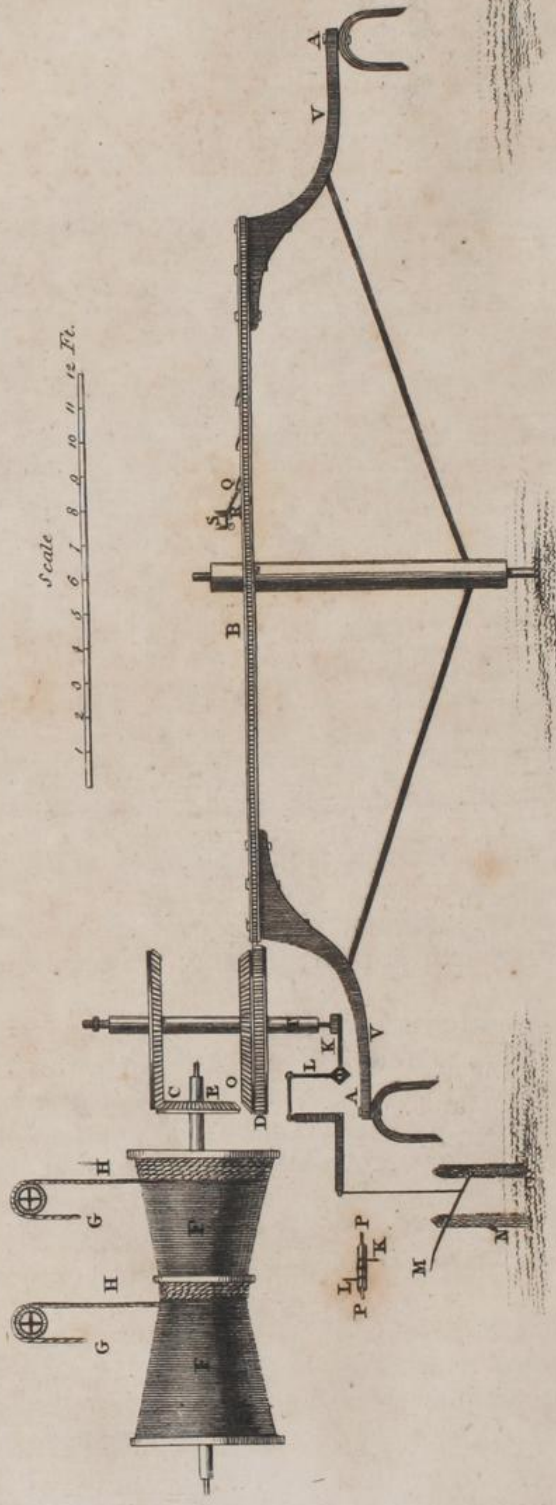


Machine for Raising Coals, &c. from Mines.



Pub. by T. Griffiths, Paternoster-row, July 1805.

RE

S

THE
AGRICULTURAL MAGAZINE.

No. LXXI.]

JUNE, 1805.

[VOL. XII.

DESCRIPTION OF A NEWLY INVENTED MACHINE FOR RAISING COAL, SALT, ORE, &c. FROM DEEP PITS.

[WITH A PLATE ANNEXED.]

To the Editor of the Agricultural Magazine.

SIR,

HAVING lately made a tour through the Northern counties of England, curiosity led me to examine the coal and salt pits, and ore mines, in Derbyshire, Lancashire, and Cheshire; but what more particularly attracted my attention, was the mode of raising the coals, &c.

The pits are generally worked by means of a horse machine, called a jin or ginn; I learnt on enquiry and from my own observation, that a steam engine possesses several advantages over those machines, which are as follows.

1st. As horses, asses, and mules, are employed in this service, a great proportion of time is lost in turning the wheel a contrary way, which from the construction of the jin now in use, renders it necessary every four or five minutes.

2dly. That two horses are unable to raise more than four or five hundred weight at once, when the steam engine will draw up double the quantity in the same time.

3dly. Should the beam to which the horses are attached or the tackle, break, so as to separate the horses from the wheel during the time the coals are drawing up, the contents of the bucket would fall, and be liable to kill those who may be at the bottom of the well.

4thly. It sometimes happens that a greater coal is drawn up than the horses are well able to raise from very deep pits, and when those cases occur, it would be convenient to stop the horses for the purpose of taking breath, but they are unable to stand still, having the whole weight to support at the same time.

I have sent you a drawing of a machine, which is, in my opinion, constructed to remedy all the aforementioned inconveniences; it is calculated that two horses will raise ten hun-

dred weight, in the same space of time that the same quantity is raised by a steam engine.

I am, Sir,

Your obedient humble servant,

London, June 1, 1805.

C. B.

DESCRIPTION OF THE MACHINE.

A A, Two horses moving in a circle of thirty feet diameter.

B, Great wheel.

D, Wheel fixed on the shaft T, moved by B.

O and C, Two wheels of equal diameter on the same shaft T.

E, Wheel which turns the conic frustums moved by C and O alternately.

F F, Conic frustums.

H H, Ropes wound round the conic frustums, F F.

G G, Continuation of the same ropes going into the well.

I, A square piece of iron, turning on the circular ends

P P, Which acts as a lever to move the shaft T up and down by the lever M.

K and L, Iron levers secured to I.

M, Part of the compound lever M L, which being moved to N, raises the shaft T, by which means the wheel O, comes in contact with E, at the same moment it is separated from C, which turns the two conic frustums F F, a contrary way. Hence it is evident, the buckets suspended to the ropes G G, are taken up and down alternately.

Q, Pieces of wood or iron fixed about twelve inches apart, on the upper edge of the circumference of the wheel B.

R, A steel drop situated so as to form a tangent to the wheel B, fastened to a piece of timber S, for the purpose of preventing the wheel from being drawn backward, and to suspend the weight in the well, should there be any occasion to stop the horses or machine in drawing up, or any accident happening to either by the breaking of the beams V V, or the horses' tackle; during which time the weight in the bucket would be suspended, instead of having fallen to the bottom of the well.

ON THE PRICE OF BARLEY AND OTHER GRAIN,
&c. &c.

To the Editor of the *Agricultural Magazine*.

SIR,

Fakenham, June 4th, 1805.

I PERCEIVE that an observation which closed one of my former letters on an expression used by a "Friend to Agriculture" relative to the Price of Barley, has introduced me to

the notice of one or two of your correspondents in the two last numbers of your Magazine. I should most assuredly have paid an earlier attention to the remarks of your friend, the Scotch farmer, at page 255, had I not been particularly engaged in business of another nature; his letter contains many sensible and just reflections, as well as useful information, for which he is entitled to the thanks of all your readers. But he will allow me, Mr. Editor, to point out an error in one of his arguments, which has escaped his notice, and which appears to me to have been occasioned by his adopting false premises.

He remarks first, that *from the sparing cultivation of barley last season, and the almost equally sparing produce of that grain, an higher price might naturally have been expected by the growers of it.* It is true, man's expectations are not easily satisfied: the imagination, particularly where self-interest takes the lead, is very apt to roam. I cannot, however, give up my opinion, that every farmer in Great Britain will have abundant reason to say, that the average price of barley of last year's growth has been far greater than his utmost expectations, at or soon after last harvest, (for it is pretty well known by bare inspection, at that time, whether a field will yield well or ill) could have anticipated.

The next ground of his argument, and which, with all due deference to the judgment of your Scotch friend, I conceive to be ill-founded, is, that *barley has not borne its full and usual proportion in price to every other species of grain.* If any grain has been below its due rate in the scale of prices, this year, I should name oats, as bearing the least value. Oats of the very best quality, have been sold in Mark-lane since Michaelmas last at twenty-four shillings per quarter, and in the Norfolk markets even lower, at the very time when barley was fifty-four shillings per quarter. According to the Evening Mail of the 28th January last, the best price of each grain in London was as follows: wheat 120s. rye 58s. barley 53s. oats 37s. 6d. per quarter. Here, your correspondent will certainly allow that barley cuts no mean figure; and the same may be observed to have been the case, very nearly, through all the season. At the same time, the markets in the North may have been considerably at variance with the above statements.

But taking the average of England, the argument which is adduced in his next paragraph, (to prove, if I understand its force rightly, that the *Consumption of barley is diminished*) falls to the ground, since the minor proposition in the syllogism, viz. that *the proportionate price with respect to other*

grain is less than usual, is not correct. I wish not to be misunderstood: I am not denying the position, that the consumption is actually less, I only contend, that supposing it to be so, and even taking into consideration a less produce last year, still, the price was upon an average as high, or higher, than both these causes, (which by the bye in some measure, counteract each other) might justly have been expected to create. And if to this I add what I conceive will have vast weight in the argument, the recollection, that an unusually large stock of old barley of the preceding year, which was productive in an extraordinary degree, must have been left in hand, it will not only cease to be a wonder that it bore no higher proportion to the price of other grain, but the surprize will be, how it ranked so high as it did.

I fully agree with the Scotch farmer, that, if a due attention is paid to the interests of agriculture, and therein to the interests of the common-wealth, every substitute for malt should be abolished, and that too much resource has been had to them particularly of late. But what can the brewer do? He purchases malt at an excessively high rate, and finds the public so determinedly opposing any advance on ale or porter, and himself therefore compelled to dispose of his articles at the old price, after an ineffectual struggle to add but one half-penny or penny to the price of each pot. The fact is indisputable. What then was his resource? Why—as your correspondent has rightly observed, he made use of sugar, molasses, liquorice, and even laudanum, tobacco and other deleterious substitutes to adulterate, colour, and add an artificial strength to his wort. It is the duty of parliament to interfere immediately, and to put a stop to these practises which I fear are common: but *felony*, and *hanging in chains*, surely is too severe a sentence for the poor brewers.

I cannot presume to dispute the accuracy of the statement next mentioned by your correspondent, since it appears calculated wholly for the meridian of Edinburgh, but, I think, that in South Britain, it is possible to gain something more than a poor solitary *sixpence* for his labour of cultivating an acre of ground, (I mean a statute acre) for two years; and I must still contend, that 3s. 6d. per quarter is not only a *ruinous* price to farmers, but that it is, even in these times of high taxation very *advantageous*, if he has an average crop, as may appear from the following sketch of expences and produce, drawn after the Scotch farmer's own model, supposing barley at 3s. 6d. per quarter.

To two years' rent of an	l. s. d.
acre of good mixed land	- 1 16 0
Ten loads of manure for	
turnips, at 2s. 6d. per	
load	- 1 5 0
Carriage of ditto to an aver-	
age distance at 1s. per load	0 10 0
Filling and spreading ditto at	
25s. per hundred, or 6 score	
loads	- 0 2 1
Six ploughings for barley	
and turnips at 5s. each	- 1 10 0
Eight harrowing for ditto at	
6d. each	- 0 4 0
Twice clearing off, or burn-	
ing couch-grass 6d each time	0 1 0
Turnipseed, one quart 1s. 4d.	
and hoeing at 6d. per acre	0 7 4
Seed barley, 3 bus. at 4s. 6d.	0 13 6
Weeding 6d. harvesting	0 7 6
Thirty two bushel threshing,	
cleaning, and delivering	0 10 8
Tithe	- 0 3 6
Poor's rates, church rates,	
highway duty, taxes, &c.	0 5 0
	<hr/>
	7 15 7
	<hr/>
	14 1 6
	<hr/>
Profit to the farmer on 1 acre	
of land in two years	- 6 5 11

PER CONTRA.

	l. s. d.
One acre of turnips, if drawn	
off	- 5 5 0
Thirty-two bushels of barley	
at 4s. 6d.	- 7 4 0
Straw*	- 1 10 0
Chaff, &c.	- 0 2 6
	<hr/>
	14 1 6

* If the dung from the farm yard is to be valued in the expences, it is but fair, to value the straw, chaff, herbage and stackage; that is, feed after harvest for pigs, fowls, &c.

In this estimate, Mr. Editor, I do not conceive that I reckoned either the value of the turnip-crop too high at 5l. 5s. or the crop of barley too great on an average on lands that will let in this county at 18s. per acre. The rate of expences I have put down at the usual prices given in this county, and according to the accustomed mode of tillage adopted by us. Now even subtracting the odd 5s. 11d. from the profits, for accidental charges, such as stacking, thatching, and harrowing a little more, drilling barley, &c. there will remain 6l. clear profit, or 3l. each year.

