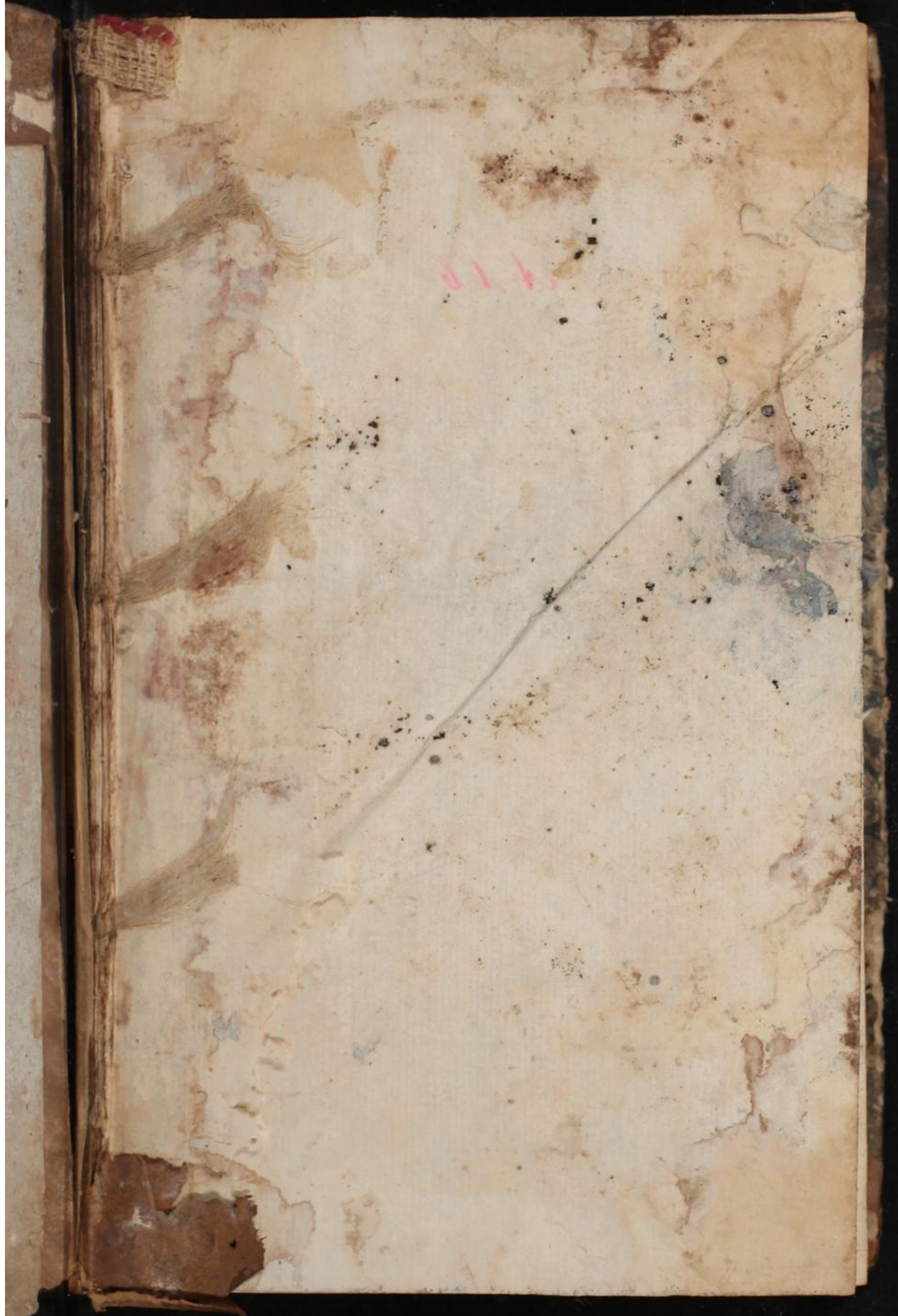
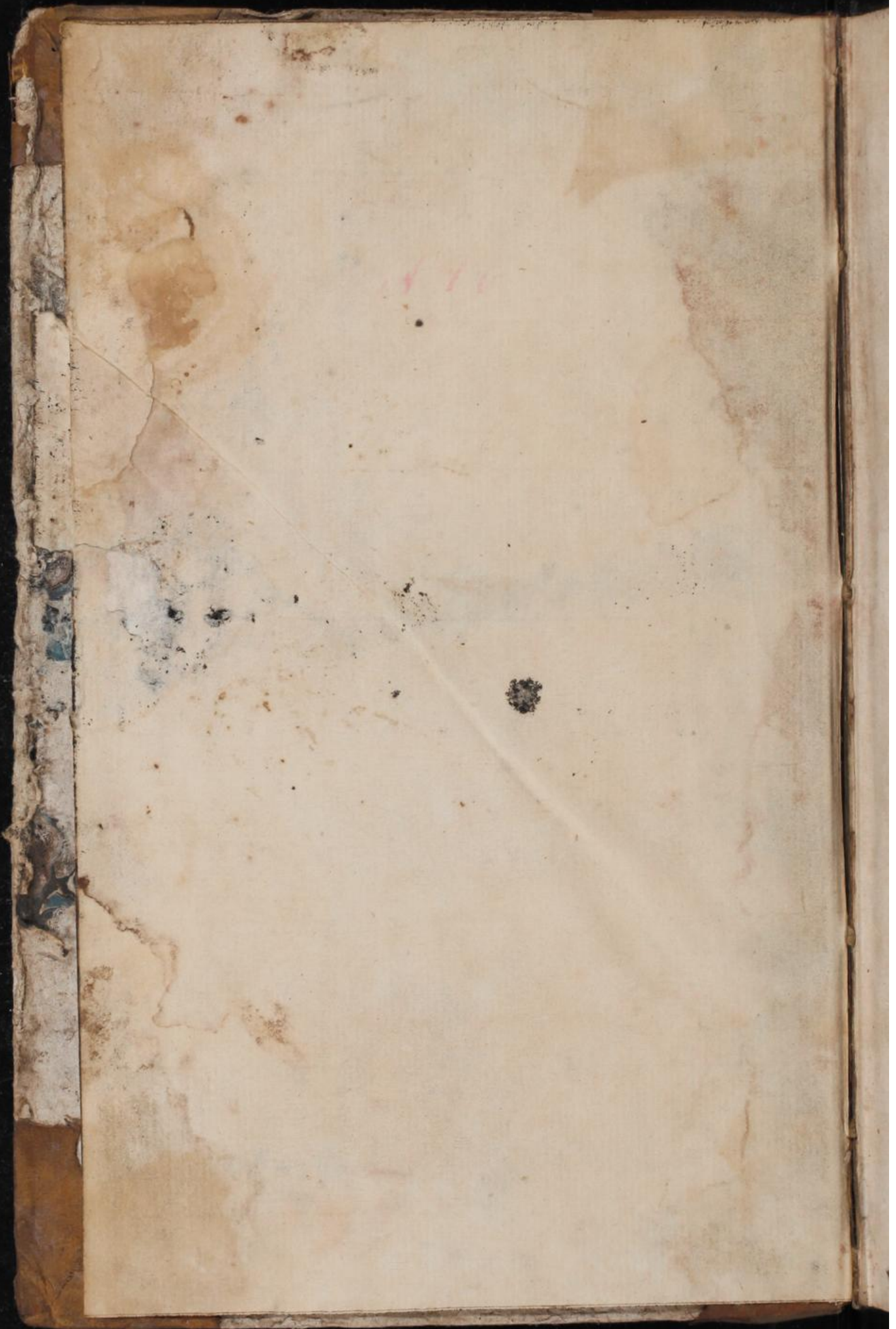
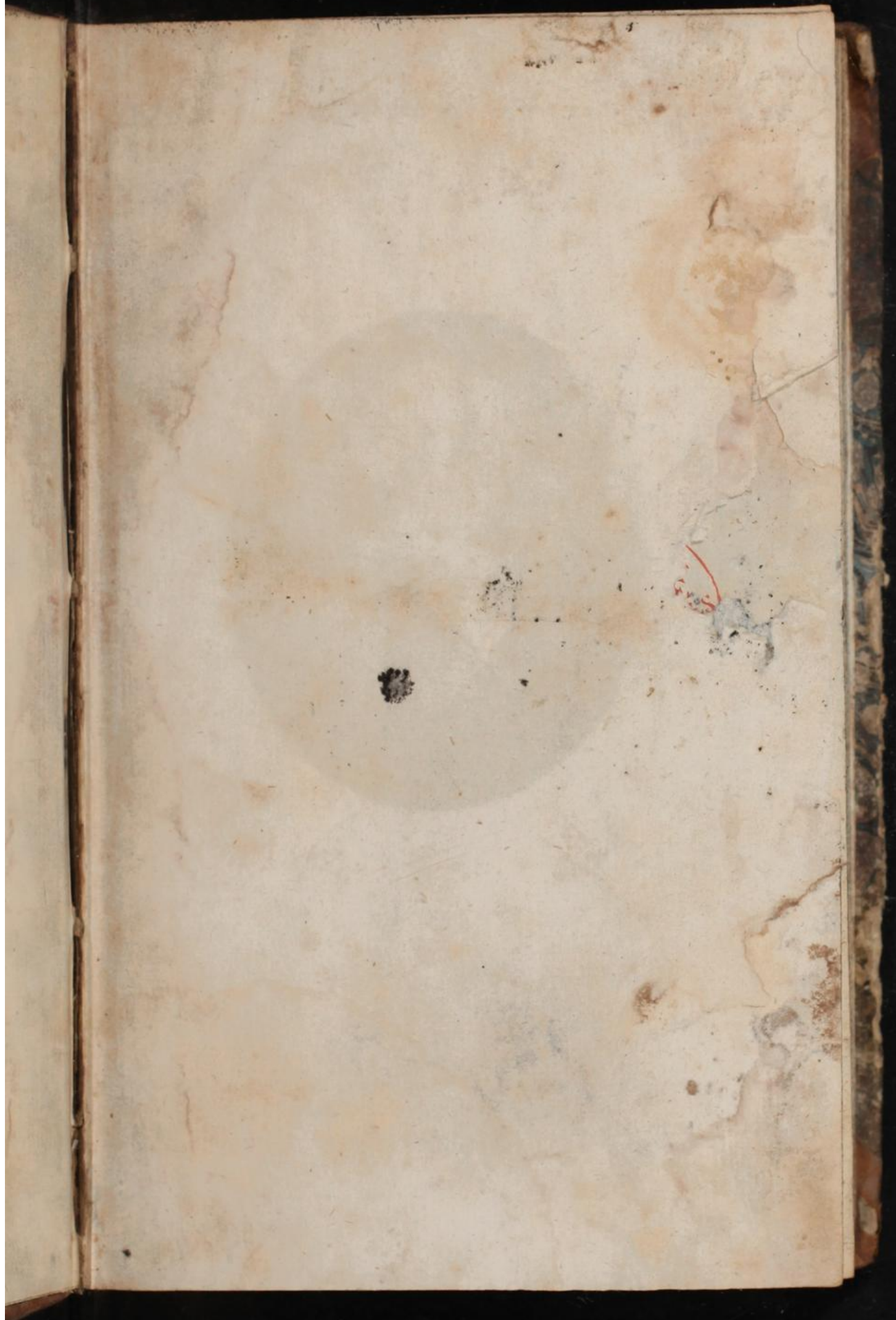


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COMMERCIAL AND AGRICULTURAL MAGAZINE.



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E. CARTWRIGHT, A. M.

Prebendary of Lincoln.

Published by V. Colwell, Paternoster Row, April 1st 1800.

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THE
COMMERCIAL
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FOR

1800.

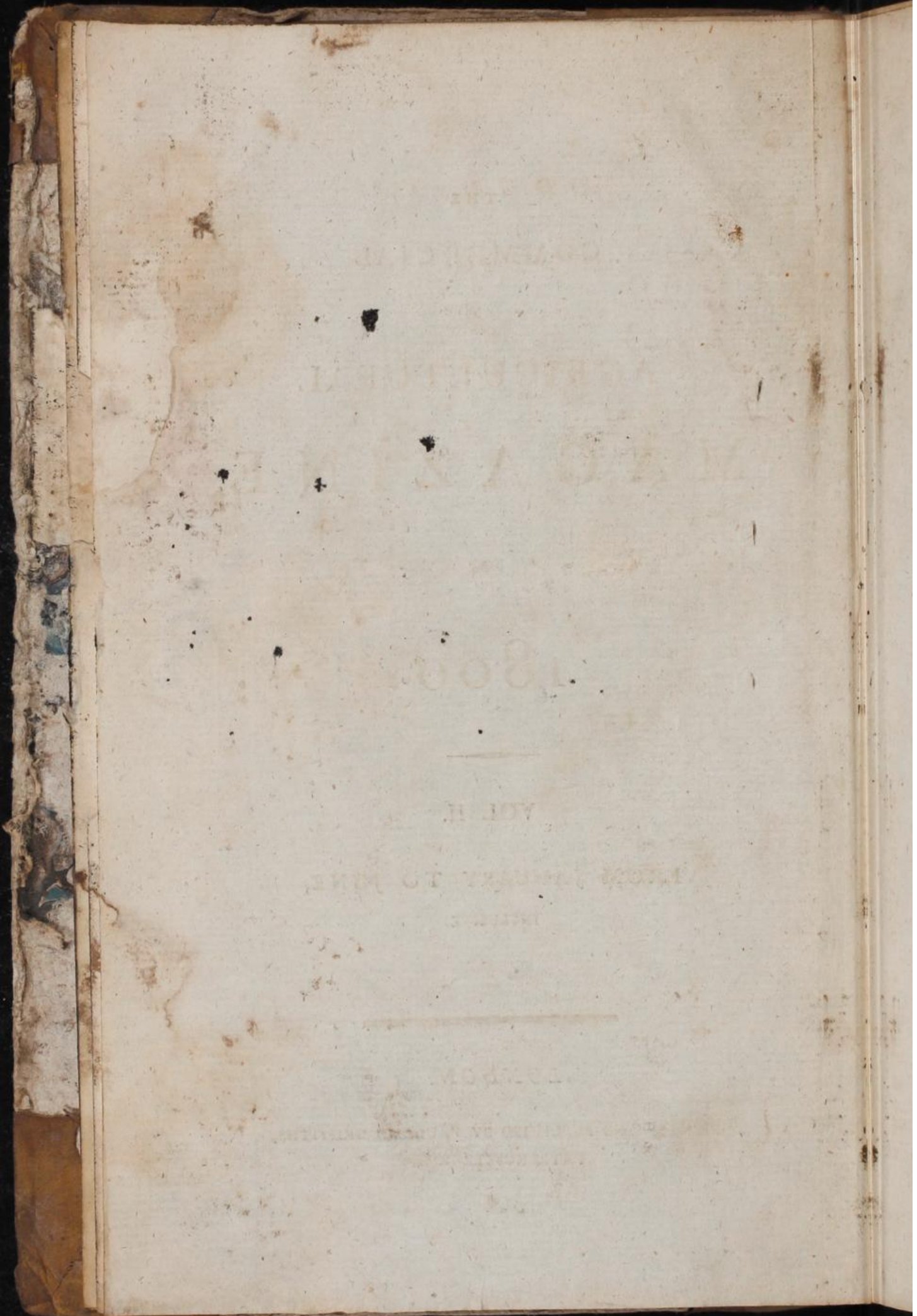


VOL II.

FROM JANUARY TO JUNE,
INCLUSIVE.

LONDON:

PRINTED AND PUBLISHED BY VAUGHAN GRIFFITHS,
PATERNOSTER-ROW.



P R E F A C E.

THE Second Volume of our Magazine being now completed, we take an opportunity to address to our Readers a short retrospect of what we have been able to perform, and an outline of what we shall *aspire* to perform hereafter.

In Agriculture, we have finished the sketch of education attempted by the Rural Œconomist, and imagine that little deviation from that plan would be necessary to form the intelligent landlord of the next generation. The delicate task of rearing female propriety is well delineated, by a lady to whom we hold ourselves and the public equally obligated. While *man* walks in very various paths of life, woman is never so respectably employed as in the orderly arrangement of a farm-house. There *only*, perhaps, custom has permitted her to emulate the utility of her husband. It will be seen, that to the dairy this volume has dedicated many pages. The use of salt in milk, the œconomy of a foreign dairy-country, and an improvement in the butter-churn, will be found useful information. The benefits of irrigation are set in a strong light. But, above all, we have been careful to collect information about the interesting proposal of Sir John Sinclair for a Joint-stock Farming Society: never was any speculation so eminently beneficial in intention: we lament that, as yet, certain difficulties of *form*, do not suffer us to announce to the Public the commencement of the operations of this Society. Our Reviews of agricultural publications are of some length, and, we flatter ourselves, will convince our readers of particular attention in that department.

In Commercial discussions, we venture to believe we have communicated much original information to the public. The *British Merchant* will be found an able concentration of the history of the various stations of the wandering Genius of Trade. We hope to *complete* this series of papers in our next volume. The question of scarcity (of a magnitude paramount to all others) has filled many of our pages; but not in vain; since our later numbers have entered into the question of monopoly in so radical a manner, as only to ask attention to ascertain conviction. The Corn and Bread Laws have been discussed in a chemical, as well as legislative light; we seized the present season (as one of probable attention to these subjects) to imprint some necessary axioms on the public mind. Our notices of various Commercial Towns, have been numerous and ample; and the completion of our Foreign Commercial Directory, gives to the English Merchant a mass of information which elsewhere he would seek in vain.

PREFACE.

The Manufactures illustrated and explained in this Volume, are Soap, Oil, Hat-making, Cochineal, and the Distillery; a Treatise on the Brewery contains also general topics of national and financial application. The List of Patents will be concluded in our next. The Bankrupt List, and Price Tables, will form matter of useful reference.

Our attention to Navigation is manifested by the Treatise on the Tides, which may have important consequences; and the easy transit of merchandise, on good roads and canals, has caused many notices on those subjects.

Of Miscellaneous matter we have admitted more in appearance than in reality; many articles, which cannot perhaps be distinctly referred to any part of the title of the Magazine, have, nevertheless, considerable bearing on the general object of our attempts to inform the public mind on commercial topics.

The favours of *various* Correspondents do not permit us to pretend to any rigid uniformity of style; perspicuity, we think, we have attained to, and rest satisfied. If the favour of the Public may be calculated from the encreasing demand for our publication, (of which a Second Edition of the first number is nearly sold), we may express our satisfaction in having obtained full as much patronage as we think we have deserved. Our undertaking is not arrived at manhood; but we hope, that the improving vigour of adolescence will not be invisible in our future progress.

• June 30th, 1800.

THE
Commercial and Agricultural Magazine.

No. VI.]

JANUARY, 1800.

[VOL. II.]

MEMOIR CONCERNING JEROM LALANDE.

JEROM LALANDE is a philosopher so eminent in astronomy, a science to which many of the most useful arts are signally indebted, that we should deem ourselves unworthy of that literature and knowledge which we profess to cultivate, if we could not, in his favour, overlook the circumstances of national hostility between France and Britain, and eagerly contribute our feeble, but ingenuous, endeavours to do honour to his name.

He has attained to that venerable age, at which the faculties of many of the greatest philosophers have been, conspicuously, the most vigorous and active. His labours have been steadily devoted to the pursuits of the science in which he excels. Under the monarchical government of France, the *Abbé LALANDE's* talents and exertions were honoured and rewarded. During a revolution in which *men of letters* have been the principal agents, this philosopher has been more than ever applauded and employed. His *papers* are the chief ornaments of the publications of that which is called the NATIONAL INSTITUTE of France. His annual *Memoirs of the Progress of Astronomy*, are eminently interesting to science. He was the French Deputy to a late Congress in which the philosophers of GERMANY were persuaded to assemble, in order, as the French hoped, to submit science, for all the more enlightened part of the Continent, to the fetters and fantastic tricks of that novel language, and those new measurements of time, &c. which the Xerxes-like vanity and caprice of the republican French have been prompted to impose.

In the ENGRAVING which we present as the *frontispiece* to the *Sixth Number* of the *Commercial and Agricultural Magazine*, is exhibited a genuine and very expressive representation of the features of LALANDE. His eye, his attitude, the whole expression in his countenance, bespeak a man of scientific penetration, immersed in habitual depth and intensity of thought.

TOURNAMENTS REVIVED IN SWEDEN.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I HAVE lately returned to London, from a commercial journey through the northern kingdoms of the Continent. Your Magazine has afforded me more of entertainment and instruction, than any other miscellaneous and periodical work that

COMM. & AG. MAG.

B

has fallen into my hands since my return. I therefore communicate to you, in preference to any of your rivals, a fact which came to my knowledge in Sweden, and which though not precisely of an Agricultural or a Commercial nature, can hardly fail to appear worthy of a place in your next Number.

You have surely read that the TOURNAMENT was the pride of Gothic festivity. You cannot but know, that it was for a series of centuries, the most splendid and magnificent exhibition at all the courts of Europe. You know, too, that it has long since fallen into general disuse, as utterly incompatible with the peaceful softness of modern manners.

Now, Sir, that which I have at present to inform you of, is a recent attempt to revive the TOURNAMENT at the Swedish court. I was in *Stockholm*, when the intention of this festivity was made public. It was then to take place on the 25th of August 1799. It was to be preceded by a ball. The royal palace at DROTTNINGHOLM was to be the scene of these magnificent festivities. Heralds were at a particular period, during the ball, formally to announce the intended TOURNAMENT. The *challenges* of the champions were to be challenges of love, loyalty, and honour; different sports to be celebrated in the lists were expressly prescribed. Judges were to be present to decide who were the victors. The *prizes* were to be distributed at the queen's command. The champions were permitted to wear conspicuously on their armour, *ribbons*, the colours of their mistresses. After the TOURNAMENT there was to be a *running at the ring*, for prizes such as the ladies should please to propose. The time appointed for these sports has since passed. The TOURNAMENT has been celebrated; I was not then in SWEDEN.

I own that I felt my imagination agreeably interested by the proposal of reviving an entertainment more worthy of generous, manly, noble youth, than either a fox-chace or a mere horse-race; adapted to preserve the memory of what was most splendid and elegant in the amusements of our ancestors; calling forth into gay exercise all the most elegant and manly qualities of the courtier and the hero; and departing, with no unhappy eccentricity, from the dull, monotonous character of the courtly amusements prevalent throughout the rest of Europe.

To so short a letter, Sir, I hope you will not refuse that insertion in your Magazine, which I solicit for it.

I am, Sir,

Your's, &c.

London, Jan. 3, 1800.

C. HOLLAR.

ANECDOTES OF COMMERCIAL CITIES.

NUMBER II.

IN regard to HAMBURGH, the following particulars may be added to those which were communicated in the *first number* of these anecdotes, vol. I. p. 113. In the year 1798, there were imported into HAMBURGH, 46,000,000 lbs. of COFFEE; of which, 10,073,000 lbs. were from *Liverpool*,—4,568,000, from *London*,—4,182,000, from *New-York*,—5,773,000, from *Philadelphia*,—8,965,000, from *Baltimore*,—4,162,000, from the *isle of St. Thomas*, &c. The quantity of *sugar* imported within the the same year, into HAMBURGH, amounted to 98,000,000 of pounds; and was procured almost entirely from the *English West-India colonies*, and the *United States of America*. No fewer than 368 *English HORSES* were likewise among that year's imports into the port of *Hamburgh*. The number of vessels which entered into this port in the year 1798, was 2148,—of which, three were from *Cadiz*,—117 from *Amsterdam*,—198 from *London*,—80 from *Newcastle*,—51 from *Bourdeaux*,—71 from *Russia*,—two from *China*,—and 149 from the *United States of America*. *Hamburgh* sent out, in 1798, seventeen vessels to the *whale-fishery*, which were all very successful in their fishing. Such was the inferiority of the trade of *Amsterdam*; that, in 1798, there entered but 1901 vessels into its harbour; of which 179 were from *Bremen*,—two from *Cadiz*,—15 from *Bourdeaux*,—42 from *London*,—711 from *Hamburgh*.

Amid this prosperity of its trade, the manners of the inhabitants of HAMBURGH have altered greatly, in the course of the last ten years. There are now a great many *eating-houses* and *taverns*, kept by Frenchmen, who have had recourse to this shift, to earn an honest livelihood, after being reduced from rank and affluence, to all the miseries of poverty and exile, by the consequences of the revolution. These taverns in general, combine the cookery of France with the elegant and convenient accommodation of an *English coffee-house*. Here are a *German* and a *French theatre*. The *German theatre* is but poor in scenery, actors, dramatic pieces, and its power over public curiosity. *Comic Operas* are the prevalent representations. On the *French theatre* of HAMBURGH, *Mrs. Chevalier*, and *Miss Rose Colinet*, both of whom have since gone to *Petersburgh*, were exceedingly admired, while they lately acted here. In *Viotti* and *Giarnovich*, *Hamburgh* now possesses two of the best players on the violin, in all Europe. The balls of *Boselhof* are much frequented by the gay, the young, the handsome, and the fashionable. The *Walse* is the favourite dance. The inhabitants of *Hamburgh* give frequent and sumptuous entertainments. It is usual to send cards of invitation at the distance of a month or two before the day on which you wish to see your company; and, again, on the day immediately before that of the intended

entertainment, to send around *second* cards, with the names of all who have actually engaged to be present. In Hamburg, every person may live after the fashion of his own country: You find in it, in particular, both *ale-houses* and *chop-houses*, in the English style. The *Society of Hamburg, for the Improvement of the Arts*, deserves to be mentioned with particular distinction: Its *School for the Arts of Design* is attended by a considerable number of pupils: Professor *Brodhagen* reads, under its patronage, highly interesting *Lectures on the Arts*, to about 200 hearers; every six months, this society makes a distribution of prizes for the best performances in the arts. *Thefts, robberies, murders, street-quarrels, drunkenness*, are sufficiently rare in Hamburg.

