of other meat, well insisted on. Its speedy growth is in this view a most valuable quality. Much commercial knowledge of the wool trade is displayed, and something like the ancient wool staples proposed—An excellent idea. The Monthly Reviewers, who had wished for a wide border of all roads on new inclosures, are very respectfully informed of their error. They will certainly acknowledge it after this decent animadversion. After mentioning, that as agriculture is not the *exclusive* object of the Society, much of the volume is on miscellaneous objects, Mr. Matthews closes the introduction. From it, we have additional cause to hope, that we have been misinformed as to Mr. M.'s retirement from his station. *Quando ullum invenient parem?*

The first paper is a series of careful experiments on the planting potatoes—Page 22 is a valuable detail on the comparison of the broad cast and drilling husbandry.—The next paper is on the same subject, by the Rev. H. I. Clofe, who proposes a *bet* of 1000l. on the subject, in favour of the Drill System. We are afraid, from the size of certain turnips, (25 pounds) that many will conclude this gentleman sees with the eyes of an enthusiast in his art. But he is a useful man.—Mr. Hobhouse, M. P. has communicated a patriotic paper on Inclosure Bills; but we cannot wish for a palliation of the evil resulting from waste lands; we rather desire the absurdity to remain in its naked deformity, till the growing intellect of the Legislature shall abolish it at one grand effort. Compromise is here a crime.—Page 62. A very luminous essay on the Commutation of Tythes, by Mr. Price. He has irrefragably defended his former opinions.—Page 85. Furze is proved a good nutriment for horses.—Page 97. A series of experiments (detailed with very commendable precision) on Smut in Wheat. The author found a remedy in a vitriolic infusion and quicklime. We *hope* this may be farther established. It is a difficulty of serious importance.—Page 131. A very concise account of English grasses. The disciples of Linnæus seldom produce any thing so useful as this treatise. It will surprise some of our readers to be told there are a hundred and eight sorts of *grafs* in England—At page 166, commences an elaborate discussion on the Bite of the Mad Dog, and its proposed cure by olive oil. We much approve of the judicious liberality of Dr. Fothergill in sending this paper to the Bath Society, rather than appearing in a pamphlet. He has insured more permanent utility, as well as fame, by inserting it in so reputable a collection.—Page 218. The questions proposed by the Board of Agriculture are judicious. We fear Mr. Parsons has been ambitious to answer *too many* of them.—Page 245. A valuable paper on Population, by Sir John Call, M. P. Who can read, without emotion, that this veteran patriot is afflicted with blindness, and yet stays not his exertions for his country's welfare?—Page 344, Englishmen are consoled with a proof, that if Spanish wool ceased to be imported, our own flocks may cover us with cloth worth 15s. 6d. *per* yard.

We have omitted to notice many valuable articles from our necessary limitation of space, and because we suppose most of our readers also read the volumes of the Bath Society. The list of premiums is really magnificent: it is a national honour: neither is the judicious distribution less reputable than the liberality which dispenses it. Perhaps that England is not at present labouring under the horrors of famine, instead of the hardships of scarcity, is due to the many improvement of modern agriculture; and in the diffusion of these improvements the Bath Society has been far pre-eminent. Let the grateful nation pay due honour to this band of patriots!

# HISTORY.

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## National Transactions,

CIVIL AND MILITARY.

**EAST INDIES.**—A body of those religious enthusiasts, called *Fakers*, have lately caused great commotions in the vicinity of Trichinopoly, which made it necessary to call in the military; nor were they appeased until some field pieces, loaded with grape shot, were pointed against them, which reduced them to order.

The Birmans, or rather a body of their licentious troops, have lately made inroads into the British province of Chittagong, under pretence of apprehending some emigrants who had fled from Arracan, but apparently with a view to plunder, as they have committed every kind of outrage on the defenceless inhabitants, by plundering them, and carrying off their cattle and effects, and, in some places, have even set fire to the cottages. An officer (Lieutenant Hall) has been deputed to the frontiers of Ava to make some arrangements that may prevent such depredations or invasions for the future. It is said Mr. Hall has authority to give up the fugitives, if a satisfactory explanation is obtained.

The enemy's privateers begin now to infest the Malabar coasts; four or five vessels, of from ten to twenty-four guns, having made their appearance off some of the ports.

By the destruction of Tippoo Sultan, the East India Company will gain a very considerable accession of dominion and income. Several districts from Negur and Boredne, and several from Coimbatour, amounting in the whole to a revenue of 7 lack 77,170 rupees; out of which they are to pay near two lack and a half for the maintenance of the Mysore princes and the family of Tippoo Sultan, and will leave a gross income of five and a half lack of rupees.

**EGYPT.**—In our last we mentioned a report that seven thousand of the Convention troops of Egypt had arrived in France; we now find that report was untrue, and that some ships, with invalids only on board, had arrived. In one of these ships was General Desaix, who was second in command, and who on his passage was stopped by one of Lord Keith's cruizers and carried into Leghorn, where, after being some time detained, he was released by order of his Lordship. This ship sailed on the 5th March, when every thing appeared favourable to the execution of the Convention. But soon after her departure, some disputes arose, which have ended in a renewal of hostilities. We have hitherto received no exact accounts of this affair, but the most probable, is that which has been transmitted from Vienna by the Spanish ambassador there to France; this account says, that the *scavans*, or learned men, who were at Cairo, were coming down, under an escort of French troops, to Alexandria, in order to embark. They had scarcely left Cairo, when a dispute arose between the Turkish troops and the French escort, which ended in hostilities, and the Turks cut the escort, and the men whom they were guarding, to pieces. That, on hearing this, General Kleber saw there was no reliance to be placed in Turkish faith; he broke the convention, attacked the vizier's army of 20,000 men, and almost literally cut it to pieces, the vizier, with a few of his attendants only, escaping to Gaza. It is confidently said, in the ministerial circles, that Sir Sydney Smith, after

the convention, told Kleber, in confidence, that he, Kleber, must not put too much reliance on the Turks, for it was not in his power to guarantee any treaty; so little influence had he over this wild race. A new field of speculation now opens, whether Kleber, deprived of reinforcements, can maintain his ground, and this he can probably effect only by a treaty with the discontented Pacha of Acre. Without this aid, he and his brave followers will most probably fall, but, with it, he will possibly be enabled to destroy the Turkish empire in Asia.

NAPLES, MALTA, and SICILY.—Malta still holds out, which seems to confirm the accounts sent from France, that a part of the convoy which sailed with the *Genereux*, had got into the port. The royal family of Naples still remain at Palermo, but, it is said, the queen is preparing to set out for Vienna, most probably with a view to the king's return; for although his Neapolitan majesty has numerous friends in his capital, the hatred of the queen and her favourites is so great, that any attempt in her to return would probably be attended with destruction.

Other ITALIAN STATES.—Massena, whom we left blocked up in Genoa, was summoned by General Melas to surrender, which he refused; and having received some small supply of provisions from France, continued to make the most obstinate resistance. A strong proof that the Austrians stand in dread of the besieged is, that General Melas had thrown up entrenchments all round the camp, and had been obliged to strengthen the blockade by cannon landed from the English fleet.

After having completely blocked up Genoa, General Melas, on the 30th April, assisted by Lord Keith, made a general attack on that city on every side, and succeeded in making themselves masters of several posts; but these were all retaken by the French in the evening. In these actions the Austrians must have sustained great losses. In a sortie on the 2d May, the French were driven back with the loss of about 300 prisoners. After these actions, General Melas left the blockade of Genoa, and marched to attack General Suchet, who was defeated, and lost 1500 men, who were taken prisoners. He then retired through the country of Nice to the left bank of the Var. The Austrians advanced, took the two castles of Nice, and, by another attack, got also possession of the Col de Tende. But, while on this expedition, Massena made two very successful sorties from Genoa, in the first he made 1500 prisoners, and penetrated to Vottri, seven miles from Genoa; in the second, he made 2000 prisoners. The situation of the two armies was such, at one time, that there appeared little doubt of Genoa holding out till the Grand Consul could come to its relief, or till General Melas should be under the necessity of withdrawing his army.

While the siege of Genoa was pressed, Savona remained blockaded till the 18th May, when, having expended all their provision, and from the vigilance of the English navy no supply being able to get in, the garrison surrendered, on condition of being prisoners of war. This certainly was an important acquisition to the allies; its vicinity to the sea will enable the British fleet to throw supplies into it at all times.

General Melas having taken possession of Nice and the banks of the Var, left there from twelve to fifteen thousand men to keep Suchet in check, and marched to Turin, to cover that place, and meet the French army of reserve, under the command of Berthier.

The passage of the French army of reserve, over Mount St. Bernard, has, however, given a most decided change to the war in Italy. Suchet is again advancing from the Var, and Monecy from Mount St. Godherd, to join the Grand Consul: and Melas had taken post near Turin, and was collecting his forces.

Here it seems necessary to detail how so many French troops, or rather armies, appear in a moment in Italy. On the Var, the approach of Melas had caused the inhabitants to rise in a mass, and a reinforcement being sent

from the commander of that district, enabled Suchet again to advance. Over Mount St. Barnard the Grand Consul had passed with 25,000 men; a passage effected with incredible fatigue and exertions; and General Moncy, with 20,000, was advancing by the way of Mount St. Gothard. The surrender of Genoa took place early in June, the garrison being completely starved out. A most singular circumstance took place. Almost at the moment Massena made overtures to the Austrians for the surrender of Genoa, the Austrian commander received orders from General Melas to raise the siege. The French having got possession of almost all the Austrian magazines, the army of General Melas must now be victualled by means of the British fleet.

The new Pope, although only now nominally an Italian prince, has begun his career by declaring, that republicanism is inconsistent with the catholic religion.

FRANCE.—The Grand Consul having reviewed the army he found in Switzerland, immediately put it in motion, crossed the great St. Bernard, and sent it forward under the command of General Berthier, who, on the 18th May, had taken Aost, and reduced the castle of Bard. The operations of the army since is detailed under the head of Italy, as that of the army in Germany will be there noticed. Meantime, in France, during the absence of the Grand Consul, all the functions of the legislative body are suspended.

Of the state of this country we have had very contradictory accounts; but, lately, from sources on which we can depend, we have learned the truest statements. The commerce of the country with foreign parts is now entirely at a stand, or bounded by the small quantity of goods taken off by foreigners. Manufactures, also, are not in great activity; and this accounts for the speed with which they have, in a short time, raised and recruited their armies. But, in point of agriculture, no country in Europe exhibits so fine a prospect. Every article of the produce of the earth is in great plenty, and cheap. Notwithstanding the atrocious means by which Bonaparte acquired power, it is certain that the use he makes of it gives entire satisfaction, and that the people repose the utmost confidence in him. From all accounts, it is evident, that the people of France has never, since the beginning of the revolution, been so united as at present. The emigrants who have been permitted to return to France by the mercy of the present government, have already shewed their incorrigible disposition, and have behaved so badly, that many of them have been seized and again transported. From this stigma, it is proper to exempt those called constitutionalists, who have never, in any case, shewn themselves the enemies of their country. The Netherlands which are now united to France, seem also to enjoy profound quiet, and we hear no more of any expedition intended to disturb their peace.