AGRICOLA NORTHUMBRIENSIS has requested the sentiments of your readers upon the subject of introducing occasionally Politico-agrarian disquisitions in your entertaining and instructive miscellany, I have, you know, Sir, received a rap or two on the knuckles for presuming to dissent from this well-informed, but *peppery* writer. However, as he calls a jury upon his present conduct, he must allow me to stand forward once again, with a dissentient voice, in disapproving the introducing such topics in a work professedly intended for the

reception of original communications on the *tillage of the earth, breeding and fattening cattle*, for the use of *novices*, and improvement of experienced *farmers*, in the literal acceptance of the word; mine is, after all, but an individual opinion; if the majority of your readers think differently from me, I shall bow to their decision, nay, continue to read with satisfaction any thing that comes from the lively pen of A. N. certain that it will always *be to the purpose*, let the subject be what it will.

Conceiving that your distant readers will be equally gratified by an agricultural report of Norfolk for the present month, as I always am by one from the North of England, or any other quarter remote from me; I shall beg leave to insert the following. The *growing* weather of last week has greatly improved the appearance of the wheats on the ground. There is, nevertheless, but a weak plant on such land as is not in very high state, and even on the best soils, the damage done by insects in the earth is considerable; the wire-worm has left a very thin plant in many places, so that the appearance of a crop is very deceitful at a distance, and makes a scruting, but an unpleasant task. The earliest sown barleys are the best at present, but even the few late genial days of sunshine have not improved them so much as might have been expected. Much complaint also is made of the peas; frosty nights, and the slug, have made great depredations almost all over the county, and left the plants thin; where, however, they were drilled, and the land could be well hoed and cleared, they promise better. The oats are doing well, and vetches come forward apace. Lean cattle, and store pigs remain high. Beef 9s. 4d. and pork 8s. per stone of 14lbs. Veal 6d. and 6d. half-penny. Butter 9d. Mutton 8d. per pound. Best wheats fetch as high as 100s. per quarter. Barley little or none at market. Oats from 20s. to 28s. per quarter.

I am, Sir, yours, &c.
 AGRICOLA NORFOLCIENSIS.

ON LEICESTER AND MERINO SHEEP, IN REPLY
 TO PASTORIUS, BY MR. BARTLEY.

To the Editor of the Agricultural Magazine.

SIR,

SPECULATIVE comparisons are justly held to be invidious, and ought rarely to be indulged, further than as they stimulate to experimental results, of a nature generally interesting to be known.

It is incidentally, and even with a certain degree of re-

luctance that I have been drawn into this species of comparison in reference to the merits of Leicester and Merino sheep, and after all that can be further said, Leicester sheep are likely in peace to retain their station with Pastorius and others, so long as the slow operation of experience shall warrant; and the operation of experience must be doubly slow, in application to those districts, wherein by reason of an excessive proportion of fat, the price of mutton is 20 or 30 pound beyond the general medium, as stated by Pastorius in your last number; at the same time, I presume, it must be known to Pastorius, that in other districts any excessive proportion of fat is considered to be an objection, and consequently that such mutton will not there produce the highest market price—this is most truly the case in every market of which I have any knowledge. Besides, every excessive degree of fatness is considered by many intelligent persons to be somewhat in the nature of *disease*. The relative degree of fatness then seems to be a partial consideration of narrow limits. However, I would beg leave to correct Pastorius a little in his assumption that Merino sheep, require four or five years to reach a marketable degree of fatness. I have known them often enough at less than two years old, much fatter than would have been thought suitable for the general demand of markets in this quarter; and I am persuaded, that as sheep designed for slaughter, to keep Merinos on to a later period than two years would be considerably unprofitable to the breeder. Pastorius seems to have departed, in some measure, from his accustomed candour, in thus hazarding an assumption, unsupported as it is, and ever must be, by the slightest shade of testimony.

On the subject of beauty, or symmetry of frame, I casually met this moment, the following passage in Young's Annals, vol. 17, page 138, which I beg to transcribe:

“Nor should it be forgotten, that Mr. *Bakewell* urges as a circumstance characteristic of *his* breed, that they are light, and even *ill-looking*, when lean, and *he* contends, that this will be the case generally with those breeds that have the most powerful disposition to fatten.”

Almost immediately, on the receipt of your last number, a gentleman took it for perusal, who has not yet returned it, I may therefore, be less correct than I would wish to have been in my attention to the leading topics detailed in the letter of Pastorius, inserted in that number, and I flatter myself, that this circumstance will be to him, as some sort of apology for any seeming negligence.

Your correspondent proposes an open unlimited invitation as for counsel, to be of his cause. *Agricola Northumbriensis*

he mentions by name; in this the discriminating accuracy of his judgment appears evident. I think he could not have named an advocate more able---a gentleman, who with so much credit to your valuable work, has written much, on a variety of interesting subjects, connected with the science of agriculture. I *too* have the highest opinion of his candour, and agricultural integrity; and, true it is, that few things would gratify me more, than to obtain his sentiments on the subject of our discussion; probably he would see cause to correct a little on both sides, and I trust we would acknowledge the correction of so respectable a moderator with gratitude.

It is true, that in this matter I have hitherto stood alone, a sort of precursor, unsupported by the aid of counsel, boldly confident in the cause.

No advocate or *coadjutor* of mine hath even glanced on my MS. observations, but I approve of your correspondent's design, and shall also, perhaps, avail myself of more able assistance, as I find occasion.

To avoid the troublesome effect of the fly-blow, and from some other considerations, my sheep have been shorn this season, about a month earlier than usual, and consequently the fleeces have been proportionably lighter than otherwise they would have been; the season itself, indeed, has been more unfavorable to the free growth of wool, than it sometimes happens to be; still I have no reason to complain; under those circumstances some of the three-shear rams have produced upwards of 10lb. each, one in particular, the coat of which weighed 9lb. last season, has produced 10lb. 7 ounces. Had it been left to the twelve months growth, it was the general opinion, that it would have been full 12lb. It is engaged for the ensuing season, to run with 100 ewes, at a moiety of the lambs for its use. I find this mode to be more generally approved than the immediate payment of a guinea per head for the ewes, and it is much more acceptable to me.

I am confident, it is not with design, that your correspondent wishes to misrepresent any quotation of mine, but I certainly did not state, that in case we had Merino sheep in number sufficient to answer the demand of our fine manufacturers, we should then be under the necessity of selling the wool at 12d. or 18d. per pound, or in other words, at the price of coarse wool, nor would it be true in point of fact.

The price would be governed by the relative quality, as is sufficiently evident by adverting to the present prices of Leicester wool, for the instance, by comparison with Rye-

land or Southdown, the former being about 12d, and the latter half-a-crown, and this too in the very teeth of a demand so pressing for coarse combing wool, that its advocates complain they are unable to supply.

But I did state, and I request to repeat the statement, that a common farmer would be enabled to produce on his own *homestead* Merino wool, weight for weight, at as easy an expence, as he could produce Leicester wool under the same circumstances, at 12d. or any other price; and it is my clear intention, without the smallest degree of hesitation or reserve, to enter into the consideration of wool and carcase combined, on both sides, and admitting such data also as are formed on the distant speculations suggested by Pastorius, as that fine and coarse wool would become equivalent terms.

Were we to reason, indeed, on the data we actually possess, i. e. on the present relative prices of Leicester and Merino wool, then I would be inclined to go thus far, and say—*the wool of the Merino would produce as much profit from any given quantity of food, as the wool of the Leicester and the carcase taken together*, and thus the Merino carcase, which I still hold to be equal to the Leicester, may in future be thrown out of the question.

It must be granted, that the present price of Merino wool is enormously high, and so it must ever be, in a degree, whilst the expence on the bare transit from a foreign country shall exceed two shillings per pound. It is an evil, of which the manufacturer loudly complains, and which, in a national view, I conceive it would be desirable to obviate, or at least to mitigate. If it long exist in its present force, it may some day prove fatal to a very valuable branch of your commerce.

The French are well known to be advancing with rapid strides, in the growth of Merino wool; as well, they are rapidly advancing in the amelioration of the race they have recently exhibited, fleeces of annual growth weighing 15 or 16lbs. each, and their speed is accelerated by the annual ingress of a large number of individuals from Spain, under national stipulation imposed by the iron hand of *Bonaparte*. With an iron hand, he seems to be owner of a penetrating head. *Gare qui la touche!*

We possess the *means* of mitigating the evil complained of by our manufacturers, *they* were obtained in arms and honor, and you will permit me once more to repeat, that we are indebted for *them* to the patriotism of our king. In justice, it ought not only to be repeated, but to be recorded in grateful and perpetual memorial. And it ought to be recorded, in honor to Dr. Parry, that almost singly, he in-

stantly adopted the views of his Majesty, and hath uniformly persisted to the present time. It would be a truly desirable circumstance, I conceive, were that gentleman to favor the public with another edition of his intelligent work on the subject.

But to mitigate the enormities of price in any very essential degree, would require a great length of time united with all the energy of exertion in extending the breed.

On the comparative weight of bone, I hope to offer some observations for your next number, and remain,

Bath,
17th June, 1805.

Sir, Your obedient Servant,
NEHEMIAH BARTLEY.

PROPOSAL FOR THE ESTABLISHMENT OF CATTLE MEDICINE ON A RATIONAL FOUNDATION.

The following extract from Mr. Lawrence's General Treatise on Cattle, we believe, will be acceptable to such of our farming readers, as have not yet examined that valuable work. The subject is of more immediate importance at this time, as we understand the author's plan is about to be put in practice by several societies of the highest respectability, both in this country and in Ireland.

SOMEWHAT more than fourscore years since, the great opprobrium of depending on the writings and practice of the ignorant and illiterate in the diseases of animals, at least the necessity of it, was removed, with respect to horses, the most important species, by William Gibson, an army surgeon; of whom in vol. i. Treatise on Horses, I have given the few particulars I could collect together, with an impartial character of his writings. Dr. Bracken, a pupil of Boerhaave, and a physician at Lancaster, within a few years afterwards, followed Gibson in the same course. Within thirty years after the appearance of Bracken's books, William Osmer, a surgeon and a sportsman, published the improved method of shoeing horses of the French veterinary schools, in itself, totally useless and impracticable here, but rendered of that excellent use which we at this day find it, by the experienced and judicious Osmer's improvements. Gibson and Bracken established their veterinary system on the analogy of human medicine (marking certain anomalies) which analogy they had confirmed by a thorough knowledge of the horse, resulting from long practical experience. They particularly adverted to "*the horizontal position of the horse as contrasted with the upright form of man.*" The best veterinary practice of this country has arisen from their institutes, which form a very sufficient foundation on which to raise a fair superstructure of general veterinary improvement. The only errors of consequence, hitherto discovered in their writings, are a too diffuse and redundant prescription of medicines, the common error of their times,

easily remedied by the modern practitioner, and of the less import, since their chief articles were so judiciously chosen, as to be, at this instant, in common use, either actually, or under the cover of *succedanea*. The same may be averred as to their doctrine or principles, and general practice, notwithstanding certain exceptions, in which our superior light has at no rate been hitherto established. In one most important particular, I fear we have retrograded of late years; I mean, by the adoption of that groundless continental hypothesis of the inelasticity or immobility of tendons, which has been carried to such a systematizing height by our late veterinary writers, as almost unreservedly to deny the possibility of fibrous relaxation, as a medium of debility: the consequence of such unphysiological ideas has been, that the tendinous, and ligamentary lameness in the legs of horses are supposed to be confined merely to inflammation and tension, and the whole cure to consist in the simple reduction of those, an error which is every day leading to the most fatal consequences. On this interesting topic I have said as much as my experience would warrant, in the Treatise on Horses, vol. ii. p. 565, second edition.