It is no where more common than here, for the inhabitants of the town to pass a part of the summer in the country. Even the poorest families have their country box, or at least their country lodgings. Yet, the edifices of the town are daily multiplied, even in great numbers. Here are, however, no hackney-coaches, nor even accommodations for travellers, of the nature of the English stage-coaches. But, for building, the people of Hamburg, may be said to have absolutely a rage; the environs present a variety of delightful prospects. From the roof of the HOUSE IN THE WOOD, a place of public entertainment, where you are served with tea, and coffee, &c. the view is incomparably rich and beautiful. Fields, meadows, majestic woods, the sweeping descent of a mighty river, a copious population, two great towns, a crowded harbour; and at the distant verge of the horizon, rural scenes, the most picturesque and interesting, here meet the eye. Nothing can be more charming than the particular objects; nothing richer, nor happier, than their assemblage.

The principal building in Hamburg is the *Orphan Hospital*. It was erected at a vast expence; and certainly does great honour to the humanity of its founders. The *Exchange* is, however, but a mean edifice, in comparison, at least, with the commercial business which is now transacted in it. The houses situate on the banks of the Elbe, without the gates of Hamburg, are, for the greater part, handsome buildings, in a good style of architecture; they are elegantly furnished, in the English fashion. The public gardens, particularly those of *Harvestehude*, on the *Alster*, at about the distance of a league from Hamburg, are kept in a manner that renders them very agreeable places of summer amusement. You go to *Harvestehude* by water; and this advantage contributes to occasion its gardens to be very much frequented. A sort of boats, distinguished by the appellation of *arches*, are common upon the *Alster*; they are large enough to contain 30 or 40 persons; and it is usual to give suppers and concerts on board these vessels. At *Eimsbittel* too, is another beautiful garden, a favourite scene of resort for the people of Hamburg. At *Wandsbeck*, is a spacious park, which the pro-

prietor generously leaves open to the public. It is a thing very uncommon, to see three such considerable towns as Hamburg, Altona, and Wandsbeck, situate so nearly together. Of Germans eminent in the fine arts, Hamburg may boast that it possesses KLOPSTOCK and SCHROEDER. Among the eminent Frenchmen resident here are the LAMETHS, with several others of high distinction in literature; but Altona is, in preference to Hamburg, the favourite place of resort for these gentlemen.

MOSCOW is nearly 50 English miles in circumference, it contains 53 principal streets; with 482 smaller ones. It has twelve gates, and over the rivers Moscowa and Janfa, and the brook Neglinnaja, which pass through it, are three-and-twenty bridges. Its ordinary population amounts to about the number of 200,000 souls; and the nobility, with their families and domestic servants, who spend only half the year in Moscow, may be 100,000 more. The air is highly salutary, on account of the elevation of the ground on which the city stands, the dryness of the soil, and its northern latitude. The purity and lucid serenity of the atmosphere in winter, are truly delightful; beyond what is possible for the inhabitants of the warm climates of the South to imagine. Many of the inhabitants of Moscow live to a great age: epidemical diseases are rare, and are very seldom fatal. On a very lofty situation, in the midst of the city, stands the KREML or *Castle*. The prospect from it is singularly strange, interesting, and magnificent; you hear the noise of the carriages on the streets, breaking on your ear like thunder: you behold a medley of sumptuous palaces, and miserable cottages: on the windings of the Moscowa, appear innumerable boats, and other small vessels: where the country extends away from the shelving banks of this river, you see hills of fair and picturesque aspect, and the gilded spires of stately Gothic monasteries. The ancient palace of the Czars, is another of the objects which fill up the scene before you: it is not magnificent; but its idea is associated in the mind with all that is illustrious in the earlier history of Russia. The artizans and merchants occupy, each class or profession, a particular street, or quarter of the city. The *Exchange* is a noble and magnificent building. The *Sclavonian College* for instruction in the Greek and Latin languages, is one of the most interesting objects in one quarter of the city, its preceptors and students shew more of erudition, than of taste or true science: But it is the seminary from which proceed the most useful instructors in these parts of the empire; and the illumination of modern knowledge is gradually piercing even these shades. The market for birds, and such other animals as are the domestic playthings of frivolous luxury, is here better filled, than in any other great town known to Europeans, with animals for sale, with haggling dealers, and with buyers, who scruple not to pay the most extravagant prices for the objects which attract their fancy.

EDINBURGH, the metropolis of Scotland, owes its foundation to the Anglo-Saxons of Northumberland. It became, at length, the capital of the Scottish kingdom, as being, of all the towns of Scotland, that which, with the protection of an impregnable castle, united the best maritime conveniencies, the most desirable advantages for access equally to the southern, the northern, and the western parts from the eastern side of the country, together with the highly valued benefits of the presence of seminaries, of monks, of extraordinary reputation for sanctity and wisdom. Its buildings did not become numerous nor considerable till in the end of the fifteenth century. From that time till the æra of the Union between Scotland and England, they continued to be extended and multiplied; they were built in a lofty turret-like fashion, partly for the end of crowding as much of population as was possible within the walls, and partly on account of the inequalities of the ground on which the town stood, from the æra of the Union, to that of the accession of George III. Since that time a lake which had been gradually formed on the northern side of the city has been drained away; a new town, perhaps the noblest in Europe, as to order and stateliness of edifices, has been reared beyond the desiccated space. The buildings have been equally, though more irregularly, and with less magnificence, extending on the southern side; two stately bridges have been constructed, to form a passage of tolerably equal and continuous level between the three hills, or rather long ridges on which the town is built; a spacious walk, parallel to the carriage-road, has been formed, to connect the town by easy access with LEITH, its *piræus* or maritime suburb. An irregular continuation of the buildings along the opposite sides of the walk and the carriage-road between *Leith* and *Edinburgh*, has almost joined the two into one town, by a spacious and very agreeable, though not uniform street. On all hands Edinburgh has diffused itself in long suburbs, in hamlets, and in gardens and villas, to a wide extent over the surrounding country. Its buildings are all of stone, stately, spacious, commodious, though somewhat heavy in their aspect to the eye of architectural taste.

EDINBURGH has hitherto derived its opulence and importance, as a great city, not so much from commercial advantages, as from its being the seat of the Government, the Supreme Courts of Justice, the best Seminaries for Education, and in consequence of these circumstances, a favourite scene of resort for those who having money to purchase the sumptuous and elegant accommodations of luxury, naturally repair to enjoy these where they are the most readily to be found. Its inhabitants are, in the order of their eminence, *Noblemen* and *Gentlemen*, without official employment or profession, who prefer it as a place of residence; the *Judges* in the Courts of Justice; *Advocates*, and *Writers* to the *Signet*; the principal *Officers* for the collection of the revenue, and the other subordinate functions of Government; the *Professors*

in the University, and other members of the learned professions, with the *Gentlemen* studying under them; the *merchants*, *shopkeepers*, and *tradesmen*; the meaner *artisans*, *labourers*, *servants*, &c. A late enumeration of the inhabitants of Edinburgh and Leith, represents them as considerably fewer than 100,000 souls: but the writer of these anecdotes knows that enumeration to exhibit only the population at the time when the migratory inhabitants have retired to the country, and even this population, with *great* deficiency. The numbers of the inhabitants of EDINBURGH and LEITH, who are constantly resident, may be very confidently estimated at 100,000. In the winters of those years in which they have been the most frequented, their population has certainly approached nearer to 110,000, than to any other round number.

To these numerous inhabitants, subsistence is furnished *from estates* in the country, remittances from abroad, the interest of money in the public funds; *from salaries* paid by government to its officers, and the expences of actions at law, supplied from the whole kingdom; *from* about 100,000*l.* sterling a year, which its seminaries for *education* bring into Edinburgh; from the profits of the wholesale trade, exporting and importing, of Edinburgh and Leith; from the *directly productive* labour, whatever it is, of the lower classes of the community.

In the social intercourse of the inhabitants of this capital, there is a considerable predominancy of an *aristocratical* and a *professional* spirit. The *concert* is supported by a subscription, and all who are disagreeable in any way to the leaders of rank and fashion, are both excluded from among the subscribers, and even prohibited from casual admission to the *concert-room* as visitants. The public *assembly-rooms* have been deserted by the influence of opulence and fashion, because the plan of admission into them appeared to be too liberal, and to admit, with too little discrimination, all persons who had the manners, the reputation, the dress, and the occasional expence of gentlemen and ladies, without descending to more minute and invidious distinctions. Even at the theatres, there is a starched aristocratical discrimination of persons and situations, which sometimes perhaps exceeds what convenience, decorum, and order require. Professional distinctions, especially the honours of the juridical professions, are often the means of interrupting that equal intercourse which confers the most interesting charms of social amusement. Personal merit, unless when it is accompanied with that sneaking suppleness of spirit which must quickly poison and corrupt it, can rarely surmount those obstacles which artificial distinctions oppose to hinder its success in business, or in the competitions of social converse.

Yet, perhaps, elegance, propriety, and decorum in manners and amusements, are in some instances promoted by that which is otherwise justly the subject of such complaints as the above. There is less of gross and mobbish vulgarity in most of the diver-

sions fashionable at EDINBURGH, than in those of London. The people of Edinburgh have sometimes claimed the praise of extraordinary justness and delicacy of taste in the compositions and representations of the DRAMA. This praise, however, cannot be honestly allowed them. They delight in gorgeous scenery, in pantomime, and in all those tricks of exhibition which give the lie to nature: they sometimes venture to condemn what London audiences have approved; but they are religiously cautious never to err on the other side, nor are they ever guilty of applauding what has not been honoured with previous applause. In regard to other elegant and fashionable amusements, their taste is better, and their conduct more praise-worthy.

The *morals* of the graver part of society at EDINBURGH, are decent and worthy in a very eminent degree. The *police* is vigilant, vigorous, yet not oppressive. Robberies, murders, even thefts are comparatively rare. So great a proportion of the inhabitants of EDINBURGH are in a condition of life above temptation to the meanest vices, that it would be surprising if street-robberies and other similar enormities were as frequent here as in those manufacturing towns, in which the people are in a greater proportion, poor, mean, and illiterate. Perhaps the most dissolute class consist of shopkeepers, attendants at mason-lodges, of young men who are clerks in the chambers of writers to the Signet, and of a few young men of fortune who pass some seasons here idly, under the pretence of receiving education. The students at the University are in general less dissolute in their manners, and in their very vices less gross and inelegant, than the *masonic shopkeepers* and the young retainers of the law. The inhabitants of Edinburgh, in general, are eminently charitable to the poor, nor will it be easy to name any equal assemblage of population, in which the numbers of the indigent poor are smaller, or those more readily, compassionately, and abundantly relieved. The *churches* are here assiduously frequented, even by many of the great and fashionable; the preachers in general excel in all the excellencies of pulpit-eloquence, those who fill the pulpits of the metropolis of England. The *morals* of the labouring class of people are far from bad; but they use too much whisky, too little of porter or ale. It must be owned, too, that the *maid-servants* are no where less scrupulously chaste than here; and that the number of the *prostitutes* is exceedingly great.

In such a city as EDINBURGH, there is naturally a good deal of learning; yet it is not to be denied, that, unless among the STUDENTS OF MEDICINE, the true enthusiasm of genius, of science, of erudition, is not to be found. David Hume, Lord Kames, Dr. Robertson, are gone, and have left no disciples worthy of their masters. When BLAIR shall be no more, is there one among the rising race of rhetoricians and preachers who can be deemed worthy to fill his place in the public estimation? Do not the young members of the Faculty of Advocates

contemn the praise of proficiency in elegant literature and in science? What discoveries in science, what curious researches in erudition; what refined and elegant disquisitions on human life and manners, enrich the volumes of the Transactions of the Royal Society of Edinburgh! Is not even a *Mackenzie* rather ashamed than proud of his literary fame? What name but that of *DUGALD STUART* from among those of the *junior* professors in the University of Edinburgh, is destined to be celebrated in foreign countries with other praise than such as we now bestow on the *clarissimi* and *illustrissimi* of Germany? L.

ON THE ANCIENT TRADE IN BOOKS, BETWEEN
ENGLAND AND GERMANY

To the Editor of the Commercial and Agricultural Magazine.

SIR,

AS COMMERCE is one of the principal subjects of your Miscellany; and as you cannot well be indifferent to the history of the *commerce in books*; I communicate to you the following particulars, concerning the commercial intercourse between the booksellers of London and those of Germany, in the end of the sixteenth century. They are extracted from the letters of the eloquent *LANGUET*, to *SIR PHILIP SIDNEY*.

PRINTING, after its introduction into England, by *Caxton*, was here for a considerable time employed in multiplying much rather books in the vulgar tongue, than the ancient classics of Greece and Rome. Yet, these classics were at that time very generally studied in England. Whence were the requisite printed copies of them obtained?

COLOGNE, BASIL, and other cities, in Germany; ANTWERP, in Flanders; PARIS and LYONS, in France; VENICE, FLORENCE, and ROME, in Italy; were the first seats of the *art of printing*, in which it was applied especially to multiply the copies of the Greek and Roman classics. The presses of those cities soon furnished a sufficient supply for all Europe. Florence, Venice, Antwerp, being the great scenes of exporting commerce, afforded the same conveniencies for the dispersion of books as for that of other commodities. In Germany, the printers and booksellers repaired, as they do at present, to the great fairs; and to these, purchasers of books were wont to resort, from very distant foreign parts.

From these cities, then, but especially from Antwerp, and from the German fairs, came the printed copies of the classics, which were, between two and three centuries since, common in England. I have seen an edition of *Livy*, in one thick 8vo volume, which appeared to have been printed abroad, and there purchased for importation into England, by the London booksellers, in

whose name it was published. From the letters of LANGUET to SIDNEY, it appears, that in the month of April, 1578, there were at FRANKFORT, at least two London booksellers, on a journey to purchase books, chiefly classical, for sale in London. The names of these two *Bibliopolæ*, were, ASCANIUS DE REMALME and ROBERT CAMBIER. To judge from the names, they might be foreigners, very probably from Flanders. DE REMALME was intrusted by LANGUET, with the carriage of a collection of the *Scriptores Rerum Germanicarum*, which he had procured for his friend SIDNEY. From the manner in which the business of these booksellers at Frankfort, is mentioned in the letters of LANGUET,—it sufficiently appears, that the usual course of trade often carried the booksellers of London to Germany, to attend the German fairs.

In one of these letters, LANGUET recommends to the favour of SIDNEY, a young Saxon gentleman, who was coming to England, for the *improvement of his manners*, and to learn the *English language*. The German protestants then resorted to Britain, as the capital of their religion, just as the catholics were wont to go to Rome. I am, Sir, your's, &c.

Jan. 20, 1800.

PHILO BIBLIOPOLA.

OF PULVERIZED BONES, &c. USED AS MANURES.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

OF all publications, those in periodical numbers are now the most numerous. You periodical writers plunder all others, abuse them, escape criticism yourselves, and, as it should seem, by a sort of secret common understanding, connive at one another's impostures and absurdities. I had expected, that you, Sir, would at least prefer your duty to the farmers, who are your readers and subscribers, to any meaner considerations. But I see, month after month, errors in agricultural knowledge, which you ought to correct, propagated in monthly publications, with which you cannot but be well acquainted, and suffered to betray our farmers into ruinous and fruitless expences, without being checked by one word of correction from you. I had recommended your Magazine to my tenants and rural friends. I am unwilling to have the shame of so soon contradicting that recommendation. Yet, I shall henceforth beware of saying any thing farther in your favour; unless you at least insert in your next Number, the following corrections of errors, concerning the action of manures, which have been lately published as truths by some periodical writers in agriculture.

1. One very extravagant error concerning MANURES, is, that PULVERIZED BONES form a manure so much more fertilizing

than any other, as amply to compensate, by extraordinary produce, for the extraordinary expence which it costs. This error, propagated upon great authorities, has, in different parts of the island, betrayed many very intelligent farmers into a fruitless expence, which served only to make them and their improvements ridiculous in the eyes of all their neighbours. In truth, I should as soon think of advising a man to manure his fields with *old wigs*, as of bidding him buy PULVERIZED BONES to put upon them.

BONES, Sir, are well known to be a chemical compound of LIME with PHOSPHORIC ACID. When pulverized, and employed as a manure, they can promote the growth of vegetables only by yielding something which enters into the composition of the vegetable substance, or by favouring those combinations and decompositions from which the vegetable body receives its nourishment.

Now, PHOSPHORUS, or PHOSPHORIC ACID, does indeed enter into vegetables on some occasions; not, however, as an essential, but as an accidental principle; and rarely into those vegetables which we cultivate in Britain as articles of crop. It is not, therefore, as an element of vegetable matter, that aught but the oxygen of the phosphoric acid of bones can contribute to support vegetation. In any other mode of action, it cannot be very useful; for, manures which afford the actual elements of vegetable substance, are always greatly preferable to those which only favour the evolution of such elements. In the whole, then, the phosphoric part of the earth of bones cannot accomplish any fertilizing effects, more important than those of the sulphuric part of gypsum or selenite, or those of the carbonic part of chalk.

As to the LIME of the powder or earth of bones, this is their principal manure. LIME acts, in every diversity of circumstances, with so powerful an energy in promoting vegetation, that it seems to undergo, under the organic functions of vegetables, a change of nature, by which it is converted into an elementary pabulum of vegetation. Lime is, indeed, in all probability, resolved into oxygen, as it enters into vegetables. Of the earth of bones, therefore, the lime is the principal fertilizing part. Nor are its effects more powerful or happier in this earth, than when it is used in the form of quick-lime, of marle, of shells, or of Paris-plaster.

Those farmers, therefore, act very imprudently, who, at great expence, manure their fields with PULVERIZED BONES; expecting from this manure, a more abundant return of crop, than from lime applied in the more common and cheaper forms. Quick-lime, which is soon neutralized from the atmosphere, carbonate of lime or chalk, sulphate of lime, or gypsum, all infinitely cheaper to the purchaser, are not a whit less useful as manures, than PHOSPHATE OF LIME, or earth of bones.

2. OIL-CAKES of rape-seed, from Holland, and from Limerick

in Ireland, have been likewise recommended to use, as an incomparably rich manure. They certainly *do* furnish a valuable manure. They consist chiefly of *hydrogen* and *carbon*, the two great ingredients of vegetable substance. They unite these ingredients in a combination that is easily miscible with water, and easily decomposable by heat and the force of opposite attractions. They afford, therefore, a pabulum that, in moderate quantity, may be, without difficulty, digested by the organic functions of vegetables.

But much of the decomposable oil of those cakes, is liable to be lost by evaporation and various dispersions, before it can be decomposed and absorbed in the progress of vegetation. Where it exists in too great abundance, it is apt to produce a rank, luxuriant vegetation, which is actually vegetable disease. It in no instance produces an abundance of vegetable crop, so much greater than that which is to be obtained by the use of common dunghill manure duly prepared, as to repay, in an adequate manner, the superiority of the expence at which the *oil-cakes* are necessarily to be purchased. In truth, if our common dunghill manure were prepared in the best possible manner; the advantage of using it, would be much greater, than what is to be found in the use of any other manure. Let our farmers, therefore, slight the use of *oil-cakes*, and set themselves to prepare as much dunghill manure, and that as rich, as possible.

3. A DR. HUNTER, of York, has asserted, that *oil, miscible with water*, constitutes the genuine and peculiar food of plants. Others, in consequence of experiment, have declared, that it is not so. Both the one party and the other err. Oil and water *do*, together, contain all the necessary elements of vegetable matter,—hydrogen, carbon, oxygen. But, both the oil and the water, especially the former, must be for the greater part of their quantity, resolved into the elements of which they are composed, before they can enter into the substance of living vegetables. In those instances in which oil and water did not eminently promote vegetation,—they have been applied to the vegetables, unassisted by the presence of those means which were requisite to promote the rapid decomposition of the oil and water: perhaps the oil, perhaps the water, perhaps both, were applied in such quantity, as to drown those vegetable energies which they were intended to enliven and to nourish. The elements of all manure, are, certainly, never more advantageously applied, than in *calcareous salts*, and in the produce of our common dunghills.

I should not, Sir, have presented to you, these attempts to rectify mistakes concerning the nature and action of manures, had I not thought it your duty to correct such errors, and had it not appeared to me that you connived at them, because they were pro-

pagated by the fraternity of periodical writers. Forgive this strong language; and believe me to be a friend to your Publication, as long as it shall be honestly conducted.

Jan. 18, 1800.

A LANDHOLDER.

ON THE BEST MEANS OF ALLEVIATING THE DISTRESSES OF THE POOR, AND OF PROCURING ABUNDANCE AND REASONABLE CHEAPNESS OF PROVISIONS, FOR THE PRESENT AND FUTURE YEARS.

For the Commercial and Agricultural Magazine.

WE have considered it as our duty, amid the feverities of the present season, to examine into the best means for alleviating the distresses of the poor, and for procuring to all the inhabitants of Great Britain in general, constant plenty and cheapness of provisions. To the authors of such a publication as our's, this duty seems to present itself, with claims the most forcible, of respectful notice. If we could neglect claims so directly relating to the interests of those to whom our papers are chiefly addressed; we should be unworthy of the favours of the best patrons of our Magazine.

The following are the results of our most careful enquiries and reflections concerning this subject.

I. The *scarcity* is, certainly, not equal to the *alarm*. Five or six hundred years since, hardly a winter ever passed, in which many human beings did not perish, just as birds and sheep die, in great numbers, in the severe winters which we still, from time to time, experience. While civil order was improved, and industry quickened; though population was at the same time increased,—yet the means of subsistence became continually more plentiful,—and the havoc by the famines of the winters, still less and less terrible. Agriculture, in respect to *corn* solely, became, in the last century, sufficiently extensive to afford, in ordinary years, enough for the use of the inhabitants, and a good proportion for exportation. But, population was then comparatively thin; and human life was destitute of all but the most indispensable necessaries, and the gross luxuries of mere riot. Besides, the producers and exporters of corn, in those early times, preserved no stores for future years. They sold their corn, not because they could easily spare it, but because they wanted other necessaries, for the sake of which, a portion of their grain was, unavoidably, to be sold. In the progress of the present century, we have occasionally known seasons of excessive scarcity. One of the most severe of these was the winter of the year 1739-40. Since that æra, seasons of scarcity have been, continually, more rare; and the evils of that scarcity, while it endured, less afflictive. The population

and the manufactures of Britain have not, in their increase, exceeded the increase of the produce of the direct necessaries of life. If Britain now export less grain than formerly; the difference is owing chiefly to the increase of such of our manufactures as use grain, more or less, for their *raw materials*. If we have, occasionally, years of scarcity; these now recur much less frequently,—and, when they do come, are much less severe, than formerly. We now have a *thousand times* more of value in *accumulated capital* than our ancestors, at the distance of two or three hundred years backwards, possessed. We are not now content, as our forefathers were, to have corn merely for *one year*: we think ourselves in danger of perishing by famine, if we have not enough in store for *more than two years*. But, even the arts of the forestaller and monopolist are not unuseful to the country. They save for spring, for the coming summer, for another year, that which, if it were brought too hastily into the market, immediately after harvest, might be all consumed or exported in the course of a few months after it has been reaped. Even in the years of the most barren harvests, we have still in the island, more of grain and edible vegetables than is wanted for our sustenance. When it is otherwise, the superior advantages of our commerce, and of our national opulence, open for us all the other granaries in the world. Those even who have too little corn for themselves, will be, every where, ready to afford us a share of it; since we are glad to purchase it for prices so ample.

In these circumstances, the first care of persons of all ranks, should be, to discountenance the suspicion of a scarcity. Let us allow, that corn and other provisions may be somewhat less abundant than they have been in some former years: let us grant that they must be somewhat dearer. But, on the other hand, let us firmly assert the truth, that there cannot possibly be an actual *necessary* famine in such year as the present, in a country possessing those stores which have been laid up in Britain. Do any artifices of trade interpose to keep up the alarm? let those who are best qualified, detect and oppose them; but, enter into no combinations against the traders in provisions. It is reasonable, that they enjoy an occasional enhancement of profits. The occasional profits of a year of dearth will encourage to an increased cultivation, such as, at a subsequent time, must give excessive abundance. If the alarm of *scarcity* were generally removed; the scarcity itself would be removed likewise. The fear of subsequent cheapness has the same tendency to produce that cheapness, which the fear of dearth, has, to make all things dearer.

II. After encouraging one another with good hopes; the next things proper for us to do, must be; to rouse from idleness, to turn from frivolity, to relinquish wild dissipation, to apply every one with *new* diligence to that particular *industry* which is the most

suitable to our respective conditions; and, at the same time, to refrain from all that *waste of the necessaries and conveniencies of life, which affords, in truth, no real enjoyment*. Whatever affords real enjoyment, needs not yet to be denied to us.