The French fleet, it is said, put to sea, but on receiving intelligence that the British fleet, under Lord St. Vincent, was approaching, they returned into port, and went up into the inner harbour of Brest.

The American envoys have begun to treat with the French ministry.

The coasts of France have been much annoyed by the squadron under Sir Edward Pellew; but no other service seems to have been performed, except burning a few small ships.

HOLLAND.—This country being relieved from the fear of any future invasion, the government now turn their attention to commerce, and several regulations have been lately made to permit the importation of certain goods in neutral ships. This will prove of essential prejudice to the commerce of Hamburgh, as the Hollanders will now be enabled to supply themselves at a much cheaper rate than by the former circuitous channel.

PRUSSIA.—How far the negotiation may have advanced we are ignorant; but it seems generally to be allowed, that a treaty or treaties are on the carpet with the four northern powers, to support the principles of the armed

neutrality. Sweden and Russia, we know, have entered into an agreement for that purpose, and the two monarchs of Denmark and Prussia are, it is feared, about to accede. The general opinion of well-informed persons is, that this powerful coalition waits only until the Russian ships and troops are known to be out of the English ports, to declare themselves.

RUSSIA.—The hostile disposition of the emperor of Russia toward this country has been long apparent. It was confidently said, that he detained all the British embassy, Sir Home Popham, and the King's messengers, at Petersburg. The two latter, however, are returned, and we do not hear that the British commerce, in Russia, has met with any material impediment.—We have no late news of importance from this country. Suwarrow is certainly dead, and died, as he deserved, in disgrace with the emperor; for certainly the man who lost, in a few months, upwards of 35,000 men of the finest troops Russia ever sent into the field, was mercifully dealt with not to have ended his days in Siberia. Indeed, every humane heart must rejoice at the death of this blood-thirsty monster, who, at Imael and Prague, butchered thirty thousand unarmed men, women and children, in cold blood.

GERMANY.—Since our last, the defeats of the Austrians, in Germany, have been fully confirmed. The manœuvres of Moreau so completely deceived General Kray, that the former had collected all his forces in front of Stockach; and, before the whole army of the Austrians could come up, General Lacourbe, with the right wing of his army, attacked the forces at Stockach, while Moreau himself did the same by the troops at Engen, defeated them, and took from five to six thousand prisoners. The French then pushed on to Moskirch, when, in a second action, they killed and wounded three or four thousand men, and took an equal number of prisoners. The Austrians then crossed the Danube, were pursued, and lost one thousand five hundred prisoners. General Kray continued to retreat. At Biberach the French came up with him, killed and wounded a great number, and took two thousand prisoners. At Memmingen the Austrians were again broken, and lost an equal number of prisoners. General Kray then retreated towards the Danube, and took post near Ulm, where he threw up entrenchments. Moreau pursued him, and encamped on the banks of the Iller, when both generals seem, as it were by strict consent, to give their troops some respite. La Courbe, with the left wing of the French, possessed Memmingen. Moreau, with the main body, was between Biberach and the Iller, and the left wing was marching along the left bank of the Danube. Divisions of the French army are, however, advancing in every direction, where the Austrians have magazines. So successful were they in these expeditions, that General Moreau had sent 1,500,000 rations to the army of Italy. The division of the French army under General Vandamme, mean time was employed in clearing the banks of the Lake of Constance, of the enemy. The Austrian flotilla, on that Lake, has been destroyed, and General Prince Reufs, finding himself unable to effect a junction with General Kray, had retired into the Tyrolese. The French flotilla had possessed itself of Lindau.

After some days respite, Moreau pushed his right wing on to Augsburg, and drew his forces from the left of the Danube, by which means his army seems to have taken a new front; and, instead of facing towards Bavaria, is now in face of the Danube. He appears to have taken this position, with a view to prevent any reinforcements being sent to the army of Italy. Moreau, however, did not take this position until he had reconnoitered Ulm, and found the position of the Austrians too strong to be attacked. Later accounts inform us, that Moreau had threatened Munich, and that the elector of Bavaria had quitted that place. We are also told, that the French had offered his electoral highness a neutrality, on the same terms as he had settled in 1796; but that the emperor had refused to let his troops quit the Austrian army.

SWITZERLAND.—The theatre of war is removed from every part of this country, except the Grisons territory. The grand consul, in his passage through Switzerland, had an audience of some of the directors; and here, as in every other case, Bonaparte seems to make moderation the order of the day. French troops are daily filing off through this country, either to join the French armies of General Monecy, or the grand consul.

IRELAND.—The long-expected trial of the celebrated James Napper Tandy and Mr. Hervey Morris, after having been postponed for the arrival of Sir James Crauford, who had been British resident at Hamburgh, when they were seized, came on, on Monday, May 14, in the Court of King's Bench, Dublin. When Sir James Crauford, having proved that the prisoner would have had sufficient time to have taken the benefit of the fugitive bill, had he not been arrested at Hamburgh, the jury found a verdict of acquittal. The attorney-general then consented to withdraw all proceedings against Mr. Morris. They were both, however, remanded to prison by the court, and it is said that Mr. Tandy will be tried for High Treason.

The houses of parliament of this kingdom, are still employed in passing through the various bills which are to complete the Union. The bishops which are to be returned to the united parliaments are to be in the following scale of rotation; four for each session, viz. the primate, bishops of Kildare, Meath, and Derry; first session. Archbishop of Dublin, bishops of Limerick, Rapho, and Dromore; second session. Archbishop of Cashel, bishops of Down, Elphin, and Waterford; third session. Archbishop of Tuam, bishops of Cloyne, Leighton, and Cork: fourth session. Bishop of Killala, Kilman, and Clogher, and an archbishop; fifth session. Bishop of Ossory, Killala, and Clanfort, and the archbishop the sixth session. The representation in the commons is to be, two for each county, two for Dublin, Cork, and one for each of the following towns, Waterford, Limerick, Belfast, Drogheda, Newry, Kilkenny, Derry, Galway, Clonmell, Wexford, Youghall, Brandon, Armagh, Dundalk, Kinsale, Lisburne, Sligo, Carlow, Ennis, Dungarvon, Downpatrick, Colleraine, Mallow, Athlone, New Ross, Tralee, Cashel, Dungannon, Port Arlington, Inniskilling, and Carrickfergus.

Mr. Luke White, who took the last loan, made a deposit of five per cent. but found the bargain so very disadvantageous, that he determined to give up his contract, and forfeit his deposit. The Irish government were, therefore, under a necessity of making a new loan, which has been done at a loss of three per cent. besides the five per cent. forfeited by Mr. White.

From Ireland we learn, that many of the most violent opposers of the Union, seeing the measure now inevitable, are exerting all their influence with the people to reconcile their minds to it. A very laudable and very prudent measure, as a great degree of fermentation still prevails in that country.

WEST-INDIES.—The many packets on the West India station, which have been captured of late, has been of great injury to the persons engaged in commerce to these islands. It is to be hoped that some useful regulations will take place with respect to the construction of those vessels, as the present set of vessels seem calculated neither for defence or sailing.

The very important question of the Slave Trade has been put off till next session, the Chancellor of the Exchequer having declared that he found the session too far advanced to proceed with a bill, or measure, of such vast importance.

BRITISH PARLIAMENT.—Tuesday, May 20th.—Mr. Tierney moved for an account of all permanent taxes for the year, ending 5th of April, 1800, and also for an account of the expences attending the execution of the Income Tax. A report from the committee of ways and means was brought up, respecting the Income Tax, and a bill ordered to be prepared on the resolutions contained in that report. The house resolved, that a bounty of the sum

between the average price and 65s. per quarter, be given on all rye imported into Great Britain before the first of October next.

In the House of Lords, on the same day, the Lords resolved themselves into a committee on the bill to prevent the Crime of Adultery, when several amendments were made, and the bill was ordered to be reported.

On the 22d, Sir Henry Mildmay, after expatiating on the success of the Romish priests, in this country, in making converts, moved that a bill be brought in to restrain their conduct. Leave was given accordingly. Mr. Pitt brought in the bill for laying a Tax on Income, which was read a first time, and ordered to be printed.

On Friday, May 24th, the Divorce Bill was again the subject of debate. On a motion of Lord Auckland, for reading it a third time, Lord Westmoreland, the Dukes of Clarence and Cumberland, and Lord Hobart, opposed the bill. Lord Auckland, Lord Eldon, Lord Grenville, the Bishops of London and Rochester supported it; when, on a division, there appeared, for the bill, 77; against it, 69. Majority in favour of the bill, 8. The same day, in the House of Commons, on a motion to take into consideration the Union with Ireland, Mr. Bird presented a petition from weavers of Coventry, praying that a higher duty should be laid on the importation of silk from Ireland. The house went into a committee on that subject, and the resolutions passed as they originally stood.

Monday, the 26th, the Earl of Westmoreland laid before the House of Lords a copy of the resolutions of both houses of the Irish parliament, respecting the union, declaring that they had agreed to the resolutions of the houses of parliament of this kingdom. The resolutions of the Commons respecting the countervailing duties, were brought up.

The bill for Preventing Adultery was brought from the Lords to the Commons. When Mr. Pitt moved, that a further subsidy of 566,688*l.* should be granted to the elector of Bavaria, as a subsidy for the troops of that power employed against France; which, after some conversation, was agreed to.--- The Adultery Bill was read a first time, but not without great opposition; and a division being called for, the house then went into a committee on the bill for regulating the income tax, in which some amendments were made.

Friday, May 30th.---In the House of Lords the speaker informed the counsel employed against the Wet Dock Bill, that they might have their choice to oppose the bill, in the present stage, or before the committee; when they made choice of the latter.

The Adultery Bill was read a second time in the House of Commons, and agreed to be sent to a committee. Sir William Scot spoke at great length against the bill, and urged the most conclusive reasons against passing it in its present state; but advised sending it to a committee to render it, if possible, beneficial.

On Thursday, June 6th, Mr. Tierney made his long-promised motion, respecting the repeal of the income tax: he shewed, in a very long speech, the general bad tendency of the measure; and was answered at great length by Mr. Pitt. On a division, the numbers for the repeal were 24.--- Against it, 114.

In the House of Lords, on the 6th, Lord Carlisle complained of a breach of privilege; but, as the house was immediately cleared, the subject has not been made public. It was ordered to be taken into consideration on the Tuesday following. The bill to prevent Property from being Left to remote Posterity was read a second time. In the Commons, Mr. Dundas moved for leave to bring in a bill to establish certain regulations for the government of British India; the chief of which was to unite the two presidencies of Bombay and Madras into one, and to punish by transportation, instead of death, in many criminal cases.

On the 9th of June, on a motion of Mr. Windham, a select committee was appointed to consider of an asylum for the children of soldiers. Next day, on a motion for the speaker to leave the chair, in order for the house to go into a committee on the bill to punish the crime of adultery, Sir George Heathcote opposed the motion, and was answered by Mr. Eiskine. After a very long debate the house divided: for the motion, 104. Against it, 149. Majority against the bill, 39. On the 11th, Mr. Pitt gave notice, that the Irish-parliament had agreed to the countervailing duties necessary on the importation of the commodities of Ireland into Great Britain.