It has been objected to me, in a late publication, that Gibson and Bracken are my *favourite* authors. I freely acknowledge as much, and without having, I trust, the smallest occasion to be ashamed of my motives, the chief of which are, that these good old authors have written with good faith towards the public, and as independently as possible of private, and intirely so, of party or system-mongering ends. The farrier's or veterinary dispensatories, or pharmacopœias, of Gibson and others, are obviously the least valuable of their works, since the general pharmacopœias must answer the end, in a far more comprehensive and equally convenient way, to such persons as can possibly receive any benefit from publications of the kind.

We cannot sufficiently regret, that those authors, who established so excellent a veterinary system for horses, exclusively, had not been excited and encouraged to proceed, and to extend their practice to our other domestic animals, in which case, we should not have been so egregiously at a loss, as we have since been, and as we, at this moment, unfortunately continue. Be it our present business to remedy this defect; towards which end I beg leave to contribute my mite, in the following propositions.

Three or four years since, a respectable member of the London Philosophical Society, W. P. Whyte, Esq. presented the public with the outlines of a plan of this nature, (see Nicholson's Philosophical Journal, &c. which I understand has

not been hitherto pursued, and with which, my ideas, if acted upon, would at no rate interfere. To the influence of our agricultural societies, and of eminent individual cultivators, now happily so numerous in the country, we are chiefly indebted for the late diffusion of the various improvements in cultivation and the care of live stock. My proposal is simply, that the affair of providing the country with regular-bred surgeons, for the practice of cattle medicine, be immediately undertaken by the agricultural societies; at least, that the experiment be made by some of the most considerable, each society engaging a gentleman of that description, at a sufficient and respectable annual stipend. The contract may run in such form, that should the surgeon's annual emolument from practice, come short of the stipulated sum, the deficiency should annually be made good by his patrons the society. No person to be engaged on any pretence, but who shall have received the usual education of a surgeon, and have attended the hospitals the usual length of time. A selection of VETERINARY TEXT-BOOKS to be made, and the books purchased for the use of the surgeon, but to remain the property of the society. This may consist of Gibson's last edition, 2 vols. Bracken, Bartlett, Osmer, Layard, with our late writers; and La Fosse and Bourgelat from the French, with whatever may have been published since their time, by authority of the French veterinary schools. All the members of the society and their connections, as far as their influence may extend, to entrust the care of their diseased animals to the surgeon appointed, at a fair and liberal charge for his attendance and medicines. The surgeon to keep a regular history of all the cases which shall come under his inspection, including the presumed causes and symptoms of the disease, with the probable methods of prevention; his mode of treatment, a particular detail of the medicines prescribed, their operation, with every relative and useful remark which may occur. A clear, written copy of such veterinary transactions, to be delivered annually, and on a certain day, to the society, to remain at their disposal.

This plan I humbly conceive, if executed on a tolerably extensive scale, and by men of a respectable share of ability in their profession, would in the course of a very few years, leave us perfectly at ease, as to a knowledge of the diseases of our oxen, sheep and swine; a knowledge, which the whole experience of my life serves to convince me, is utterly unattainable, otherwise than by the practical efforts of regular medical men. An interchange of communications on this subject, by distant societies, would have the excellent effect of developing local variations of disease or constitution, and of affording the materials of a practical veterinary system of the

most useful and comprehensive nature. How the expence of a plan like this might accord with the rules prescribed to themselves, by societies or individuals, I am not aware. I can only say, that if there be a thing of great and commanding necessity, they who can afford the funds, will ever find it a convenient and ultimately advantageous measure, so to do, and not with a thriftless and ill-judged parsimony, to spare them. The nature of this plan does not admit of its being made a job, or a sinecure, as the conduct of the surgeon will come under the annual inspection of the country, and of his immediate employers. His situation may also be the mean of introducing him to a considerable share of practice in his usual line.

In my former work, I made various proposals of this kind, with the view of putting the direction, at least, of veterinary practice, into better hands. I proposed that the country surgeons should act as physicians and counsellors to the cow-leeches and farriers. I farther advised very considerable proprietors of horses, to engage a veterinary surgeon by the year, at a fixed sum, since the preventive care of such an assistant, may not only be a vast saving of expence, but must have the good effect of relieving the mind from a constant load of anxiety, in a matter so precarious as the well doing of horses. Certain very great and respectable proprietors of horses, subscribers to my work, have since, I understand, adopted this mode with a satisfactory degree of success.

As a regular medical man alone can possibly be qualified for the cure of diseases in our domestic animals, so all experience proves the analogy between their diseases and ours, to be so close, as to require, with little other variation, than in quantity, the same classes and species of medicines, and a perfectly corresponding medical care. We have but to make due allowance for their prone or horizontal position, their superior bulk and substance, thickness of integument, more simple aliment, and habits of constant exposure to the external air, and we have advanced a considerable way, in adjusting the difference between the brute and human body, both of which are composed of the same elements, and governed by the same general laws of physiology. Mr. Chenevix (Philos. Transac.) found the humours of the sheep's eye, nothing different from those of the human eye, and that those of oxen contained the same substance as the respective humours of other eyes. The horse, the ox, and the sheep, are liable to many of those diseases, with which human nature is afflicted, and in their other maladies, which do not appear to be quite analogous, there is still an apparent, if a remote, consanguinity. At the same time, we find all the grand medical

remedies, mercurial preparations, antimonials, sulphur, nitre, aromatics, alcohol or spirits, wine, beer, aloes, bark, opium, to have a certain and proportional effect on our animal patients. The same may be said of salves, plaisters, and external medicaments of the more powerful kind. In short, to the circumstance of animal medicine having been hitherto almost solely in the hands of those who were ignorant of the human, it is to be attributed, that the analogy, close as it is, has so long remained undiscovered. The real diseases of cattle have lain hid, under a vague and barbarous nomenclature and symptomatology, that no man of sense can analyse, construe or appropriate. The desideratum, the only medium of improvement, is to introduce, as nearly as may be, an analogical nomenclature and pathology into animal medicine; it will go to render it that which it ought to be, a common science with medical men.

Some rather pleasant attempts have been made, to controvert the existence of that analogy of which I am speaking, by quoting two or three instances, where, in the opinion of the writer, it has failed. As though we expected general rules absolute, and without the usual condition imposed by nature. I say pleasant attempts, because they are liable to be suspected, as made in the monopolizing spirit. Arsenic and white vitriol are unfortunately introduced, in proof of defective analogy, because, although the one is a deadly poison, and the other a strong emetic in a small dose, in the human system, they may be both given to horses in large doses, without any violent effect. But previously to this observation, it should have been known and allowed, that both arsenic and vitriol, the latter in considerable doses, are used as tonics, in human medicine: indeed those articles are far enough from being recently discovered veterinary remedies, having been tried unsuccessfully, and I believe fatally, on glandered horses, together with verdegrease, many years ago. Emetic tartar had also a great run among some of the London farriers thirty or forty years since, but did not retain its reputation. A gentleman's horse in Piccadilly was said to have been killed by a too large dose of it. At any rate, the above anomalies are introduced more than one hundred years too late, to come in the shape of new discoveries; according to an old author, now open before me, arsenic, which is fatal to man, only purges a wolf.

The establishment of a veterinary college has had the very useful effect of turning the attention of a far greater number than formerly, of medical men, to veterinary inquiries and pursuits, and, in a great measure, to wipe away that false sense of shame, which many gentleman of the faculty enter-

tained, at the idea of becoming horse and cow doctors, a most groundless prejudice, in any view, particularly, when it is considered, that men of the first rank and fortune in the country, think it no degradation, but an useful and patriotic employment, to obtain personal and practical skill in the management of live stock. In other respects, and according to the view which I have given of the subject, no medical man need be at all backward or apprehensive as to his ability in any veterinary undertaking. In the case of horses, he will find very full and sufficient guides, in those original treatises which I have recommended, and in many others of later date, by a collation of which he will be enabled to judge of the degree of subsequent improvement, and of what may remain for himself, and other succeeding improvers to effect. For a knowledge of the nature, habits, and practical management of animals, a most material branch, with the clearest accounts I am able to afford, or collect of the diseases of horned cattle particularly, I beg leave to refer to my own labours. The common method of handling and managing diseased animals, in order to any operation necessary to their cure, is easily acquired, and becomes familiar by observation; and neither opportunities nor dead subjects can be wanting, in a country where so many animals are consumed, for the purpose of demonstration and improvement in the sciences of zootomy and zoophysiology, or the anatomy and physiology of beasts.

The faculty of cattle-doctors, I shall hope, may be considerably improved by the addition and presence among them, of a number of regular professional men, in various parts of the country; indeed what ever turn improvement may take, the former must be generally depended upon for a length of time. And in remote and secluded parts of the country, where even the lowest practitioners are not to be found, it inevitably results, that the proprietor or his servants must fill the office of doctor to the flocks or herds. By what I have already said on that head, and on the extreme uncertainty of all *receipts*, with the probability of their misapplication, my readers in this predicament will not find me disposed to flatter them on their prospects of success. There is only one view, in which I can give them hopes, but those are of the most brilliant kind, and well worth their utmost attempts to encourage; I mean the hopes, or rather complete certainty of success, from the **INFALLIBLE RECEIPT OF PREVENTION**, singly worth more than all the infallible cordials and medicines ever advertised. It should be considered, that animals living in a state of nature, regulated by the reason and experience of man, would be

almost exempt from disease. That their appetites, unlike our own, may be held under a constant controul. That their diseases result purely, even in the case of hereditary defects, from the negligence or erroneous treatment of their owners. They are either exposed too much to the rigours and changes of the weather, or they are gorged with food, denied a sufficient quantity, or supplied with such as is unwholesome. Here we have the chief causes of their maladies. LEARN TO PREVENT THEN, instead of undertaking the tedious, unsuitable, and hopeless task of learning to cure them. Of all things, let the proprietors of cattle renounce for ever the insane folly, of offering premiums for specifics to cure incurable diseases! and the hope of providing medicines, which, by a miraculous operation, will enable men to continue in the habit of exposing their animals to the constant risk of such diseases; for example, sheep in those situations, which nature has decreed shall for ever rot them. Prevention of diseases is alone a grand improvement of the breed. It is a great profit, for in case of general disease in a flock or herd, we are not only to reckon the loss of those individuals which die, with the doctor's bill, and our own and servants' time and attendance, but the loss of time and thrift in the survivors, sometimes the heaviest loss. The constant attendance upon half a dozen such animals forms an object, as it respects the expence of time and labour, and on account of the solicitude it occasions; and if the necessary curative measures are imperfectly executed, nine times out of ten the case, the ailments of the animals had far better be healed at once *by the first intention*. Again, when half a dozen only are selected for cure, many times double the number often remain, in nearly as bad a state: what a situation then must a farmer be in, with some scores of patients to doctor, the convalescence of the greater part of which, the most he can hope for, affording him very slender expectations of future improvement, adding the sudden fatal termination of disease, so common in cattle. Surely these are substantial arguments in favour of foresight, inspection, provision, in preference to an indolent and implicit reliance on doctoring and receipts. Reckoning all this, and much more which might be suggested, that cost must be large indeed, which preventive care will not repay.

My admonitions on the above topic have been too ample, I fear, not to be tedious. I proceed now to diseases and their remedies, but I have no infallible receipts to offer, on the contrary, I wish to impress my readers strongly with the idea, that *all infallible receipts are infallible non-*

sense. In this latter department, of a description of diseases, and of providing them with remedies, I have acted to the best of my abilities, both from my own observation and practice, and what I could collect from others; but I will freely own, it is not in my power to be of equal use, in this respect, as in that of general advice on management and prevention; nor, I believe, in the present state of animal medicine, horses being excepted, in the power of any other individual. If I cannot serve the public so effectually as I would wish, at least, I will not deceive or mislead the public.

Upon every farm, it is truly necessary to the well-being of the cattle maintained, that there be houses or sheds, sheltered yards, and spare inclosures, for the comfortable reception of the diseased. The want of such conveniences, or an indolent prejudice against the use of them, is in itself a real malady, and one great cause why slight affections grow into incurable or endemic diseases. The proper instruments of administration or operation, should also be provided, and always ready for use; and where much cattle is kept, it would be of considerable benefit to set apart a piece of garden-ground for the production of medicinal herbs, febrifugal, restorative, vulneary, &c.; for although these botanical simples are justly rated by modern practice, far below their anient character, yet infusions or decoctions of them are excellent vehicles in cattle medicine for articles of superior efficacy, and in fact, as I have often experienced, some of them possess, in a considerable degree, the virtues attributed to them.