All INDUSTRY, that is not directly vicious, is more or less *productive*. Let the great LANDHOLDER apply to the improvement of his mind, to the regulation of his household, the cultivation of his estates, the improvement of the county and parochial police, the general amelioration of all our rural and national economy. Let the MERCHANT, in consideration of the present alarm of dearth and scarcity, increase his diligence in fair, active, prudent, commercial transactions; avoid, more cautiously than ever, speculations which are either too bold, or else adapted to impoverish his country, though they should enrich himself; vigilantly watch every opportunity of acquiring fair profits by honest means; keep his accompts with increasing accuracy and attention; and if he have, at any time, deserted the counting-house and the family fire-side, for the scenes of fashionable idleness,—let him henceforth cease to do so. Let the FARMER be careful to *preserve* his grain from waste, in the *stack*, or in the *granary*: let him feed his cattle during the winter, with as much care and as plentifully as the circumstances of the season will allow: let him bring the produce of his farm seasonably to market: let him neither refuse to avail himself of the advantages of enhanced price, which the year affords, nor yet keep back his corn from the market, in expectation of prices still higher, till the corn be damaged, and the prices reduced very much lower: let him be careful to have all those winter-labours seasonably performed, which are necessary in preparation for spring and summer; let him hire only servants who can be truly useful, give them reasonable wages, allow them enough of nourishing food, and vigilantly, though not tyrannically, take care that they perform their tasks. Let the MANUFACTURER actively proceed in his undertakings; skilfully accommodate his manufactures to the domestic and the foreign demand; employ as many persons as his capital, his engagements, and the usefulness of the particular persons offering themselves, shall render prudent for him; discharge from his service, the drunken, the idle, and the dissolute; purchase his raw materials of as good quality, and at as low prices, as possible; then prepare them with all possible quickness for the market, and cautiously confide them only to merchants of undoubted integrity, activity, and solvency. Let MEN OF INGENUITY and SKILL in that SCIENCE which goes directly to the improvement of the useful arts, apply at this moment, more than ever, to perfect the arts, and to abbreviate the processes of labour. We owe to these improvements of art and abbreviations of labour, almost all those benefits, by means of which, the wages to labourers and

artisans have been rendered so high, in Britain; the accommodations of the poor, so much more comfortable than in any other country; and even the increase of population, in this isle, so considerable, during these last thirty years. The continued prosecution of the same *abbreviations* and *improvements*, will, unquestionably, multiply their advantages, more than one hundred fold. Now, therefore, is the time for ingenuity and patriotism to exert themselves for these important ends; if they would produce such general and constant abundance throughout the empire as shall leave scarcely even vice and idleness in danger of want.—To all that part of the community who are employed in direct and immediate personal labour,—advice, still more anxious and solemn, is to be earnestly addressed. In all trades, and in every manufacturing and great town, throughout Britain, *the working artisans, in great part, from the time when they receive their weekly wages, on the evening of Saturday, return not to steady application to their work, till on the Tuesday or Wednesday following, after the wages of the preceding week have been riotously or idly consumed.* Even those who are somewhat less idle and less dissipated, yet do not work with considerable diligence, on the first days of the week. By this means, there is, throughout Britain, a weekly loss of not less than 50,000*l.* worth of productive labour, the produce of which would otherwise go directly and immediately to increase the comforts, and alleviate the distresses, of the labouring poor. Grant, that, during the latter days of the week, those persons who have been idle in the beginning of it, labour, harder than if they had laboured every day without interruption. This, in fact, they often do: but, the consequences are, for this, still so much the worse. What between excessive labour for one part of the week, and excessive dissipation during another part of it, the health and strength of these people are soon irreparably destroyed; perhaps twenty, at least fifteen, or ten, years are abridged from that period, during which the same persons might otherwise have laboured easily and cheerfully, for themselves, their children, and the community. That they labour excessively hard at one time, in consequence of having been idle at another, is, in truth, an occasion of additional loss to themselves and the whole nation. Now, these persons are to be earnestly adjured at such a period as the present, when they find it difficult to earn bread for themselves and their families, to break off from those irregular habits in which they have hitherto indulged. Even one day's additional labour will supply to almost every one of them, to the amount of two, three, or even four shillings of addition to their weekly income. Such an addition will be adequate at least to the increase in the price of bread. Besides, the enhancement of the price of bread can be but temporary, while a habit of steady industry, once acquired, will be equal to a perpetual

augmentation of income. It is also to be considered that the better preservation of health and strength to the labourer, which must be the necessary consequence of this improved regularity of living and labouring, would also afford another important augmentation of the productive labour which each individual may perform in the course of his life. Surely, there are some, among the labourers who have been, at times, too idle and dissolute, whom, however, the distress of such a winter may be expected to rouse to a sense of the impropriety of their wonted idle habits. Let these, once, for a few months, try the advantages of those better habits which are here proposed. It may be, with confidence, expected, that, after that trial, the greater part of such persons would not soon again relinquish them.—So much for that increased industry of all ranks, which affords the best resources in a year of dearth and scarcity.

WASTE is also to be anxiously avoided in such a season. Not that we would recommend to our readers any sudden and fantastic resolutions to abstain from the moderate enjoyment of those comforts and even luxuries of the table, of which they have been wont to partake. Resolutions and proposals of this sort are, on such occasions, eagerly and inconsiderately made, and then eagerly and inconsiderately broken. Every *Lent* must have its *Carnival*. Nothing is gained by an abstinence which must soon again be compensated by riot. The only mode of sparing, which we would recommend to all ranks, is, simply, that of *avoiding—drunkenness and gluttonous excess—and the consumption of a quantity of meat and liquors at every meal, much greater than that which is actually used by the persons for whom the meal is prepared*. It is incredible, how much might be saved, in a single day, by this care; not less than to the value of 100,000*l.* for the whole island. Now, let both rich and poor still have their wonted dishes and liquors; let them have their wonted meetings of hospitality and convivial friendship:—only, let drinking never proceed to intoxication; let there be no more meat consumed, than is indispensibly requisite; let not the remains from an entertainment be so carelessly put to waste as at present. We know not what it is to suffer by famine; otherwise we should soon learn to use much more of frugal economy in the consumption of provisions. At least one-half of the beer, ale, spirits, and wines, which are now consumed in Britain, might be spared; if such liquors were never used except to promote health, to refresh feebleness, to enliven languor, to promote the kindness, and the engaging conversation of friendly and convivial society; if, in short, every man would cease from drinking, when he felt himself beginning to be exhilarated to that state which is called *half seas over*; as, in truth, spirituous liquors, to a man not enfeebled by the habitual use of them, are salutary till they begin to fluster the brain, but from that moment, act with the effects of a slow poison.

Surely, it is not too much, to expect that a measure of saving which requires from all but the fordidly sensual and dissolute, so very little self-denial; and which would, even alone, be sufficient to counteract all the effects of such a scarcity as that which we now feel; may be generally and eagerly adopted by the truly considerate and worthy in all ranks of life. If it were adopted by them; the example would, unquestionably, be imitated by others.

III. Next, *let landholders, farmers, merchants, and manufacturers employ as many labourers, at as liberal rates of wages, as possible.* We do not wish, that any person should, in charity, employ labourers whose services cannot be profitable to him; or pay higher wages for their labour, than it can be prudent for him to give. We would only desire, that as much labour should be called forth and paid for, during such a season as the present, as can be at all rendered lucrative to the community and to the individuals of whom it is composed. *Landholders* have often various works of building, planting, fencing, ditching, hedging, &c. to be performed upon their own domains. For these they must employ labourers, and appropriate a part of their revenues. Now, if there be, any where, landholders who sincerely desire to promote the welfare of their country; let them employ labourers for such works, in such a year as the present, rather than in a year of greater abundance. Let the *merchant* and the *manufacturer* make every exertion to find employment for as many hands as possible. Now is the season to make exertions for the discovery of new modes of manufacture, which may bring into employment, persons who, though willing to work for their subsistence, have hitherto, by various disadvantages, been hindered from finding sale for such work as they were properly able to perform. Of all modes of charity, there is none more truly laudable than that which provides *small funds* for the purchase of those manufactures of the poor, which must otherwise remain unfold; funds which are, in due time, by the renewed sale of the commodities, to be repaid to their contributors.

IV. Let the *usual charities, parochial and casual, be administered with the utmost liberality and vigilance.*

Notwithstanding all the complaints which have been so often raised against the ENGLISH *system of poor laws*; though many evils and imperfections be, undeniably, intermingled in that system; yet it *must* be confessed, by all who are truly qualified to judge of a matter so difficult in its nature, and so exceedingly diversified in its relations; that, for a very populous country, and a highly complex state of society, there was never yet, so happy a system of national charity to distress devised, as that of the English poor laws, considered in their leading principles and their genuine spirit. In such a season as the present, let these laws have their full efficiency. There is no situation of life, in which wisdom and virtue may by

more beneficently employed, than in the duties of an *overseer of the poor* or a *justice of the peace*. In the present year, let gentlemen in these employments, throughout England, join vigilance, tenderness, and activity. Even frowardness and vice are not to be used with harshness and cruelty in the hour of distress; a fitter time will come for their correction. Of the indigent and distressed poor, the sustenance, the happiness, the very virtue, are placed, more entirely than we are, upon a first consideration, apt to imagine, in the hands of the parish-officers. Let them be neither surly nor simple; let them neither lavish away too great an expence, nor starve and maltreat the poor, for the sake of saving a few pounds to the parish.

In SCOTLAND, the mode of the maintenance of the poor, leaves them more in dependence upon casual charity, than they usually are in England. Yet, in most parts of the former country, the poor are just as certainly and as liberally relieved, as in the latter. But, it is only for a simpler state of society, and a less populous country, that the Scottish mode of providing for the relief of the poor, can prove effectual. In the great towns and the manufacturing districts of Scotland, it has been necessary to relieve the distresses of the poor, by modes of provision approaching, in their spirit, very near to that which prevails in England. In Scotland, as in England, it is earnestly to be desired, that those to whom the care of this matter is intrusted, *ministers, parochial sessions, heritors, justices of the peace, city magistrates*, and others, should, with vigilance, humanity, and prudence, supply the wants of their unhappy brethren, as liberally, as beneficially, and at as little waste of expence, as possible.

In spite of the provisions by law, in both England and Scotland obliging every parish to supply maintenance to its own destitute poor; many of the most wretched of these poor, unavoidably fall, by the various accidents of social life, into a condition in which they cannot procure immediate relief from their proper parishes. It is especially in such a season as the present, that the distresses of these people, are the most severe. In behalf of these persons, whose wants are not the less real for their being, in some sort, proscribed by law, all the tenderness of voluntary humanity, ought to be called forth. Do not, with wanton insult, reject the petition of every wandering beggar. Let the humiliation and the misery of friendless, houseless want, move you to forget, for some moments, that this want and destitution may, possibly, be the consequences of vices. Do not merely meet the CASUAL POOR with some scanty relief, when they earnestly present themselves to your regard. Seek them out; listen to their tales of distress; hold out the relieving hand, before relief be too late. Refuse not to penetrate into those cells where *lonely want retires to die*; grant not merely the pecuniary means of relief: but take care

also, that these means be used in that manner in which they shall be likely to become the most beneficially effectual.

Another sort of poor who deserve relief, and that to be administered in a manner the most cautious and delicate, are *persons who are in extreme want, which delicacy and generous pride move them to conceal as much as possible from the world*. If the wants of these people be not timely discovered and relieved; they must perish by hunger; or, at last, in compliance with the calls of nature, break through that modest dignity of sentiment, which does them now so much honour, and descend to the idleness and meanness of the clamorous beggar: or perhaps, in the extremity of despair, they may even be driven into fatal crimes against the peace of society. If, on the contrary, these people shall obtain timely relief, in a manner that shall not degrade and deprave, while it relieves them; their virtues and their lives may at once be saved, and even exalted to become, more than ever, the strength and ornament of their country. Let every rich and good man,—let every worthy lady, possessing the elegance of virtue,—seek out these people; drop, as it were, fairy favours upon them; encourage their industry; soothe their sorrows, by every honest, delicate artifice; relieve, without depressing and insulting, them; relieve, too, without unmaning them, and disposing them to throw, too indifferently, upon others, the concern of gratuitously supplying their wants.

One class of the poor who deserve this sort of relief, consists of *the families of drunken artizans*; who would possess the means subsistence, if the husband and father laboured steadily, and brought his wages regularly home for the support of his wife and children; but who, by his sloth and dissoluteness, are often left without a morsel of bread. Merchants, manufacturers, landholders, tradesmen in all conditions, ought to enquire diligently into the condition of the families of the workmen whom they employ, and to endeavour, by every reasonable means,—that, at least, a reasonable proportion of the wages of the husband and parent, may be, in every case, appropriated to the use of his wife and children. The manufacturer will exceedingly dignify his character and employment, if he shall endeavour to act, towards his workmen and their families, the part of a benevolent parent.

V. One mode of charity deserves to be especially recommended, as, perhaps above all others, the best adapted to alleviate the ills of a season of scarcity and dearth. Let city magistracies, friendly societies, the committees for managing and laying out charitable subscriptions, &c.—use the sums, or rather certain proportions out of the sums, which they have to deal out in charity,—in purchasing meal, bread, meat, and fresh vegetables,—not to be absolutely given away without price,—but to be sold at prices so much lower than those of the markets, that they may relieve the poor from the oppressiveness of the dearth, though not from the payment of

those middle prices, which the wages of labourers, if not imprudently wasted, are, in truth, not insufficient to pay. This plan of charity, has, at different times, been tried, in different parts of the island, and always with the happiest effects. It has the advantage of relieving the poor, without humbling them too much in their own eyes, or withdrawing them from a manly dependance on their own exertions. The provisions, of which the price is thus reduced, ought to be sold only to persons who have been previously provided with tickets, as being known to be fit objects of such charity. Care ought to be taken, that this sale of provisions, at reduced prices, be not so managed, as to disgust or injure those dealers by whom the market is commonly supplied. It is of the utmost importance, that, while the frauds of these persons are prevented, their activity should be constantly excited and encouraged.

VI. *Avoid all novel, fantastic, modes of charity, such as, by their odd singularity, may indeed be adapted to excite fashionable bustle and curiosity, but are, nevertheless, not so accommodated to the prejudices of the poor, and to their ordinary way of living, as to yield them effectual relief.*

The establishments for making SOUP, to be distributed to the poor at a small price, are, in London, and in most of the great towns in England, likely to prove exceedingly beneficial. They are sufficiently accommodated to the English way of living. They afford, at an unusually cheap rate, one of the best articles that can be furnished from a cook's shop, for a poor man's dinner. For distant rural hamlets, however, and for Scotland in general, the distribution of such SOUPS, ought not to be eagerly resorted to, as the only mode of charity. In many places, if you give but fuel, and now and then a small portion of flesh, at moderate prices, the POOR will prepare SOUPS for themselves, still cheaper and more nourishing than those of the soup-houses. Throughout almost all Scotland, however the matter may at a first trial appear, the establishment of soup-houses, though useful and highly laudable, will not be found to prove, in the end, the most eligible mode of relieving the poor.

Some of the benevolent great, think it a good thing, to give the poor, or to certain classes of poor, occasionally, a sumptuous dinner, or the means for a sumptuous dinner, for a single day. This is seldom an advantageous mode of bestowing charity: for the greater part of those who receive it, a day of idleness, and perhaps of riot, is the natural consequence. Thus, the labourer loses more than he gains, by this injudicious, however well-meant, benefaction.

We may here observe, that we have seen *Sunday Schools* instituted in some parts of the country, with a want of judgment similar to that of which we complain. They were instituted by persons who only followed, without consideration, a benevolent fashion. There were parish-schools, to which the children might

have been sent, without any troublesome expence; and there were no establishments of manufacture or other industry, to hinder the children from going to school throughout the week. There were many reasons which rendered it obviously much better, that the children should go to the common parish school, than to the *sunday school*—fitter for great towns and for the seats of manufacture.

It is too often the case with the benefactions of the great, that they are bestowed at the bidding of fashion, without that variety of accommodation to diversity of circumstances, which is necessary to make them truly useful.

VII. In general, throughout the whole island, FUEL will be found to be one of the most suitable articles to be bestowed in charity. The want of it, makes the cells and cottages of the poor more uncomfortable, than can any other want, in a severe winter. Coals may be bestowed gratuitously; or quantities may be purchased by parishes, incorporations, and benevolent subscriptions,—and again sold out to the poor, at half price. Infinite good may be done by this species of charitable benefaction.

VIII. Amid the difficulties and necessities of a year of scarcity and dearth, particular attention ought to be paid to the management of all public institutions of charity. *Hospitals* for the sick, places of *education* for the children of the poor, *workhouses* for the maintenance of the infirm and destitute, ought not to be abandoned to the selfish and mercenary; but to be administered under the vigilant inspection of the whole public who are interested in them. *Cleanliness* ought, in the first place, to be carefully attended to. It should *next* be managed, that the apartments be suitably furnished, well aired, and comfortably warmed. Then ought the attention to be directed to the wholesomeness, the reasonable plentifulness, and the proper variety, of the provisions. Care should be taken, too, that EDUCATION-CHARITIES, which were originally destined for the poor, be not basely diverted to the use of the children of the rich. Of all crimes against God and society, that of the interested abuse of such charities, is one of the most heinous. Such abuse is but too common in this country. Let the poor, at least, not be nefariously robbed, in such a season as the present.

IX. CLERGYMEN and PHYSICIANS have it in their power to do much good, at such a time as the present.

That *Clergyman* is unworthy of the name, who does not prefer his official and parochial duties to every other amusement or care. Not only in the pulpit, but continually, his time, his thoughts, all his attention, ought to be dedicated to the highest interests of those whose spiritual direction is confided to him. In the present season especially, it is the duty of every parochial *clergyman*, to visit every house and every hovel within the district of his charge; to enquire into whatever can affect the virtue, the piety, or the peace, even of his meanest parishioners; to console, to relieve, to ad-

monish; to call upon others, who possess a greater abundance of the good things of this life, to give that supply to the wants of the needy, which he himself may not have to bestow. *The clergy ought to make themselves the very eyes of charity.*

PHYSICIANS, being professionally engaged to visit scenes of distress, in the cells of the poor, as well as in the palaces of the rich, have opportunity to witness many of the sorrows and miseries of want, which are hidden from the rest of the world. Let them, too, console, relieve, solicit. Let them invoke the charity of their rich patients, in behalf of those who are wretchedly poor. Let them exert themselves to excite the feelings of those, who, in opulence, are visited by sickness, for the relief of those who are sick and in want of all the means by which sickness may be alleviated or health sustained.

X. THE DESTITUTE POOR may do much for their own relief. What little they may have of their own, let them use frugally. Let no one sit idle, who is at all able to work, and can find means to procure money or food for honest labour. When they are forced to ask relief from the charity of their brethren, let them ask it modestly and humbly. When they receive, let them receive gratefully. Let them use what they thus obtain, much more sparingly, than if it were the produce of their own labour. Let them reflect, whether or not their *extreme indigence* be not, more or less, the consequence of either the vice, or at least the inconsiderate imprudence, of some former part of their life. If they find it to be so; let them earnestly correct those bad habits which have proved thus mischievous and unfortunate. Let them think, that; when they receive the benefit of a gratuitous sustenance from the community to which they belong; it must be, in an especial manner, their duty to compensate that benefit by the only means in their power; the setting of a good example of all those virtues of temperance, fortitude, and humility, which are compatible with their condition. Let them add to these, that piety which ennobles, dignifies, blesses every state of human life, however otherwise mean and wretched.

XI. From all the circumstances of a season, in which scarcity of food is to be prevented only by temperance, moderation, benevolence, and steadiness of virtuous exertion, it will become the whole nation, to take a lesson of piety towards God. It is not that sort of piety, of which superstition is the canvas, and enthusiasm the colouring, that we would here speak of. Nor yet do we mean that sort of religious decency, which has been of late considerably fashionable, and which affects a reverence for a religion that is disbelieved, merely to betray the poor to reverence it. The true piety of which we speak, must arise from a belief; that the universe is one whole, the result of one simple design of an all-powerful agent; that the same being who framed, still governs and superintends it; that the virtuous and prudent conduct of man-

kind is made the means, in the hands of that being, for accomplishing their happiness; that misfortune, misery, and want, are the consequences and the punishment of folly, indolence, and vice, either in the particular persons on whom those evils fall, or in others who have, one way or another, the power of influencing *their* fate. Such sentiments as these must be frequently awakened in ingenuous and reflecting minds, by the incidents of a year of dearth and scarcity. No other sentiments have so powerful a tendency to promote that tenor of conduct, by which all the ills of such a year are to be dissipated.

In general, then, it appears that the real *danger* of excessive dearth and scarcity, is much less, than the *alarm*; that fortitude, prudence, frugality, temperance, kind and active charity, sincere and rational piety, may, even in the course of the present year, lecture to us a cheap abundance; that eccentric modes of charity, acting without a due consideration of circumstances, are apt to prove hurtful, instead of beneficial. Besides, it is to be considered, that the high prices of a year, exciting to the more diligent and extensive raising of produce, must, by necessary consequence, bring on years of plenty in its train.

Jan. 16, 1800.

R. H.

OF THE USE OF CORN FOR SEED THAT HAS NOT BEEN FULLY RIPENED.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I YESTERDAY, happened, in examining a file of newspapers, to find, in two or three, for days in the end of October last, a paragraph of advice to farmers, corn-merchants, and millers, in which it was recommended to reserve for seed, all such grain of the crop of last harvest, as might have been cut down before the ears were duly filled and thoroughly ripened.

Assuredly, Sir, no advice could be more imprudent or absurd.

That the seeds of any plant, may yield a reproduction sufficiently healthy and vigorous,—it is necessary for them to contain, in perfect preservation, certain due proportions of all the essential elementary principles of vegetable matter. In animals, do not abortions, imperfect births, puniness, sickliness, deformity in the progeny, depend all, *more or less*, on imperfections of the seminal impregnation? In every vegetable species which we are wont to cultivate, whether it be produced from seed, root, or sucker, differences in the parts from which the new plant proceeds, invariably occasion the most remarkable diversities in its character as to sickliness or vigour. Are not effects the most striking produced in the culture of grain, by procuring seed from a soil and exposure directly opposite in their character to those where it is to be sown? Are not the purity, the fresh-

ness, in short, all that which is accounted the best perfection of vegetable seeds of all sorts, are not these qualities ever found, *cæteris paribus*, to afford the best produce in crop?

In fact, Sir, grains of corn which have not been suffered to ripen on the stalk, are not susceptible of preservation in a sound state. They do not contain the same elementary ingredients as those grains which have grown to perfect ripeness. For the same reason that makes those unripe grains unfit to afford good flour or meal, they are also incapable of use as seeds which would certainly afford a good produce. No unripe grain contains, in due proportion, all those elementary parts, which are necessary to make a seed afford a young plant of sufficient health and vigour. Ripening is a process of *de-oxygenation*. If that process be not duly completed; the composition is not formed, out of which alone, the new vegetable may be, with confidence, expected to arise. An unripe ear of corn, when dried, is, in its nature, more like to chaff or straw, than to genuine farinaceous grain. I should as soon expect to obtain the rich flavour and spirit of wine of *Burgundy* from a distiller's wash, as to have a vigorous, thick, and thriving crop of grain, from seed consisting of unripe ears.

But, Sir, it is, on the other hand, undoubtedly true; that, as was well suggested by the late President of the Board of Agriculture; *corn*, in general, might be advantageously reaped, rather earlier than it is usual for British farmers in many parts of the island to begin their harvest. There are a certain growth, and a certain degree of ripeness, beyond which the final *de-oxygenation* of grain may be accomplished, just as well in the open air after it has been cut down, as while it is still rooted in the earth. The great difficulty is, when, by any means, there is an inequality in the ripening of the corn in a field. Then, indeed, the cutting down of a part of that corn, while it is still green, is not to be avoided, otherwise than by suffering the grain of another part, to be lost for want of seasonable reaping. Farmers will, for the most part, do well, to watch for a time between that at which their corn assumes a mellowed whiteness, and that at which it is liable to be shaken from the stalk by every brisk breeze. When such a time shall appear to have arrived; put in the sickle.

If, Sir, I have succeeded in explaining what I had in my mind, when I sat down to write; I have probably satisfied you, that grain unfit for flour or meal, because it was cut down unripe, is also unfit to be sown as seed; and that farmers might, with sufficient prudence, anticipate, often by a day or two, the time at which it is usual for them to reap their corn. Pray, try, whether what I have written may not equally satisfy such of your readers as have any guts in their brains,—to use a homely, but expressive, metaphor. I am, Sir, your's, &c.

Hexham, Jan. 3, 1800.

G. ROBSON.

THE NESTS OR DENS OF MOLES.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

IF you shall think the following facts likely to entertain your readers; you may insert them in one of your Numbers. I relate them from personal observation.

The MOLE seems one of the most pitiful of all those quadrupeds which live upon herbs and grains. Yet are its organs, apprehensions, and habits, admirably accommodated to its way of life. Its fur, its fore-feet, its snout, even its faint and glimmering eyesight, are all peculiarly advantageous in that residence under ground, in which its time is chiefly spent. The *mole-hillocks*, which are often so exceedingly troublesome in meadows, display a considerably social disposition in the *moles* by which they are formed. They are usually arranged together, like the houses in a hamlet or village. They are always raised, as much as possible, in the vicinity of water; indicating in the *mole* a disposition as to this element, not very unlike to that of the otter, or even the beaver. In their internal structure, they shew either wonderful instinct, or remarkable ingenuity of contrivance.

The *hillock* is the *nest*, *den*, or *house*, of the MOLE. The mould, which is thrown up, and appears above, is the roof, or exterior structure, of this curious habitation. Within that roof is raised a similar, solid hillock, so much smaller as to leave a considerable space between. Arches or columns of earth, reared from the interior and solid hillock, support the exterior structure or roof. Though loose above, the earth of this roof, is, on the inside, beaten, pressed, and intermixed with the roots of plants, so as to form a sort of plastering mortar. On the top of the interior and solid hillock, is the usual seat of the *mole* herself, and the *nest* of her young. Its elevation rises above the level of the surface of the ground; thus securing the little family from being unawares flooded by the fall of rains. The sides of this habitation, are pierced all around with sloping passages, which descend deeper than its own level, and serve at once for sewers to carry off any superfluous moisture, and for paths, by which the *moles* may, from time to time, issue secretly out, in quest of food. Human architecture has produced nothing more skilfully adapted to the purposes for which it is destined. Who that contemplates the habitation and economy of the glimmering *mole*, would prefer to these the famed contrivances of the beaver?