June 16th.—Mr. Pitt brought up an exemplification, under the great seal of Ireland of an act, passed in that country, relative to the return of members to serve in the Imperial parliament. The Miller's Bill was read a second time, and committed. On the next day, a message was received from the King, stating, that doubts had arisen respecting the rights of his Majesty, and his consent to give a title to their personal property, and requesting the house to take it into consideration.

The following public paper has been laid before the House of Commons:

*Actual Expenditure of Great-Britain for the Year, ending Jan. 5th, 1800.*

	£
Interest of National Debt - - - -	20,451,240
Interest of Exchequer Bills - - - -	1,021,626
Civil List and other Charges - - - -	1,136,424
Civil Government of Scotland - - - -	71,632
Payment for Bounties, &c. - - - -	484,274
Navy - - - - -	13,036,487
Ordnance - - - - -	2,221,575
Army - - - - -	14,140,149
Loans to Foreign Powers, &c. - - - -	3,825,000
Miscellaneous Services - - - - -	1,177,952
	57,566,306
Deduct Irish Loan - - - - -	2,000,000
	54,566,306

## Commercial Affairs.

THAT great work, the Grand Junction Canal, is completed from Brentford to Fenny Stratford, and has been opened with some pomp. This completes the great design of the late Mr. Brindley, and opens a canal communication between the four great ports of London, Bristol, Liverpool, and Hull. Besides the communication opened between those parts, it also makes a free water communication with an immense number of towns of some consequence; and which, we have no doubt, will, by means of this plan, rise to greater importance.

Mr. Yates, of Colebrook Dale, has navigated his barge from that place to the Hamburgh Wharf, London. This voyage, if it may be so called, was near 400 miles: he stopped at several places, particularly Worcester and Gloucester, to deliver goods, and take on board other commodities. He brought iron from Colebrook Dale; and had on board, when he arrived, Staffordshire pottery, and cheese from Gloucester, besides other commodities.

Much opposition is made to the bill allowing the importation of foreign hops, by the hop-dealers of Kent. Meetings have been held at Maidstone and Canterbury, and petitions prepared against it. The members of the county of Kent have been called on, and have promised to give it a decided opposition.

The government of America have established a mine and metal company; and the bill which permits its incorporation, authorizes the President to subscribe 50,000 dollars to the fund, on account of the States, as soon as the company's capital shall amount to 150,000 dollars.

*Correct Account, taken from the Custom-house Books, of the Corn, &c. imported into England, from the 28th of December last, to the 17th of June instant, inclusive, distinguishing the different Species:*

Wheat	419,804 Quarters.	Oats	108,966 Quarters.
Wheat Flour	51,448 Cwt.	Oatmeal	1,657 Cwt.
Rye	55,410 Quarters.	Pease	5,190 Quarters.
Rye Meal	2,157 Cwt.	Beans	5,444 Ditto.
Barley	10,878 Quarters.		

## Reports of Commercial Cases.

**COMMON PLEAS,** Guildhall.---*Pair v. Meares.*---An action was brought on a bond, which the witness had not seen regularly acknowledged and delivered. Lord Eldon was of opinion, that the silence of the defendant, when the witness put his name, was a virtual acknowledgment of the deed, and a verdict was given for the plaintiff. *Same Court.*---*Harris v. Wardale.* Defendant had sold 375 quarters of oats, at 32s. which were to have been shipped in the Humber, but had never delivered them, pretending he was acting as factor for another; but it being proved that oats had risen to 48s. per quarter, and that he had made his agreement, in his own name, a verdict was given for the difference.

*King's Bench.*---*Hannea v. Jackson.*---This was an action brought to recover, for the loss of goods delivered to a common carrier. When the goods were delivered at the inn, the book-keeper refused to take charge of them, unless the sum of two-pence was paid for booking, which was refused. Lord Kenyon was of opinion, that the refusal of the sum for booking did not make the contract binding, and therefore the plaintiff was nonsuited.

*Same Court.*---*Dent v. Hawes.*---This was an action, brought by a gentleman farmer, against a salesman, for not selling his sheep at the best price; but the defendant producing evidence to prove that the price obtained was fair, a verdict was given in his favour.

*Same Court.*---*Alpinall v. Pickford.*---This was intended to try whether the defendant, who is a common carrier, has a *lieu* for his general balance for any goods in his possession; and the jury, under the direction of the chief justice, determined that he had; and gave a verdict accordingly.

*Common Pleas.*---*Edwards v. Bolts.*---This action was brought to recover damages of the defendant, for not having taken proper care of a hogshead of wine, sent to him to be shipped from his wharf. The jury gave a verdict for the quantity lost, contrary to the opinion of the chief justice.

*King's Bench.*---*Milne v. Petrie.*---The plaintiff had sent money to the defendant to purchase stock in the funds, which he had neglected to do; and this action was brought to recover the difference between the value of stock when the money was remitted, and the present time. These circumstances being clearly proved in evidence, a verdict was given for the plaintiff for that sum.

*King's Bench.*---*Colby v. Hurry.*---The damages were laid at 920l. for the loss of the plaintiff's ship, run down by the defendants, at Guernsey.---The witnesses having proved the fact, and the gentlemen of the Trinity House (who, in these cases, assist the chief justice) being of opinion that the defendant's ship was not properly moored, the jury found a verdict for the plaintiff.

*Common Pleas.*---Anderson v. Maxwell.---Action to recover, for *crimpage*, or procuring seamen for the defendant, who was captain of an India ship; and the defence set up was, that each man was to pay his own *crimpage*; but as the captain had employed Anderson, and the custom of that was against him, the jury gave a verdict for the plaintiff.

## Manufactures and Useful Arts.

A BILL has been brought into parliament, which seems to have given a very serious alarm to the owners and workers of mills, near London.--- The title of the bill is "to entitle the King to incorporate certain Persons, by the name of the London Company, for the purpose of manufacturing flour, meal, and bread. The miller's state, that the granting such a monopoly will be certain ruin to them; and offer to prove, at the bar of the House of Commons, that it is the interest of the millers to keep down the price of wheat---that, being many, these efforts are more effectual than if made by one company---that the agents of the late Albion Mill Company were constantly the cause of raising the prices of wheat, and that the millers have always been the means of keeping the markets down.

A Ploughing Match, for premiums given by the Bath Agricultural Society, was decided at Melbourne, near Sherburne. The premiums given were three; and, although of no great value, produced much competition; and prove that these encouragements are of singular advantage to agriculture, by exciting emulation.

A person has discovered a method of making bread from unsound corn, by boiling a quantity of nettles in water, and with this water making the bread. A process which, it is asserted, removes every disagreeable circumstance.

The Persians have a method of making yeast, which may be put in effect here, when there is a scarcity of that commodity. They put a spoonful of split or bruised peas, in a pint of boiling water, which they set in a warm place for a night. In the morning there will be a froth on the top, which has all the qualities of good yeast.

M. Mayo, of Nossen, in Saxony, has discovered a durable and beautiful green, which is called a *new apple green*. It will admit of very considerable alloy, and may be used either as an oil or water colour.

A gentleman of Massachusetts Bay, in America, has invented a steel-yard, which, from its property of vibrating, is called the *Vibrating Steel-Yard*. It is strictly accurate, never requires to be reversed, and comes at a moderate price.

Another American gentleman has discovered a cement for preserving wood and brick from decay. It is composed of tar, pulverised coal, or charcoal, and fine slacked lime. The coal and lime must be well mixed together, proportioned about four-fifths coal and one-fifth lime. The tar to be heated, and, while hot, mixed with the coal and lime, until it becomes of a consistence to be spread upon the surface of a board, and not to run off. Turpentine and pitch will answer as well as tar, and Plaster-of-Paris instead of lime. It must be used while warm.

Mr. Coxwell, of Fleet-street, druggist, a Fellow of the Linnæan Society, has declared his intention of offering a proposal to the West-India planters and merchants, for refining sugar from the cane by a more simple mode than that hitherto employed, and of increasing the produce by lessening the quantity of molasses, and converting nearly the whole into sugar.

A chemist, at Guadaloupe, is also said to have found a method of extracting one-sixth more sugar from the cane than has hitherto been obtained.

A great work is now on hand to convey water into the dock town of Plymouth; where, notwithstanding the very great extent of that place, water has been hitherto conveyed in carriages.

## Agriculture.

*Monthly Report of Agriculture from Northamptonshire, 20th June, 1800.*

FOR the last ten days we have had very dark, cold, rainy weather; and the crops of corn and grass upon the cold lands have, at this time, but an indifferent appearance. Upon the warm loamy lands, I believe there has not, of late years, been a more promising prospect of early luxuriance; in fact, if the weather should prove unfavourable, the crops will be rotten upon the ground. It is also now very difficult to make clean fallows for turnips upon foul land. The roads, from the continuance of rainy and moist weather, are not in so good a state as we could wish; but we are happy to observe a favourable change is beginning to take place.

*Agricultural Report from the Midland Counties, for June, 1800.*

FROM an actual survey of the counties of Salop, Stafford, Warwick, Worcester, Gloucester, Hereford, and Monmouth, we are enabled to furnish our agricultural readers with the following authentic information;

Crops of all kinds, except those of wheat, apples, and pears, were never known to promise greater abundance. And when we are compelled to make an exception respecting the wheat crops, it must be confined only to such fields, or parts of fields, as have their surface near a stratum of cold clay: these, owing to the excessive rains which fell in the spring, appear thin and patchy, and will yield but moderately. In many places, however, where, a few weeks ago, a scanty produce was apprehended, Nature has since made a vigorous struggle to repair the injury sustained by a previous unfavourable season; and has surprisingly succeeded. So that, if Providence continue to bless us with fine weather, and send us a propitious harvest, we shall have cause to be grateful for what may be termed a *good* supply of this essential article.

Throughout the cyder counties the apples have almost entirely failed, not from blight, but from an actual deficiency of bloom, many orchards not having been adorned by a single blossom: cyder, of course, is a very rising commodity. The pear-trees, till the beginning of the month, were never more finely wreathed with young fruit, and seemed to promise ample amends for the remarkable deficiency of apples; but alas! that pleasing promise will not be realized:—

“Forth came the blighting pest at midnight hour,  
With lightning wing'd, from cloudy regions dark;  
Her breath destruction,—shedding influence dire  
As Java's deadly tree. Before her lay  
A landscape, fertile as the flow'ry plains  
Of fabled Tempe, or, ere enter'd Sin  
Eden's delicious garden: In her rear,  
The orchards, blasted by her burning breath,  
A wilderness exhibit to the view.”\*

The hops continued to promise extremely well till about the middle of the month, when they became very much affected by the honey-dew, and, in some gardens, by the fly. These unfavourable symptoms occasioned the article to rise in price at Worcester, on Saturday the 14th. The Wednesday following, however, was attended by a most timely, “gracious rain,” which washed away the honey-dew, and considerably, if not entirely, destroyed the fly.

\* Booker's Hop-Garden.

*Erratum* in our Agricultural Report for the last month,—for *general* summer, read *genial* summer.