It is much to be lamented, that there is considerable difficulty in obtaining genuine drugs for the use of cattle, one great source of failure in cures. Yet very expensive articles, however efficacious they may be supposed, cannot be afforded, since the expence of cure might amount to more than the worth of the animal. This points to discretion in the choice of medicines, some of which are both efficacious and cheap. It is of importance too to recommend articles the most easily attainable. As to the strange names of the diseases, I have endeavoured to provide them a meaning, wherever I could find one for them.

ON POLITICO-AGRARIAN DISQUISITIONS.

To the Editor of the Agricultural Magazine.

SIR,

June 13, 1805.

AFTER the communications I have already made to you, it is almost unnecessary to say that I warmly recom-
Ag. Mag. Vol. 12. 3 G

mend the insertion in your magazine of such papers, as those from your correspondent Agricola Northumbriensis, to which you have lately stated some objections. Besides their utility, in my mind, I conceive, notwithstanding what has been advanced by your correspondent S, (page 327, of your last number) that it will be found necessary to give such papers a place, in order to fill your *monthly* publication with matter interesting to the cultivators of the soil. Nay, I will go further, and declare it as my decided opinion, that no person in this country could obtain an adequate supply of instructive papers, for a similar work, on the mere *practice* of husbandry. Even the Secretary to the Board of Agriculture, who never objected to papers on regulations affecting rural interests, has been under the necessity of announcing his *Annals* as a *quarterly* instead of a *monthly* publication.

I do think that papers on the practice of agriculture and the breeding and management of live-stock are very valuable; more especially when forwarded by correspondents in various parts of the country; as then we are enabled to reap the advantages of comparison, and to adopt the most beneficial parts of the practice in different districts. There are strong doubts in my mind, however, whether such communications will, in the end, prove more advantageous to the country at large, than those which embrace the discussion of the numerous obstacles to agricultural ameliorations and the different regulations which are injurious to the occupiers of land. For by such discussions a spirit of enquiry is excited amongst those who are not materially interested, but who possess the power of promoting the most beneficial alterations and reforms. Will any man say that the progress of agriculture, and the power, prosperity, and happiness of this country, have not been much retarded by injudicious regulations relative to tythes; the importation and exportation of corn; the division and improvement of commons, moors, and waste-lands; the management of the poor; and of servants employed in husbandry; leases, &c. &c.?

It frequently happens that when mankind have been long accustomed to certain modes and regulations, an injurious apathy prevails, which temperate and well-timed discussions have a great tendency to remove, by exciting a spirit of enquiry, reform, and emulation. And, upon most of the above subjects, I conceive that no men are so competent to give judicious information and even advice, as many practical husbandmen who are in the daily habit of observing their effects.

I cannot concur in the opinion of your Wiltshire correspondent, that these discussions are advantageous with regard to *proposed* laws only, and that our investigations should cease

when "they become a part of the constitution." Indeed there is scarcely any opinion to which, as a free born Englishman, living under enlightened legislators, anxious to promote the power and happiness of their country, I am more hostile than to his. Infallibility is not the inheritance of man; and our legislators, with the most pure and benevolent designs, have frequently enacted laws, which representations, from those affected by them, have induced them to repeal. Without such representations these injurious laws (many of which I could name) would probably have remained, *and, according to your correspondent's principle, ought to have remained* in full force. Such an opinion, Mr. Editor, is the more surprizing from one who has justly stated that "from collision truth is elicited."

The more they are discussed the more clearly will this "truth" appear—that the laws and regulations noticed in the letters of A. N., R. W., and several of your correspondents, materially affect our most important interests; and as the torch of truth is lighted by the sparks which fly from the collision of opinion in a temperate and well-managed controversy,—I cannot perceive the danger your correspondent apprehends from disputes in your Magazine. Indeed when I refer to those which have already taken place, I can discover nothing but a confirmation of his own position, relating to the developement of truth—nothing but advantage to your readers and the country. As to theological and political disputes, they are out of the question. The former have never, in the smallest degree, been introduced; and with respect to what is *strictly* political matter, I think none of your correspondents have evinced the least disposition to make it a subject of discussion in your useful work; nay, that very correspondent whose papers have rather excited your apprehensions, was the first to request you would discontinue that branch of your magazine, which he very properly denominated *political intelligence*.

By all means let us discourage controversies which are not supported with moderation and temperance, whether they relate to "the silent operations of nature within the bosom of earth," (subjects on which I have witnessed as much indiscreet warmth as I ever observed on any theological or political question) or to the various systems which are pursued upon its surface. But I am sure it is perfectly unnecessary to advise you to give every facility to disputes of a different complexion, seeing by your conduct that you are fully convinced of their utility.

As a warm friend to your publication, I have lately endeavoured to collect the opinions of your readers, in this quarter, on the question which you and your correspondent in Nor-

thumberland, from which I have ample reason to conclude, that if you could obtain the opinion of all, there would be a majority of 8 or 9 to 1 in favour of *his* sentiments. Indeed, I find that his paper on the property act and corn bill, is more pleasing to your readers in *the country*, than any other in your magazine. Different sentiments may probably prevail in the city and town, but I conceive it is only in the country that the opinions of a great majority of your readers can be obtained. Unfortunately the inhabitants of towns generally place their interest in direct opposition to that of the cultivators of the soil. This proceeds from erroneous ideas; but though it might easily be proved that their interests are intimately connected, yet I apprehend that old prejudices and contracted notions will be too powerful for the progress of truth with regard to this position.

I have thus freely given my opinion on a subject upon which you have, with great propriety, committed yourself to your readers; and shall now, with your permission, make a few observations on other subject which have lately occupied the attention of several of your friends.

I am glad that the dispute between Mr. Bartley and *Pastorius* is now drawing to a conclusion; not, however, because it has been tediously prolonged or ill supported, but because the last paper of the latter combatant seems to point to the proper station of each species of sheep, in which, I think he will be joined not only by another disputant on the same subject, (Mr. Brightley), but by a great majority of your practical readers. Long woolled sheep are certainly as necessary to the prosperity of the country as those with short wool, and it would be equally injudicious to place the latter upon our best, as the new Leicester upon our inferior pastures. I therefore range myself on the side of *Pastorius*; but if we were bound, throughout the country, to use only one of the two breed which are most conspicuous in the papers of that gentleman and Mr. Bartley, I would go over to the latter, because it is obvious that the Anglo-merino would be profitable upon productive lands, while the new Leicesters would starve upon our bare and less fertile grounds. I think this interesting controversy is now assuming an appearance that will render it useful to many young and inexperienced farmers, who might otherwise have been misled in stocking their lands with sheep not adapted to their various qualities, &c.

The argument so long maintained by the breeder of the new Leicesters; namely, that sheep do not consume food in proportion to their weight, seems to have received great support from the important *fact* drawn from Mr. Billingsley's

experiment (by Pastorius) relative to the Mendip sheep, &c. and from my own experience, I am of opinion, that if the new Leicesters had been of the best instead of the worst sort, the results of that trial would have been far more in favour of that breed.

It also seems proper that we should have two kinds of mutton; the very fat for the consumption of the lower orders, (who generally prefer it for the reasons given by Pastorius) and the small and half fat for that of the opulent, who can afford to sacrifice money to the gratification of taste. With regard to wool it appears that if we could supply our manufactories of the finest cloth from our own growth, without diminishing the quantity of coarse wool, or the supplies of mutton, it would certainly be better policy to produce the finest wool at home, than to import it from other countries; and from what has been advanced in favour of Anglo-merino sheep, and their wool, it seems probable that this might be accomplished by assigning them a proper portion of our inferior lands.

The season for the sale of wool has now arrived, and by the accounts from Yorkshire, it appears, that the demand for that article is great beyond example, and that prices will be from 15 to 25 per cent. higher than those obtained last year. It appears, however, that the greatest demand is for coarse wool, especially of the combing sort, which shews how dangerous it would be to allow small sheep to trespass upon the pastures of the new Leicesters and other long woolled kinds.

I have, for many years, pursued the practice of pickling clean seed wheat with lime and chamber-lye, of which, from accurate observation, I am satisfied of the utility; and intended to have made a few remarks on the arguments of Mr. Brightley upon that subject. But, until he satisfactorily answers the strong arguments of one of your correspondents who is but a *Novice*, perhaps such conduct in one, who is an *Experienced Farmer*, would not be altogether proper.

I beg leave to caution *A Novice*, however, against the adoption of Mr. Bartley's ideas, respecting Potatoes as food for sheep and cattle.

I am, Your's, &c.

A PRACTICAL FARMER.

ON THE BREED OF SHEEP.

To the Editor of the Agricultural Magazine.

June 15, 1805.

SIR,

AS it did not appear from Mr. Brightley's letter, in your 67th number, that the effects of crossing South-down with Merino sheep had come within his own observation; as he acknowledged that he had kept only the former and new Leicesters; he disputed my knowledge with respect to Spanish sheep because it was not of the experimental kind; and as he stated his own opinions, with freedom, *on all the three breeds*, I venture to request that he might not indulge himself too freely in a liberty he seemed disposed to withhold from others, namely, the liberty of discussing the comparative merits of the new Leicesters and Merinos without a knowledge of each obtained in the field of practice; and if I said too much, with a view of guarding him against inconsistency, it arose from the reason he gave me to conclude that he had not seen the effects of crossing with Spanish rams.

With a view of justifying my own conduct, however, in writing upon such crossing without having seen its effects, I must not only make some observations, in addition to those already communicated, with respect to the extent and kinds of my own flocks, but also state the information I have received, through different channels, relative to pure Merino sheep and those raised by crossing with them in England. My information is correct; if, however, it is deemed erroneous, it will be the duty of the advocates for these sheep to contradict me; and if they do, I shall endeavour to establish my statement; all I think it necessary to state at present, is, that my informants have for many years, paid great attention to the pure as well as the Anglo merino sheep.

According to my information then, Mr. Editor, Spanish sheep have (each) but one body and one head, four legs, four feet, two eyes, two ears, and one tail. This tail is not like that of the sheep at the Cape of Good Hope—equal in weight to one of the quarters—but of the common size. Their whole body, including nearly the whole of the head, is covered with wool which forms, under the jaw, the “throatiness” so very conspicuous and *handsome*. They have long and crooked legs, long and crooked necks (resembling those of herons), very narrow shoulders and backs (the form of the latter nearly like that of the dromedary); sides as flat as a flounder; fore quarters the reverse of “broad and deep,” and the upper part of the hind quarter gradually declining from the backs to the tail-head, in an angle of 20 to 25 degrees. They do not consume more food, nor fatten more easily, than most of our native breeds of small short

woolled sheep, and in their progress in pinguefaction are much inferior to South-downs. In some of our Southern countries they generally weigh from 11 to 13lbs. per quarter, when two years and a half to three years old. They are docile, not ill adapted to the climate, and produce very fine wool worth from 5s. 6d. to 7s. per pound, when scoured. But on the quality and quantity of the wool your readers are fully informed by Mr. Bartley.

From this description of Merino it is evident, as our own are better formed, that those produced by crossing with fine woolled English ewes, will prove inferior to our native breeds in every respect, except in the value of the fleece. The Anglo-merinos, however, are superior in form to the native Spanish, and nearly equal to most of our short woolled sheep in attaining that condition which seems so agreeable to men of refined taste.

When we advert to the facts stated by Mr. Bartley, and other writers relative to the practice of the Spaniards in breeding their sheep, we cannot be surprised at the above account. But like every other breed, under similar management, they are unquestionably susceptible of great improvement. From the great and laudable exertions of Mr. Elman and other English breeders, the South-downs have greatly improved within the last twenty years. It is therefore unreasonable to expect that the Anglo-Spanish can equal the South-downs, or even the best Ryeland sheep. By judicious selections, however, they will probably be much improved within the next twenty years. But if the improvement of the South-downs be progressive for that period, the Anglo-merinos will still be inferior, except in the value of the fleece, because their improvement commenced more recently, and with very "rough materials."