The *moles* are most commonly of dark colours. Yet *moles* of a beautiful *cream colour*, are now and then to be met with. The *mole* and the *farmer* are mutual enemies, and are ever at war with each other. There is reason to suspect, that *moles* sometimes swim across pieces of water of no inconsiderable breadth.

I am, Sir, your very humble servant,

Ousley, Dec. 25, 1799.

AN OLD MOLE-CATCHER.

ENQUIRY CONCERNING THE MECHANICAL ARTS.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I AM a subscriber to a county-library, into which the Numbers of your Magazine are regularly received. I am, in consequence of this advantage, one of your most faithful readers. I am much pleased to find, that, so far as you have hitherto advanced in the execution of the plan proposed in your advertisement, you certainly have not balked the expectations you had endeavoured to excite. Your undertaking is, as yet, but in its commencement. It is enough, that, in correctness of literary composition, in rectitude of science, in the mixture of the entertaining with the instructive, and in perspicuous explication of the common arts of life, you have rather exceeded, than fallen short of, what your advertisement promised. What you have given, satisfies me, that you will, in due time, contribute all that can be, in such a publication, desired.

Not, therefore, to reproach you, but to make known to you, what would be exceedingly acceptable to myself and some of my neighbours; I beg leave to remind you, that the MECHANICAL arts are not less important than the *chemical*, though the former have not hitherto shared your attention, equally with the latter. The machinery of *wind* and *water* mills, in all their different modifications, and for all the various uses to which it is usual to apply them, deserves to be particularly explained in the progress of your work. The arts of the *mason*, the *carpenter*, the *smith*, the *architect*, certainly merit from you more particular attention than you have, as yet, bestowed upon them. Why do you overlook the important business—of *ship-building*, and all the arts connected with *navigation*,—of *canals*, and *high-roads*, and *wheeled carriages*, so important to the internal commerce of this country? It were to be wished, that you would, from time to time, favour us with whatever information on these subjects you can pick up. You have an host of able correspondents. Call upon them for assistance. Pray, forgive this freedom from,

Sir, your zealous well-wisher,

Jan. 7, 1800.

J—L—B—.

NATURE AND USES OF BILLS OF EXCHANGE.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I OVERHEARD, the other day, some young mercantile gentlemen, who seemed to regard your Magazine, in most respects, with great candour and partiality, complaining, however, that you had not, as yet, said any thing concerning that obviously important commercial subject, BILLS OF EXCHANGE. Friendly to your

publication,—because it appears to me to be very happily adapted to enlighten and cultivate the minds of young persons, engaged in commercial employments; I sit down to express upon paper, for your use, a few thoughts on that subject, which, I agree with those young men in thinking, you ought not too long to overlook. If what I shall communicate, may be published in your Magazine, without discredit or disadvantage to yourself; I shall be pleased to see myself figure in print in one of your Numbers.

EXCHANGE, in the language of *bankers and money-dealers*, signifies an exchange of the receipts and payments of any two sums of money of equal value, for the purpose of preventing the inconveniencies of the actual conveyance of those sums, in coin or bullion, from one place or country to another.

I have sent goods in exportation from *London*, which have been bought by you at *Hamburgh*; and it remains for you to make payment to me of the price. You, on the other hand, have sent goods of equal value from *Hamburgh*, which have been sold, not to me, but to some *third* person, in *London*; and you have to receive payment of them. How shall we, with the smallest trouble, manage to have our accompts mutually discharged?

Why, thus. You, by letter, order your debtor, in *London*, to pay to me the sum which he owes you. He pays it. My letter of receipt or discharge to him, is his acquittal of his debt to you. Your letter empowering me to discharge him from farther payment of what he owes you, becomes,—after I have received my money from him, and this receipt has been signified by my letter to him,—an actual payment of the debt you owed me. If the general practice of commerce, the laws of the respective countries in which we live, the state of commercial credit between *Hamburgh* and *London*, between you and me, between your friends and mine, permit the transaction to be managed in this manner; we shall both be considerable gainers by this mode of conducting it. 1. We spare the expence of the carriage of our money, (*twice*) from *Hamburgh* to *London*, and from *London* to *Hamburgh*: 2. We spare the danger of losing it (*twice*;) in the transference: 3. We meet the demands and the conveniencies of trade much more readily than it might otherwise be possible for us to do, with the same sums of money. In all these ways, we have, even in the present easy intercourse of commercial Europe, a saving of perhaps, one, two, three, four, or even five per cent. This is the nature, these are the advantages, of the commercial exchange of payments of sums of money.

The compilers of *Magazines* and *Encyclopedias* (I hope, I may speak thus without offence, Mr. Editor, to your *solidity* or *stolidity*, or what do you call it) and even the great *Scotch* Dr. JOHN CAW-MELL, and DAVID HUME, and ADAM SMITH, of whom the *Britons* from the North are eternally boasting,

would persuade us, that the use of these convenient BILLS OF EXCHANGE, was utterly unknown to the merchants of antiquity.

But, these gentlemen are more eager than *well-informed*. BILLS or LETTERS OF EXCHANGE, as appears from various passages in the epistles and orations of Cicero, were in use among the Romans, in their intercourse with the conquered provinces of Greece and Asia. Money was often borrowed by the agents of the provincial states, from the usurers of Rome, for the payment of taxes and bribes in that capital: and this money was, not seldom, repaid, not to the lender at Rome, but to his order, in a distant province. While Roman government and commerce remained; the use of such LETTERS OF EXCHANGE was not discontinued. The subversion of order, civility, and law, by the barbarian conquest of the Roman empire, rendered the convenient use of BILLS OF EXCHANGE, for a time, impossible.

The Papal clergy were the first to revive this contrivance for the easy transference of money. When the revenues of the bishopric of Rome were derived from all parts of Europe; and the different European kingdoms were but so many subject-provinces of the Romish hierarchy; it was natural that there should be much money, to be, from time to time, transmitted from all parts to Rome. There arose also various occasions for the remittance of money from Rome and Italy to other parts of the world. Dangers from robbery, from shipwreck, from the jealous avidity of princes and nobles, as well as from various other causes, rendered the conveyance, in that age, from one place to another, exceedingly difficult. These strong necessities revived the use of BILLS OF LETTERS OF EXCHANGE.

Rome might have quickly drained away into itself, all the money and bullion of the Christian world. But various causes concurred to make it, from time to time, disgorge a part of its gains. Much of them was expended in the purchase of luxuries, from the merchants of the great commercial cities of Italy, then flourishing in their highest prosperity. Those merchants, for the sale of their own manufactures, and of those which they imported from the East, as well as for the purchase of raw commodities, dispersed themselves throughout all Europe. In payment for the raw commodities which they bought, or in loans to princes on extravagantly usurious terms, they thus restored, to the different countries, some part of the wealth which superstition had carried away from them. By this, and other means, a sort of equilibrium of payments between Italy and the rest of the world, was gradually established. Upon that equilibrium, it was natural to erect a regular system, for the transaction of pecuniary business by BILLS OF EXCHANGE. The JEWS, forbidden to acquire property in land, afraid of being robbed of bulky moveables, obliged thus to fix in money whatever they could gain, and often liable to be robbed even of that money by Christian avarice, had recourse, as well as

the Christians, in the dark ages of the history of modern Europe, to the use of BILLS OF EXCHANGE, for the secret conveyance of their money from one kingdom to another. As civilization, law, and social order were improved; as commerce was extended; as industry was still more and more varied and excited: the commercial transactions, and the general intercourse between the inhabitants of different countries were increased; and the use of BILLS OF EXCHANGE became, by consequence, much more necessary and common. Their rise has been continually increased to the present moment. Coin, or bullion, are now never actually transmitted from one country to another, unless when the money due from a *first* country to a *second*, is very considerably less than that due out of the *second* to the *first*.

The use of BILLS OF EXCHANGE has not been confined to the sphere of the commercial activity of Europeans. Among the native HINDOOS, from a very remote period, and among the CHINESE, these bills have been employed, in almost all the most important transactions of commerce. Among the rude inhabitants too, of the north-east parts of Africa, their use has long been known. They are now in universal use, in the traffic of the whole civilized world.

In this EXCHANGE, there is a necessary comparison of the money of one country with that of another. As, in comparing the different denominations of English money, I count *one and twenty shillings* to be equal to a *guinea*; so, in comparing, for the purposes of EXCHANGE, the money of Hamburgh with that of England, I must compare the denominations which are in use in that commercial city, with those which we use at home; and must ascertain what quantity of the coins, or denominations of money, prevalent in the one place, are equivalent in value to some fixed quantity of the money of the other. That which is named the PAR OF EXCHANGE, is the result from this comparison, when that result is confessed to be just, and is acted upon in the *drawing* and the *paying* of the BILLS OF EXCHANGE in the two countries. For instance, the *par of EXCHANGE* between *London* and *Hamburgh* may be, at a particular time, *32 shillings gros*s of Hamburgh, for the English pound sterling. In this case, for every 32 shillings gros which may be due to *me* at Hamburgh, *I* shall receive, as a full equivalent, one pound sterling in London; and for every pound sterling which may be due to *you* in London, *you* can have 32 shillings gros in Hamburgh. The one of the sums is accounted to be equal in value to the other.

This EQUALITY OF VALUE is constituted, not simply by the consideration, that the one nominal sum contains an equal quantity of silver or gold, of equal purity, as the other. The equality of value may subsist, though the quantities and purities of the precious metals in the two sums which are compared be unequal. 1. The quantities and finenesses of the precious metals in the two sums;

2. The value of these precious metals, respectively, in each of the two countries, in comparison with the necessaries of life; 3. The comparative state of the commercial credit of the two countries; 4. The proportion between the money to be paid at any particular time, from all the merchants of the one place to all the merchants of the other, &c.—afford, in their compound ratio, the principles upon which the PAR OF EXCHANGE is always to be regulated. In stating this PAR, an *uncertain* sum of the money of the one place, is always, of course, to be compared to a *certain* sum of the money of the other place. For instance, in speaking of the EXCHANGE between London and Hamburgh, I always compare to a pound sterling, sometimes a greater, sometimes a smaller, number of shillings gross. It would be impossible to estimate the fluctuating *par of Exchange*, if the sums were both fixed: There would be much confusion and perplexity in the continual variation of both sums in the comparison. The fluctuation in the *par of Exchange*, is incessant. Its fluctuations depend, chiefly, on the demand which there is, for BILLS OF EXCHANGE in the one place, of which the payment may be received in the other.

I am called away, by business, from the farther continuation of this letter at this time. I close it here, lest it should not be in my power to resume it, soon enough for your immediate use. Insert it or not, just as you shall think proper. You ought, at some subsequent time, to add a particular description of BILLS OF EXCHANGE, with examples of their composition, and an account of the laws which take place in respect to them. I am, Sir,

Your sincere well-wisher,

Cornhill, Jan. 15, 1800.

J. W.

FOSSILS OF CUMBERLAND.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

I SEND you the following enumeration of the principal FOSSILS of this county; hoping that it may prove no unsuitable article for publication, in a Magazine, from the preceding Numbers of which, I have received much instruction and entertainment.

1. LIME-STONE abounds in this county. The lime-stone rocks contain a great variety of petrefactions of substances, animal and vegetable, especially of the exuvizæ of marine animals. Bothel, Melmerby Scar, Crossfell, Howlees, Torphenhow, the banks of the river Irthing, the neighbourhood of Penrith, Farlam, Muncaster, &c. are the most remarkable places affording calcareous carbonate in the common coarse-grained lime-stone rocks.

MARBLE, variously veined and coloured, is found at Little Stainton, Crossfell, Broughton, the banks of the Peterel, and the neighbourhood of Kirkoswald,

CALCAREOUS SPARS, of the most beautiful varieties, have been found in the lead mines of Alston Moor, and in many other places throughout this county.

MARL, of several varieties, is found in various places.

GYPSUM is found in different parts, particularly in the neighbourhood of Whitehaven, on the banks of the Peterel, on the Eden, &c. It is either compact, or fibrous, or foliated, or in crystals. It is said to be an admirable manure; yet I do not know that it has been, in any instance, successfully employed as such, in Cumberland.

2. OF SILICEOUS stones, CUMBERLAND affords rock-crystal, garnets, schorls, zeolites, chalcedonies, carnelians, flints, petrofilex, jasper, feldt-spar, and agates.

3. OF ARGILLACEOUS stones, the most remarkable species in this county, are, a great variety of clays, soft or indurated; trapp, basalt, whin-stone, schistus, pyritous, &c.

4. OUR CARBONACEOUS and BITUMINOUS fossils are, *pit-coal*, wrought in the mines on the estates of—the Earl of *Lonsdale*, at Whitehaven,—Mr. Curwen, at Workington,—the Earl of Carlisle, at Tindale-fell; *cannel coal*, which is found at Bolton; *peat earth*, in the morasses, and on the tops of many of the hills; *plumbago*, or carburet of iron, in the mine of Borrowdale; Jet, in thin layers, on the banks of the Irthing, and in separate pieces on the bed of that river; *Amber*, which is sometimes thrown out in small pieces on the sea-shore. Gas-hydrogen, carbonated gas-hydrogen, sulphurated gas-hydrogen, occur in the mines at Whitehaven, over the bogs and marshes, and in the medicinal water of Gillisland. *Martial pyrites* is found in the mines of Alston Moor, &c.

5. SILVER is extracted from the ores of all the different lead mines in this county. Such of these ores as are the richest in silver, contain from 12 to 18 oz. in the cwt.; the poorer ores, 60 grains of silver in the cwt. of ore.

6. OF COPPER there are considerable mines in Borrowdale, and in the neighbourhood of Keswick. In the last of these situations is the famous mine of *Goldsculp*, from which prodigious quantities of COPPER ore were anciently obtained.

7. LEAD, in native purity, in a carbonated ore, in a white, friable oxyde tinged with iron, in a fibrous oxyde of various colours, in that sulphurated mineralization which is named galena, in a pyritous ore, and in a phosphorated ore, is found in the mines of Nenthead, Alston-Moor, Caldbeck, Thornthwaite, Barrow, &c.

8. Native IRON, various native oxydes of this metal, bog-ores, hæmatites, sparry iron ore, emery, native Prussian blue, &c. are found in the mines of Tindale-fell and Whitehaven, at Skrees, Langron, Ormathwaite, Brayton, Alston-Moor, Gillisdale, &c.

9. ZINC, in a pure oxyde, in calamine, and in blende, has been

found in the lead-mine of Brandelhow, in Borrowdale, and at Ousby.

10. A sulphurated ore of ANTIMONY has been found at Baf-fenthwaite.

11. ARSENICAL pyrites have been occasionally found in Goldscalp and other mines.

12. COBALT has been found in Cowdale.

13. MANGANESE has been met with at Caldbeck, and in the stratum under the coal of Tindale-fell, in mixture with mica and pyrites.

14. The ore of TUNGSTEN, named *Wolfram*, has been found near Borrowdale-head.

15. The soils of Cumberland are, a peat-earth, a light gravel, clays of various mixtures, a loam, a stratum of rich earth from vegetables over a sandy bed.

In this very short CATALOGUE I have been as brief as possible, because I have observed, that the longest articles in magazines are not always the most diligently read. I have added to my own personal observation, the authority of the Catalogue of *Fossils*, in the valuable History of *Cumberland*, by Mr. HUTCHINSON. I should wish to see in your Magazine, similar sketches of the mineralogy of other counties. I am, Sir, your very humble servant,

Whitehaven, Dec. 27, 1799.

G. B—Y.

For the Commercial and Agricultural Magazine.

MANUFACTURE OF SOAP.

SOAP, one of the most common and useful productions of the chemical arts, is a combination of OIL from animals or vegetables, concrete or fluid, with SODA or POTASH, and a certain proportion of lime. The mixture of oils with potash, affords those which are called *soft-soaps*: the mixture of *soda* with most oils, affords *hard soaps*.

The *soda* employed may be either that from *barilla* or that from the Scottish and Irish *kelp*. It should be in a state of the highest possible purity.

The *potash* will be that from vegetable ashes, slightly calcined, to drive off whatever contaminating, combustible matter may still remain in it.

Oil of olives, animal fat or *tallow*, *hog's lard*, oil from animal excrements, oil from *whales* and *herrings*, &c. with some *less fixed* vegetable oils, are all susceptible of being employed in the manufacture of soap. The *less fixed* vegetable oils tend, even with *soda*, to form, rather *soft* than *hard* soap.

Lime is employed, on account of its extraordinary strength of affinity to the carbonic acid. The *soda* of commerce is always

carbonated. Lime, abstracting the carbonic acid, reduces the soda to that causticity in which alone, it can enter into the proper saponaceous combination with oils.

Sea-salt is often added, in a certain proportion, to the lixivium, in the preparation of *hard soap*. This addition, however, is not essentially necessary: it has been made by persons who carried on the practice, without understanding the ratio of their art.

With these materials, let the intention of the manufacturer be, to prepare 1000lb. of soap: he must proceed as follows:

First, let him prepare a vessel of *white wood*, or it may be a *reservoir* of bricks cemented and plastered with lime, for the first mixture of his materials. At the bottom, this reservoir must have a sieve-like opening, by which the lixivium may pass, without its impurities, into a *channel*, prepared to conduct it into the *boiler*. The boiler is, at the bottom, of metal, but above, rather of bricks cemented and covered with plaster of lime. If *cauldrons* of cast iron can be conveniently procured, of sufficient capacity, perhaps these might, more usefully than the former sort of vessel, be employed in this manufacture. *Molds*, of wood or stone, are likewise to be provided, for the reception of the soap from the cauldrons. These may be of any size, according as you desire to prepare your pieces of soap for the convenience of the market. It will be necessary to have, also, an *areometer*, by which you may ascertain the strength of the lixivium, with instruments for pounding the soda, stirring the uncongealed soap, cutting the soap into small pieces, &c.

Thus provided with implements, let the manufacturer then pound his *soda* to the fineness of unmixed sand.

Take then, for your 1000lb. of required soap, 600lb. oil of olives; 500lb. soda; 100lb. quick-lime. Slake the lime with a little water: sift it, mix the lime and the soda. At the bottom of your reservoir, spread a cloth to act as a strainer of the lixivium. Pour water in such quantity, that it may thoroughly moisten the mixture, and may even cover it over, to the depth of two or three fingers' breadths.

After these matters have been left to macerate for the space of a few hours, discharge the lixivium by the cock, at the bottom of the reservoir; of which cock the interior orifice must be covered with a cloth, to act as a strainer of the ley. The liquor which now flows off, is the *first ley or lixivium*. It is to be set apart in a separate vessel. After the first lixivium is entirely drained off, shut the cock; pour in a new quantity of water into the reservoir: leave the mixture to stand thus for a few hours; then open the cock, and suffer this *second lixivium* to flow off as before. You may then, in the same manner, take off a third ley.

When the lixivia are thus prepared; the *next part in the process*, is, to put your oil into the *boiler or cauldron*. Then, add to it, first, your *third lixivium*, gradually, then, the *second*, and

at last, a part of the *first lixivium*, all, in successive portions, each portion but of small quantity. During all this time, a boiling heat is to be kept up in the cauldron. Even after all the portions of the different lixivium shall have been poured in; the fire may be still for some time kept up. Then add a few pounds of *common salt*. The liquor will upon this, assume still more and more of a thick pasty granulous consistency. Maintain the fire under it for a couple of hours longer. Let the fire and kindling fuel, then be entirely removed. Cease from that stirring of the mixture which must have been hitherto carefully continued. After a few hours cooling, a *soapy matter will exhibit itself at the surface of the matter in the boiler*. Under it will remain a *coloured liquor*, which is to be drawn off by a cock in the boiler, and to be reserved for use as a lixivium in the preparation of the next soap you make.

After this liquor is drawn off; the fire is to be renewed under the boiler; a small portion of water or weak ley is to be poured in; the mass of soap having received this addition, is to be again liquefied, and brought into ebullition. This second boiling is to be continued, and the state of the *soap* is to be, from time to time, tried by the cooling of a portion taken out upon a smooth stone, till the whole shall at last appear to have assumed the consistency and aspect of good *soap*. The fire is then to be removed, the soap to be cooled, and the liquor beneath to be drawn off by a cock, as before. A new portion of the best lixivium is now again to be added, the fire is to be renewed, and the evaporation is to be now continued, till the *soap* shall appear to have acquired the perfect consistency which peculiarly belongs to it. It is then to be suffered to cool a little, and from the boiler, to be poured into the moulds which are to form it for the purposes of commerce. At the bottom of each mould, it is usual to put a small quantity, in a state of pulverization. The soap may either be drawn off into the mould by the cock in the boiler, or taken out with ladles. After standing in the moulds for two or three days in winter, or in summer, for some days longer, it is ready to be cut into squares for sale. The *marble coloured soap* owes its diversity of colours to *black and red oxydes of iron*, which are intermingled in the preparation of it. It is common for the manufacturers to make up their soap with too much water, and too little oil. This soap does not froth so well, nor go so far in washing, as that which is more honestly prepared. The *marbled soap* is always drier, and contains less water than the *white soap*. Oil of sweet almonds, affords by a somewhat more tedious preparation, almost as good hard *soap*, as *oil of olives*.

Tallow is the substance usually employed, instead of *oil*, in the manufacture of *soap* in Britain. In the manufacture with *tallow*, the lixivium may be added to it in the boiler, with less of

flowness and delicate preparation, than when *oil of olives* is employed. The superior fixity of tallow renders its combination with soda, somewhat more convenient than is that of *oil of olives*.

Fish oil is in use in Britain, as an ingredient in the *manufacture of soap*. The *soaps* which it affords are not free from a disagreeable smell, and are not of a sufficiently firm consistency. But, this oil might be purified, so as to afford, with soda, soaps of much better quality.

Potash employed instead of soda, in all this train of processes, affords still only *soft soap*, to which no cooling can give a hard consistency. The addition, however, of a lixivium of soda, or even of *muriate of soda*, in sufficient quantity, will produce the effect of consolidating the *soft soap* that is made with potash. The knowledge of this fact, is of some importance; as potash is often to be procured at a cheaper rate, than soda of equal purity.

It is also possible to prepare soap without any considerable consumption of fuel, by mechanical mixture, and natural evaporation, in a climate of warm temperature. But, with *tallow*, this is not easily possible. Even with oil, the cold process is not the most profitable one.

Additions of alum, sea-salt, starch, lime, pulverized soda, oil, tallow, and water, are employed in a villainous manufacture; by which it is said, that 100lb. may be augmented, at small cost, to 400lb. for market. The practice is base; and the soap thus produced, is unfit for any good purpose. Good new hard soap contains somewhat more than $\frac{1}{2}$ of oil, nearly $\frac{1}{3}$ of water, and soda for the rest of its composition.

It is possible to prepare, at no considerable expence, a *saponaceous ley*, which, in washing, shall answer almost all the purposes of good *hard soap*.

Take any quantity of well burnt ashes, of hard, heavy wood. Mix with these, a few handfuls of lime newly flaked. Add water, and boil the whole into a lixivium. Then leave the lixivium at rest, till those extraneous matters which cannot enter into it, shall have been deposited at the bottom, or thrown to the surface to be skimmed off. Then draw off the pure lixivium. Add to it, oil to about a thirtieth or fortieth part of its own quantity. The mixture will be, a liquor white as milk, capable of frothing like *soap water*, and in dilution with water, perfectly fit to communicate sufficient whiteness to linens. This liquor may be prepared from wood-ashes of all sorts, and from rancid grease, oil, or butter. It is, therefore, highly worthy of the attention of an economical housewife. When the ashes are suspected to be unusually deficient in alkali, a small addition of pulverized potash or soda, may be made to the lixivium.

The ratio of these whole processes, is eminently beautiful. Soda, potash, and pure quicklime are incombustible substances:

oils and tallows of all sorts are highly combustible. The three former substances have a very eager appetency *for* combination with all combustible substances; the latter have considerable tendency to enter into union with such as are oxygenous and incombustible. The combination of the qualities of the two is requisite to produce that detergency of contaminating substances, both combustible and incombustible, which we require in washing: for almost all contaminations to be washed away, are of these two classes. The combination of an oil with an alkali, is known to *afford* the wished for detergent union of their qualities. Hence the desire to combine them in soap. The whole processes of *soap-making*, are directed to *effect* the desired combination in the most *perfect* manner. Lime is mixed with the soda or potash, in order to detach the carbonic acid, which always neutralizes the alkali of commerce. The soda or potash, and the lime, are lixiviated, in order to bring them into that mechanical comminution of parts, which is requisite to favour the re-actions between the elementary particles of the alkali, and those of the oil or tallow. A weak lixivium is first added to the oil; because in the weak lixivium, there is a finer attenuation of the parts of the alkali. The lixivium is *gradually*, and in small portions; because, if added more largely and at once, it would produce a mixture, without adequate combination, and besides, might occasion a volatilization or combustion of the oil. It is repeatedly brought to congelation, and then again melted, in order to produce the most perfect union of all the particles of oil and alkali, and to free, as much as possible, from all superfluous moisture. It is not true, as is supposed, that the lime is ever entirely dismissed from the composition. Lime still remains, retains in it a proportion of water, and when the soap comes to be used in washing, favours its frothing, by the strong attraction of carbonic acid from the atmosphere. *Boiling heat* is necessary in effecting this combination, because it attenuates the parts of the matters to be combined, and brings them into mutual contact. *Stirring* is necessary, for a similar reason.