At Ross fair, on the 12th; lean stock heifers, and barren cows, were sold, upon an average, at 8l. ; sheep and lambs at about 6d. *per* pound; heavy draft horses from 5l. to 25l. each.

At Monmouth new wool fair, on the 18th, the average price of that article was about 25s. *per* stone, seven or eight shillings lower than it was at the same fair last year.

The high price of butcher's meat is attended with double inconvenience; the advance of price, and the temptation to bring cattle to market, much fitter to be put into the stall than sent to the slaughter-house. Formerly a sheep was never brought to the butcher for sale under three years old; within the two last years they have been brought at two years old, and some graziers in Kent are said to be now endeavouring to fatten sheep of one year's old. This premature forcing of cattle must have very serious consequences in future.

The corporation of Frome, in Lancashire, have set a very laudable example, by giving a premium on every sack of potatoes retailed in the market to the poor.

Several farmers near Woolverhampton have agreed to send to market a load of wheat each, to be sold to the poor at 15s. *per* bushel.

At Namptwich, several gentlemen have sent into markets a quantity of wheat, to be retailed likewise to the poor at the same price.

The grain called Indian corn, is found to be admirably adapted to various climates, for it thrives as well in Nova Scotia as in the Carolinas. As its varieties are very numerous, it is probable that each species is fitted for a different climate. It may, therefore, be presumed, that some kinds of it might be advantageously cultivated in this country.

#### *Report from Corn Market, Mark-Lane.*

The demand for wheat has been considerable; and, on the 16th, the price advanced full 3s. a quarter on superior wheat. Foreign corn continued as before. Barley also remained as before; but kiln dried pease have advanced 2s. *per* quarter. Hay, pease, and oats, have likewise advanced.

#### WOBURN SHEEP-SHEARING.

ON Monday His Grace the Duke of Bedford's sheep-shearing and shew of cattle commenced, which was attended by several noblemen and gentlemen, and vast numbers of agriculturists and breeders, from all parts of the country.

His Grace gave a public breakfast at the Abbey at nine o'clock.

At about eleven o'clock His Royal Highness Prince William of Gloucester arrived there, from the seat of Sir George Osborne at Chicklands, where he had been on a visit since the review on Friday at Hatfield. His Royal Highness was attended by Sir George; and, soon after their arrival, the company proceeded in a grand cavalcade to the New Farm Yard, in the park, for the purpose of effecting the sheep-shearing.

The certificates were then opened by his Grace and a committee; when the prize of fifty guineas, to be given by his Grace (for encouraging the introduction of the Leicester and South Down breed of sheep into Bedfordshire) to the person in Bedfordshire who should, between June 1799 and Christmas, expend the largest sum of money (not less than sixty guineas) in the purchase of breeding ewes or theaves, of the new Leicester or South Down bred, was taken into consideration; but the successful candidate was not announced till Thursday.

The Tups of the new Leicester-breed were then brought into a Grand Exhibition Room, and placed on a stand to be exhibited to the company, the tups being previously numbered, and their fleeces hung round the room,

suspended in nets, with a ticket, shewing the weight, and the corresponding number to which sheep they belonged.

The Exhibition Room is a grand oval building, with sky lights within, has two rows of seats for the company to sit upon: over them is hung a number of very elegant drawings of cattle, of the most favourite breeds, by Garrat.

There is likewise placed, in niches of the wall, several sculptural figures of animals, particularly the *Prize Ox*, of the Smithfield Society; in an anti-room, is an excellent painting of the *Prize Sheep*, at Woburn, last year bred and fed by Mr. Smith, of Titchmarsh, Northamptonshire; and, in a nich in the wall, is a very fine model of a piece of the mutton.

About three o'clock the company adjourned to the Abbey to dinner (after receiving from his Grace, or his friends, admission tickets for that purpose.) The tables were placed in the large Hall, in the ancient part of the Abbey, in five directions; but so contrived as to terminate in one point, at which his Grace presided. Prince William of Gloucester, sat at his right hand.

After dinner his Majesty's health was drank, and a number of toasts given suitable to the occasion.

About six o'clock they left the Abbey, and proceeded to the Farm Yard again, when a very fine hog, the property of Mr. Pickford, waggon-master, was shewn, which was supposed to weigh about one hundred score. The meeting did not break up till near dark, when the Prince returned to Sir George Osborn's.

On Tuesday the Duke of Bedford, and his company, proceeded on horseback to the Farm-yard, where the Tups that were shewn the preceding day were shewn, singly, again.

The Sweepstakes of Five Guineas each, made by the Duke of Bedford, Lord Winchelsea, Lord Somerville, and Mr. Bouverie, to produce, at this sheep shearing, the best two-year's old Heifers, of the Devonshire breed (the Duke of Bedford's being dead;) and Mr. Bouverie not producing one, it rested with Lord Winchelsea and Lord Somerville; and a committee was appointed, consisting of Mr. Smith, of Titchmarsh, in Northamptonshire, Mr. Stone, of Quorn, in Leicestershire, and a Mr. Warren; when, after a considerable examination, they declared in favour of Lord Winchelsea.

Mr. Garret, the modeller of cattle, from London, exhibited the models of the famous shew cattle, which were shewn at Smithfield last Christmas, and were highly approved. Several improved instruments of husbandry were also exhibited.

About six o'clock the company assembled again at the Farm-yard, when the tups shewn in the morning were put up to be let for the ensuing season, and fifteen of them, in number, were let for 845 pounds.

Wednesday the company proceeded to the Farm-yard. Nine South Down, two shears, and one three shears, were exhibited in the Exhibition Room, which were afterwards let for 450 guineas. Two remarkable fine and fat Cows, which had been fattened in a peculiar manner, the property of Mr. Maxey, of Knotting Beds, were also exhibited.

A challenge was made this day, by some Herefordshire gentlemen, to produce better cattle than any county in England, which was taken up by Sir Thomas Carr, high sheriff for the county of Sussex, who undertook to produce as fine from Sussex.

As soon as the inspection of the Rams and exhibition was over, the company proceeded to a fallow field, where experiments were tried by five different ploughs---a Northumberland, a Surrey, a Bedfordshire, a Norfolk, and a Scotch one, with which experiments were made for drilling of turnips after the Scotch mode.

After the inspection of the ploughs, the company then proceeded to Ridgmont Fields, where experiments were made with Mr. Lester's patent Scuffling Harrows, and with some improved Bedfordshire harrows; the experiments

were made upon a piece of foul couch, or twitchey fallow, when the importance and superiority of the mathematical position of the tines of the patent scuffling harrows, were never shewn in a more conspicuous manner. The improved Bedfordshire harrows, choaking and driving the soil every fifteen or twenty yards, were also examined; when the patent harrow, in working upon the same land for more than an hour, moving the whole of the soil effectually, never choaked or drove once, nor ever wanted lifting up.

An experiment was tried on a corn dressing machine, invented by Mr. Cooch, of Harlstone, near Northampton, when it completely dressed a bushel of wheat in six minutes.

Thursday morning his Grace gave another public breakfast at nine o'clock, and about eleven his Grace and the company arrived at the New Farm Yard, when the following Leicestershire breed of Tups were exhibited in the Exhibition Room.

## SHEARHOGS.

No. 1.	by a Son of Dishley L	was let for 10 Guineas.
2.	by ditto ditto	ditto 10 ditto.
3.	by ditto ditto	ditto 10 ditto.
4.	by ditto ditto	ditto 10 ditto.
5.	by ditto ditto	ditto 15 ditto.
6.	by ditto ditto	ditto 15 ditto.

## TWO SHEARS.

7.	by a Son of Dishley L	was let for 12 Guineas.
8.	by ditto ditto	ditto 12 ditto.
9.	by ditto ditto	ditto 15 ditto.
10.	by ditto ditto	ditto 20 ditto.

## THREE SHEARS.

11.	by Breedon's L	was let for 15 Guineas.
12.	by K 4 shear	ditto 15 ditto.
13.	by L 3 ditto	ditto 20 ditto.

The following South Down Tups were then exhibited, and put up to be let :

No. 1.	at 10 Guineas.	No. 6.	at 80 Guineas.
No. 2.	at 40 ditto.	No. 7.	at 50 ditto.
No. 3.	at 30 ditto.	No. 8.	at 40 ditto.
No. 4.	at 25 ditto.	No. 9.	at 120 ditto.
No. 5.	at 30 ditto.	No. 10.	at 25 ditto.

All of which were let, except No. 7, and No. 9.

Mr. Garret exhibited a model of a piece of the loin of Mr. Smith's fat three-shear wether, which won the premium at the sheep-shearing in 1799.—The fat measured seven inches.

Mr. Johnson, an eminent farmer near Northampton, exhibited twelve fine ewes, and sold them all.

At three o'clock they adjourned to the Abbey to dinner, but, on account of some engagements of his Grace, it was not served up till five o'clock.

After dinner, the following toasts and sentiments were drank :—

His Majesty.  
 Success to Agriculture.  
 A good crop of Wheat.  
 The Fleece.  
 The Plough.  
 To the memory of Mr. Bakewell.  
 Sir Joseph Banks.  
 Lord Lauderdale.  
 Mr. Coke, of Norfolk:

When the cloth was removed, the cups to be given by his Grace as premiums, were put on the table, and his Grace informed the company, in a neat address, of the determinations of the committee which had been appointed to investigate the different claims. He began with the premiums offered for the discovery of Implements of Husbandry; and stated, that the committee had examined the corn-dressing machine belonging to Mr. Cooch, and the scuffling harrows belonging to Mr. Lester, both of which they highly approved; but, as they had obtained patents, they did not think them entitled to premiums, and they were of opinion, that none of the other implements exhibited were deserving of the prize.

The next premiums were for encouraging the introduction of the new Leicester and South Down breed of sheep into Bedfordshire.

No. 1. To the person in Bedfordshire who should, between June 1799 and Christmas following, expend the largest sum of money (not less than 60 guineas) in the purchase of breeding ewes or theaves of the new Leicester or South Down breed, a premium of 50 guineas.

No. 2. A premium of 20 guineas to the person who should expend the next largest sum in the same object, and on the same conditions.

His Grace stated, that the candidates were, Mr. Parkins, of Dunstable; Mr. Bailey, of Marston; and Mr. Runciman, of Woburn: and the committee, on investigating their claims, found that Mr. Parkins had expended 168l., Mr. Bailey 126l., and Mr. Runciman 102l. He was sorry to say they had not strictly complied with the conditions; however, under all the circumstances, the committee determined, that Mr. Parkins was entitled to the premium of 50 guineas, and Mr. Bailey to the premium of 20 guineas.

#### PREMIUMS FOR FAT WETHERS.

No. 1. To the person who should breed, and produce at Woburn sheep-shearing, 1800, the best two shear fat wethers, the premium of a cup, value ten guineas.

No. 2. To the person who should breed, in Bedfordshire, and produce at Woburn sheep-shearing, 1800, the best two shears fat weather, five guineas. The same person not to have both premiums.

The former the committee adjudged to Mr. Cowley, of Aspley; and the second to Mr. Platt, of Lidlington.