Now, Sir, when it is so clear that the Anglo-merinos are not superior to, or materially different from, most of our old breeds of short woolled sheep, except in the value of the fleece*, and that with respect to form and aptitude to fatten they are inferior to the South-downs, will practical men—men who have long reared and fattened the latter, and other sorts of short woolled sheep, as well as the new Leicesters, or different descriptions of pasture, be at any loss in forming a correct opinion as to the comparative merits of any two of these breeds without having seen those from the foreign race? Would it not appear highly unreasonable to contend that an experienced Leicestershire

* Which has been fully explained to us by Mr. Bartley and other authors.

breeder who never saw a Lincolnshire sheep, but who has been fully informed of *all* the distinguishing properties of that kind, could not give a just opinion of the comparative merits of these two sorts of long woolled sheep? or that because he never saw any but Devonshire and long horned cattle, he was unable to estimate the comparative advantages of these and Tees-water short horns, after being *fully* informed as to all the distinguishing properties of the latter breed?

I have long possessed very considerable flocks of new Leicesters, Cheviot, South-down and forest sheep; I have paid very great attention to the properties and progress of each sort, not only on fertile plains and healthy elevated grounds in this country, but on the verdant hills of Roxburghshire; yet I am deemed incapable (by Mr. Brightley) of forming a correct judgement with respect to the comparative merits of the new Leicesters and Anglo-merinos; a breed nearly related to the South-down, which has received my particular attention for a number of years past! But even without having tried the South-down breed I would not have felt much diffidence in offering my opinion on the Anglo-merinos, because I was informed as to the properties of the former, some years before I tried them. Experience has satisfied me, that my information was correct, and that a man accustomed to one or two breeds of short woolled sheep, may easily form proper ideas with respect to another breed of which he has received accurate descriptions.

The Cheviot sheep in *general* do not fatten at so early an age as the South-downs; the *improved* breed, however, will feed as well as any short woolled sheep. Their wool is somewhat longer than that of the South-downs, and not so fine in general, though some parts of the fleece are equally so. The difference of price is about two-pence or two-pence half-penny per pound. They are hardier than the South-downs, and not docile, but not so hardy as the forest sheep, which are the most profitable highland breed, on healthy and very elevated situations. The sheep of this breed, like those of the Cheviot, are well formed, and generally superior to the South-downs in that respect.

The South-downs having proved too tender, on our northern hills, and less profitable than the Cheviot sheep, it seems to follow that the Anglo-merinos, which Mr. Brightley recommends for our "heathy" pastures, would also be too delicate on those extensive and exposed sheep walks; for I think it has never been asserted that the Spanish are hardier sheep than the South-downs.

With an inhabitant of the metropolis who has had no experience in breeding and feeding long and short woolled sheep, Mr. Brightley's remark on my inability to form a just and unprejudiced opinion as to the merits of Anglo-merinos, may have some weight; with your practical readers, however, it will be viewed as a trifling objection. I repose with confidence in the field of practice, and, convinced of the goodness of my cause, would not shrink from the *united attacks* of my opponents, though I readily acknowledge the superiority of their talents. Do not, therefore, imagine, Mr. Editor, that the following attempt to *divide them* proceeds from fear.

You are certain that in the papers I have addressed to you, I have never contended that the new Leicesters are the most profitable species of sheep for our bare and inferior elevated pastures, but merely that it would prove highly injurious to farmers and the community at large, to breed as many Anglo-merinos as would supply our manufacturers of superfine cloth, with the finest wool, if these sheep were supported on our productive lands, the proper domains of the new Leicesters. This I have constantly maintained, and, I hope, established. Never have I contended that it would not be advantageous to rear the above number of Anglo-merinos on part of those pastures which are now occupied by the short woolled sheep. On the contrary, my letter in the last number of your Magazine, proves that I am an advocate for breeding and supporting them on these lands. What is Mr. Brightley's argument? Why, precisely the same as mine, if he would exclude some of our heathy, stoney pastures, especially those in Scotland and the North of England.

But though Mr. Brightley and I agree in a material point, we differ in several respects; and I cannot refrain from observing that he has not done me strict justice, while he has silently passed over those positions of Mr. Bartley which are evidently hostile to his own. He says I "attribute to others opinions and designs which they have never professed to entertain, much less to promulgate,"* and that "no fine wool improver pretends to interfere with the growth of long wool." In his former letter he expressed himself nearly to the same effect; in consequence of which I quoted Lord Somerville and referred to other publications of "the fine wool improvers," in proof that his opinion was ill founded. In his reply, however, no notice was taken of these publications:

* Mr. Brightley has adduced this, to prove my want of "judgement" on the subject of sheep. Even if it were true, however, I cannot see how my knowledge as to the different breeds, can be affected by it.

he brings forward nothing but assertion, thus shewing his *profundity* in getting over a strong argument of his opponent.

The comparison between the new Leicesters and Anglo-merinos, was brought forward by Mr. Bartley and other advocates for the latter breed; at least their dangerous observations rendered such a comparison highly expedient. On this point, I conceive there cannot be two opinions amongst your *impartial* readers; but be this as it may, it is extremely obvious that that was the subject of contention between Mr. Bartley and myself, and that it is a question upon which we have a right to exercise our faculties; yet Mr. Brightley says "the comparison between Anglo-merino sheep, and new Leicesters, is totally out of place, and can but serve no other end than to confuse the question, and keep truth out of sight!"

Mr. Brightley also says, "that the present high prices of fine wool would greatly decline were the proposed improvement, by the Spanish cross, to take place to any great extent in this country, surely nobody will be at the pains to controvert." That position, Sir, I advanced at the commencement of the dispute, and though Mr. Bartley never directly denied, yet he never admitted its truth. He, however, indirectly concluded against it, by stating the wool of the Anglo-merinos at the present high prices, until by a *slip* of his pen, in his last letter to you, he virtually acknowledged its force. I have dwelt long on this position with a view of bringing Mr. Bartley to own that the *present prices*, of each species of wool, would not enable us to terminate the dispute, and that it could only be brought to a proper conclusion by considering what the prices would be if the number of Anglo-merinos *like that of the new Leicesters* were adequate to the supply of our manufactures.

I perfectly agree with Mr. Brightley, that "long wool is a commodity equally necessary with the fine," and that its price would greatly advance if its produce were diminished, by allowing our short woolled sheep to encroach upon our productive lands. If I rightly understand Mr. Bartley, however, he denies both these positions. Perhaps he may be right in asserting, that we might make our "mops" as well with short Anglo-spanish, as with our present sorts of long wool. They are articles of such small importance, that they have never received any part of my attention. I am *certain*, however, that there are many articles of great consequence, which we annually export to a vast amount, that cannot be fabricated from short wool, even if its price were reduced to one shilling per pound; and from the present state of the wool-market in

this part of the country, it appears that the demand for these articles has increased in a much greater degree than that for fine goods. From present appearances, however, there will be an unprecedented advance upon all sorts of wool.

Does Mr. Brightley mean to assert, that the case I stated relative to the growth of sugar in Britain, is, in no respect, similar to that I stated relative to the growth of Anglo-merino wool, and that in one case, the price of sugar, and in the other, that of fine wool, would be greatly reduced?

I certainly have yet read but little of Mr. Lawrence's late publication on live stock, and beg his pardon for what I said relative to the explanation of the weights he mentions. If they are fully explained in the first part of his book, there was certainly no necessity for him to explain again in the experiment he proposed. But is this a sufficient apology for the omissions of those who quote his writings?

Having already stated my sentiments very fully in regard to the superior utility of very fat mutton, and concluded that it is generally preferred among the labouring classes, I shall briefly observe, in answer to what Mr. Brightley has stated upon that subject, that I remain of my former opinion, and that I consider it as perfectly reasonable and proper, that our markets should be liberally supplied with small and comparatively lean mutton, for the use of those who can afford to indulge in the pleasures of the table.

From what Mr. Brightley has observed respecting the "anecdotes of the English farmer reading very prettily, &c." it would appear that he considers it as futile, to adduce the practice of enlightened farmers in our best managed counties, in opposition to that of the cultivators of an ill-managed district. This, however, will not surprize your readers, when they are reminded that Mr. Brightley is the same gentleman, who has lately condemned and ridiculed the judicious practice of our best farmers, in our best cultivated districts, in *pickling* seed wheat; and who has displayed so much *profundity* in your magazine, in maintaining that it is of more consequence to the practical agriculturist to know the cause of, than the mode of preventing the disease called smut. Wishing to make his remarks on the comparative abilities of the farmers in Berwickshire, Northumberland, Roxburghshire, and the Lothians, and those of Essex, Suffolk, Kent, Hants, and Devon, the subject of a separate paper, at some future period, my present reply to that part of his letter, shall be very concise.

The general quality of our lands in this northern district, and the nature of the climate, are inferior to those in Essex, Suffolk, &c.

In general, we sell the produce of our soil at lower prices than those obtained in the south. Nay, in many seasons those in the latter markets, enable our corn merchants to pay the expence of freight insurance, &c. and reap a profit upon sending it to London, &c. Smithfield Market is constantly from one to two shillings per stone, of fourteen pounds, higher than those of Edinburgh and Newcastle.

The rents of land in the northern, are higher, by from 100 to 200 per cent, than those in the southern districts.

Now, Sir, If I am right in asserting that those cultivators of the earth who raise the greatest quantity of human food, possess the greatest knowledge "in the most essential branches of agriculture;" unquestionably, the farmers of this district have a just claim to superiority. I can readily believe, however, that many will be found, in each district, whose management is far from that, which, in the present state of our knowledge, is reckoned perfect; and that mutual intercourse would be advantageous to both. Perhaps, similar advantages might arise, if the farmers in each, were more frequent and more minute in their addresses to the Editor of the Agricultural Magazine.

If I rightly understand your intelligent Norfolk correspondent, R. W. he deems the amount of a farmer's stock upon a farm of 400l. a year, as stated in the letter of Agricola Northumbriensis, on the property act and corn laws, (of which letter I much approve, and which I think was properly inserted in your valuable publication) too low; his astonishment, however, will perhaps cease, when he considers the small extent of a farm of 400l. a year in this district, compared to what can be obtained in the south for the same money.

I observe you have a correspondent, who signs his letters "Farmer Slouch." The most important papers on the smut, which I requested you to extract from the Bath papers, are also signed *Farmer Slouch*. I hope you will soon publish them for the information of your readers; and if Farmer Slouch is the same person who addressed the Bath society, I am much mistaken if he and some of your other correspondents, do not soon prepare some difficult questions for those *theorists* who maintain the superiority of causation, and impossibility of prevention.

Yours, &c.

PASTORIUS.

P. S. It seems of some consequence to say, that at page 307, No. 70, instead of the words, *bone in proportion*, your printer should have inserted, *bone in that proportion*.

BLIGHT, MILDEW, AND SMUT IN WHEAT.

To the Editor of the Agricultural Magazine.

SIR,

June 17th, 1805.

THOUGH I differ in opinion with your correspondent, Mr. James Brightley, I think he has merit in promoting an investigation, in your useful Magazine, relative to the diseases of wheat, &c.

The language, or nomenclature of husbandmen, being so different, not only in different parts, but even in the same part of the country, it is difficult to class or describe these diseases distinctly. Nevertheless, I shall *endeavour* to render myself intelligible in answering his queries in your 67th number.

In many parts of the country there seems no distinction between the diseases of wheat, except in regard to smut, blight, mildew, and rust being considered as synonymous terms conveying an idea that some parts of the plants are so materially injured, as to produce scarcely any but small shrivelled grains. In others these terms are considered as the names of distinct disorders. Whether these disorders are really so, or whether these are different names for the same malady,* I shall not take upon me to determine. I shall, however, state the phenomena, or appearances in what is generally denominated

BLIGHT.

The stalks and leaves are some times of an unhealthy, or too light green colour, sometime before the ears are shot out.

After the ears are shot out, the difference between the colour of the diseased and sound plants, is still more visible; those of the former, near the approach of harvest, being of a dead whitish hue, standing more erect than the sound ears, and containing scarcely any but very small shrivelled grains. Small insects are sometimes observed upon these light ears; and the straw is more light and brittle than that of sound. When the disease is perceptible at an early stage of the wheats growth, the damage is greater than when it takes place nearer harvest, but I never saw it totally freed from it after being once affected.