Of HANNIBAL's rendering the Rocks of the ALPS friable, by Means of FIRE and VINEGAR.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

YOU did me the honour of inserting, in one of your late Numbers, a short article of classical criticism, which I was induced to transmit to you. I now send you another, which I hope you will not reject.

One of the problems in ancient history, which have long engaged the frequent notice, and divided the opinions, of the learned, is, whether HANNIBAL, in his passage over the Alps, actually

melted down the rocks with vinegar, as Livy relates? Those brisk unbelievers, who pertly decide, that nothing can be true but what corresponds with their own narrow personal experience, have determined such a demolition of precipitous rocks to be ridiculously impossible. Others have rather supposed, that, however impossible to the moderns, it might be a thing not hard to be accomplished by the chemistry of the ancients. I have lately examined the question: the following are the results of my enquiry:

LIVY, of whose narrative I speak, thus describes the rock, &c. *multo angustiorem rupem, atque ita rectis saxis, ut aggre expeditus miles tentabundus, manibusque retinens virgulta ac stirpes eminentes, demittere sese posset. Naturā locus jam ante præceps, recenti terra lapsu in pedum mille altitudinem, abruptus erat.* He then represents all the surrounding parts, as being inaccessiblely obstructed by deep snows and agglomerated ice. In the progress of the narrative, he relates the process by which that precipitous rock was softened, so as to be cut down:—*quum cadendum esset saxum, arboribus, circa immanibus dejectis, detruncatisque, struem ingentem lignorum faciunt; eamque (quum et vis venti apta faciendæ igni coorta esset), succendunt, ardentiaque saxa, infuso aceto, putrefaciunt, Ita torridam incendio rupem ferro pandunt.*

Either the use and the effects of the fire and the vinegar were, on this occasion, such as they are here related; or they were used without producing the effects ascribed to them; or they were employed, but for different purposes, with more or less success; or they were not used at all.

1. That among those stores which the Carthaginian army carried with them, in their passage over the Alps, there might be *vinegar*, or at least *bad wine*, which came into a state of acidity, is not improbable. Equally probable is it, that in such an extremity, if the *subacid wine* or *vinegar* was thought fit to answer any good purpose by its infusion on the rocks, it would not be spared.

But the rocks were most probably either *quartzose* or *calcareous*. *Quartzose* rocks might by *fire*, suffer a destruction of their aggregation; and so also, might *calcareous* rocks; but between *quartz* and acids there are no such powerful chemical affinities, as that we can suppose the operation of *fire* upon the stone, likely to be greatly aided by *vinegar*. Both *quicklime* and *chalk* may be acted upon by acids: but then, in order to favour this action, their aggregation must first be mechanically destroyed. Even for the breaking down of *calcareous* rocks, therefore, it is not probable, that *vinegar* could be used with advantage. Besides, *fire*, such as LIVY relates to have been used, would have dissipated the acid before the aggregation of the stone could be affected by it: and the acid, on its part, might, by its moisture, have impeded the action

of the FIRE. *It is therefore not probable, that the vinegar could be employed with any good effects; and it is, on the contrary, probable, that LIVY, being himself no chemist, must have been misled by misinformation, in regard to the softening of those rocks by vinegar.*

Fire, however, was certainly employed on this occasion. It was necessary to keep the soldiers, or pioneers, warm, whether when they idle, or when they were at work. It would melt away the snow and ice. It may even contribute to render the rocks, whether quartzose or calcareous, much easier to be hewn down by the pickaxes of the pioneers. LIVY, in what he says concerning it, is, no doubt, sufficiently correct. It would be used, and used with good effect.

2. I am much inclined to think, not only that the VINEGAR was not of any service, but that its use was not at all, tried upon this occasion. HANNIBAL probably had with him in his army, persons who had been workmen in the Spanish mines. These would naturally be the pioneers to be employed in hewing down the rocks of the Alps. They would follow the practices with which they were acquainted, in mining. But it is not likely, that in the mines any such foolish practice could prevail, as the vain waste of vinegar.

Besides, though HANNIBAL and his army might possess some vinegar among their stores, yet it is not likely that they could then have it in any excessive abundance. Neither the general, therefore, nor the soldiers, would be disposed to pour it out needlessly, when no happy effects might be certainly expected from the effusion.

It is true, indeed, that if the difficulties of the passage at this particular place, obliged the Carthaginian army to leave behind some of their stores, they might possibly destroy the vessels, of whatever sort, in which they carried their liquors; and these might be poured out in such a manner, as to afford occasion for the misrepresentation of LIVY.

Or it may be, that HANNIBAL, a master in all the artifices and stratagems of war, might only pretend to soften the rocks with vinegar, for the purpose of making his pioneers and miners work with greater spirit, and to cheer the hopes of the whole army.

Unless in one of these two ways here mentioned, it is not probable that any vinegar was poured out by HANNIBAL, as LIVY affirms.

3. But even as to the use of the FIRE, I am much rather disposed to think, that this was to warm the soldiers and thaw the snow and ice, than to soften the rocks for the miners and pioneers.

Is it not even probable, that the rocks of which LIVY speaks, might be rather agglomerations of ice, than actual strata or columns of stone? Either they were such, or else we may assure ourselves,

that even the operation of the fire would have been little useful to destroy them.

Such, Sir, is my judgment of the faith of LIVY.

I remain, your friend and very humble servant,
Oxford, Jan. 5, 1800.

J. G.

COMMERCIAL AND AGRICULTURAL ECONOMY
OF SURINAM.

For the Commercial and Agricultural Magazine.

SURINAM, the last province conquered for Britain from the Dutch, is one of the most flourishing European settlements on the whole continent of America.

It contains about 800 plantations, of which the produce for exportation, consists in sugar, coffee, cacao, cotton, indigo, timber, &c. These plantations, the property of a comparatively small number of white inhabitants, are cultivated by about 80,000 slaves, of the negro race. Of the slaves, only about a fourth part, 20,000, are engaged in the actual labours of husbandry and agriculture, in the fields. The rest are retained chiefly for the services of domestic luxury, or for other employments which are performed within the houses.

PARAMARIBO is the capital town in which the Dutch governor has been wont to reside.

The exports from SURINAM to *Amsterdam* alone, in the years 1771, 1772, 1773, 1774, amounted to,

69,606 barrels of sugar,
49,846,082 lib. of coffee,
1,610,595 lib. of cacao,
534,153 lib. of cotton.

About an equal amount, in value, of the produce of this colony, might, within the same time, be sent, in exportation, to Rotterdam, or consumed in the support of the colonists. The whole gross produce might be, thus, estimated considerably to exceed the value of 1,000,000l. sterling, a year. Of this sum, about *one-third*, or at least *one-fourth* part, was acquired, as a clear profit, by the Dutch republic. Since the year 1774, there has been a great augmentation in the produce of SURINAM, as well as in the European demand for the commodities of which that produce consists.

The planters, their wives, and their overseers, have been accused of perpetrating many horrible cruelties on their slaves. It was common for the women to murder, mutilate, or scar to deformity, young female slaves, of whose beauty they were jealous. The overseers knew no means of enforcing their authority, but by the lash, the instruments of torture, and the most inhuman murders. When hopelessly sick or superannuated, slaves were usually

put to death, under pretences of accident, by which the murderers might evade punishment.

These atrocities of the planters had gradually exasperated the negroes to revolt. The most daring would, from time to time, escape away from their oppressive masters, into the interior forests. At length the fugitives became a numerous and formidable community. They associated under the government of a chief, who was recommended to the supreme command, by his extraordinary prudence, vigilance, activity, valour, strength, dexterity in the military exercises, and authoritative energy of soul. In this form of society, they settled themselves in villages, cultivated small plantations, lived in perpetual hostility with their former lords, received with open arms those of their brethren fled from slavery to join them. Ammunition, arms, and such other things, as they could not raise for themselves by their industry, in the depths of the forests, were to be procured by stealth and robbery from the Dutch plantations. Many efforts were made to exterminate them, but, still, without success. It became occasionally necessary to treat with them, as equal and independent enemies. Sometimes, they were forced to retire from situations adjacent to the Dutch settlements, to places more remote in the depth of the woods: and this, the colonists learned to account important victory. Still, however, slaves would, from time to time, escape away, to join their brethren, with whom they might seek revenge upon their masters. It became necessary to treat the slaves, in general, with greater kindness, as the best means for preventing them from escaping, to augment the numbers of the rebels. Those negroes who continued faithful to their masters, were found to be by much the most inveterate enemies of the runaways, and the best soldiers in the hostilities against them.

The territory of SURINAM affords room for an extension of its colonization. Its soil and climate are highly fertile. But, though salutary to negroes who are not barbarously maltreated, it is unwholesome and sickly, especially in the interior country, to the *white inhabitants*. The *planters* live in idle luxury, which tends to shorten their term of life. It is impossible to advance far into the forests, without being subject to all those feverish distempers, for which the interior regions, especially of South America, are still infamous.

The quadrupeds, birds, reptiles, fishes, insects, and all the native vegetable produce of the forests of SURINAM, present an amazing variety of peculiar and highly interesting objects. All the exportable produce of this colony, is of the most excellent quality. Next after the cottons of Pernambucca, Maranam, and Berbice, that from SURINAM, bears, now, the highest price in the London market.

The active traders of the United States of North America, carry on a considerable traffic with SURINAM: they sail, on this traffic, in

small brigs, sloops, and schooners. Flour, beef, salt-fish, pork, leaf tobacco, fir boards, rum, and other spirits, lump sugar, spermaceti candles, onions, horses, &c. are the articles with which they furnish this colony. Their chief export consists of the whole melasses of SURRINAM, which they carry away to be manufactured into rum. O.

To the Editor of the Commercial and Agricultural Magazine.

SIR,

A SPIRIT of emulation has seldom exerted itself in a more rational way, or to better effect, than at the late show of fat cattle, two days previous to the Christmas great market at Smithfield. It was held in Wooton's Yard (where it is to be continued annually), and was such as did great credit to the exhibiting graziers, and great honour to the largest market in the world.

The laudable competition among the graziers, which has happily existed, to the no small advantage of the inhabitants of the metropolis in preceding years, has evidently, in this late instance, received an additional degree of energy, from the encouragement held out by that admirable, that practical, and truly patriotic institution, the Smithfield Society; which consists of a considerable number of noblemen and gentlemen, associated for the purpose of encouraging and rewarding the various claimants on this occasion; not only with honour, but likewise with certain premiums, according to the following plan:

The first prize to be allotted to the feeder of the fattest and best beast, without restriction to any particular kind of food:

The second prize to be given to the proprietor of the fattest and best beast, fed with grass and hay only:

The third prize to be awarded to the exhibitor of the fattest and best wether sheep:

The first of these premiums was adjudged to Mr. Westcar, the far-famed Buckinghamshire grazier. The second to Mr. Edmonds, of Welford, near Fairford, Gloucestershire, who has before made a very respectable appearance at the great market: The third premium was given to Mr. Poulton, of Cricklade, a very well known and respected Smithfield salesman.

The number of oxen shewn were seven; two were the property of Mr. Westcar; two of Mr. Edmonds; two of Mr. Grace, of Buckinghamshire; and the seventh, a very fat and beautiful small Leicestershire ox. Three heifers were likewise here shewn; one of which, an extremely fat and beautiful Devonshire, was the property of his Grace the Duke of Bedford; the other two were Scots, fed by Mr. King, Butcher, of Newgate-market, on grass only.

The sheep exhibited on this occasion were about twenty, and were fat almost beyond description. They were chiefly such (ex-

cepting a few South Downs) as betrayed strong indications of Leicestershire blood, though not distinguished by that title.

The prize ox of Mr. Westcar, excelling in size and in proportion, as well as in fatness, was sold, together with his companion, for 200l. to one butcher, Mr. Chapman, of Fleet-market, who appears to possess a spirit formed to meet and invigorate that of the first of graziers; and the liberality of the public has been such as is well calculated to support and continue the honourable exertions of both these patriots, as will appear from the very extraordinary prices given for various parts of the beef of the prize bullock.

One rump-stake was sold for 13s. Two ribs for 2l. 14s.

One round for 5l. 12s. at 1s. per pound; and the tongue was sold for 1l. 1s.; and a guinea and a half was afterwards offered for it. The weight of the above ox was 241 stone, and the weight of his companion 256.

Mr. Edmond's prize ox weighed 195 stone; was bought in October, 1798, for less than 20 guineas, and was sold to Mr. Havel, butcher, of Reading, for 61l. Can any thing speak more forcibly in favour of the Herefordshire breed of cattle?

The prize sheep of Mr. Poulten, which was bred by Mr. Haines, of Daglingworth, in the county of Gloucester, was sold to Messrs. Hiscock and Farrow, of Reading; and in a paragraph of the Reading paper, is said, rather exultingly, to be of "the true old Gloucestershire breed." There are not wanting men, however, who assert, that this breed is not to be found at this time unadulterated, or rather unimproved, in any part of the county of Gloucester; and especially not in the flock of Mr. Haines, who is well known to be a man of too much discernment not to discover, that crossing with the Leicester white breed, would tend to correct the natural coarseness of the old Gloucestershire; and, if not carried so far as greatly to diminish the size of his sheep and the quantity of his wool, would render essential service to his stock. Thus far, and no farther, I am told, Mr. Haines, and his near neighbour, that judicious breeder, and very respectable man, Mr. Kimber of North Corney, have advanced in the experiments they have made upon the old Gloucestershire breed; and though situated on the barren Cotswold Hills, they can now challenge the kingdom at large for a really profitable breed of sheep.

Permit me, Mr. Editor, just to make a few observations on the very meritorious conduct of the first mentioned of the three successful candidates. I must own, that I am one of those who would have felt a painful degree of disappointment, if the first and most honourable of the prizes had not been awarded to Mr. Westcar; for the claims which he has upon the public, and especially upon the Londoner, appear to me to be like his oxen, of no common magnitude. He is no new, no occasional benefactor

to the metropolis, but has invariably, for several years, reserved near forty of his largest and fattest oxen for the Christmas great market. This large supply, at a time when more beef, and that of a higher quality than common, is demanded, is of service to the London market, too considerable and too evident to need specification. I am happy to find, that last winter he met with due encouragement, and that on the late occasion he has not only received a prize, but has sold 20 oxen for 1150l. But in December, 1797, he experienced such a loss as would utterly have discomfited almost any other man, and given him an insuperable objection to so uncertain a market. Many of Mr. Westcar's best oxen were sold, in the last-mentioned winter, after eighteen months' feeding, for less money than they had cost in their lean state. In recruiting his stock, Mr. Westcar has recourse to the Herefordshire fairs, where such beasts as common graziers purchase singly, with trepidation, once in their lives, to indulge a fancy, are bought up by him, whatever the size or price, in large lots.

I am informed, that, a few months ago, Mr. W. bought at Hereford 19 lean oxen in one lot, at the enormous price of 36l. each beast, which were purposely collected for him from different parts of the county; and are purposely reserved by him for the next Christmas great market, to be conveyed to London by water, as his last oxen and sheep were.

By such a grazier as this, we see substantial and effectual encouragement given to the breeder of full sized beasts, such as must be had for the plough; such as are well suited to the harness, and at the same time well disposed to fatten.

The merits of such a man as this, when we consider the wasteful effects of sending a large half-fatted beast to market, which produces nearly as much bone as beef; and the destructive consequences of murdering two oxen, when one only ought to have been killed; are well deserving of that publicity which your Magazine is well calculated to give, and of general admiration.

I am, Mr. Editor, your's,

Jan. 11, 1800.

PRACTICUS.

FOR THE COMMERCIAL AND AGRICULTURAL MAGAZINE,

On the Advantages which will be derived by the Inhabitants of London, and the adjacent Villages, from having an Experimental Farm established in the immediate Neighbourhood of the Metropolis. By Sir JOHN SINCLAIR, Bart. M.P.

NO plan has hitherto been suggested, more likely to be attended with advantageous consequences to the inhabitants of the metropolis, than that of having an experimental farm, on a great scale, in its immediate neighbourhood. The following observa-

tions will, it is hoped, sufficiently prove the justice of that assertion.

I. From the increasing population of London, it is impossible it can be supplied with provisions at a reasonable rate, unless the agriculture of the country is brought to a high degree of perfection, which can only be done through the medium of experimental farms, the only sure means of ascertaining the principles of improvement. At present, the nation is under the necessity of depending on foreign industry and cultivation for a part of its subsistence; and we are periodically visited with a scarcity of food, which increases the expence of living to every family in the kingdom, and loads the rich with heavy additional burthens to maintain the poor, and to preserve them from the miseries of famine. A small portion of that sum, the exaction of which thus becomes so frequently necessary, were it properly applied to the improvement of agriculture, would soon enable this country to feed itself, and, indeed, would put it in the power of the farmer, to supply the public with provisions at a reasonable rate. Hence it is evident, that every man that pays 15d. instead of 9d. for a loaf of bread; or 10s. per pound, instead of 2s. for poor-rates, ought to consider himself essentially interested in promoting agricultural improvements, and ought, for his own interest, to support any measure calculated for that purpose, as far as his circumstances will admit of it.

II. It is well known, that there is scarcely any part of the kingdom, where greater quantities of waste and unproductive land are to be found, than in the neighbourhood of London, or ground in many instances more capable of improvement. It is to be hoped that the General Bill of Inclosure will soon pass, in consequence of which those wastes will be divided. But that will be but of little avail, unless the means of improving them are ascertained. When Enfield Chase was divided, many persons expected to make considerable profit, by purchasing and improving portions of that waste; but, from ignorance how to go about it, the greater part of these undertakers suffered by the attempt. Whereas, had the principles of improvement been accurately ascertained, by means of experimental farms, nor error of any great magnitude could have been committed, and the purchasers of Enfield Chase would have improved the land they purchased, greatly to their own and to the public benefit.

III. There are numbers of persons in the city of London, who accumulate considerable fortunes by commerce, by the law, by the practice of medicine, and other lucrative professions, whose ultimate object is, to retire into the country, and to reside on an estate purchased by the profits of their own industry and exertions. But after having purchased an estate, how can they manage it to advantage, or carry on the improvement of their property, without having previously acquired the knowledge necessary for that purpose? Many have attempted it, but have severely suffered by

it. Whereas were there an experimental farm in the immediate neighbourhood of London, which, as subscribers, they had it in their power occasionally to visit, they would be enabled to acquire, in fact without expence (for their subscriptions to the experimental farms will ultimately be repaid, with compound interest) much knowledge and experience in the best mode of managing landed property, and of carrying on every species of improvement, of which they may avail themselves, with peculiar advantage, when they are enabled, from the profits of successful industry, to purchase estates in the country.

Lastly. Many of the inhabitants of London are led, for the sake of recreation or health, occasionally to spend some time in the country; at present, many of them leave town without having any particular object when they make such excursions. But, if accommodation were provided for those who wished to visit the experimental farm, and plots of ground allotted in its neighbourhood, where cottages or villas might be erected by the subscribers, what an advantage would it not be to the promoters of the proposed institution? In that case, when they went to the country, they would have an opportunity of directing their attention to the most important enquiries, and of collecting information on a subject, in which, in various respects, they must feel themselves deeply interested. Such an advantage ought certainly to be restricted to those who are subscribers to the proposed institution; and must appear, to every intelligent person, a circumstance of the highest importance to any individual residing in the metropolis, or in the adjoining villages.

The importance of experimental farms, in various parts of the kingdom, to the districts in which they are respectively placed, can hardly be questioned by any one: and, on the whole, it is hoped that these observations sufficiently prove the assertion, above-stated, that the inhabitants of London are peculiarly interested in establishing one, in the immediate vicinage of the metropolis; and that they must derive much satisfaction, and advantages of various descriptions, from promoting so useful a measure.

Particulars of the proposed Institution of the Plough, or Joint Stock Farming Society, for ascertaining the Principles of Agricultural Improvement.

I. The Proposed Capital.

1600 shares at £50 each - - - £80,0000

II. Proposed Expenditure.

1. To the establishing of eight experimental arable and grazing farms, in different parts of the kingdom, at £4000 each, on an average - - - £32,000

2. To the establishing of two upland farms, for improving mountain sheep, at £1500 each - - - 3000

3. To the expence of purchasing 5000 acres of land, inclosing and planting them, with larch, fir, and other trees, and other expences attending the same	35,000
4. To a Contingent Fund, reserved for incidental and unforeseen expences	10,000

III. Ultimate Return. £.80,000

1. Sale of stock, crop, and implements, on the experimental farms, stating merely the sums originally laid out	£.35,000
2. Value of 5000 acres of land, the buildings erected thereon, and of 1,250,000 larches, fir, and other trees	218,000
3. Principal of the Contingent Fund, on the supposition that the interest will defray all expences of management, &c.	10,000

Total £.263,000

Conditions of the Subscription.

1. That no subscriber shall be compellable to pay his subscription, or shall incur any expence whatever, unless the purposes of the institution are actually carried into effect.
2. That the capital of £80,000 shall not be increased, without the consent of a majority of the subscribers, and for the manifest interest of the subscribers, and of the public.
3. That the society shall be established by charter, or by act of parliament, or by deed inrolled, so as to prevent the possibility of any demand beyond the sum subscribed.
4. That the shares shall be transferable from the time that the society is established, and that the sums subscribed, shall be payable by such instalments, as may be determined on at a general special meeting of the subscribers, and issued solely under the authority of directors, or trustees, appointed for that purpose by the society.

P O E T R Y.

BEAUTIES OF WALLACE;

A TRAGEDY,

PRINTED, BUT NOT BEFORE PUBLISHED.

I. *Tale of Margaret, the Maid of Hexham.*

MY father lived beneath the greenwood tree,
A banished man, because he disobey'd
The shrieve of Cumberland, the king's lieutenant,
Specially empower'd t' array the barons
Of the western marches, when first these wars
Broke out. He was a gentleman
Of good account, and by his mother's side
Of Scottish lineage;
And he did say this was a cause accur'd,

In which no sword of his should e'er be drawn.
'Twere tedious to relate the sad dispersion,
And the dire fortunes of our family.
I found a shelter in a yeoman's house,
Close by the borders of Naworth forest,
Among the depths of which my outlawed father
Had refuge ta'en, and lived with broken men.
My host had been a servant of our house,
In our prosperity, and he loved my father.
He knew each dell and dingle of the woods;
He knew my father's haunts; and at the risque

Of his own life did often give him aid :
And, when he durst not to the woods himself,
He sent me, yet a child, to visit him ;
And there I oft would stay whole summer days.
Nor were they idly spent ; for there I learned
To read, taught by my father, who would

carve
Sad tales of other times upon the trees.
'Twas then I learnt my skill in archerie ;
'Till so expert I was, I could have brought
The hawk, high hovering above the highest
oaks,
Dead at my foot.

At last, from use and love I came to like
My father's life, and seldom left the woods.
I, as the rest, assumed the hunter's habit ;
And thus some years right merrily we
lived.---

—One bitter, bitter winter-day, my steps,
Returning from the friendly yeoman's house,
Were traced among the snow ; and my poor
father,

With seven other foresters, were ta'en
To Carlisle city, and there savagely
Were put to death. I met with cruel grace ;
I was releas'd ; and, passing thro' the city gate,
Was doom'd to see---horror!---
My father's grey locks waving in the wind.
From that day forth I vowed to hate my
country ;

I vow'd to throw away my forlorn life
In seeking vengeance. Homeless wandering,
I heard the Scots were camp'd at Hexelham :
'Thither I hied ; their glittering spears
Shot thro' my soul a gleam of gloomy joy ;
I join'd ; and with this bow, though rudely
form'd,

Have ten times o'er revenged my father's
slaughter
In the blood of Edward's slaves.
O, it delights my soul
To see my sledge bathed in their blood !

II. Forest Festivity.

—HAVE you made ready ? . . .

. . . Yes, on the flags beside the stream.
The moon is clear--we'll need no other light.
We'll have a merry feast :--Guy o' the cave
Is come ; and he will sing us blythesome songs
Till we are tired--and he has led with him
The poor blind harper, who dait play and sing
The night before we won Cambuskenneth
field ;

'Twas all 'bout war, and death, and liberty ;
And, while he sung, and when he ceased,
We thought the Summer night was all too
long,

And wish'd, and wish'd, to see the rising sun-
beams

Gleam from the English steel.
He now is sitting at the blasted oak.
Hark, hark, I hear his thrum, to tune his
strings.

Hear---he plays. . . .

. . . His voice now joins---how soothing !
now, how grand !

'Tis done--:
Faintly the echo floats from rock to rock,
As 'twere the soul of the departed strain.---

III. A Soldier's escape from Slaughter.

. . . NOT much I know :--All that I know,
I'll tell.

With others of our men I southward fled ;
But soon we parted, to elude pursuit.
Weary and faint, when I had stopt to rest,
And lookt to trace the way that I had come,
I saw the distant cottages in flames.
Still faster then I sped : but, well I ween,
I soon must have dropt down for want of food,
Had not I met a poor old beggar man,
Who, from his scrip, besought me to take
bread.

The second day from that on which we fought,
While, stretch'd at noon beneath a tree, I dug
The fav'ry arnuts from the turf,--sudden
I heard the bloodhound's distant deep-toned
voice---

I strove to think it was the wild bee's hum
But soon it open'd louder on my ear ;
And yet, thought I, it must be nobler game
They chase---some knight, at least, doom'd
to the axe.---

[sprung
But still the sound approach'd,--Forward I
Thro' brake and briar, and gain'd so much,
That soon the following sound
I scarce discerned.---I stopt, and thought me
safe. [ward

Loud, and more loud, again it swell'd---For-
Again I rush. Thus, with alternate rest
And flight, full many a wood and deep-fank
glen

I pass'd, and curs'd the smallness of the
streams.