#### PREMIUMS FOR THEAVES BRED IN BEDFORDSHIRE.

No. 1. To the person who should breed in Bedfordshire, and produce at Woburn sheep-shearing, 1800, the best theave, a cup, value ten guineas.

No. 2. To the person who should breed in Bedfordshire, and produce at Woburn sheep-shearing, 1800, the second best theave, a cup, value five guineas.

The former was adjudged to Mr. Butfield, of Potsgrave; and the latter to Mr. Bennet, of Temsford.

His Grace then concluded by congratulating the company upon the progress in agricultural improvement which had been made, and by exhorting them to persevere in their laudable exertions.

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The Society of Agriculture of the Seine and Oise was occupied during the whole of one of its late sittings, with a Memoir on the new Bee-hive, invented by Citizen Blancherie. What particularly distinguishes this hive is, the opening at top, in which is placed a tin goblet for receiving the honey, for nourishing the bees in winter; and which also admits fumigation when it is necessary to expel them.

*Agricultural Report for Cambridgeshire, for June, 1800.*

Although the beginning of this month was so wet and cold, that the wheats on wet soils, and in all cold situations, appeared very unpromising and sickly; yet the wheats on warm rich soils were never more promising.

If the weather should continue warm, with a few gentle showers, we may now expect the wheats will produce an average crop.

The barleys, oats, beans, and peas, in general, appear likely, upon the whole, (if the weather continue fine) to produce abundant crops.

Notwithstanding the frosts have injured some of the leaves of the potatoes, the warm weather has restored them to a fine appearance. The new potatoes of the early sorts are large, and the crops of potatoes are very extensive, and appear likely to produce very abundantly.

The crops of hay are, in general, very great; and in the vicinity of large towns, and in the Southern districts, much hay has already been got in, in good condition; and if the weather continue fine, hay will be very plentiful.

Notwithstanding we have continued to receive, for a considerable time, large supplies of foreign grain (of bad quality) the markets have continued to rise through the whole of this month. On the 23d of June, English wheat sold, at London, at the high price of 7l. 10s. a quarter; rye, 3l. 18s. barley, at 2l. 10s. oats, at 2l. 16s. flour, at 5l. 10s. per sack: the quarter loaf, at 1s. 6d.

Smithfield, Monday, June 23d, 1800.—Beef 5s. 4d. per stone, of 8 lb; mutton 5s.; veal 5s. 6d.; pork 5s. 6d.; lamb 5s. 6d.; and prime parts of each at full 1s. per lb.

The great plenty of grass, and an expectation of meat still rising higher, have caused the markets to be very scantily supplied, and consequently so very dear. But if the weather continue warm, sheep will feed amazingly fast; and should it commence hot, we may soon expect a considerable reduction in the price of butcher's meat in general.

All sorts of store stock (except pigs) have been unusually dear, at the late fairs; and the great plenty of grass, and fine crops of hay, are likely to keep them so, for some considerable time longer.

There is but little old wool unfold; and the new fells, at present, near 20 per cent. dearer than last year's prices; but wool will probably soon lower again in price.

The apples, in the cyder counties, especially Worcestershire and Devonshire, are but a very thin crop; and, consequently, less cyder will be made this year than usual.

Recent accounts from the Prince of Wales's Island, represent the establishment to be in the most flourishing state; its population and agricultural improvements have increased beyond all expectation.

Letters from Barbadoes state, that a number of cattle have died for want of water; and at St. Bartholemew's, water has been sold for seven dollars the puncheon.—The crops, notwithstanding, are generally abundant.

### Natural Phenomena.

AT Padang, in Sumatra, a very small shock of an earthquake has been felt, and has done considerable damage; but although this place is at no great distance from the English settlement of Bencoolen, fortunately no bad effects have been felt there.

The academy of Connecticut in America are now preparing regular registers respecting the following phenomena of nature; the variations of the thermometer and barometer—storms and extraordinary changes of weather—state of seasons—uncommon tides—remarkable appearance of the heavens—earthquakes—flights of insects—epidemical diseases—and other physical phenomena.

An account of an experiment made by Signor Volta has been transmitted

to the President of the Royal Society. A number of pieces of zinc, of the size of a half-crown, being prepared, and an equal number of half crowns, and pieces of cards cut into that form being likewise ready; a piece of zinc is laid on the table, on this a piece of card, moistened with water, and then a half-crown, and so repeating alternately until above thirty of each were thus piled up, when a person, having his hands well wetted, touched the piece of zinc at the bottom with one hand, and the half-crown at the top with the other, and he felt a slight shock of electricity. Continuing to pile the pieces, the shock was increased. The same was experienced when a conductor was used; but when wax, or any other new conductor intervened, no shock was felt. Thus is the galvanic influence clearly proved. Mr. Carlisle and Mr. Nicholson, repeating the experiment in London, discovered, that the electrical power of this new invention would decompose water.

At Breedon Hill, near Great Cumberland, a chasm has been discovered in the ground, which is supposed to have been caused by a slight shock of an earthquake.

### Fine Arts, Science and Literature.

THE subscriptions for the naval pillar, to commemorate the victories gained this war, goes on with spirit. At a benefit at the opera house the receipts were near 700l.

It is usual at this season of the year for artists of various denominations to exhibit their works. Mr. Barker, who has so long entertained the town with his paintings at the Panorama, has put up a fine view of Ramsgate in the room of that of Brighton; and, against next spring, he is preparing a view of Constantinople, to replace that of Lord Nelson's victory. At the Lyceum in the Strand, a view of the taking of Seringapatam has been exhibited in a semicircle, or, if the expression may be allowed, in a half panorama. At the same place Mr. Cartwright exhibits his philosophical fireworks; a beautiful display of the powers of inflammable air. Both he and his daughter also entertain their audiences with tunes on the harmonica, or musical glasses, in a style superior to what we have hitherto heard. Miss Linwood's exhibition of needle-work, Miss Thomson's in wool, M. du Bough's models of cities in cork, and the painting of the late Mr. Elmev, have all been open this spring to the public.

Besides these amusements, more philosophic places of resort have been opened to the learned. Dr. Garnet's lectures on philosophy and chemistry, and Dr. Moyse, the blind philosopher, on the same subjects, have each been well attended, and open to the public some sources of science in the metropolis, which have long been ardently wished for.

Notwithstanding the hostile disposition of France and England towards each other, we are happy to find, that the learned of each nation, have not imbibed any portion of that spirit. The national institute of France having offered premiums, both on philosophical and moral subjects, have transmitted their prize questions to the various learned societies of Europe; among others, to the Royal Society, and Linnæan Society of London; and the members of these societies have directed these questions to be exhibited in their respective places of meeting, for the use of the learned.

The Society of Arts, &c. at the Adelphi, have been surpris'd into a resolution, to shut up their Model Room from the inspection of the public. A formal admission is now to be sought from the members. As we have always considered this Society eminent for *utility*, and as *utility* must be narrowed by such restrictions, we are sorry to see this last retreat of liberality barred up by official formality. We shall rejoice if we are ever enabled to announce in this section of our publication, that this patriotic Society have

once more resolved to consider the *public good*, as of more importance than the trouble of their servants in opening and shutting the door.

A new work, intituled, *THE MODERN LAND STEWARD*, by the author of the *New Farmer's Calendar*, is in hand, and nearly ready for the press.

## Morals and Manners.

**A**T Pontefract, in Yorkshire, a corn-dealer has been convicted of regrating, and fined 10*l*. At several other country towns, butchers have been detected and convicted for the same offence, which we hope will be an example to others not to offend hereafter.

The very high price of provisions has occasioned riots in several places, but which have been quelled, not however before the meat had been carried out of the market in some places. In Essex a riot has taken place with a view to procure an increase of wages.

We have been recently informed, by no less authority than that of the Lord Chief Justice of the Court of King's Bench, that one of our most considerable Counties, distressed and goaded to the quick by the iniquitous practices of regrating and forestalling, has entered into proper measures for the suppression of these enormous evils. We sincerely hope they will be speedily followed up by every other part of the kingdom, the calm and sober application in time of those remedies which the law has so salutary provided, may be the means of preventing extreme misery.

At Lincoln a person has been fined in a very considerable sum of money, for refusing to take on him the office of overseer of the poor.

James Thompson, a baker, stood in the pillory in the Strand on Friday last, for having, by false oath, obtained marriage with Maria Withers; after which, he was conveyed to the house of correction, to be confined for eighteen months.

A publican at Birmingham has been fined 20*l*. for making use of camomile as a substitute for hops.

John Cowles, constable of Ripple, Worcestershire, has been committed to gaol, for having suffered a prisoner to escape from his custody.

Mary Jukes, charged with having had three illegitimate children, was last week, in expiation of her offence, committed to the Bridewell of Birmingham for the term of twelve months.

## ALPHABETICAL LISTS OF BANKRUPTCIES AND DIVIDENDS,

*Announced between the 20th of May, and the 20th of June, 1800.*

Extracted from the *LONDON GAZETTE*.