MILDEW.

In what is generally denominated mildew, the appearances are, in some respects, the same as those in the blight. Some of them, however, are different;

1st. The straw is often not so materially affected.

2nd. The ear is nearly of the same colour, though in that

* Or disease from the same cause.

respect it is generally nearer the colour of sound ears than those which are said to be blighted.

3d. There is always an ochre, or red powder, or rather gum, upon the chaff, or between that and the stalk.

4th. In this gum insects are, almost always, discernable.

5th. In *some cases* there are black spots, generally called rust, upon the straw. When this rust first appears it somewhat resembles dust. As it encreases it appears of a closer texture. Last season much of the straw of my wheat was covered with this blackish rust and much injured; in the ears, however, I was not able to discover any of the red gum, or insects. It yielded pretty well, the grain was good, but the disease did not make its appearance until the beginning of August, or the latter end of July, when a long drought was succeeded by a continuance of wet weather. The red gum and insects generally appear under similar circumstances, and are most injurious where the wheats are of the rough or thick chaffed kinds. When they appear at an early stage of the plants growth, they are much more hurtful than when they appear nearer harvest. In the first case, the grains are few and very small and shrivelled.

SMUT.

This disease is said to be different from those already described, *because* if the seed be perfectly clean and well pickled, it may be prevented, because the grains are *filled* with a black powder or earth, while those affected by mildew, &c. contain a kind of flour where they contain any thing at all. Preparing the seed has, as far as I can judge from my own practice, and the information of many other farmers, been attended with no advantage in preventing blight, mildew or rust.

I cannot state that I have ever observed any difference between the colour of sound plants and those which produce smut, *previous to the appearance of the ear*. Soon after the ears are shot out, however, they appear of a dirty light green colour which whitens as harvest approaches, but they still remain of a colour different from that of sound ears.

The vesicles, or bladders, or smut-balls, as they are commonly called, certainly do not discolour the sound grains until they are broken in threshing.*

Wheat tipped with black, or black ended, is denominated smutty wheat. It cannot be in that state, however, until the smut-balls are broken. It seems possible, when high winds dash the ears against each other, that some sound grains may be injured by those which are smutty.

The black earth, or powder, in the smut-balls (which are

* Threshing machines break but few of them compared to those bruised by the flail.

of a rounder form than those which are sound) has nearly the same smell as fish in a state approaching to putrefaction.

Having now answered the queries of your correspondent, I wish to put others to him. Before I do so, however, I wish to see his observations on the strong reasoning of *A Novice*, when Mr. Brightley will doubtless conceive it his duty to guard against the adoption of pickling. I also wish to delay my queries, and remarks on Mr. Brightley's arguments until you publish the papers noticed by your correspondent *Pastorius*, which I understand will throw considerable light upon the subject.

With respect to Clericus et Colonus's remarks on the produce of a crop of one of his neighbours, I have so long practised and experienced the utility of pickling with stale chamber-lye and quick-lime, that I must doubt the accuracy of any experiment which makes against that practice. In many disorders both in the animal and vegetable kingdom, it is certain that powerful remedies injudiciously used, fail in producing the desired effect. Clericus et Colonus informs us that the seed was "curiously dressed." I have sometimes, by way of experiment, dressed seed wheat curiously, viz. with salt and water, the draining of the fold yard, together with other substances, and lime, without success; and I have likewise been unsuccessful with chamber-lye and lime, but never when these articles were in a proper state and properly used.

According to the ideas entertained of the utility of pickling, will be the opinion of your readers in regard to the advantage which Clericus et Colonus says Mr. Brightley has over *Agricola Northumbriensis*, as to the analogous case of manure so strongly adduced by the latter correspondent. Those who believe that pickles are not effectual in preventing the smut, must, of course, agree that the case of manures is not applicable. On the other hand those who are satisfied that they are compleatly efficacious, will readily perceive that *Agricola Northumbriensis* has not, as C. C. as stated, been unfortunate in the case he has adduced, but on the contrary, that he has greatly the advantage; and I think I do not go too far when I say, that nine-tenths of the practical farmers in the kingdom will be of the latter opinion, because they are fully satisfied, from long experience, of the success derived from pickling.

I have lately heard, but am not yet fully informed, that a gentleman in Yorkshire, has been successful in preventing smut, by putting clean seed through a common barley mill, so as to take off the downey ends, and sowing it without any other preparation than that of putting it through a winnowing machine immediately after it was taken out of the barley mill.

Yours, &c. ARATOR.

ON IMPROVEMENT OF LANDS.

To the Editor of the *Agricultural Magazine*.

SIR,

IN your last Magazine, I informed you of my intention to proceed in the improvement of the inferior or third sort of worn-out light soils. But in the first place, think it proper to notice a question proposed by your correspondent, *Farmer Slouch*. "What does Mr. Carpenter mean by rendering *exhausted* land productive by cleaning, and sowing turnips, without manure? Surely there is some mistake in that letter. He cannot for a moment, believe, that practical farmers will concur in the opinion that such land can be converted and properly improved without manure. If he does, he is greatly mistaken; and if he can fertilize worn-out lands, merely by cleaning, it is a wonderful discovery!" Nothing wonderful, as it is well-known, by only making a clean fallow for seeds, *pasturing them with sheep for three years*, I have had more keep than in the common way, and at the end of that term, the lands proved in high condition, and which I took care should be kept so in future.

Now, Mr. Slouch, I think you act inconsistently in asking a question without considering the propriety of so doing, and by answering the same your self, after what I had advanced on the subject, and which it appears you had taken little notice of, or at least must have forgot it.

He who asserts his decided negative against facts, corroborated by respectable witnesses, must in the opinion of the impartial, throw obstacles in the way, instead of promoting improvements of any kind whatever.

I shall, however, for once endeavor to *convince you*, that what I have written is fact, and none the less so because the circumstances and method were unknown, or not practised, within reach of your acquaintance.

1. These exhausted lands were of the first quality, a deep, dry, soapy loam, very little so good to be met with for the growth of turnips, and if the season is ever so wet, when eaten off by sheep, makes no impresson to the injury of the soil, or proves any injury to the ensuing crop of grain.

2. You must be well acquainted, that no farmer can make a clean fallow without its being known the method he takes, and whether he manures his land or not, for he cannot pursue such business in the night, it is well-known the difference between lands of the first quality for turnips, and those that are inferior, here then is the case, and which I have often found, that the best land will produce as much turnips, grain, or seed,

without manure, on the average, with proper management as the inferior sorts will with.

3. You may rest assured that I have advanced nothing, either in the treatise on agriculture or other correspondence, but matters of fact, *which is well known to all the farmers in this vicinity*, and I here repeat it again, the crop of turnips, owing to the natural rich quality of the land, the couch-grass, &c. well shaken and killed in dry weather and otherwise well fallowed, produced the best turnips in the district, without any manure being carried on the said field whatever.

4. The fields alluded to were exhausted by twelve successive crops, in the last twelve years the farmer occupied the same, though the land was not without being occasionally dressed with raw muck, but this instead of helping, filled the land with more seeds, and by the time I began, *it was little else, in appearance, than a bed of couch-grass, intermixed with plenty of wild tares, wild mary-gold and the yellow cadlock*, so that for many years the produce was little if any more than the seed sown either of wheat or barley, but since that time, with proper management, has produced abundant crops both of grain and seeds. When I first occupied the above farm, I was not so well acquainted with the advantage of paring and burning, this is a further improvement, which I have since often experienced, in those instances when couch-grass, &c. hold the surface of the soil together; this process not only fertilizes the soil with the ashes, but the turnip fallows are worted with less than half the trouble, by destroying the greatest part of such seeds in the first instance: in respect to the second and third qualities, it is well known such lands will not answer for the growth of turnips, without being well manured, but the latter of course requires the most. I conclude this subject with assuring Farmer Slouch and all friends to improvement in agriculture, that they have *my best wishes*, and that I have been long convinced, the cheapest and best method is as above stated, for land of the first quality will be always found to answer by seeding such soils down with barley or wheat succeeding turnips, and grazing with sheep in a clean state, for two or three years, and afterwards ploughing up the turf early in September, and sowing the same with rye, winter vetches, or a mixture of both, for sheep in the spring of the year, succeeded by a turnip fallow, afterwards by barley, autumn, or spring, wheat with seeds again and grazed with sheep as before, you may rest assured this method will, if adhered to, without variation, will continue such rich lands in perpetual improvement, without the expence of any manure, except the turnips eaten on the land and the pasturing

of the seeds with sheep. Unless you have such a superabundance that you cannot place it to a better account, but with manure this is seldom the case. With respect to the cultivation of the third or light soils, there is a necessity in not sparing in such lands a large supply of manure, in the first instance to produce turnips and seeds which last when a good crop is obtained will answer well, more and more. I know several instances where such sandy land has produced for a great number of years very poor crops, when others adjoining, of no better quality, are rendered fruitful, though supposed by strangers to be much more fertile. On this account, instead of going further on the subject, I am of opinion, I cannot do better than to lay down such a rotation of crops as will produce and promote progressive improvements on light soils of different descriptions, wherever the land is to continue in an arable state.

For Worn-out Lands of the first Quality.

First year fallow for seed, wherever manure and a speedy pasture is wanted. Or fallow for turnips, succeeded by wheat or barley laid down with seeds, after two or three years rest and pasturing with sheep to continue in a regular course of culture as under:

First year, turf fallow for turnips, previously sown the preceding September or earlier with rye and winter vetches of a mixture of both.

Second year, Winter wheat, spring wheat or barley laid down for seeds two years; one year in four turnip fallow.

Ditto for Worn-out Lands of the Second Quality.

The same, requiring more manure for the turnips than the first quality, one year in four, turnip fallow.

Ditto Third or inferior Quality.

The same, requiring more manure for the turnips than the second quality.

In some instances this last sort is so unfruitful, that it is most profitable to be sown with oats.

One year in four turnip fallow

This succession of crops to be adhered to, exclusive of peas, vetches, saint-foin, potatoes, &c.

In my next, I intend sending you a rotation of crops for strong soils, as what I have laid down on this subject is approved of by many good farmers, who occupy both strong and light lands, as competent to promote regular and successive improvement.

You have, Sir, I observe, taken notice of my intention of communicating to the public before the next seed time, the means of driving the flies out of a field of turnips, securing the crop, &c. and it was most certainly my desire to do as I advertised for that purpose, as soon as I met a sufficient number

of subscribers to the Treatise on Agriculture, my subscribers were then to have the said receipt sent them; but at present I have not had a sufficient number to pay the expences I have been at, &c. It has hitherto been my lot, and sometimes out of choice, to serve others more than myself, but I begin now to think it better to deviate a little from that rule, though I am far from desiring anything immoderate; yet there is no one acquainted with the ravages of the fly, that will hesitate in saying such receipt is valuable, and, when I am certain of something handsome, will most certainly desire it may be made as public as possible. In the mean time, Sir, I wish to inform your readers, that I have made a trial of the process in some acres of early turnips, and where the flies appeared more numerous than I ever remember to have seen them, after which I never saw any more of the fly, and the crop proved a good one. I have conversed on the means with only one respectable gentleman, who has not many to excel him as a practical farmer; he had 12 acres covered with the flies, and he tried the method on three acres, when the powder was all used, and he was obliged to give over; but the fact was, as far as the dressing went, the turnips were preserved, and proved a good crop, the remaining nine acres were entirely destroyed. This gentleman has given me leave to make use of his name, if required; he further says, when using the powder, he could perceive the flies were driven before it in clouds, but these insects being so very small, causes them to be soon out of sight.

I am, Sir,

Chadwick Manor,
Worcestershire, June 4th, 1805.

Your obedient servant,
J. CARPENTER.

ENUMERATION OF PATENTS LATELY ENROLLED.

1805. **J**OHN HEPPESTALL, of Doncaster, in the Feb. 5. county of York, Machine-maker and Engineer; for improvements in slivering and preparing hemp, flax, and substitutes for hemp and flax, previous to the operation of spinning.