Worn out at last, against a tree I leant,
My head upon my arm, panting for breath.
I could not bend, thro' weariness,

To stretch me on the ground.---I had re-
solved [breeze,

To wait and meet my death,---when, on the
I heard, I thought, a cataract's distant dash.
It must, must be the broad and full-stream'd
Clyde ;

In it they'll lose my track. Forward I flew,
As if new-nerv'd ;--life was the prize ;--
I reach'd the bank, plung'd in, and plied my
arms.---

I caught the officers on the other side ;
Nor staid I there, but pierced far in the woods ;
And, ere I stopt, my drench'd clothes were
quite dry.

That night I slept upon a mossy bank :
I thought I heard the dreeful howl again,
And waked in horror :--But what was my
joy,

To feel the sunbeams, to hear the thruth's
note,

To see the wild flowers blooming 'bout my face!

CRITICAL CATALOGUE.

I. **ST. GODWIN**: *a Tale of the sixteenth, seventeenth, and eighteenth Centuries.* By Count REGINALD DE ST. LEON.—Wright, Piccadilly; 1800; 235 pages. WILLIAM GODWIN has, ever since the publication of his work on POLITICAL JUSTICE, appeared to us, to be endowed with that *true divinity of GENIUS*, which never fails to be stirred up in the human soul,—whenever there exists in it an ardent enthusiastic desire for attainments of superlative excellence, and when, at the same time, the objects of this desire are incessantly, unweariedly, hopefully, prosecuted, with resolute determination, and without the diverting interference of any meaner passion. His CALEB WILLIAMS taught us to regard, with astonishment, his power to melt the soul to pity and tenderness, to thrill it with horror, to inflame it to sympathetic rage, to endow it, as by the touch of a god, with sudden energies more than human; to suspend it in an impatient curiosity, mingling agony with keen delight. We found, in his *Essays* of the ENQUIRER, acute and original observations on men and things, quickness and accuracy of discrimination, a sentimental eloquence, which seemed often to breathe more than a double portion of the spirit of ROUSSEAU, and of the genius of DIDEROT, such as it was in even its happiest moments. When his late *Fiction* of ST. LEON was published, we were impatient to procure it, we seized it eagerly, we read it with fond attention, we hastened to insert it in our CATALOGUE; not with the anxious malice of *Zoilism*, but that we might anticipate, and, for as much as was possible to our feeble endeavours, avert from a favourite, the injuries of those *mouse-eating owls*, who for ever watch in the regions of literature, to pounce, in his first careless moment, upon the *towering falcon*, or the *imperial eagle*!

Of REVIEWS, in general, we hesitate not to observe, at our peril, that *too many* of them exhibit nothing but an eternal, potsherd, urinal, and snow-ball war—of dullness against genius, of ignorance against science and erudition, of the fordidness of trade, against the dignity of literature, and the liberal spirit of the polite arts. They are collections of mingled *puffs* and *libels*; they are written without the perusal of the works to which they relate: at best, they distribute praise and censurè, as a man might deal about him, random-blows, in the dark. Yet, their favour never reaches above the praises of that *compiling* MEDIOCRITY, which, in the days of Horace, was abhorred by gods, by men, and by the Roman booksellers. They never fail to distinguish genius by a sort of instinctive antipathy against it, and to abuse and thrust it away, just as the *Goitres* of the Alpine valley are said to have done to the handsome young man who happened to enter among them while they were assembled at church on a Sunday. If, at any time, they happen to praise genius, in the way of blunder, before they are aware that it is such; no sooner do they discover their error, than they hasten to make amends for it, by lavishing an extraordinary profusion of abuse on him, whom they had, before, unwittingly applauded. They abused the best works of ROBERTSON and JOHNSON, even like the *ass* striking with his heels against the skull of the dying *lion*. They excited whatever could

make a base, discordant noise, into clamour against BURKE. They strove to blight the bays of DARWIN. They have ventured to deny sportive wit, and fantastic humour, to PETER PINDAR. They have lavished praise on some of the most pitiful pamphlets which have been published against GODWIN.—*But, Gentle Reader, be assured that it is not of the Reviews of LONDON, but of those of the UTOPIA SCRIBBLERIANA, that we make these observations.*

So far are we, ourselves, from being disposed to act upon these principles of critical conduct, that we would much sooner pardon almost every thing to genius, than ought to pert frivolity, to blundering yet laborious compilation, or to plodding dullness. The very imperfections of a *Paley*, a *Godwin*, a *Parr*, a *Charlotte Smith*, a *Whitaker* (names oddly enough brought together, no doubt;) are, in our eyes, more precious than the best efforts of those very graces and cupids of the court of dullness, whom the happy discernment of modern criticism eagerly exalts above them.

But yet, a good joke is what we never disliked in our life. There is a charm in WIT and HUMOUR, which more than merits their pardon, even when they lightly associate themselves with the baseness of malice. When they sport without malignity, fly, shrewd, lucky, playful, making you laugh, as if it were without design on their part, and exciting all around to laugh at you, while they, the authors of the mischief, seem to mean no harm; they are, then, the most amusing comrades of an idle hour; and, in spite of Messrs. Browne, Balguy, Knox and Co. with the whole host of the foes of Lord Shaftesbury,—the best judges between truth and falsehood, between propriety and incongruity, between deformity and beauty. We could almost pardon the *Gildons* and the *Dennises* of the present day, for the wickedness of their censures; if they were not absurd and spiritless, even below the inspiration of malice. But a ram-cat might almost mew out a better *critique*,—an ass might almost bray a better one,—than such as now disgrace a work of periodical criticism, that was once dignified by the keen yet flowing eloquence of a SMOLLET, and adorned by the sprightliness and humour of a GOLDSMITH.

We have, therefore, no quarrel with the author of ST. GODWIN; though he have contrived to make one of our favourites the object of his ridicule. He adopts the narrative of the romance of ST. LEON, prunes away all its splendid amplifications, reduces what he has retained, from a tale of pomp and sentiment, to one of burlesque gaiety—the vehicle of his satire, against both the incongruities of St. Leon, and the habits and character of its author. In the latter part of the volume, he digresses from his design of harassing GODWIN, to introduce, for no other apparent end, than to make the reader merry a *story*, in the manner of the comic episodes of Don Quixote and of Gil Blas, which we have, in truth, found very diverting.

By a small licence of *misrepresentation*, any thing, however beautiful, or however exalted, may be made the subject of ridicule. That he is not unsuccessfully assailed by this sportive author, therefore, cannot imply, that GODWIN wants those transcendent literary merits for which we have professed to admire him. But, his merits are mingled with many imperfections; and even the *gold* of St. Leon is very largely alloyed with *baser metal*. This alloy, the writer of ST. GODWIN has

been sufficiently sagacious to detect; and many of those imperfections, he has, with happy skill and dexterity, exposed. At pages 28 and 29, 35, 39, 68, 80, 98, 110, 113, 115, 152, 188, the reader will find so many not unhappy specimens—of this author's power to discern, to feign, and to expose the ridiculous,—of his skill in the principles of criticism, and his knowledge of human character and passions,—of his acquaintance, both with books and with human life and manners. There are also interspersed in his book, meannesses which have neither wit nor humour to atone for their malignity. And many passages, even while amusing, are such as no great force nor sprightliness of invention could be required to produce. It is, on the whole, however, a lucky trifle. It has amused us, and we should suppose that it may equally amuse many of our readers.

While we praise the genius of GODWIN; we desire to be understood as protesting against his philosophical and political *opinions*, not *principles*; as for the greater part equally absurd, and hostile to the true interests of society. Though we dislike not the book of his assailant; yet we would never pardon malignant criticism, unless the malignity might seem to lose its nature, amid the blaze of wit, humour, and eloquence.

II. ADVICE TO EDITORS OF NEWSPAPERS. *Macpherson, Russell-Court, Covent-Garden.* 1799.—The British nation expend more money in the purchase of NEWSPAPERS, than for any other sort of literary productions. Restricted to no particular species of composition; having all nature and life, all books and business, times past and present, earth and seas, open before them; necessarily possessing, among them, a great assemblage and diversity of talents;—one should think, that the authors of NEWSPAPERS, might compensate the pecuniary encouragement which their *Ephemerides* receive, by presenting information of every sort, in the most pleasing forms, in the most perfect elegance and propriety of language, with the utmost celerity yet truth of intelligence and communication.

It is far otherwise. A NEWSPAPER is usually a hodge-podge of ingredients, as vile and as destitute of all *real* virtue, as those which might fill a witch's cauldron. It is a *mess* which you must not expect to get good of, unless you can bring a *whale-oil* stomach to it. *Lies* so *uncleverly* told, that they lose all the power of fiction; attempted *witticisms* which shew *stupidity* striving to assume the masquerade-character of *wit*, but wearing on her back a label with her real name, having her forehead unconsciously bare, and breathing from her brain still all her own genuine want of thought; *scandal*, in which malignity being divested of all the charms of elegance, wit, and humour, appears in her most hideous deformity, and is, to every ingenious mind, loathesomely disgusting, even as Swift's *Corinna* when she had undressed herself; and *truth*, poor *truth*, when it cannot be withheld, so marred in the telling, so hacked and mangled, so disguised and so mutilated, that it appears—why just as might some lovely *Sambo* maiden of *Surinam*, whom a jealous Dutch dame, her mistress, has made to be shaven on the head, singed on the eye-brows, seared on the cheeks, mutilated in the nose, gashed on the breasts, and maimed in the legs, lest the girl's fable beauty should have tempted to conjugal infidelity, *Mynheer*, her master: Such is the composition of

our newspapers. All the provincial dialects of Britain, from Caithness to Cornwall, and almost all possible blunders in grammar, solecisms in logic, absurd incongruities of figure in rhetoric, are assembled in the daily newspapers of London; just as if, like the series of Italian dramas composed for the convenience of the authors of the *Della Crusca* dictionary, our newspapers were written for no other purpose but to present examples for some great intended treatise on the *art of sinking in prose*, as well as in poetry. It is remarkable, that the *ADVERTISEMENTS in the American newspapers of New-York, Boston, and Philadelphia, are incomparably better written than those of the newspapers of London.* Of the attempts at political speculation which occur in our newspapers, nothing but the impertinent presumptuousness can equal the trite absurdity. The perusal of newspapers gives a daily renewal of hope, with daily disappointment. You find the paper of this morning cursedly stupid; you hope that to-morrow's news will be better. To-morrow's comes; but *still Dunce the Second reigns like Duncce the First.* The public seem to have, however, as to news, a shark's appetite. All that offers itself, is, without distinction, swallowed.

Entertaining these sentiments in regard to the general composition of British newspapers, we have consequently read, with considerable pleasure, the shrewd and lively satire contained in this letter of advice to their *editors.* Its author seems to be acquainted with all the artifices of manufacture, which those ingenious persons are wont to exercise. He seems to know their faults, even almost as well as if he had been employed by Apollo to pick them out, and had then received them in a present for his pains. The pomp of fictitious correspondence; the invention of seasonable wonders; the retailing of JOE MILLER *travesti*; the fabrication of parliamentary debates; the anticipation of the contests between the catcall and the sock or the buskin; the scandalous lie, first impudently propagated, then meanly retracted; the bull and the absurd typographical blunder; the prevalent beauties of our newspapers, are, in this letter; ridiculed with much shrewd sagacity, and with very happy irony. Mr. *Caleb Whitfoord's* famous punning letter to Woodfall on *Errors of the Press*, is added at the end. We thank the author of the Advice for the entertainment he has afforded us; for the wit and humour, as well as for the sound criticism, with which his letter is replete. We recommend it to such of our readers as do not think *ridicule* the foe of truth, health, or good-nature.

III. *The Substance of the Speech of the EARL of KINNOUL to the BRITISH SOCIETY for extending the FISHERIES, &c. held on Monday, March 26, 1798. Containing a General Account of the Progress and Present State of the Society.*—The British Society for extending the Fisheries, &c. were incorporated by an act of Parliament, 26 Geo. III, chap. 106. The object of their association was, *the improvement of fisheries, agriculture, manufactures, &c. in the Highlands and Islands of North Britain, by the building of towns, harbours, villages, &c. and the purchase of convenient lands for these establishments.*

For the accomplishment of this object, the subscribers incorporated by the act of parliament, agreed to contribute to the amount of 729½ shares, at 50l. a share, or in all 36,475l. By additions of interest from subscribers and banks, since the term of the subscription, this

capital has been augmented to the sum of 41,081l. 5s. 8d. forming the total capital of the society.

In expending this money, they prudently resolved to use the utmost parsimony, that was not, absolutely, incompatible with the design of their institution. They justly conceived, that a wildly profuse expenditure of the funds of similar societies, had often occasioned the failure of their projects, however, originally, well-concerted and beneficent. For the seats of their establishments, they chose *Tobermory*, as the most southern, *Lochbay* in the isle of *Sky*, as the most western, and *Ullapool*, as the most northern, situation. They procured, in perpetual property, under the payment of *quit-rents*, at *Tobermory*, about 2000 acres of land, at *Lochbay*, about 1474 acres, at *Ullapool*, 1031 acres. At each of their stations, they, next, constructed works for a harbour; erected a few principal houses; and parcelled out grounds for houses, gardens, and small fields, to accommodate fishermen and others, whom they desired, thus, to invite into village-settlements. Their next care was, to procure from government, and from the Scottish trustees for manufactures and fisheries, the establishment of a custom-house at *Tobermory*, with some encouragements and instructions to spinners, who should settle in their villages. Schoolmasters, the visits of missionary preachers, shopkeepers, and merchants for the purchase of the little manufactures, were, also, invited to the new establishments. Some roads were cut; and means were employed for the relief of the villagers, on years in which the fishery might be less successful. It was wished, that, at all these villages, the fisheries might be, as much as possible, the principal species of industry, that should be followed: and, therefore, the allotments of ground to the villagers, were made, in general, and of purpose, too small to allure them away from fishing to husbandry solely, but of sufficient extent to supply their families with the necessary quantities of milk, meal, and vegetables. Yet, as it was of consequence to bring the lands belonging to the society, as speedily as possible, into full cultivation; the plan of allotment, was not, in every instance, too rigorously adhered to.

Of all this, the consequences have been signally beneficial. At *Tobermory*, there are, now, on the estate of the society, 47 families inhabiting as many good houses; busied chiefly in the industry of the fishery, or in employments of which the productions are necessary to the comfortable accommodation of fishermen. At *Lochbay*, are 23 families of settlers. The houses at *Ullapool*, amounted, when the last statement was received, to the number of 39. In all these places, there has been a great quantity of industry, usefully called forth, which, but for the attentions of the society, might never have been exerted. The fisheries have been more successfully prosecuted, since the society's attempts were commenced. The labouring villagers have been brought into a state of comfort and independence; which they could not, otherwise, have known. A great capital, partly brought from a distance, and in part created on the spot, has been irremovably fixed in these parts, and in such a manner, that it cannot be easily destroyed, without generating new wealth and industry. A large extent of land, before almost barren, has been improved into rich and flourishing cultivation. A new spirit of industry has been awakened in these parts of the Highlands, of which the progressive

exertions must prove, beyond calculation, beneficial. Three nurseries of seamen have been established, from which, the most valuable supplies of mariners, may, hereafter, be obtained to the British navy. Even to the patriotic members of the society, there are fair hopes of future compensation for all that they have expended. The *lands* afford, at present, a clear revenue of 78l. 11s. 10d. after the payment of the *quit rent*: In the space, of a century, the income from them may, probably, rise to the sum of 5000l. a year. The present yearly revenue of the society, in *rents* and *interest* of money, is nearly 400l. above its annual expenditure. The business of the society, is managed by *Directors* chosen at the annual meetings of the *Proprietors*, and by *Agents* and others, the servants employed by the Directors.

Such is the principal information contained in this pamphlet. Both the speech, and the accounts which accompany it, are clear, accurate, and satisfactory. They do honour to the society, and to the patriotic nobleman, in whose name they are published. The language, and the strain of the composition, are decent and correct, though not without occasional improprieties. Perhaps, of all elegant accomplishments, there is none more truly gentlemanly, more truly nobleman-like, than the power of writing with delicate propriety of style and composition, yet without the affectations of pedantry and of rhetoric.

IV. *ESSAYS on the VENEREAL DISEASE and its concomitant Affections, &c.* By W. BLAIR, *Surgeon of the LOCK HOSPITAL and ASYLUM, and of the FINSBURY DISPENSARY, &c.* Symonds. 1800. Of the diseases to which the animal economy is subject, there are none which do not begin their action, either, by the absorbents at the *skin*, by the *lungs*, by the *stomach*, or by some disorder which commences in the *thinking vital principle*.

As to *absorption* and *secretion*, the actions of the skin are but, as it were, concentrated and increased in the stomach and the anus,—the actions of the stomach and the anus, are but diffused, with some attenuation and refinement, over the skin.

Among those diseases of which the infection is received chiefly by the absorbents of the skin, one of the most prevalent, is *Siphilis* or *Lues Venerea*, in its different modifications. A diseased state of the secretions from the organs of generation, is apt to be, in certain circumstances, induced, by contagion, and probably, also, by other means, of which the operation has not been, as yet, well investigated. From an uncertain period in the history of human health, that disorder has interposed to poison, in Europe, the excess of licentious enjoyment. It lays waste our great cities with a havock, more insidious and less alarming, but not less destructive, than that of the pestilence.

Among the specific remedies which were first applied for the cure of this afflictive distemper, the decoction or extract of *guaiacum* was anciently considered, as supremely powerful. *Fracastore*, in his beautiful poem on the *Siphilis*,—a piece, the pride of the Latin poetry of the Italian revivers of literature,—speaks of the anti-siphilitic virtues of *guaiacum*, in a strain of admirable enthusiasm. The medical virtues of MERCURY, however, had no sooner been proclaimed by *Paracelsus*, than it was adopted, as, above all others, the most po-

tent specific for the cure of the venereal disease. It has, ever since, continued to enjoy the same preference in prescriptions for this distemper, which it then obtained. It is scarcely ever unsuccessful when seasonably applied. But, its action is often so potent, that it seems to dissolve, as it were, never to be restored, the whole consistency, and energies of the human frame. It is doubtful, whether the mischief which *mercury* operates by enfeebling and irrecoverably unbracing the animal economy, be not greater than the good which it performs in the cure siphilitic infection.

For this reason, those who were anxious for the improvement of the science and practice of medicine, have long endeavoured to find some remedy for the venereal disease, which, with equal power to conquer it, might have a less fatal tendency than mercury, to destroy the vigour of the constitution. When the discoveries of modern chemistry opened a new world to the eyes of scientific enquirers; it became natural to try, whether there might not some new medical remedies be found among the acids and gasses. After the discovery of GAS OXYGEN, many, and, among others, Dr. BEDDOES, appear to have been inclined to attribute to this gas almost those virtues, which the alchemists had ascribed to their philosopher's stone, and their universal medicine,—the *Stahl*ians, to phlogiston. It was not a truly philosophical spirit, but an extravagance of imagination excited by delusive views of philosophical truth, which encouraged those fancies. Their authors have inclined to think, that OXYGEN applied in its compounds, must operate with wonderful power, for the cure of many diseases. Among others, it has been conceived, that, applied in nitrous acid, it might effect, much more happily than mercury, and not certainly, the cure of *lues venerea*.

Mr. BLAIR, on the contrary, has, for some time, applied his attention to this subject, with a caution, and yet, with an ardent diligence, which we think much more worthy, equally, of philosophy and of the surgical and medical arts. Contending, that the facts from which the decisive anti-venereal power of nitric acid, had been inferred, were too few, were indistinctly stated, had been inaccurately observed, involved circumstances contradictory to the results which it was attempted to deduce from them; he maintained, that, in order to ascertain, in this as in other instances, the genuine truth; it was necessary to bring together a wide assemblage of facts, carefully observed and faithfully related, such as should sufficiently evince the consequences of the treatment of the venereal disease with nitric acid, in every stage of the progress of the distemper, and in almost every possible diversity of circumstances. With this view, he has, for some time, in his own practice, and by very active enquiry among his medical friends, endeavoured to collect that evidence which he thinks necessary, to direct medical practice, in the choice between the nitric acid and mercury. The substance of the facts which he has collected, is contained in *this*, and in a former volume of these essays. The general result from his facts, seems to evince; that *nitric acid is not to be confidently regarded as a sure specific against the venereal disease*; that, however, as *nitric acid, prudently administered*, acts with a corroborative energy opposite to the relaxing effects of mercury, the acid might be advantageously given, in most instances, together with the metallic

remedy; but, that, the proper mode of combining these remedies for the cure of the disease, has not yet been decisively and particularly ascertained.

It is impossible to deny, that, in the application of sound common sense and true philosophy to medical investigation, Mr. BLAIR has, very highly, the advantage over his adversaries. The diligence and discernment with which he has prosecuted these researches, have conferred no small obligations upon the medical and scientific world. How much superior are those men who unite the ardour of science with soberness of mind and soundness of understanding,—to those whose passion for science, is evinced, only by lofty pretensions and wild flights of the imagination? The concluding part of Mr. Blair's book, intitled, "*Remarks on the preceding Evidence,*" will, if attentively perused, satisfy every reader of the justice of our approbation. There is, indeed, nothing in the book of which we are not inclined to disapprove, except some few controversial reflections at its very close. He who could investigate and could reason so well, needed not to have recourse to the language of angry contention.

V. ENQUIRY into the History, Nature, Causes, and different Modes of Treatment hitherto pursued in the Cure of SCROFULA, Pulmonary CONSUMPTION, and CANCER: To which is added, A Letter to a celebrated Professor of Edinburgh, &c. By WILLIAM NISBET, M.D. Fellow of the Royal COLLEGE of SURGEONS, Edinburgh, one of the SURGEONS to the ROYAL INFIRMARY, and now of No. 8, Warwick-street, Charing-cross. London. 8vo. JOHNSON, St. Paul's Church-yard, &c. We exceedingly regret, that we cannot, for the present month, enter into such an analysis of the present work, as the prevalence and the afflictive nature of the diseases of which it treats, the ability and accuracy of investigation that it displays, the sagacity, experience, benignity, and candour of its author, most eminently deserve. It is, however, impossible, that the perusal of it should not impress the public with a very high opinion of Dr. NISBET's skill in the treatment of *Scrofula*, *Consumption*, and *Cancer*, to the cure of which he exclusively confines his practice. The letter mentioned in the appendix, we understand to have been addressed to Dr. GREGORY, a physician of distinguished worth and talents, and, confessedly, no mean judge of the ratio of treatment, which it explains. We shall, in our CRITICAL CATALOGUE for next month, descend into a more particular examination of this work; for, the diseases of which it treats, are, of all chronic distempers, those which, perhaps, afflict life, and thin the numbers of mankind the most, among those classes of society to which our Work is particularly addressed.

IV. ESSAY on the Uses of CHEMISTRY, in its application to the ARTS. By W. HENRY. JOHNSON, St. Paul's Church-yard.—This essay, the introduction to a course of chemical lectures which its author reads at Manchester; shews Mr. Henry to be well acquainted with the general nature and uses of CHEMISTRY; is written in a very commendable style of composition; and may be advantageously read by gentlemen, who being as yet strangers to chemical science, desire to know, how far it merits their study.

HISTORY.

National Transactions,

CIVIL AND MILITARY.

THE new French constitution has been very generally accepted; and the votes of rejection are but few.

Sieyes is chosen president of the conservative senate; and Lacepede, secretary.

The French government have repealed the law relative to privateers, which was often used as a pretext for seizing the property of American and other neutral nations. They have likewise, by an express decree, re-established the code of neutral navigation, as it subsisted under the monarchy.

Bournonville has been officially announced as minister to the court of Berlin, from whence Duroc has just returned.

Thirty journalists, who were transported without trial, have been recalled.

The armies in Italy, Switzerland, and Germany, have entered into winter quarters. The French still retain Genoa. The Austrians are gone into cantonments in Piedmont. The head-quarters of General Melas were lately at Fossano. The Archduke's head-quarters were removed to Memmingen. General Starrey was at Bruchsal.

General St. Cyr, in an official account from Italy, states, that he repulsed the Austrians under General Klenau, re-inforced by a corps of Russians from Leghorn, in an attempt made by the latter upon Bochetta, near Genoa; covering the field of battle with killed, and taking 1800 prisoners, with four pieces of cannon.

The senate and consuls entered on their functions December 25. As soon as the former had nominated the legislators and tribunes, the councils of Ancients and of Five Hundred were dissolved. The guard of the legislative body is placed at the disposal of the consuls, who are to furnish the senate, legislators, and tribunes with a guard of honour. The national edifices appointed for the constituted authorities are the Luxemburgh for the senate, the Thuilleries for the consuls, the palace of the five hundred for the legislative body, and the palace Egalité for the tribunate.

The grand consul has appointed Maret to be secretary of state; and Murat, who returned with him from Egypt, commander of his body-guard.

Lucien Buonaparte is appointed minister of interior; and Abrial, minister of justice.

The consuls have given permission to the emigrants, who were shipwrecked, some time ago, on the coast of Calais, to quit the French territory.

Buonaparte has addressed a proclamation to the departments of the West (dated January 11) in which, after alluding to the prolongation of the time "granted for repentance," he threatens vengeance on all who shall not, after that period, submit; orders those persons to be shot who shall harbour or favour the Chouans; and exhorts the national guards and troops of the line, if they know amongst them "any trai-

tors, who should dare to receive and defend the brigands, let to them perish," &c.

Upwards of 600 women of the town have been taken up at Paris, to be sent to Egypt.

Plan of the new French constitution, as sketched out by Rœderer.—The male inhabitants of France, of age, and paying taxes, as a qualification to vote, are about 5,000,000, who reduce themselves to 500,000 notables of communes; who reduce themselves to 50,000 notables of departments; who reduce themselves to 5,000 notables of France; from whom are to be chosen 500 legislators, the senate tribunate, and also 80 conservators; two puisne consuls, and one grand consul, who is to choose 30 counsellors of state, and the ministers, ambassadors, commissioners, &c.