### BANKRUPTCIES.

*(The Solicitors' Names are between Parenthesis.)*

**A**NSTEE, W. Dunstable, Biddeford, Straw hat-manu-  
facturer. (Wilmot, Parker, Gray's Inn.)

**A**nderson, A. and D. Robertson, Coleman-street, mer-  
chant. (Swain and Stevens, Old Jewry.)

**B**ennet, T. Butcher-hall lane, painter and glazier.  
(Crompton and Lys, Tooke's Court, Chancery lane.)

**B**erthoud, H. Adam's Court, Old Broad Street, mer-  
chant. (Collins and Reynolds, Spital Square.)

**B**rice, J. Trowbridge, Wilts, clothier. (White, Yeo-  
vil, Dyne, Serjeants Inn, London.)

**B**ell, W. Basing-hall street, Baize factor. (Wild, War-  
wick Court, Newgate Street.)

**C**arden, W. Bristol, merchant. (Coates, Bristol, Hill  
and Meredith, Gray's Inn.)

**C**roftley, C. Warrington, Inn keeper. (Topping, War-  
rington.)

**D**avis, O. Vine Street, St. Martin's in the Fields, Brewer.  
(Harman, Jermyn Street.)

**D**ye, W. Great Yarmouth, Norfolk, Ship builder. (Stew-  
art, Great Yarmouth, Swain, Old Jewry.)

- Devis, A. W. George street, Hanover square, Portrait painter. (Dunn Threadneedle street).
- Edwards, J. Kennington, Taylor. (Patton, Cross street, Hatton Garden).
- Evans, J. Exeter, dealer in Salt. (Triggs, St. Thomas, near Exeter).
- Freehy, J. Strand, Jeweller. (Bishop and Thompson, Essex street).
- Frome, J. P. Wallbrook, merchant. (C. Moore, Johnson's Court, Fleet street).
- Federici, V. Sloane street, Chelsea, Bookfeller. (Comrie, Fleet street).
- Godwin, J. Naisa, Somerset, dealer. (Gillet, Bristol, Lewis, Inner Temple, London).
- Greenly, W. St. Martin's, Hereford, hop merchant. (Bird and Nichols, Hereford).
- Guy, W. Little Bell Alley, Coleman street, victualler. (Wild, Warwick-cour, Newgate-street).
- Holloway, D. Aylebury, Bucks, innholder. (Adams and James, Aylebury, Rose and Co. Gray's Inn).
- Moffin, J. Moorgate in Netherthong, Almondsbury, Yorkshire, dealer. (Stevenfon, near Huddersfield, Batty, Chancery-lane).
- Hookway, W. St. John-street, baker. (Smith, Villers-street, Strand).
- Hawkins, J. the elder and younger, Rotherhithe, ship-builders. (Shepherd and Cooke, Dean-street, Southwark).
- Hayes, J. M. Ludlow, Salop, woollen draper. (Palmer, Worcester, Price and Williams, Lincoln's Inn).
- Mansford, P. Bristol, baker. (Martin, Bristol, Lewis, Gray's Inn).
- Jones, D. Pontepool, Monmouthshire, draper. (Bludie, Wootton Underedge, Price and Co. Lincoln's Inn).
- Kemp, S. St. Catherine-street, Tower Hill, cheesemonger. (E. and T. Dawes, Angel-court, Throgmorton-street).
- Jacobs, I. Liverpool, Lancashire, hardwareman. (Gill, Liverpool, Windle, Bartlett's buildings).
- King, E. London, merchant. (Coare, Winchester-street).
- Lowe, J. Finsbury-place, merchant. (Willis, Warrford-court).
- Latimore, R. Liverpool, linen-draper. (Royle, Chester).
- Lea, H. College-hill, merchant. (Brown, Little Friday-street).
- Livsey, T. Hipping, near Blackburn, Lancashire, grocer. (Hard, Furnival's Inn, Troughton, Preston).
- Motley, J. Huddersfield, Yorkshire, wool stapler. (Smith, Leeds, J. Wilson, Castle-street, London).
- Matterman, T. H. Bucklerbury, merchant. (Brown, Little Friday-street).
- Moses, L. Abergavenny, Monmouthshire, ironmonger. (Price, Abergavenny).
- Mallet, R. North Tawton, Devon, shopkeeper. (Cross, Patco, near Crediton, Allen and Exley, Furnival's Inn).
- Mead, H. South Burnham, Somersetshire, dealer in cheese. (Dyne, Serjeant's Inn, London).
- Neale, W. Froomer Seiwold, Somersetshire, innholder. (Davies, Warminster, Wiltshire).
- Oldfield, J. Leeds, Yorkshire, cloth merchant. (Lee, Leeds, Batty, Chancery lane, London).
- Paterfon, A. Falmouth, Cornwall, surgeon. (Tippet, Falmouth, Shepherd and Co. Gray's Inn Square, London).
- Panton, L. Aldergate-street, goldsmith. (Wild, Warwick-cour, Newgate-street).
- Parker, G. Strand, victualler. (Welch and Lee, Alder-gate-street).
- Roche, R. Rochester, Kent, draper. (Scott and London, Mildred's court, Poultry, London).
- Stevenfon, W. King's row, Pancrats, money scrivener. (Bachelor, Pancrats Inn).
- Sharlana, G. South Moulton, Devonshire, money scrivener. (Eales and Co. Exeter, Fairbank, Ely Place, London).
- Slater, W. Basinghall-street, warehousman. (Palmer and Co. Warrford court).
- Skurrey, J. G. Threadneedle-street, merchant. (Woodison and Co. Austin Friars).
- Sherwood, J. Birmingham, Warwickshire, sadler. (Marklew, Wallall, Hunt, Castle-street, London).
- Thompson, H. D. Crewkerne, Somersetshire, surgeon and apothecary. (Willie and Co. Finsbury square, London).
- Tankard, J. and R. Tankard, Birmingham, factors. (Burrish, Birmingham, Devon and Tucker, Gray's Inn).
- Turner, T. Gu Cross, near Werneth, Cheshire, inn-keeper. (Lingard and Dale, Stockport).
- Winter, T. W. Kingston upon Hull, innholder. (Martin, Hull, Sykes, New Inn, London).
- Whitcomb, R. Cambridge, common carrier. (Nath, Royton, W. and S. Allen, Clifford's Inn).
- Whiffin, T. Stroud, Kent, shopkeeper. (Ludlow and Co. Monument yard, London).
- Whitaker, J. Doncaster, wine merchant. (Brookes, Doncaster, Allen and Exley, Furnival's Inn, London).
- Yaker, W. Lancaster, merchant. (Chambre, Gray's Inn Place, London, Richardson and Feil, Kendal).
- DIVIDENDS ANNOUNCED.**
- Allen, M. Paternoster-row, bookfeller, July 1.
- Atkinson, W. Bishopgate-street, London, linen draper, June 3.
- Aldred, G. and J. B. Fowler, Ipswich, corn and seed merchants, July 9.
- Burton, J. Crooked-lane, upholster, June 11.
- Rulcock, R. Union-street, Bishopgate-street, merchant, June 21.
- Barnet, H. Crown-court, Ruffel-street, merchant, June 10.
- Barron, W. Sealcoates, Yorkshire, grocer, June 16.
- Bevan, T. R. Basinghall-street, London, money scrivener, June 12.
- Bainbridge, J. Bristol, linen draper, June 14.
- Booth, W. T. Dutton, S. Booth, and R. Booth, Roylen, Lancashire, cotton manufacturers, June 24.
- Bishop, J. and E. Pickering, Coventry, ribbon-merchants, July 7.
- Bancroft, J. the younger, of Derby, mercer, July 5.
- Cob, H. Bell's buildings, Salisbury square, warehousman, June 15.
- Clithero, J. P. Leicester, cotton spinner, July 8.
- Carr, B. Hickmoady ick, Bristol, Yorkshire carpet maker, June 30.
- Cheap, A. and A. Loughnon, London, merchant, June 3.
- Cragg, J. Loughborough, linen draper, July 22.
- Cook, J. Ringwood, Hants, clothier, July 23.
- Cazalis, J. and H. Canton, Sherborne lane, merchants, July 10.
- Cooke, A. and M. Befancon, Kennington, Schooldstreet, July 8.
- Cole H. Bell's buildings, Salisbury square, warehousman, July 5.
- Clifford, W. Rufcombe, near Stroud, Gloucestershire, linen draper, July 7.
- Dawson, J. Strand, linen draper, August 2.
- Doufon, J. the younger, Milnthorpe, Yorkshire, horse-dealer, June 19.
- Edwards, T. Fore street, Limehouse, victualler, June 14.
- Ellwood, J. and T. Menay, Briscoe, Cumberland, money scrivener, June 26.
- De Gruchy, J. P. and P. Gavy, London, merchants, June 28.
- Dalton, W. Deptford, potter, July 5.
- Davis, G. Ilminster, Somersetshire, draper, July 7.
- Emmet, J. Bush lane, cannon st. merchant, July 7.
- French, G. Hurst green, Sussex, shopkeeper, June 28.
- Fletcher, T. Faircoats, near Bury, Lancashire, gimmy manufacturer, July 10.
- Figgins, R. Devizes, Wilts, feedman, July 7.
- Gorty, J. St. Dunstan's alley, wine merchant, July 1.
- Garner G. Oxford street, linen draper, June 28.
- Gridale, T. Bolton le moore, Lancas. muslin manu. July 11.
- Gintzen, H. Sherrard street, Golden square, taylor, July 9.
- Humphreys, M. Lothbury, factor, June 10.
- Haigh, J. Low Whitley, Northumberland, factor, June 23.
- Huntman, W. and R. Assine, Sheffield, Yorkshire, button makers, June 30.
- Howgrave, J. Leeds, Yorkshire, victualler, July 23.
- Hatton, H. Wellhoughton, Lancashire, J. Madon, Manchester, fustian manufacturers, July 8.
- Hardcastle, J. Birmingham, Warwickshire, grocer, July 7.
- Jones, T. Worcester, grocer, June 13.
- Jarvis, D. Manchester, manufacturer, June 14.
- Kohne, N. A. Boylart, J. C. Schaik, Bishopgate street, merchants, June 17.
- Knight, E. Brick lane, sail-cloth maker, June 28.
- Langhaff, T. Edward street, Marybone, maton, June 10.
- Lenley, F. Holborn, map seller, July 5.
- Meyrick, J. C. M. Eyre, and F. Fulford, St. Paul's Church yard, warehousmen, July 5.
- Maxon, R. Whitechapel, oilman, July 15.
- Miller J. Shad Thames, Southwark, biscuit baker, July 5.
- Morcton, J. Liverpool, Lancashire, ironmonger, July 7.
- Nicholson, T. Sealcoates, Yorkshire, and S. Nicholson, Kingston upon Hull, woollen drapers, June 18.
- Nightingale, G. and W. Lombard street, bankers, July 1.
- Owl, F. Falmouth, Cornwall, mariner, June 23.
- Pomret, J. Blackburne, Lancashire, cotton manufacturer, July 7.
- Poole, J. Preston, Lancashire, grocer, June 30.
- Pain, E. Piccadilly, wax chandler, July 7.
- Perkes, G. Alcester, Warwickshire, mercer, July 27.
- Patco, J. of the East India Company's Service, mariner, July 12.
- Richard, J. J. P. Dahmer, and J. J. Brun, Throgmorton street, merchants, June 19.
- Rothwell, W. Manchester, cotton manufacturer, July 1.
- Roberts, J. Bishopgate street, upholster, July 20.
- Robertson, F. Turhara green, woollen draper, July 19.
- Richardson, B. Long Acre, coachmaker, July 8.
- Sayers, J. Slough, near Upton, Bucks, innkeeper, July 7.
- Taylor, I. Maiden lane, Wood street, warehousmen, June 14.
- Townsend, I. Chesterfield, Derbyshire, mercer, July 15.
- Toovey, W. the younger, of Bridge road, Lambeth, grocer, July 20.
- Vale, W. Bunhill row, watchmaker, July 11.
- Watts, N. Stonehouse, Gloucestershire, clothier, June 24.
- Williams, W. Bentley, Yorkshire, wool stapler, June 30.
- Warner, W. Hazle hill, Gloucestershire, clothier, July 7.
- Wright, A. Market Basin, Lincolnshire, grocer, July 15.
- Walker, J. Lawrence lane, warehousman, July 8.

A TABLE of the Prices of STOCKS in June, 1800.