5. William Hackwood the younger, of Shelton, in the county of Stafford, Potter; for a method of making windows and lights upon new principles.

5. John Ball, of the city of Norwich, Engineer; for a machine for thrashing corn and pulse.

5. James Fullarton, Surgeon in the Navy; for a diving-machine or apparatus, upon an improved construction, applicable to various useful purposes.

5. Christopher Perkins, of Stockton, in the county of Durham, Builder; for a machine for thrashing corn and pulse.

Feb 5. James Ryan, of Doonane, in the Queen's county, Ireland, Engineer to the Undertakers of the Grand Canal; for sundry tools, implements, or apparatus for boring the earth for coal, and all kinds of minerals and subterraneous substances, by which the different strata may be cut out in a cheap and expeditious manner, in cores or cylinders, from one inch to twenty inches and upwards in diameter, so as to be taken up entire at any depth that has hitherto been bored; by which, not only the quality of such minerals and substances, but also the declination or dip of the strata, can be ascertained beyond a possibility of mistake; and which tools, implements, or apparatus, are also advantageously applicable to the purpose of sinking for wells, and giving vent to subterraneous water in bogs, and draining mines and grounds, ventilating pits and other beneficial purposes.

— 5. Charles Coe, of the parish of St. Mary, Whitechapel, in the county of Middlesex, Baker; for a flue upon an improved construction, applicable to the heating of ovens, or any other thing that requires an uniform heat.

— 5. William Martin, of Houghton Pans, in the county of Northumberland, Rope-maker; for a mode of fastening shoes to the feet of men, women, and children.

— 5. George Dodd, of Great Ormond-street, in the county of Middlesex, Engineer; for improvements on the Royal York gun-lock, other gun-lockss, and locks of all description of fire-arms.

March 9. John Robert Irving, of the city of Edinburgh, Advocate, and Isabell Lovi, of the city of Edinburgh aforesaid Worker in Glass; for an improved apparatus for determining the specific gravity of fluid bodies, and the relation that their weight bears to a given measure.

— 9. John Baptiste Denize, of West-street, Somers Town, in the county of Middlesex, Chemist; for a mode of procuring a greater quantity of resinous, bituminous, and oily substances, from various articles.

— 9. Archibald Blair, of Bayford, in the county of Herts, Esquire; for a method of retaining cotton and other elastic substance when pressed by means of wrappers.

— 9. William Bell, of the town of Derby, Engineer; for an improved method of manufacturing blanks or moulds for knife, razor, and scissar blades, and various other edged tools, and of forks, files, and nails.

— 23. Thomas Jones, of Bilstone, in the county of Stafford, Japanner; for compositions for the purpose of making trays, waiters, and various other articles, and new modes or methods of manufacturing the same, that is to say, by presses and stamps.

*PREMIUMS offered by the SOCIETY, instituted at London,
for the Encouragement of Arts, Manufactures, and Com-
merce, for the Year 1805.*

TO THE PUBLIC.

THE chief objects of the SOCIETY are to promote the Arts, Manufactures, and Commerce of this kingdom, by giving rewards for all such useful Inventions, Discoveries, and Improvements (though not mentioned in this book), as tend to that purpose; and, in pursuance of this plan, the SOCIETY have already expended upwards of FIFTY THOUSAND POUNDS, advanced by voluntary subscriptions of their members, and legacies bequeathed.

The manner in which this money has been distributed may be seen by applying to the Secretary or other officers of the SOCIETY, at their house in the *Adelphi*. The Register of the Premiums and Bounties they have given will show the very great advantages which the Public have derived from this Institution.

The meetings of the SOCIETY are held every *Wednesday*, at seven o'clock in the evening, from the fourth *Wednesday* in *October* to the first *Wednesday* in *June*. The several Committees meet on other evenings in the week during the session.

In order still farther to promote the laudable views of this SOCIETY, it may be necessary to explain the mode by which its members continue to be elected.

Each member has the privilege, at any weekly meeting of the SOCIETY, of proposing any person who is desirous to become a member, provided such proposal is signed by three members of the SOCIETY.

Peers of the Realm or Lords of Parliament are, on their being proposed, immediately ballotted for; and the name, with the addition and place of abode, of every other person proposing to become a member, is to be delivered to the Secretary, who is to read the same, and properly insert the name in a list, which is to be hung up in the SOCIETY'S room until the next meeting: at which time such person shall be ballotted for; and, if two thirds of the members, then voting, ballot in his favour, he shall be deemed a *perpetual member*, upon payment of not less than *Twenty Guineas* at one payment; or, a *subscribing member*, upon payment of any sum not less than *Two Guineas* annually.

Every member is entitled to vote, and assist in all the transactions of the SOCIETY, and its several Committees. He has also the privilege of recommending two persons as Auditors, at the weekly meeting of the SOCIETY; and, by addressing a note to the Housekeeper, of introducing his friends to examine the various models, machines, and productions, in different branches of arts, manufactures, and commerce, for which rewards have been bestowed; and to inspect the magnificent series of moral and historical paintings, so happily contrived and completed by JAMES BARRY, Esq. which, with some valuable busts and statues, decorate the Great Room. He has likewise the use of a select Library; and is entitled to the annual Volume of the SOCIETY'S Transactions.

The time appointed for admission to the paintings or models, is from ten to two o'clock, *Sundays* and *Wednesdays* excepted.

PREMIUMS IN AGRICULTURE.

Article 1. ACORNS.

FOR having set, between the first of *October*, 1803, and the first of *April*, 1804, the greatest quantity of land, not less than ten acres, with acorns, with or without seeds, cuttings, or plants of other trees, at the option of the candidate; and for effectually fencing and preserving the same, in order to raise timber; the gold medal.

2. For the second greatest quantity of land, not less than five acres, set agreeably to the above conditions, the silver medal.

Certificates of setting agreeably to the above conditions, and that there are not fewer than

three hundred young oaks on each acre, to be delivered to the Society on or before the first *Tuesday* in *December*, 1805.

3. RAISING OAKS. To the person who shall have raised, since the year 1801, the greatest number of oaks, not fewer than five thousand, either from young plants or acorns, in order to secure a succession of oak timber in this kingdom; the gold medal.

4. For the next greatest number, not fewer than three thousand; the silver medal.

Certificates that there were on the land, at least the number of young oak-trees required, in a thriving condition, two years after the planting, with an account of the methods pursued in making and managing the plantation,

to be produced to the Society on or before the first Tuesday in January, 1806.

5. **ASCERTAINING THE BEST METHOD OF RAISING OAKS.** To the person who shall ascertain in the best manner, by actual experiments, the comparative merits of the different modes of raising oaks for timber, either from acorns set on land properly dug or tilled, from acorns set by the spade or dibble, without digging or tillage, either on a smooth surface, or among bushes, fern, or other cover; or from young plants, previously raised in nurseries, and transplanted; regard being had to the expense, growth, and other respective advantages of the several methods; the gold medal.

The accounts, and proper certificates that not less than one acre has been cultivated in each mode, to be produced to the Society on or before the first Tuesday in November, 1805.

6. **CHESNUTS.** For having sown or set, between the first of October, 1803, and the first of April, 1804, the greatest quantity of dry loamy land, not less than six acres, with Spanish chesnuts, with or without seeds, cuttings, or plants of other trees, adapted to such soil, at the option of the candidate; and for effectually fencing and preserving the same, in order to raise timber; the gold medal.

7. For the second greatest quantity, not less than four acres, the silver medal.

Certificates of sowing or setting, agreeably to the above conditions, and that there are not fewer than three hundred chesnut plants, in a thriving state, on each acre, to be delivered to the Society on or before the first Tuesday in January, 1806.

8. **ELM.** For having planted the greatest number of the English elm, not less than eight thousand, between the twenty-fourth of June, 1803, and the twenty-fourth of June, 1804; and for having effectually fenced and preserved the same in order to raise timber; the gold medal.

9. For the second greatest number, not less than five thousand, the silver medal.

Certificates of having planted, agreeably to the above conditions, that the plants were in a healthy and thriving state two years at least after making the plantation, and specifying the distance of the plants, to be delivered to the Society on or before the first Tuesday in April, 1806.

10. **LARCH.** For having planted out, between the twenty-fourth of June, 1802, and the twenty-fourth of June, 1803, the greatest number of larch-trees, not fewer than five thousand; and for having effectually fenced and preserved the same, in order to raise timber; the gold medal.

11. For the next greatest number, not fewer than three thousand, the silver medal.

Certificates of the number of plants, that

they were in a healthy and thriving state two years at least after they were planted out, with a general account of the methods used in making the plantation, to be delivered to the Society on or before the last Tuesday in December, 1805.

N.B. The larch-trees may be either planted, mixed with other trees, or by themselves, as may best suit the convenience of the planter.

12. **OSIERS.** To the person who shall have planted, between the first of October, 1804, and the first of May, 1805, the greatest quantity of land, not less than five acres, with those kinds of willows, commonly known by the names of osier, Spaniard, new kind, or French, fit for the purpose of basket-makers, not fewer than twelve thousand plants on each acre; the gold medal.

13. For the second greatest quantity of land, not less than three acres, the silver medal.

Certificates of the planting, and that the plants were in a thriving state five months at least after the planting, to be produced to the Society on or before the last Tuesday in November, 1805.

14. **ALDER.** For having planted, in the year 1802, the greatest number of alders, not less than three thousand; the gold medal.

Certificates of the number of plants, and that they were in a thriving state two years at least after being planted, to be delivered to the Society on or before the last Tuesday in December, 1805.

15. **ASH.** For having sown or set, in the year 1802, the greatest quantity of land, not less than six acres, with ash for timber, with or without seeds, cuttings, or plants, of such other trees as are adapted to the soil; the gold medal.

16. For the next greatest quantity, not less than four acres, the silver medal.

Certificates of the sowing or setting, agreeably to the above conditions, that there are not fewer than one hundred ash plants on each acre, in a thriving and healthy condition, two years at least after the sowing or setting, with a general account of the methods used in making the plantation; to be delivered to the Society on or before the last Tuesday in December, 1805.

N.B. It is the particular wish of the Society, that such lands only as are not calculated for growing corn, should be employed for the purposes specified in these advertisements.

17. **FOREST-TREES.** To the person who shall have inclosed and planted, or set, the greatest number of acres (not less than ten) of land, that is incapable of being ploughed, such as the borders of rivers, the sides of precipices, and any land that has too many rocks, or that is not calculated to repay the expense of tillage, owing to the stiffness or poverty of the

soil, the surface being too hilly, mountainous, or otherwise unfit for tillage, with the best sorts of forest-trees, namely, oak, Spanish chesnuts, ash, elm, beech, alder, willow, larch, spruce, and silver fir, with or without screens of Scotch fir, adapted to the soil, and intended for timber-trees, between the first of October, 1802, and the first of April, 1803; the gold medal.

18. For the second greatest quantity of land, not less than seven acres; the silver medal, or ten guineas.

19. For the third greatest quantity of land, not less than five acres, the silver medal. A particular account of the methods used in making and managing the plantations, the nature of the soil, the probable number of each sort of plants, together with proper certificates that they were in a healthy and thriving state two years at least after making the plantation, to be delivered to the Society on or before the first Tuesday in November, 1805.

N.B. With the above forest-trees, the seeds, cuttings, or plants, of such other trees as are adapted to the soil, and proper for underwood, may or may not be intermixed.

The candidates for planting all kinds of trees are to produce certificates that the respective plantations are properly fenced and secured, and particularly to state the condition of the plants at the time of signing such certificates. Any information which the candidates for the foregoing premiums may choose to communicate, relative to the methods made use of in forming the plantations, or promoting the growth of the several trees, or any other observations that may have occurred on the subject, will be thankfully received.

20. SECURING PLANTATIONS OF TIMBER-TREES, AND HEDGE-ROWS. To the person who shall give to the Society the most satisfactory account, founded on experience, of the most effectual and least expensive method of securing young plantations of timber-trees, and hedge-rows, from hares and rabbits, as well as sheep and larger cattle, which at the same time shall be least subject to the depredations of wood-stealers; the silver medal, or ten guineas. The accounts, and certificates of the efficacy of the method, to be produced to the Society on or before the first Tuesday in November, 1805.