Sieyes enjoys a sinecure of 1000*l.* a year, as a senator: and the national domain of Crofne, in the department of the Seine and Oise, has been granted to him by *consular gratitude*, as a reward for his constitutional labours.

A rumour has been industriously circulated, in the foreign journals, that General Kleber is endeavouring to negociate a treaty with the Grand Vizier, by which the French army is to evacuate Egypt.

General Kleber's letter to the French Directory, intercepted, with other dispatches, from Egypt, represents the army in that country as reduced to 16,000 men, of whom more than 8,000 are rendered totally unfit for service, by sickness, by being wounded in battle, lamed from fatigue, or rendered totally blind by the effects of the climate. He adds, that without immediate and effectual succours, they can neither resist the enemy gathering round them, nor even hope to escape from the country.

The Grand Duke Alexander Paulowitz, the eldest son of the Emperor Paul, has formally resigned his right of succession to the throne: and Prince Constantine Paulowitz has, in consequence, been named successor.

Particulars of our losses on the coast of Africa, in September last.—The French squadron consisted of three frigates, carrying 44, 40 and 32 guns, under the command of M. Landolphe; they had 1000 soldiers on board, with gun-boats and every requisite for a predatory expedition. The capture made by them, are, the Robust, of 360 tons, 20 guns; Pilgrim, 290 tons, 20 guns; Diana, 250 tons, 20 guns; Maria, 227 tons, 16 guns; Britannia, 209 tons, 16 guns; and Tartar, 506 tons, 26 guns; all belonging to Liverpool; including also the Juno of Barbadoes, and eight American and Portuguese vessels.

The British naval force in commission at this juncture amounts to 786 vessels of war, besides those which are hired.

The surplus of the consolidated fund, in the quarter ending on January 5, exceeds the estimate by 110,000*l.*

The post horse duty was sold by auction, on January 7, for three years, at an advance of 14,000*l.* per annum, over the last three years.

Orders have been given that all vessels homeward bound from the Levant shall proceed no farther than Standgate Creek, where their cargoes are to be forwarded in other vessels to the different ports.

Two of the four frigates which lately passed over to the coast of France, and delivered to the Chouans arms, ammunition, and money, have again failed, for the same destination, with another supply.

The number of French prisoners remaining in this country, after fulfilling the late Dutch convention, will amount to 22,000.

Toissant and Rigaud continue to wage a predatory war, at the expence of their respective adherents. Both parties capture vessels trading to ports in connection with their rivals.

At Canton the concerns of the East India Company are in a most flourishing state, and their commerce has, of late, been greatly extended.

The London Gazette of Jan. 6, contained an official letter from Buonaparte, who therein styles himself "First Consul of the Republic," addressed to "his Majesty the King of Great Britain and of Ireland." In this overture "the first Magistrate of the French nation" professes his "sincere desire to contribute efficaciously, for the second time, to a general pacification, by a step, speedy, entirely of confidence, and disengaged from those forms which, necessary, perhaps, to disguise the dependence of weak states, prove only, in those which are strong, the mutual desire of deceiving each other," &c. &c. To this communication an official answer is returned to M. Talleyrand, French minister for foreign affairs, in a note, signed by Lord Grenville, which, after premising that his Britannic Majesty has not "been engaged in any contest for a vain and a false glory"—but that "he has contended against an unprovoked attack," &c. —adds, "for the same object he is still obliged to contend, nor can he hope that this necessity could be removed by entering, at the present moment, into a negotiation with those whom a fresh revolution has so recently placed in the exercise of power in France." But the most important passages in Lord Grenville's letter are the following, and which sufficiently prove that our government considers the proposed negotiation for peace as a hollow, insidious, and insincere, if not presumptuous, solicitation, on the part of one, whose ambition prompts him, perhaps, to shine forth as the Grand Pacificator of a conflicting world. "The best and most natural pledge of its reality and permanence (alluding to the gigantic projects of ambition, &c. which have prevailed in France, and a change of system in her government), would be the restoration of that line of princes, which, for so many centuries, maintained the French nation in prosperity at home, and in consideration and respect abroad.—Such an event would have at once removed, and will, at any time, remove, all obstacles in the way of negotiation or peace. It would confirm to France the unlimited enjoyment of its ancient territory; and it would give to all the other nations of Europe, in tranquillity and peace, that security which they are now compelled to seek by other means.

"But desirable as such an event must be, both to France and to the world, it is not to this mode, exclusively, that his Majesty limits the possibility of secure and solid pacification. His Majesty makes no claim to prescribe to France what shall be the form of her government, or in whose hands she shall vest the authority necessary for conducting the affairs of a great and powerful nation.

"His Majesty looks only to the security of his own dominions, and those of his allies, and to the general safety of Europe, &c. &c.

"Unhappily no such security hitherto exists; no sufficient evidence of the principles by which the new government will be directed; no reasonable ground by which to judge of its stability. In this situation, it can, for the present, only remain for his Majesty to pursue, in conjunction with other powers, those exertions of just and defensive war," &c. &c.

The superscription of Buonaparte's letter is—"French Republic—Sovereignty of the People—Liberty—Equality."

The Duke of Portland has sent a circular letter to the Lord Lieutenants of counties, which, after adverting to the various means used in the metropolis for relieving the poor, strongly recommends the enforcing the statute of 13th George III. by which "the justices in quarter-sessions are empowered to direct that no finer bread shall be made than such as is called by the name of Standard Wheaten Bread," &c.

Of the captures made by the British navy from the different hostile powers during the war, to the present month, 83 are of the line, including Dutch vessels of 54 and 56 guns; 111 frigates, of from 28 to 44 guns; 59 are from 20 to 26 guns; 83 are sloops of war, from 14 to 18 guns; 81

are cutters, gun-vessels, &c. of 12 guns and under; and 715 are privateers of all nations: grand total, 1132.

The Grand Council of the Helvetic Legislature has lately decreed, that tythes shall be received as formerly for the ministers of worship.

The Archduke Charles has addressed a proclamation, dated Dec. 11, to the States and Circles of Anterior Germany, pressing a general armament, and inviting them to pursue speedy and strong measures against the common enemy.

The Russian troops have suspended their march homewards.

Although the most active preparations continue for war, couriers are constantly passing between Vienna and Paris. The Archduke has sent two Generals to confer with the French Commander in Chief on the Rhine, but has not thought proper to confirm the suspension of arms.

At Genoa, the Directory has been abolished, the Legislature adjourned to the 1st of June, and a Provisional Government established, which is authorized to make a new constitution for the Ligurian republic, similar to the new constitution of France.

Passwan Oglou has again waged hostilities with the Porte, for the purpose of punishing the Pacha of Belgrade.

The election of a governor for the State of Pennsylvania has been very strongly contested. The poll, however, terminated in favour of Mr. Mackean, the democratic candidate, by a great majority.

Ka King, who, in February last, succeeded his father Kien Long, as Emperor of China, has displaced Ho Choon Taung, the prime minister of his father, and the enemy of the English, and appointed as his successor a person much attached to Britain.

At a General Court of the Bank Proprietors, held on Jan. 9, Mr. S. Thornton, the Governor, read a letter from Mr. Pitt, in which he proposed that the Bank should lend the nation three millions sterling, without interest, for six years, at which time it should be paid, or bear an interest of 5 per cent. payable, at the option of the Bank, when the 3 per cents. shall be at or above 80; in consideration of which Government would renew the Bank charter for 21 years beyond the 12 which remain unexpired. The measure was opposed by Messrs. Sanson and Durand, as unnecessary. Messrs. Smith, Bradney, and Bosanquet, and Lord Kinnaird, in replying to these arguments, stated the unprecedented prosperity of the Bank, &c. &c. The question was, at length, determined in the affirmative, by a great majority.

On January 13, an aggregate meeting of the freeholders of the city of Dublin was held, on the subject of the projected Union. With respect to the denial of the competency of parliament to enact any measure of the kind, and their resolution, by all means, to resist the measure, their opinion, on these points, was expressed equally strong, with that of the merchants. They go also to uniting cordially and heartily, with the Catholics. They voted very ardent thanks to the minority of 96: and in a specific resolution, declared their joy at the return of Mr. GRATTAN to parliament. They also voted addresses to Mr. Grattan, to the Speaker, and to the representatives of the city of Dublin, to be presented, on the Saturday following, by the High Sheriffs.

At the meeting of the Irish parliament, January 15, a long and important debate took place in the House of Commons, in consequence of an amendment proposed to the customary address, by Sir LUCIUS PARSONS; which amendment, however, was negatived, by a majority of 42. Mr. Grattan, though weak and exhausted, and obliged to be seated, took a considerable part in the debate. The amendment expressed strong disapprobation of the measure of a Legislative Union with Great Britain. The Lord Lieutenant's speech, however, makes no mention of it.

Commercial Affairs.

THE trade of the port of Bristol has declined (or rather *dwindled*,) of late, very rapidly. This once flourishing city (formerly a rival to the metropolis of Great Britain) was computed, 80 years ago, at a moderate calculation, to employ 2000 sail of shipping, annually, to the different parts of the world; and, so late as ten years ago it was, generally acknowledged to be the second city in England, with respect to trade, population, and commerce. The immense wealth which this brought to the city and the inhabitants in general, makes its present comparative insignificance, and the diminution of its industry, appear the more striking. Instead of employing above 2000 sail of shipping, annually, the trade of the port, at present, does not exceed 300 in the same space; and even this, upon a minute investigation of the Custom-house entries outward, will probably be found to exceed the real number. That spirit of natural industry, persevering ardour, genius, and enthusiasm, which shone so conspicuous in the public-spirited ancestors of the citizens of Bristol, and which gave vigour and energy to their commerce, are now displayed and manifested in their successful rivals; the inhabitants of Liverpool, whose meritorious endeavours have raised that place from an insignificant village to its present unrivalled state of wealth and prosperity. In fact, the active spirit of the opulent merchants of Liverpool has spread their extended commerce to the four corners of the globe, and they now reckon more than *tens* for the *units* of the shipping of Bristol.

The master and brethren of the Trinity-house, Newcastle, are projecting some useful necessary improvements for approaching Tynemouth Haven with safety, and avoiding the danger of the Herd Sand. No time should be lost in promoting and adopting a plan which (by those who are the best judges) is reported to be admirably calculated to prevent future losses, to preserve many valuable lives, and to be perfectly adequate to the removal of the general complaint.

The cotton trade, from Bombay to Canton, has, within these two years, increased in triple proportion. The tonnage occupied in this traffic affords employment for all the free mariners who are licensed by the British government.

The whole number of barks employed in Liverpool, in the year 1568, was only 12, which gave employment to 72 men as mariners, and it was made a parish of itself only in the year 1699.

At a general meeting of rectifiers of spirits, held Dec. 23, at the London Tavern, in consequence of the great loss sustained by the trade in the article of casks, it was unanimously resolved, that in future, a charge shall be made on all casks, when sent out, and that no allowance shall be made for the same, until they are regularly returned and received back into their houses. This regulation is to commence from the 1st of January 1800.

According to a census made in Denmark, at the end of July last, the shipping of that country had risen to the number of 2694 vessels, the crews of which were 21,268 men.

The herring fishery on the coast of the Isle of Man, has been remarkably productive this season; so much so as to compensate, in some measure, for the deficiencies of former years.

The canal from Bradley Collieries to Walsall in Staffordshire, opened in July last, is likely to prove a great accommodation to that town and neighbourhood.

The second division of East-India ships, of this season, will consist of the Brunswick, Earl St. Vincent, Lord Nelson, Marquis Wellesley, Lady Bruges, Ceres, Queen, and Walthamstow; all consigned to Coast and China. They are severally appointed to sail to Gravesend, on the 10th of January, and are to be in the Downs by the 15th of February.

The woollen manufacturers of Bath, at a late meeting, resolved to raise the price of broad and other cloths, two shillings per yard, in consequence of the advanced price of Spanish wool.

The number of houses in London and Westminster in the year 1772, amounted to 122,930, and they are calculated to have increased at least one-third since that period.

Public notice has been given at Copenhagen, that from the 1st of January 1800, an additional lantern light will be put up at Anolt, on the east side of the present light-house, and about 56 feet above the surface of the water.

The frauds and deceits practised in the *winding of wool*, have been so great and numerous, and the losses sustained by the buyers from the false winding have been so heavy, that it was resolved, at the last *general meeting* of the *Society of wool-staplers of London*, that "every person who shall hereafter purchase any wool deceitfully wound, shall be requested to transmit an account thereof to the Clerk of the Society," in order to enforce duly the acts of parliament passed for preventing such deceits.

A vast quantity of spices are expected to be consigned from the East-Indies in the next fleet. The store-houses at Amboyna have been cleared to make room for the quantity collected, being the produce of the season, at that and the contiguous islands.

By the opening of the Warwick and Birmingham, and the Warwick and Napton canals, a reduction of 44 miles is made in the passing of goods from Birmingham to London.

A curious species of fraud on country bankers has been lately discovered. Five or six pieces of as many different notes, pasted on paper, compose a counterfeit one. Thus one note in six, or one in seven, is gained to the operator. The several pieces of notes are joined so accurately together as to escape common observation; but if the paper on which they are pasted be thin, the separation of the pieces, when held up to the light, is very perceptible; and indeed on the face of the note, when attentively examined, it is sufficiently plain. Bankers have been in the habit of paving their notes sometimes with one corner wanting, sometimes another, and sometimes with a stripe in the middle, taken out of the two ends, and put together by wafers.

As an improvement of the inland conveyance of goods to and from Hull, Manchester, Rochdale, &c. vessels are now appointed to sail from Rochdale for Hull, every Monday, Wednesday, and Friday (at noon), and to take on board the goods at Sowerby and Salter-hebble, every Tuesday, Thursday and Saturday (at night), for Hull; they also take in the goods at Todmorden, &c. Vessels also are appointed to sail from Hull, for Rochdale, three days in a week, including one from Wakefield for Sowerby, Salter-hebble, Rochdale, or Huddersfield, every day (Sunday excepted); and one from Salter-hebble and Sowerby, for Rochdale, three days a week.

A considerable quantity of silver and wrought plate, (in consequence of a licence for this purpose granted to individuals) has been sent to the different settlements in the East-Indies, by the ships of this season.

The owners and masters of the old and new contract ships, conveying wares and merchandize, &c. to and from Gainborough and London, have given public notice of their intention to advance the price of freight, (from the date of December 15) on hogheads of sugar, soap, raisins, &c. to nine shillings per hhd. on crates, not exceeding 25 feet, to 6s. each: and on other goods, of various denominations (chests, packs, bags, &c.) agreeably to the tenor of an advertisement, specifying the several freights, rates, and prices, respectively, in a particular table.

Manufactures and Useful Arts.

AS a number of houses have been lately broken into in Hull, Sculcoates, and the vicinity, and other depredations have been recently committed on the property of many of the inhabitants, it is in contemplation to establish a regular nightly watch, under the sanction of parliamentary authority. In some streets in Hull, watchmen have, for several years past, been supported by voluntary subscription, and in Sculcoates parish a subscription is now proposed for a similar establishment. But, as a correspondent of the Hull Advertiser observes, wherever this is the case, "some individuals must necessarily contribute more than their proportionate share; as some who do contribute will not contribute so much as they ought to do, and others will contribute nothing: but where watchmen are appointed by virtue of an act of parliament, each inhabitant is made to contribute to their support, in proportion to the rent of the house which he inhabits. Besides, the watchmen are armed with powers, and are subject to regulations, which cannot be given to, or imposed upon, such as are paid out of a common voluntary subscription. Watchmen, too, are almost equally useful for discovering and preventing fires, as for preventing robberies." So fully indeed has experience proved the utility of a regular nightly watch in London, that one district after another has, from time to time, applied to the legislature for the establishment of one, until the whole town and suburbs are now protected under the authority of acts of parliament. It is not, however, to the metropolis, where robberies are likely to be the most frequent and daring, that nightly watchmen, appointed by the legislative authority, are confined: the inhabitants of Birmingham, Manchester, Liverpool, Bristol, Lincoln, &c. have likewise thought it prudent to obtain Acts of Parliament for obtaining a nightly watch.

From the report delivered to the proprietors of the Union mill, Birmingham, for supplying the town with flour and bread (at their late annual meeting) it appears, that, exclusive of benefit derived, to the amount of 700l. in the low price of bread, &c. the proprietors had increased their capital, during the last year, to upwards of 420l.

A correspondent of Farley's Bristol Journal, who has resided many years in Canada, recommends the following method of rough-shoeing horses, as practised in that province, and which serves for the whole winter: "The smith fixes a small piece of steel in the fore-part of each shoe, not tempered too hard, and turns up about two-eighths of an inch, in the shape of a horse's lancet: the same to the hind-part of the shoe, turned up a little higher than the fore part, tempered in the same manner. In going up a hill the fore-part gives a purchase that assists the horse, and in going down prevents him from sliding forwards. After being used to it for a day or two, the horses travel without dread or fear; and even in summer, horses employed in drawing heavy waggons or drays, find great relief in the purchase they have in going up or down heights, and are shod in this manner.

Mr. FOUJAN, land-surveyor of Windsor, has been drawing a correct plan of the intended new road, which is to extend from the 16 mile stone in the London and Bath road to the Thames, opposite the corner of the Park-wall, near Frogmore. It is to be cut through the inclosures and the village of Horton, leaving Colnbrook and Datchet some distance to the right. To avoid the floods in winter, several small bridges are to be erected on it. The road, which is to be 40 feet wide, will shorten the distance two miles, when completed.

On December 18, the new free school at Parsonby, in the parish of Plumbland, Cumberland, was opened by the trustees. A sermon was preached

on the occasion at Plumblaud church, by the Rev. M. Bird, Rector, agreeably to the will of the founder. [See our last Number.]

It appears from a letter of Dr. Clark, of Dominica, to Dr. Simmons, of London, (published in the seventh volume of Medical Facts and Observations) that the *Capsicum*, or Cayenne pepper, "possesses the power of preventing or counteracting the poisonous effects of fish." This however has been known long ago, although but imperfectly and partially. Fish-poison seldom destroys life entirely, except it be the deadly poison of the yellow-billed sprat, which kills very speedily: but those who have eaten of the other kinds of poisonous fish are frequently reduced to the last extremity by vomiting, and life is almost extinguished before stimulants can take effect.

COUNT ROMFORD (as appears from a letter addressed by him to Dr. MAJENDIE, lately, of Windsor, and which has appeared in some of the public prints) gives it as his opinion, that the providing of food for the industrious poor, in public kitchens, and selling it to them at such low price as they can afford to pay for it, would be the best method that can be adopted for the purpose of relieving their distresses in the present dearth of provisions. To this he adds, "I verily believe that the inhabitants of Great Britain might be well nourished, their hunger perfectly satisfied, their health and strength preserved, and the pleasure they enjoy in eating increased, with two-thirds of the food they now consume; were the art of cookery better understood." He moreover observes, that the habit which the poor will acquire in being fed from a public kitchen, at a much less expence, &c. &c. may lead to a very important improvement in their system of cookery.

Some of the inn-keepers of Coventry have lately adopted the practice, recommended by one of the members of the Bath Agricultural Society, of boiling the corn given to horses, and giving to them the liquor likewise. It is satisfactorily ascertained, that three bushels of oats, barley, &c. so prepared, will keep the horses in better working condition than double the quantity in a crude state.

Two square miles are allotted to the cultivation of beet in the Prussian dominions, a plant of the twelfth order of the Holoraceæ, in the natural method, for the purpose of extracting sugar from the root. The mode of procuring it from the white beet has been already practised by M. Margraff, and the same process followed as is used in procuring it from the sugar-cane. The success in Prussia has been so great as to lower the price of the commodity from 2s. per pound to 7d.; including 3d. for the king's duty. Out of one hundred weight of crystallised earth, 55 pounds of good sugar are obtained, that require no farther reduction.

Plans and descriptions of the Birmingham soup kitchen have been generally distributed throughout the kingdom, and similar institutions are adopting in many places.

Mr. Bisset avows the principal object of his splendid Directory for Birmingham to be [see our last Number] "to extend the fame of a place which ought to be noted as the great toy-shop of the world;" as also, "to convince strangers, travellers, and the kingdom in general, that Birmingham can produce a variety of articles, manufactured in such a style of elegance and taste, as will clearly evince the superiority of her artists over those of any rival place, in England or elsewhere." [Omitted by mistake in our last.]

On the continent, there is a practice of mixing coal-dust with a mixture of earth and clay, so as to produce a surprising economy in the consumption of coals. In the composition, one-third of coal-dust, or of the cheapest and smallest coal, is made up, with double the quantity of clay, into a round ball, about the size of an eight-pound shot; when dried, it will provide a heat for every purpose of a family, and which

will endure five times as long as the unmixed coal. The mode of using this fire-stone, as it is called, is to place it in the grate, in making the morning fire, and after being thoroughly heated, it will continue so for the whole day.

It appears, from a statement communicated to the Asiatic Researches, by Mr. John Williams, that the caustic volatile alkali (*aqua ammoniacæ puræ*) possesses striking powers, as a remedy for the bite of snakes. From a number of other cases, furnished by Mr. Williams (which came within his own knowledge) we shall select the following, as he himself thus relates it: "In the month of August 1780, a servant of mine was bitten in the heel by a snake, and in a few minutes was in great agony, with convulsions about his throat and jaws, and continual grinding of the teeth. Forty drops of *Eau de Luce* (a preparation of the caustic volatile alkali with essential oils) were given in water, and some of it applied to the part bitten. The dose was repeated every eight or ten minutes, till a small phial full was expended. It was near two hours before it could be said he was out of danger. A numbness and pricking sensation were perceived extending up the knee, where a ligature was applied, so tight as to stop the returning venous blood, which seemingly checked the progress of the poison. The foot and leg, up to where the ligature was made, were stiff and painful for several days, and were covered with a branny scale."

Agriculture.

AT the annual meeting of the PETERBOROUGH AGRICULTURAL SOCIETY, on the 18th of December, a premium of two guineas was adjudged to William Collins, of Farcett, labourer in husbandry, for having brought up a family of eight children without parochial assistance; also, a premium of one guinea to Isaac Cant, for having worked as a labourer on the farm occupied by Mr. William Hopkinson, of Sutton, 41 years; and one guinea to William Davison, for having lived as a servant in husbandry, to Mr. William Smith of Stoke Doyle, 13 years.

Mr. W. MATTHEWS, in a letter to the public, dated October 1799, from the BATH AND WEST OF ENGLAND SOCIETY Rooms, recommends it to "all farmers, who have it in their power, in sowing wheat for a future crop, to *drill* their seed-wheat, or resort to the provident and successful custom of dibbling, on as large a scale as they possibly can; adding, that "a saving of two-thirds of the seed-corn (the best of our wheat) must, at the present juncture, be extremely important". "This custom" he observes, "has been so largely and happily pursued in Norfolk, that no reasonable doubt can now be entertained of its success;" besides that "dropping the seed after the dibbles, will employ numerous children throughout the nation, whose extra earnings, out of the real savings of the farmer, will assist their poor parents," &c.

A correspondent of the Cumberland packet, speaking of *oats*, observes, "this grain withstands inclement seasons, perhaps, the best of any. It is the principal food of the main body of the inhabitants of the north, from the southernmost bounds of Westmoreland, to the latitude of John O'Groat's house. Of this beautiful grain they make their sweet and nourishing bread and pottage. This is the food of the robust and hardy Highlander, and the active Cumbrian youth, many of whom will cut down two acres of grass between the time of the sun's rising and its coming to meridian—and play in the afternoon."

The island of St. Helena has been gradually stored of late years, with the choicest productions of India; the plants collected from the different settlements of which thrive exceedingly well in the governor's garden.

POTATOES.—It may be noticed, as a proof of the improved culture of this most valuable root, that the bailiff of T. Williams, Esq. at Horton in Buckinghamshire, planted three potatoes, which he had from Fort George in Scotland, on the first of June last: on digging up the ground, on the first of November, he raised from them 130 potatoes, weighing 120lbs. In Berkshire also, from eight acres, Mr. Williams obtained, this last year, a produce of 3520 bushels, or 440 bushels per acre, of the very first quality which, valuing them only at 2s. 6d. per bushel, of 60lb. makes the produce 55l. per acre. The poor of the vicinity, afterwards, gleaned 12 bushels from the ground.

The first fortnight in December proving very favourable for agriculture: the farmers, in general, made the best use of it, by employing their whole strength in wheat-sowing; so that an extraordinary quantity of wheat was sown, at that advanced season, throughout England.

A correspondent of the Edinburgh Weekly Journal suggests the propriety of a *tax on dovecotes*, as the quantity of grain consumed by that species of animals, is, according to his statement, surprizingly great. He estimates the number of dovecotes in Great Britain at from 12,000 to 20,000; inhabited, on an average, by 200 pigeons each. From the present improved state of agriculture, the seed is in the ground, or approaching to maturity, for about ten months in the year, on which the pigeons prey daily, and even make constant visits to the farm-yard. He supposes if two millions of pigeons consume only two ounces each, daily, that 250,000lb. of the best grain will be lost daily to the community; sufficient to support *one hundred thousand* inhabitants.