No.	Bank Stock.	3per Ct. Bs R.d.	3per Ct. Contols.	4per Ct. Confol.	Old 5per Ct.	New 5per Ct.	Long Ann.	Short Ann.	Imp. p C	Imp. Ann.	11th 5per Ct.	Om. num.	11th Omnium.	Contols for Open
2	} Holidays	62 7/8		80 1/2	98 1/2	95 3/4	18 9-16 1/2	5 11-16	61 1/2	12 1-16 1/2	92 1/2	1		64 1/2
3		63		81	98 3/4	96 1/2	18 9-16 3/4	5 11-16	61 3/4	12 1-16 3/4	92 3/4	2		64 3/4
4		63 1/2		81 1/2		96 3/4	18 9-16 3/4	5 11-16	61 3/4	12 1-16 3/4	92 3/4	2		64 3/4
5		63 1/2		81 1/2		96 3/4	18 9-16 3/4	5 11-16	61 3/4	12 1-16 3/4	92 3/4	2		64 3/4
6	} Holidays	63 1/2		81 1/2		96 3/4	18 9-16 3/4	5 11-16	61 3/4	12 1-16 3/4	92 3/4	2		64 3/4
7		63 1/2		81 1/2		96 3/4	18 9-16 3/4	5 11-16	61 3/4	12 1-16 3/4	92 3/4	2		64 3/4
8		63 1/2		81 1/2		96 3/4	18 9-16 3/4	5 11-16	61 3/4	12 1-16 3/4	92 3/4	2		64 3/4
9		63 1/2		81 1/2		96 3/4	18 9-16 3/4	5 11-16	61 3/4	12 1-16 3/4	92 3/4	2		64 3/4
10														
11	Holiday													
12	} Holidays	63		81 1/2		96 3/4	18 9-16 3/4	5 11-16	61 3/4	12 1-16 3/4	92 3/4	2		64 3/4
13		63 1/2		81 1/2		96 3/4	18 9-16 3/4	5 11-16	61 3/4	12 1-16 3/4	92 3/4	2		64 3/4
14		63 1/2		81 1/2		96 3/4	18 9-16 3/4	5 11-16	61 3/4	12 1-16 3/4	92 3/4	2		64 3/4
15		63 1/2		81 1/2		96 3/4	18 9-16 3/4	5 11-16	61 3/4	12 1-16 3/4	92 3/4	2		64 3/4
16														
17														
18														
19														
20														
21														
22														
23														
24	Holiday													
25														
26														
27														
28														

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

PRICES OF COALS AT LONDON, FROM MAY 20. TO JUNE 20, 1800.

Names of Coals	Wed 21st. S. D.	Frida 23d. S. D.	Mon. 26th. S. D.	Wed 28th. S. D.	Frida 30th. S. D.	Mon. 2d. S. D.	Wed 4th. S. D.	Frida 6th. S. D.	Mon. 9th. S. D.	Wed 11th. S. D.	Frida 13th. S. D.	Mon. 16th. S. D.	Wed 18th. S. D.
Benton		44 6	42	42			41 9			42 5			45 3
Byker						40 3							
Blyth			43		41	40	6		44 6				
Brandling		43 3					41 6						
Bladon Main													47 3
Biggs's Main			44 6	44 3		43 9	44			44 6		46 6	
Baker's Main													
Benwell													
Greenw ch Moor													
Gate's-head Park													
Hartley		44		42 9		40 6	40 6		44 6				
Holywell Main					40 6				42	41 6			
Howard's Main													
Montague Main		44 6		41 6	41 6	41 9	41	45					
Pontop		43		42 6	42 6					43			
{ Windfor's													
{ Simpson's													
{ Silvertop													
South Moor		42 6		40 6					42	41			
Sheriff Hill							39 6						
P. ll's Tanf. Moor		43 6		43	43	43	43 6			43 3	44		
Adair's Main							38 6	45					
Bowes's Main													
Team			40 6	40 3			40				42	43 6	
Walker		45 9	43 6	43 9	43 6	43 3	43 9			44 6		47 3	
Willington		45 6	44 3		43 6	43 3	45 6			44 6		47 6	
Wall's End		47 6	46		45	44	48 6	48	48 6	46		46 9	48 6
Walbottle Moor				41								48	
Wylam Moor		43					40			41 6			
Heaton Main	48 6	45 6	44 6	43 6		42 9	43 3			44 6	45 6		
Hebburn Main		45	44 6	44 6		43 6	44	48		44 9	45 6		
SUNDERLAND													
Boundry													
Bourn Moor	45		41 9	41		39 6	39 6		44 6	42	43	43 9	44 3
Biddick new Main													
Newbott. Bo. Moor				40 3					41 0				
Rectory			40										
Ruffell's Main				40 3		39 3	39 6					42	44
Wharton Main													
Waiington													

AVERAGE PRICE OF RICE,  
Is 36s. 6d. per cwt. computed from the Returns made for the Week ending the 21st Day of June 1800.

AVERAGE PRICES OF CORN, &c. FOR JUNE 1800.  
 Counties Inland by the Standard Winchester Bushel of 8 Gallons.

COUNTIES.	Wheat.		Rye.		Barley.		Oats.		Beans.		Pease.		Oatmeal.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Middlesex	133	5	56	3	54	1	46	1	66	9	86	11		
Surry	131	4			60	8	49	0	70	6				
Hertford	124	0			59	9	45	7	65	10	60	6		
Bedford	125	2	92	8	53	3	44	8	72	9				
Huntingdon	121	10			57	4	43	0	62	10	68	9		
Northampton	105	4	77	0	53	10	42	4	76	6	77	0		
Rutland	90	0			67	6	47	6	80	0			69	4
Leicester	114	9			61	7	50	8	93	7			77	8
Nottingham	118	0	87	0	54	3	54	2	85	0				
Derby	123	0			58	9	55	8	103	0			77	4
Stafford	120	4			64	3	56	7	87	1	45	4	76	4
Salop	128	1	87	4	63	11	48	8					90	6
Hereford	122	7	83	2	63	11	50	1	71	11	68	2	93	2
Worcester	125	9			68	1	58	4	87	0	84	10		
Warwick	135	7			66	0	59	2	92	2			69	1
Wilts	138	0			56	0	50	0	88	4				
Berks	126	0			45	4	49	6	74	0	65	0		
Oxford	127	0			52	4	50	8	78	7	65	6		
Bucks	124	6			51	3	47	2	71	0	65	9		
Montgomery	128	0	112	0	96	0	48	0					95	5
Brecon	121	7			76	9	40	7			60	9	78	5
Radnor	125	5			77	5	42	11					103	6

Maritime Counties.

Essex	131	8	65	6	59	4	44	9	59	3	70	0		
Kent	123	3			52	6	42	0	63	3	90	0		
Suffex	128	0			55	0	43	2						
Suffolk	127	3			50	11	43	4	59	8	59	10		
Cambridge	116	8					37	6	57	2				
Norfolk	112	4	84	0	47	9	39	11	68	0				
Lincoln	106	5	78	0	54	2	41	0	68	10				
York	103	0	73	9	53	5	48	2	82	4	88	7	81	1
Durham	111	1	79	0			54	7						
Northumberland	93	8	74	7	61	10	55	10	80	0	96	0		
Cumberland	115	4	89	3	83	8	63	0					101	9
Westmorland	140	5	92	6	82	4	59	2					50	10
Lancaster	124	1			75	0	62	8	92	8			52	5
Chester	109	0					63	4					49	5
Flint	134	1												
Denbigh	128	8			94	5	52	7					86	5
Anglesea			None	bought	t. Sale									
Carnarvon	116	0	84	0	72	0	35	4					82	8
Merioneth	135	4	98	11	89	4	47	8					93	4
Cardigan	121	6			72	0								
Pembroke	115	0			72	6	38	0						
Carmarthen	117	10			76	0	31	8						
Glamorgan	144	5			70	4	47	6						
Gloucester	121	11			58	7	59	6	77	6				
Somerset	135	2			63	0	41	4	89	0				
Monmouth	147	3			77	4								
Devon	129	7			71	10	38	4						
Cornwall	119	0			67	11	35	2						
Dorset	123	6			60	0	48	0	70	1				
Hants	133	0			55	11	43	0	65	9				