A three shear wether sheep, of the new Leicestershire kind, bred and fed by Mr. Earl of Dallington, and allowed to be the heaviest and fattest ever seen in Northamptonshire, was lately slaughtered at Northampton, by Mr. James Dunkley. The following are the particulars of its weight:

Live Weight,	316lbs.	Blood	4½lbs.
	79½	Skin	24
	—	Fat	27
Neat weight of the carcase	236½	Entrails	12
		Head and pluck	12
			—
			79½

At Dundee, it has been observed, that notwithstanding the improved state of agriculture in that quarter, and the much greater quantity of grain raised there than at any former period, yet the exports for the last six years have been but trifling, while the imports have been immense.

A bill is intended to be brought into parliament, the ensuing session, for the better drainage and preservation of the lands in the Middle Level (part of the Great Level of the fens called Bedford Level, extending through Cambridgeshire, Huntingdonshire, Lincolnshire, &c.) and for strengthening and improving the barrier and internal banks of the same.

Fifty guineas have been offered and refused for the three year old bull, of the Herefordshire breed, to which the premium, offered by the Agricultural Society of Herefordshire, was adjudged, last June.

An additional fair is announced to be held at Newhaven in Derbyshire, on every 10th day of September, for the sale of fat and lean stock of every description, and of horses.

A new fortnight market, for fat and lean cattle, is advertised to be held in Barton upon Humber, to commence January 13, 1800.

The hop fair at Ollerton in Lincolnshire, is advertised to be held, in future, on every second Monday in October.

Natural Phenomena.

THERE is in the East-Indies, near Mangee, twenty miles west of Patna, in Bengal, a tree of the kind called Banyan, or Indian fig-tree, the diameter of which measures from 363 to 375 feet; and the circumference of its shade at noon measures 1116 feet; and the circumference of its several stems, which are fifty or sixty in number, 921 feet. The banyan-tree, in general, is found in Asia, Africa, and the tropical parts of America. By some it has been called the "Monarch of the woods."

"The fig-tree, not that kind for fruit renown'd,
But such as at this day to Indians known,
In Malabar and Deccan, spreads her arms,
Branching so broad and long, that in the ground
The bearded twigs take root, and daughters grow
Above the mother tree; a pillar'd shade

High over-arch'd and echoing walls between." Paradise Lost.

The French botanists in Egypt make mention of a very astonishing tree, discovered by them in that country, to which they have given the name of the Sycamore fig-tree. One of these trees suffices to overshadow many huts of the peasants, together with the oxen which raise the waters for the irrigation of the rice-grounds.—This tree is probably the same as that mentioned in the preceding paragraph.

There is now living at Kirklee, near the town of Hamilton in Scotland, a Mrs. Agnes M^cMillan, *aged one hundred and fourteen years!* Her sight is somewhat impaired; but she is able to walk about, and spins upon the old Scottish distaff, with the spindle by her side. She recollects the Union with England and Scotland, and the battle of Killicrankie, in the reign of king William III.

A discovery has been lately made at Columbo in the island of Ceylon, of a very rich mine of quicksilver, about six miles distant from that place. The appearances, hitherto, are very promising.

The beautiful and picturesque remains of the Abby church at Whitby, (built by one of the Saxon kings of Northumberland) have suffered severely by the late high winds.

Nothing gives more reality to our immortal Milton's description of those balmy gales, which convey to the delighted voyager,

"Sabean odours from the spicy shore

Of Araby the blest," &c. &c. when,

"Cheer'd with the grateful smell, old ocean smiles,"

than the pimento-tree, which, where it is found, not only forms the most delicious groves that can possibly be imagined, but fills all the air with its fragrant perfume. This singular tree grows spontaneously in great abundance in many parts of Jamaica, but more particularly on hilly situations near the sea, on the northern side of the island. Mr. EDWARDS, in his elegant history of the West-Indies, thus describes it with great exactness: "I do not believe that there is in all the vegetable creation, a tree of greater beauty than a young pimento. The trunk, which is of a grey colour, smooth and shining, and altogether free of bark, rises to the height of fifteen or twenty feet. It then branches out on all sides, richly clothed with leaves of a deep green, somewhat like those of the bay-tree; and these, in the months of July and August, are beautifully contrasted and relieved by an exuberance of white flowers. It is remarkable that the leaves are equally fragrant with the fruit; and, I am told, yield, in distillation, a delicate odoriferous oil, which is very commonly used, in the medical dispensaries of Europe, for oil of cloves."

There is, at this time, a little boy, son to a Mr. Fellows at Wisbeach, who though no more than two years and nine months old, can beat a drum to upwards of 100 tunes. So exact is his ear for music, that he

will follow almost any tune played on the fife, in true time, on the second or third time of hearing it.

A Patagonian cucumber, was lately cut, in the garden of J. Knight, Esq. of Lea Castle, near Kidderminster, which was two feet six inches long, three feet three inches in diameter, and of the enormous weight of 58 pounds.

In the coldest night this season, the thermometer was at 17 degrees below the freezing point, and not so cold, therefore, by 15 degrees, as it was last year.

Fine Arts, Science, and Literature.

AN ingenious physician of Bath, of high chemical reputation, has recently discovered that the origin of the waters is volcanic; that the springs rise perpendicularly upwards, and have no connection whatever (as vulgarly supposed) with the adjacent hills: that the water, in its first state of incalcescence, is as hot as it is possible for water to be; and that, ascending in steam, it gradually cools as it reaches the surface of the earth; and that the waters of Geyser and Carlsbad, which are known to be volcanic, afford an almost exact parallel to those of Bath, in circumstances, appearances, and effects. This discovery, which has eluded the sagacity of all preceding investigators, is said to account clearly for several appearances, qualities, medicinal effects, &c. upon the constitution, which have, from time immemorial, been observed by physicians, but never yet been satisfactorily explained or accounted for.

The French minister of Interior, has lately granted a pension to Mercier, the ci-devant Abbé de St. Leger, of Soissons, celebrated throughout Europe for his bibliographical knowledge. He is now preparing for publication a *Collection of Extracts and Notices of the Latin Poets, of the middle Ages, the least known, to the years 1520 or 1580*. At the time when this generous relief was afforded him, he was overwhelmed with age, malady, and distress.

Proposals are now circulating for publishing, by subscription (in two volumes quarto) the history and antiquities of the city and county of Norwich; including, among other interesting particulars, the history of the Castle, the Cathedral, and other public buildings, with lives and anecdotes of the most eminent men; by Mr. W. Wilkins, architect, and Fellow of the Society of Antiquarians. This work will be illustrated with engravings of public buildings and monuments, by the best masters, from original drawings. Price, to subscribers, three guineas.

A newly constructed musical instrument (made originally for the late queen of France) was brought to Vienna, in September last, where its powers attracted the admiration of every lover of music. This instrument is the only one of its kind in the form of a harpsichord, with metal strings. The sounds are raised to a pitch equal to those of an organ, by means of hidden bellows, which are kept in motion by springs. Its tones are far more melodious than those of any other instrument whatever, bearing a great resemblance to the human voice.

M. VAN MONS, in a report delivered to the Society of Medicine at Brussels, classes vaporized water among the principal means for purifying infected air. It incommodes the patient less, and draws putrid emanations out of the circulation, better than the muriatic and acetous acids, or than spirits; being a better solvent than those liquids. The sulphurous acid gas would be useful, he thinks, in some cases, to decompose *miasmata*, by giving out to them a portion of its oxygen; but it leaves behind it an oxyde of sulphur, the smell of which is extremely offensive. The oxygenated muriatic acid gas is therefore preferable.

Mr. WHITE WATSON of Bakewell, Derbyshire, gives, at his house in that town, during the summer season, lectures for the purpose of in-

structing students in the SCIENCE OF MINERALOGY. He also gives practical lessons on the MINES, and such parts of Derbyshire and the neighbouring counties, as are deemed worthy of being visited. In the course of lectures, which occupies about twelve weeks (three days in each week, and commencing on the 4th of June) excursions to the various mines, and other objects of geological and mineralogical curiosity, in Derbyshire and its vicinity, are included. The expence of such excursions is defrayed, in equal portions, by the students. The subscription for one person is 13 guineas; for two, 20; for three, 25; for four, 30; for five, 35; and for six, 40. Mr. Watson (who has for several years past paid great attention to mineralogy as a science) is in possession of the MOST EXTENSIVE and COMPLETE COLLECTION OF DERBYSHIRE FOSSILS, that has been ever hitherto made in this country; and also of a foreign collection, containing at least one specimen of all the generally known species of fossils. Explanatory lectures are also given upon these collections.

M. Heber of Berlin, points out a new method of making vinegar, by exposing to a proper temperature, a mixture of seventy-two parts of water, and four parts of rectified malt-spirit. In two months' time, the process will be completed.

Mr. Parkinson has lately published an entirely new work, called the Experienced Farmer, which professes to treat, ably and fully, upon all disorders to which that useful animal, the sheep, is subject.

At Athens, lately, was a celebrated academy, or public school, for the instruction of the Greek youth, maintained by funds deposited at Venice. The destruction of that republic, and the cession of its territory to the house of Austria, will probably have a fatal influence on that literary establishment, which the Ottoman domination had always respected. This school at Athens has, or had, two sections: that of sciences, and that of literature. In this last are twelve scholars, born of poor parents, or whose parents are not domiciliated at Athens; who moreover receive a pension. The mean number of scholars of the section of sciences, is thirty: and of that of literature, eighty. The principal object of instruction, in the schools of literature, is the literal or ancient Greek; from which the vulgar or modern Greek is evidently derived. The relation of these two idioms is such, that he who is perfectly well acquainted with the literal Greek, can easily comprehend the vulgar Greek. But it is not so with one who only knows the vulgar Greek; as he finds it difficult to comprehend the works of the authors of ancient Greece. Every Greek, therefore, who wishes to know his own language well, is obliged to study the literal Greek radically and syntactically; hence arises the necessity of schools of literature.

The second volume of the *Voyage pittoresque de la Grèce* (Picturesque Voyage of Greece) by CHOISEUL GOUFFLIER, was very far advanced when its author emigrated. The greatest part of the cuts were then engraved. They were seized, and have remained several years under the seals. The wife of Choiseul, who has not quitted France, has demanded these cuts from government, in order to be able to terminate a work esteemed by artists and antiquarians. Her request has been favourably received, and the cuts have been restored to her, under the sole condition of giving, for the large public libraries, a certain number of copies of the complete work.

A FEMALE SOCIETY for literary pursuits, has been lately instituted at Chichester, where the *belles-lettres* are read, and philosophical researches pursued, with an ardour and attention, which reflect the highest honour on the fair promoters of the society.

Mr. I. CLARKE, Mus. D.; organist to the choirs of Trinity and St. John's Colleges, Cambridge, is about to publish, by subscription, a

Morning and Evening Service, and Six Anthems, composed for the use of the above chapels, and dedicated, by permission, to the masters and fellows of those societies. Terms of subscription, one guinea. The work to be elegantly engraved and printed on imperial paper.

Morals and Manners.

A VERY useful charity, the funds of which appear to be respectable and increasing, has been for some years established at Chelmsford, under the name of the *ESSEX CHARITY*, "for the relief and support of *indigent schoolmasters*, within the county;" particularly such as "from old age, insanity, sickness, blindness, or other infirmity, shall be rendered incapable of carrying on the business of their profession;" and also for the "relief and support of such widows and orphans of school-masters, within the county, as may be left in indigent circumstances." The president of this society is the Rev. Dr. GRIMWOOD; the vice-presidents are the Rev. J. ROBERTSON, Esq. and Mr. P. Larcher. T. B. BRAMSTON, Esq. M.P.; J. BULLOCK, Esq. M.P.; C. A. CRICKET, Esq. M.P. and other considerable gentlemen, are trustees. To prevent imposition, by persons setting up the business of a schoolmaster, merely to obtain relief from this charity, a number of regulations have been established, under the sanction of the county magistrates, agreeably to an act of parliament, passed in the 33d year of the reign of his present majesty. Among others, are the following: "No person to be admitted a member, unless he shall make application for the purpose, within one year after his beginning to keep school within the county; nor shall any person above fifty years of age be admitted, unless he have been a schoolmaster 15 years; nor of above 55 years of age, unless he have been a schoolmaster 20 years; nor shall any person be admitted who did not enter on the profession, previously to his attaining the age of 35 years.

The principal parishioners of St. Mary on the Hill, Chester, lately made a voluntary donation of a purse, containing 50 guineas, to the Rev. Mr. WILLAN, late Curate of that parish, but now of Waverham, accompanied by a very affectionate address, in which they acknowledge his merit, bear witness to his humane, unexceptionable, and exemplary conduct, in the performance of every department of religious duty, as Curate of the parish, for 20 years past, the natural ingenuousness of his heart, and his ardent desire for the furtherance of Christianity; and conclude by expressing their most sincere wishes for his future happiness and prosperity.

The SOCIETY, established in 1772, for the RELIEF and DISCHARGE of *persons imprisoned for small debts*, previously to the 25th of March last, had emancipated, from various prisons, and restored to their families, to industry, and to their country, *sixteen thousand four hundred and five debtors*, for the sum of 41,747l. 13s. 11½d.; being, on an average, 2l. 10s. 10½d. for each debtor; or 15s. 1d. for each individual relieved, including their wives and children.

It appears that sixpence per month is collected and received from the seamen employed on board the ships and vessels belonging to Whitehaven, and the neighbouring out-ports of Harrington, Workington, and Mary-port (within its limits); under the appointment of fifteen trustees, consisting of owners, masters, commanders, &c. and which is applied for the relief and support of such seamen, respectively, when maimed or disabled, and the widows and children of such as may be killed, slain, or drowned, in the merchants' service only. The above regulation took place by virtue of an Act of Parliament, which passed for the purpose, in the 20th year of the reign of his present Majesty.

At the last quarter-sessions for Norwich, John Gallant, an old offender, was tried for stealing a pair of shoes, &c. but the prosecutor being a Quaker, his affirmation could not, legally, be admitted as evidence; the prisoner therefore *escaped justice*.

Out of 1023 persons who were killed or wounded in the action of October 11, 1797, under Admiral Lord Duncan, there are about 70, or their families and relatives, that have not yet been found out, so as to receive gratuities, &c. from the committee appointed for conducting the subscription raised for the relief of the sufferers.

Some Jews of Stockholm, having been lately suspected as culpable in stock-jobbing on the Bank money, the COMMUNITY OF JEWS of that city received an order to make a due inquisition, in order to discover the guilty. This community has lately represented to the king that there was *only one single family*, on which the reproach on this head could justly fall; a member of which had been denounced ever since the year 1793. They intreat his majesty to cause the guilty to be punished, that suspicion may not again fall on the whole community; they moreover allege that since the Jews have been permitted to settle in Sweden, very few examples have been found of any of them having been brought to the bar of a tribunal.

A petition is now preparing by the DEBTORS in the COUNTY and TOWN GAOLS of Leicester, with the sanction of the county and town members, and a concurrence of intention received from their fellow sufferers in various other gaols, to be offered to both houses, at the ensuing sessions of parliament, praying that, in some measure, by their wisdom, they may ALLEVIATE the DISTRESSES OF INSOLVENT DEBTORS. The gentlemen, freemen, and inhabitants at large, of the town and county, will, no doubt, feel themselves seriously called upon (in a CAUSE which *it requires no eloquence to plead*) to promote this interesting philanthropic effort; and to attempt, at least, to mitigate, by every means in their power, the miseries of the wretched, by readily stepping forward with their signatures in strengthening a necessity so generally essential.

To an anonymous charge, dated from Denbigh, against the Methodists in Wales (which appeared in the Gentleman's Magazine for September last) representing them as "dangerous;" and asserting that "the preachers are, in general, instruments of Jacobinism;" and are sent into that country to disseminate its doctrines, &c. &c. the Rev. Mr. CHARLES, of Bala, supported by Messrs. T. JONES, R. ELLIS, and G. FOULKES, of Chester, have lately published, in the Chester Chronicle, an answer and satisfactory refutation, wherein these gentlemen prove the "unimpeachable loyalty of the Methodists to their king and the constitution for these 60 years past;" absolutely deny that "any single tract of Mr. T. Paine has been translated into the Welch language," as stated in the charge; and by appealing to convincing evidence, produced from strong facts, vindicate the character of both preachers and people from such "unsubstantiated assertions," designed to criminate a numerous body of people; and from the whole of the charge as "being founded only in malice or ignorance."

How far does a government influence the distinctive character of a people?—An entire revolution has apparently taken place in the manners of the French; and the republican system of equality, in regenerating a great nation, if it has not corrupted their morals, has, at least, produced an effect unfriendly to the politeness, the embellishments, the taste, which formerly characterised their manners. This is attested by a popular French writer, who, in treating of this subject, laments, how much his countrymen are fallen from "that urbanity, that atticism, that taste, that grace, that elegance of manner, that art of living and pleasing, which, of late, so eminently distinguished the nation." "The women," adds

he, "are at present, men, both in voice, in gesture, in tone, and in manners; they descant, they provoke you, swear, drink, romp. The *jurcarets* of the day are the most important men of society; the *elegants*, of the day are only jockeys; filthy, gross, impudent and ridiculous. Every thing is fallen into degradation; the modes are no longer invented by taste; they are the product of indecency and immodesty. They would shew what self-love has hitherto always enjoined to conceal, and they disgust in lieu of seducing. In Greece, which they are so desirous to imitate, a law forbade the women to appear in public, in a manner that was not decent. Travellers laugh, with reason, at the *bizarrierie* of our costumes, which, whilst our *Alcibiades's s'affublent de trois gilets*, (muffle themselves up in three flannel waistcoats) collar their neck with ten handkerchiefs, and keep their legs pressed in *colantes* and pointed boots; our women *à la mode*, or who wish to be so, brave the cold and catarrhs, in shewing forms which are any thing but models," &c. &c.

The musical festival at Shrewsbury, January 1, for the benefit of the Sunday schools, was very respectably attended, notwithstanding the uncommon severity of the weather. The concert and ball were honoured with almost all the beauty and fashion of the town and county. The band, consisting of a numerous collection of excellent performers, was brought together from a great distance, at a considerable expence; and the concert was, without exaggeration, the best ever performed in Shrewsbury. The collection at the doors, for the purposes of the charity, amounted to 28l. 17s. 6d.

The farmers of Copmanthorpe, near York, have agreed to supply the poor and labouring inhabitants of that township with the best wheat, at 7s. 6d. the bushel, during the present very high price of that necessary article.

Mr. T. BATTYE of Manchester, has lately published, in that town, a pamphlet, intitled "A concise Exposition of the Tricks and Arts used in the Collection of Easter Dues, with a List of the *Items which compose the Tax.*"

A SOCIETY has been, for some time past, established at Warminster, under the name of UNITARIAN CHRISTIANS, for the avowed purpose of "promoting Christian knowledge, and the practice of virtue, by the distribution of books, in the west of England."

The bishop of Hereford has lately addressed a letter to Mr. WALKER, printer of the Hereford Journal, soliciting the attention of the nobility, gentry, and clergy of the Diocese, to exert an active interest, in promoting the cause of benevolence, by supplying the wants of their poor and distressed neighbours, &c. His lordship's letter, which commences thus: "I am directed by an Apostle of Jesus Christ to provoke to love and good works," &c. does not suggest or prescribe any means of applying the charity; but, in general, exhorts and encourages to give cheerfully.

It is highly gratifying to observe that in almost every town of any note throughout the kingdom, the more opulent inhabitants have established public kitchens for the sale of meat soups, as a means of alleviating the distresses of the poor.

Obituary.

MEMOIR OF THE LIFE OF THE LATE DR. BLACK.

THE world has recently lost, in DR. BLACK of EDINBURGH, one of the most amiable men and the greatest philosophers, who have ever adorned society. It is not so much in the hope of doing honour to his memory, as from an earnest desire to present an illustrious example in an

interesting light, that this very brief and imperfect memoir of the life of that excellent man, is here introduced.

Dr. BLACK was the son of respectable Scottish parents. He received a liberal education in every branch of study, that could accomplish the character of the gentleman, or prepare him to do honour to a learned and philosophical profession. He in due time obtained the degree of DOCTOR *in medicine*; and was invited to a professorship in the department of the medical studies, in the university of GLASGOW.

About that time, great exertions were made to establish at Edinburgh, a medical school, which might vie with the schools of LEYDEN, of PARIS, of MONTPELIER, of PAVIA. CULLEN had been invited from Glasgow, or its neighbourhood, to the chair of a medical professorship, in the university of EDINBURGH. BLACK was called from Glasgow; some time after, to be a colleague with CULLEN, in the medical faculty in the same university, and to succeed him in the professorship of chemistry.

His reputation as a physician and a chemist, was already high. But the expectations which had been conceived of his display of ability, as a teacher of chemistry in Edinburgh, were soon amply gratified. Simplicity, clearness, and precision in lecturing; accuracy and elegance in the exhibition of experiments; an ardent passion for the science to which he had devoted his exertions, happily tempered by an ingenious soundness of mind, and directed by calm, philosophical reason; distinguished him above every other teacher of CHEMISTRY that Scotland had as yet seen. Chemistry had been hitherto valued at Edinburgh, for little else but the materials and the lights which it was qualified to afford to pharmacy. In the hands of BLACK, it quickly began to assume the dignity of a great branch of physical science, little less important than that to which the appellation of NATURAL PHILOSOPHY, had hitherto been exclusively confined. The students of CHEMISTRY became continually more numerous at Edinburgh. It was regarded, as an essential part of liberal education in general, and no longer the mere technical and professional accomplishment of persons who were preparing to engage in the practice of medicine. The disciple of BOERHAAVE, the rival of MACQUER; Dr. BLACK was soon esteemed by those who were the best able to judge of his merits, as a philosophical chemist, and a teacher of chemistry, superior to every competitor in the same pursuits.

His fame was diffused throughout EUROPE, by the importance of his *two discoveries*; that the fixed alkalis, in that which had been hitherto thought their highest purity, were but combinations of pure caustic alkali with a peculiar gas; and that heat, as in the production of cold by evaporation, was capable of passing into a state in which it should undeniably continue to exist, yet should not be perceptible, either by our feelings, or by the indications of our thermometers. These discoveries naturally led to the discovery of the existence of all the different gasses before unknown, and of the combination of heat and light with a particular base in gas-oxygen, from which they separated in combustion. The inaccurate, though multiplied experiments of *Priestley* are not to be compared with the precision, the elegance, the importance of those of BLACK. It is confessed, that nothing but that excessive modesty of judgment, which is sometimes the most signally conspicuous in men of the greatest genius could have withheld BLACK, after his first discoveries, from becoming the founder of that system, which has conferred immortality on the name of LAVOISIER.

He joined, in the mean time, the discharge of the professional duties of a physician, to the labours of an academical teacher of chemistry. His skill was great; his manners humane and gentle; his mind superior to every sordid artifice, in the competition for medical practice. As a physician, therefore, he was very highly esteemed; and his advice was ever

the most earnestly fought by those who were the best able to judge of his qualifications. He was the friend and the confidential physician of **DAVID HUME**, of whose illness and death, he gave an account in a letter to **Dr. ADAM SMITH**, which has been long since before the public. There was indeed, something congenial in the tempers and characters of the two philosophers, **HUME** and **BLACK**. Only, **BLACK**, with perhaps more of scientific ardour, seems to have had less than **HUME**, of the ambition of fame, and of a philosopher's vanity.

Since, within these last twenty years, chemistry became so popular a study, and had its sphere so vastly expanded; **BLACK** had the pleasure of knowing, that he was universally regarded as the most eminent of chemists, the father of whatever discoveries had the most enlarged and exalted the science. His disciples, young men who resorted to **Edinburgh**, from all quarters, diffused his fame and his doctrines over Europe, and throughout the world. The English chemists highly respected the accuracy of his experiments, and the enlargement of his scientific views. **LAVOISIER** scarcely dared to think his own discoveries sure, till they had obtained the approbation of **BLACK**. The anxious vanity of the Frenchman even moved him to violate those laws which honour has prescribed, in regard to epistolary intercourse, by publishing, without **BLACK**'s permission, a private letter, in which the Scottish philosopher politely expressed his general approbation of the **LAVOISIERIAN** experiments and theory, so far as these had been at that time conducted.

While the French philosophers eagerly propagated their theory, and hoped for France, in chemistry, that triumph which in the explanation of the planetary movements, **NEWTON** had vindicated to Britain; all Europe awaited the decision of **BLACK**: and such was the general confidence in his philosophical integrity and penetration, that no doubt was entertained, but the part which **BLACK** should take, would be that which all the chemical philosophers in Europe, would be inclined respectfully to follow. It was comparatively little that **BERGMAN** and **SCHÉELE** could be understood to have done: for, their experiments did not, like those of **BLACK**, pervade the whole of chemical science. When at last **BLACK**'s explanations of the phenomena to his pupils, evinced that he believed **LAVOISIER** to have not incorrectly interpreted nature; then, and only then, was **LAVOISIER**'s doctrine considered to be not theory, but demonstrated science.

While the progress of life, and the severe impression of successive years, rendered his health continually more frail; students resorted with increasing eagerness to hear his lectures, and to learn from him the art of making experiments with the genuine attention of true science. It was thought, that each successive year might be his last: and his words were listened to, as those of a prophet or an angel, which would be heard no more. As long as he continued to teach; his lectures were heard as infinitely interesting, on account of that dignified modesty of science in which they were uttered, and that precision and minuteness of experiment which they displayed.

He enjoyed one pleasure, in which no man of intelligence and virtue can well help envying him. He saw, that those lectures which he had been, for a course of thirty years, accustomed to deliver, had contributed, to an amount even above calculation, to improve the arts of life, and to augment the opulence of men in general, in his own country, in Britain, in all Europe, throughout the whole world: since the improvements of which he was the author, extended their influence to all domestic life, to all observation of nature, to all the agricultural and economical arts.

Another number may exhibit that sketch of his character, which the feelings of nature make one of the most respectful and affectionate of his admirers, incapable to introduce in this place.