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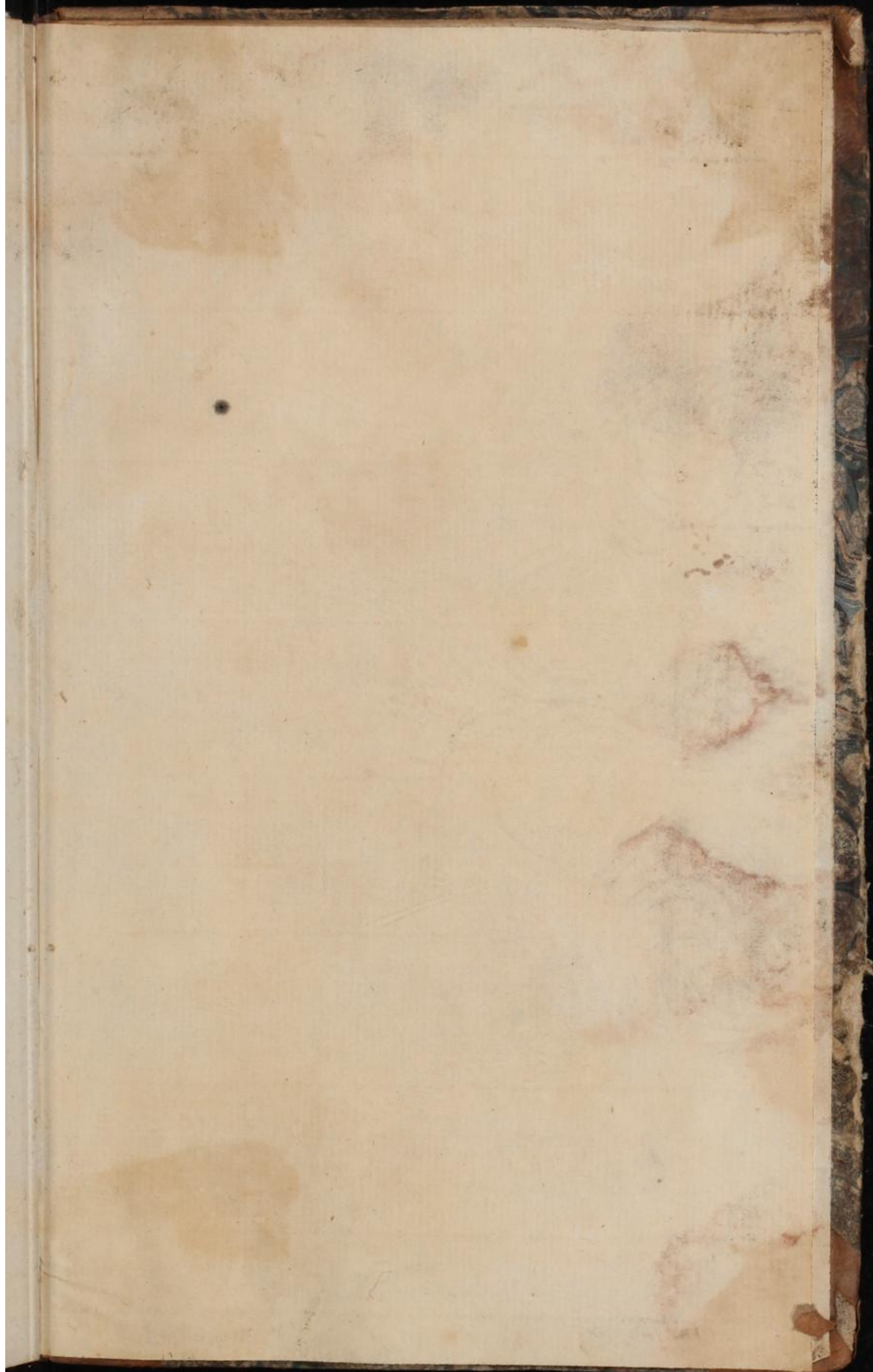
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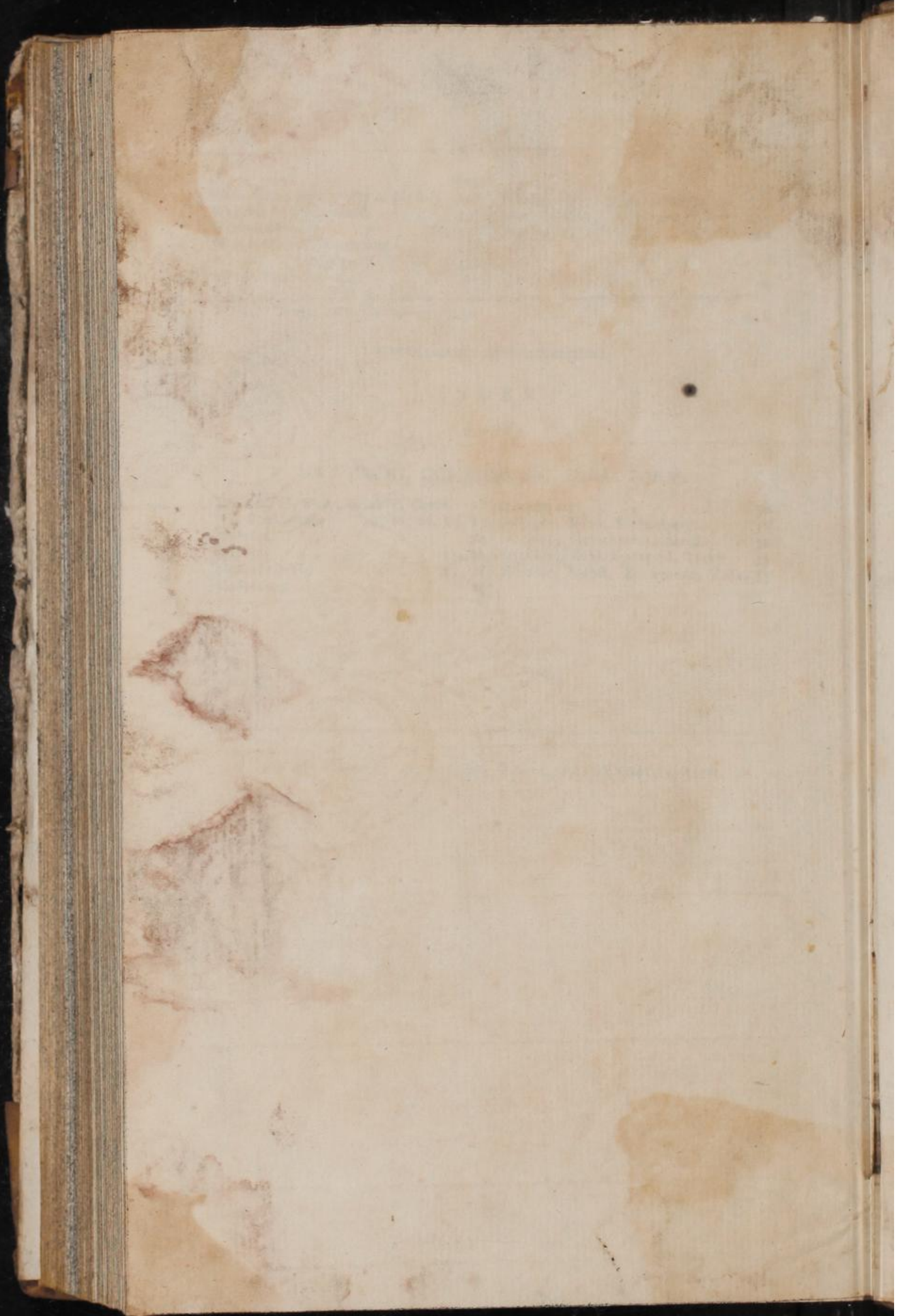
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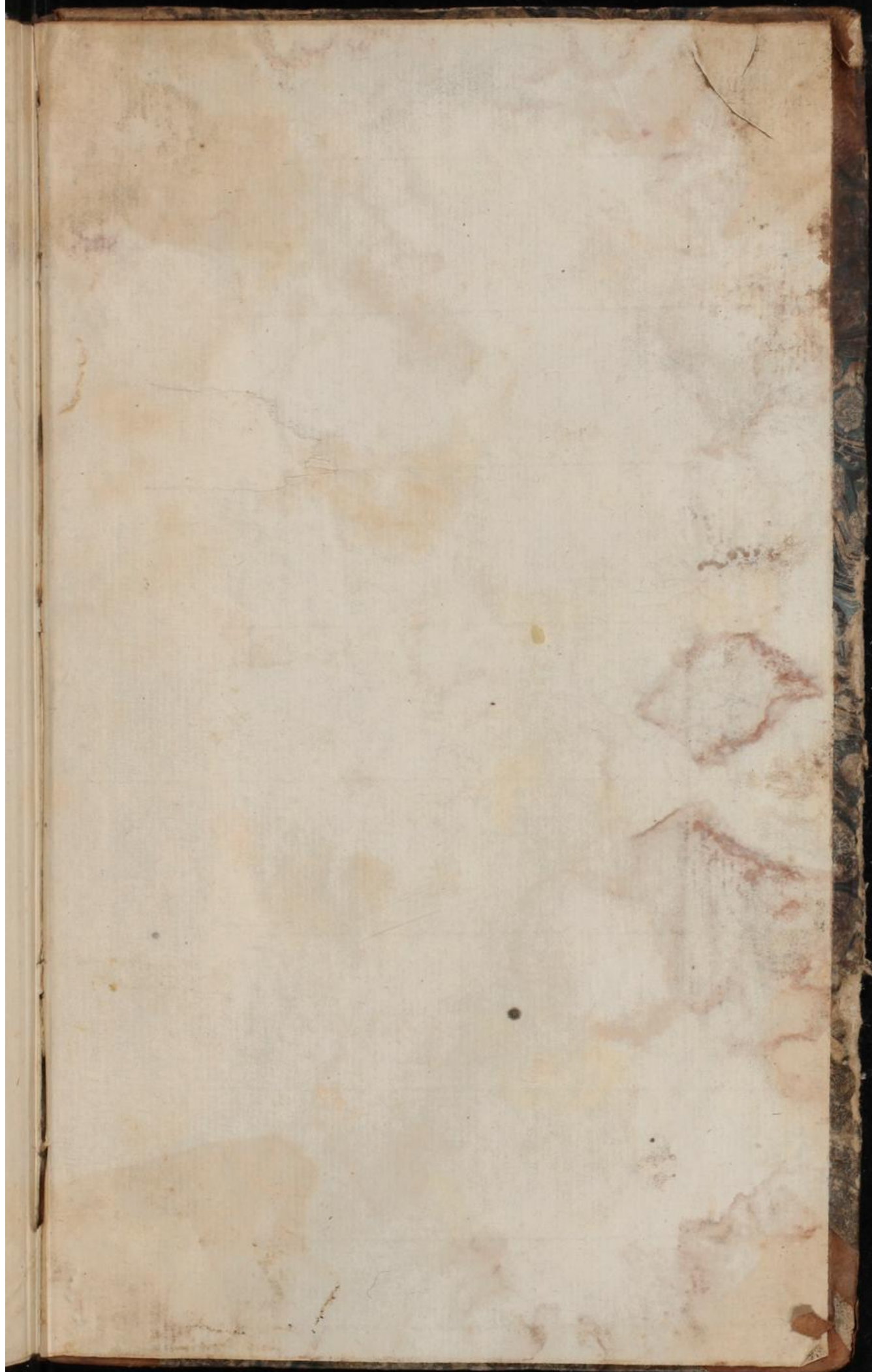
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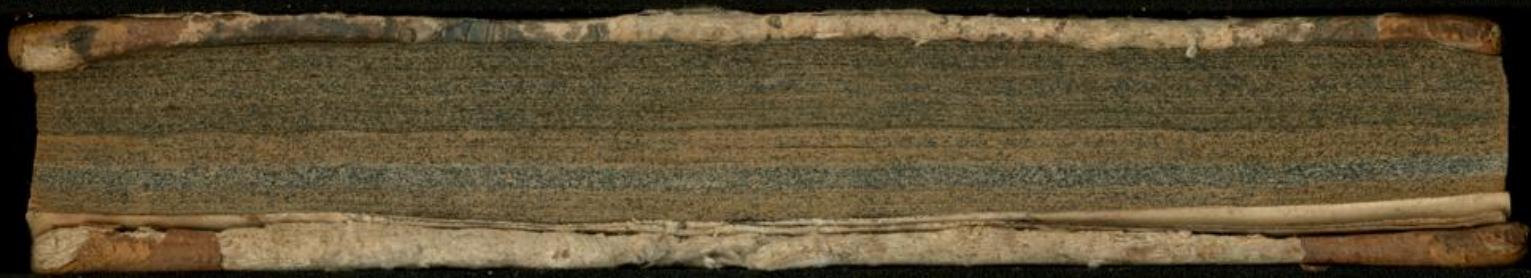


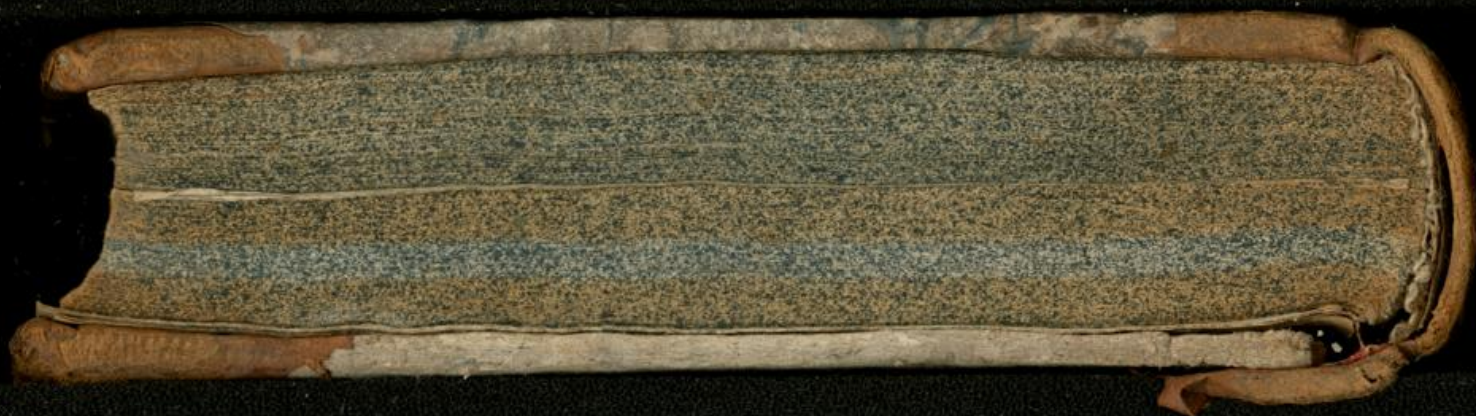
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