21. COMPARATIVE TILLAGE. For the most satisfactory set of experiments, made on not less than eight acres of land, four of which to be trench-ploughed,* and four to be ploughed in the usual manner, in order to ascertain in what cases it may be advisable to shorten the operation of tillage, by adopting one trench-ploughing, for the purpose of burying the

weeds, instead of the method now in common use, of ploughing and harrowing the land three or four times, and raking the weeds together and burning them; the gold medal. It is required that every operation and expense attending each mode of culture be fully and accurately described, and that proper certificates of the nature and condition of the land on which the experiments are made, together with a circumstantial account of the appearance of the subsequent crops during their growth; and also of the quantity and weight of the corn and straw under each mode of culture or, in case of a green crop, the weight of an average sixteen perches, be produced to the Society on or before the first Tuesday in February, 1806.

22. COMPARATIVE CULTURE OF WHEAT BROAD-CAST, DRILLED, AND DIBBLED. For the best set of experiments, made on not less than twelve acres, four of which to be sown broad-cast, four drilled, and four dibbled, the two latter in equidistant rows, in order fully to ascertain which is the most advantageous mode of cultivating wheat; the gold medal, or thirty guineas. It is required that every operation and expense of each mode of culture be fully described; and that proper certificates of the nature and condition of the land on which the experiments are made, together with an account of the produce of the corn, the weight per bushel, and also of the straw, be produced to the Society on or before the first Tuesday in February 1806.

23. SPRING WHEAT. To the person who, between the 10th of January and the 10th of April, 1804, shall cultivate the greatest quantity of wheat, not less than ten acres; the gold medal. It is required that the time of sowing and reaping be noticed; also a particular account of the species, cultivation, and expense attending it, with proper certificates of the nature and condition of the land on which the experiments were made, and the name of the crop, if any, which the same land bore the preceding year; together with an account of the produce, the weight per Winchester bushel, and a sample, not less than a quart, be produced to the Society on or before the second Tuesday in February 1806.

It is supposed that sowing wheat early in the spring will not only allow more time to till the land, but less for the growth of weeds; thus rendering the wheat as clean as a barley crop, and exhausting the soil much less than autumnal sowing. It may be seen in the 19th volume, that the wheat usually sown in autumn may be put into the ground, with great success, so late as February or March, thus giving time to clear the ground from turnips, or to avoid a bad season.

* It is a common practice among gardeners, when they have a piece of very foul land, to dig it two spits, or about eighteen inches deep, shovelling the weeds to the bottom. This they call trenching.

24. BEANS AND WHEAT. To the person who shall have dibbled or drilled, between the 1st of December, 1804, and the 1st of April, 1805, the greatest quantity of land, not less than ten acres, with beans, in equidistant rows, and hoed the intervals twice or oftener, and shall have sown the same land with wheat in the autumn of the year 1805; the gold medal. It is required that an *account* of the sort and quantity of beans, the time of dibbling or drilling, and of reaping or mowing them, the produce per acre thrashed, the expense of dibbling or drilling, hand or horse hoeing, the distance of the rows, and the quality of the soil, together with *certificates* of the number of acres, and that the land was afterwards actually sown with wheat, be produced on or before the second Tuesday in March, 1806.

25. BEANS. To the person who, in the year 1804, shall discover and cultivate, either by the drill or dibbling method, on not less than five acres, a species of horse-beans or tick-beans, that will ripen their seeds before the 21st of August; the silver medal, or ten guineas. It is required that a particular *account* of the bean, the cultivation, and the expense attending it, with proper *certificates* of the nature and condition of the land on which the experiments are made, together with an *account* of the produce, the weight per Winchester bushel, and a sample of not less than a quart, be produced to the Society on or before the first Tuesday in December, 1805. It is apprehended that, if a bean should be brought into cultivation with the habits of the hotspur, or other early peas, that it would, in a great measure, escape the danger arising from the collier-insect, or other insects, and allow more time for the farmers to till the land for the subsequent crop of wheat. The *accounts* and *certificates* to be delivered on or before the first Tuesday in December, 1805.

26. COMPARATIVE CULTURE OF TURNIPS. For the best set of experiments made on not less than eight acres of land, four of which to be sown broad-cast, and four drilled, to ascertain whether it is most advantageous to cultivate turnips by sowing them broadcast and hand-hoeing them, or by drilling them in equidistant rows, and hand or horse hoeing the intervals; the silver medal, or ten guineas. It is required, that every operation and expense of each mode of culture be fully described, and that proper *certificates* of the nature and condition of the land on which the experiments were made, together with the weight of the turnips grown, on a fair average sixteen perches of land, under each mode of culture, be produced to the Society on or before the first Tuesday in March, 1806. The object which the Society

have in view in offering this premium is experimentally to ascertain the most advantageous method of growing turnips. To do this in a satisfactory manner, both the drilled and broad-cast crops should have the advantage of the most perfect cultivation, consequently the drilled crops should have the intervals between the rows worked by the horse or hand-hoe, or by both these implements; and the rows should be either weeded or hand-hoed, or both weeded and hand-hoed. The broadcast crop should have every advantage which weeding and hand-hoeing can give it, consistently with leaving the soil a flat surface.

27. PARSNIPS. To the person who, in the year 1805, shall cultivate the greatest quantity of land, not less than five acres, with parsnips, for the sole purpose of feeding cattle or sheep; the gold medal. *Certificates* of the quantity of land so cultivated, with a particular *account* of the nature of the soil and weight of the produce on sixteen perches, and also of the condition of the cattle or sheep fed with the parsnips, and the advantages resulting from the practice, to be produced to the Society on or before the second day in February, 1806.

28. BUCK WHEAT. To the person who shall cultivate the greatest quantity of land with buck wheat, not less than thirty acres; the gold medal. It is required that the time of sowing and reaping be noticed; also a particular *account* of the species, cultivation; and expense attending it, the manner of reaping it, thrashing it, and housing the grain; with proper *certificates* of the nature and condition of the land on which the experiments were made, and the name of the crop, if any, which the same land bore the preceding year, together with an *account* of the produce, and a sample of the seed, not less than a quart, be produced to the Society on or before the second Tuesday in January, 1806.

29. For the next greatest quantity, not less than fifteen acres, on similar conditions; the silver medal. Information respecting its application to the feeding of cattle, hogs, and poultry, and other of its uses, is also desired; It is known to be particularly serviceable in furnishing honey to bees.

30. RAISING GRASS SEEDS. To the person who shall raise the greatest quantity of each of any of the following named grass seeds, viz.—Meadow fox-tail (*alopecurus pratensis*), sweet-scented vernal grass (*anthoxanthum odoratum*), Timothy grass, meadow Fescue grass, smooth-stalked meadow grass (*poa pratensis*), rough-stalked meadow grass (*poa trivialis*); the silver medal, or ten guineas. It is required that *certificates* from persons who have viewed them in a proper state, to identify that they are one or other of the seeds above mentioned, indicating clearly the

particular species, and noticing the quantity produced of such seeds, free from weeds or mixture of other grasses, together with proper samples of the seeds, be produced to the Society on or before the 1st day of February, 1805.

31. ROTATION OF CROPS. To the person who shall, between the 10th of August, 1802, and the 10th of September, 1804, cultivate the greatest quantity of land, not less than forty acres, in the following rotation, viz. 1st, winter tares; 2d, turnips; and 3d, wheat; and apply the two former crops in the best and most farmer-like manner, to the rearing, supporting, and fattening horses, cattle, sheep, or hogs, on the land which produced the crops; the gold medal, or one hundred guineas.

32. For the next in quantity and merit, on not less than thirty acres, the silver medal, or fifty guineas.

33. For the next in quantity and merit, on not less than twenty acres, the silver medal. It is required, that every operation and expense be fully described, and that satisfactory certificates of the nature and condition of the soil on which the crops have grown, together with an account of their appearance, the number of horses and cattle, sheep, or hogs fed by the two green crops, and, as near as possible, the improved value of the live stock by the consumption of those crops, and also the quantity of wheat per acre, and its weight per bushel, be produced to the Society on or before the first day of November, 1805.

It is presumed that very great advantage will arise to such agriculturists as shall adopt this rotation of crops on a dry soil. They will be enabled, with the addition of a few acres of turnip-rooted cabbage for spring-food, to keep such large flocks of sheep and herds of neat cattle as may secure a sufficient quantity of manure to fertilize their land in the highest degree, and in every situation. It is farther conceived, that wheats which will bear sowing in the spring will be particularly suitable for this premium.

34. PRESERVING TURNIPS. To the person who shall discover to the Society the best and cheapest method of preserving turnips perfectly sound, and in every respect fit for the purpose of supporting and fattening sheep and neat cattle, during the months of February, March, and April; the silver medal, or ten guineas. It is required that a full and accurate account of the method employed, and the expense attending the process, together with certificates that the produce of four acres at the least have been preserved according to the method described, and applied to the feeding of sheep and neat cattle; that the whole were drawn out of the ground be-

fore the first day of February, in order to clear the greater part of it previous to its being prepared for corn, and to save the soil from being exhausted by the turnips; and also of the weight of an average sixteen perches of the crop; be produced to the Society on or before the first Tuesday in November, 1805.

N.B. It is recommended to those who may be induced to try the necessary experiments for obtaining this and the following four premiums, to consider the method employed for the preservation of potatoes in ridges (which the growers call pies), and also the propriety of adopting a similar method in cases where they are previously frozen. It is supposed that, in the latter instance, the addition of ice or snow, and the construction of ridges upon a large scale, may be sufficient to preserve the freezing temperature till the vegetables are wanted for the use of cattle or sheep, at which time they may be thawed by immersion in cold water, and the rot which a sudden thaw produces may be prevented.

35. For the next in quantity and merit, on not less than two acres, the silver medal.

36. PRESERVING CABBAGES. To the person who shall discover to the Society the best and cheapest method of preserving drum-headed cabbages perfectly sound, and in every respect fit for the purpose of supporting and fattening sheep and neat cattle during the months of February, March, and April; the gold medal, or thirty guineas.

37. For the next in quantity and merit, on not less than two acres, the silver medal or fifteen guineas. Conditions the same as for preserving turnips, Art. 34. And the accounts to be produced on or before the first Tuesday in November, 1805.

38. PRESERVING CARROTS, PARSNIPS, OR BEETS. To the person who shall discover to the Society the best and cheapest method of preserving carrots, parsnips, or beets, perfectly sound, and in every respect fit for the purpose of supporting horses, and fattening sheep and neat cattle, during the months of February, March, and April; the silver medal, or fifteen guineas. Conditions the same as for preserving turnips, Art. 34. And the accounts to be delivered in on or before the first day in November, 1805.

39. PRESERVING POTATOES. To the person who shall discover to the Society the best and cheapest method of preserving potatoes, two or more years, perfectly sound, without vegetating, and in every other respect fit for the purpose of sets and the use of the table, and, consequently, of supporting and fattening cattle; the gold medal, or thirty guineas. It is required, that a full and accurate account of the method employed, and the expense attending the process, with certificates

that one hundred bushels at the least have been preserved according to the method described, and that one or more bushels of the same potatoes have been set, and produced a crop without any apparent diminution of their vegetative power, and also that they have been used at table, with entire satisfaction to the person who ate of them, together with a sample of one bushel, be sent to the Society on or before the first Tuesday in November, 1805.

40. MAKING MEADOW-HAY IN WET WEATHER. To the person who shall discover to the Society the best and cheapest method, superior to any hitherto practised, of making meadow-hay in wet weather; the gold medal, or thirty guineas. A full account of the method employed, and of the expense attending the process, with not less than fifty-six pounds of the hay; and certificates that at least the produce of six acres of land has been made according to the method described, and that the whole is of equal quality with the sample; to be produced on or before the first Tuesday in January, 1806.

41. HARVESTING CORN IN WET WEATHER. To the person who shall discover to the Society the best and cheapest method, superior to any hitherto practised, of harvesting corn in wet weather; the gold medal, or thirty guineas. A full account of the method employed, and of the expense attending the process, with not less than two sheaves of the corn, and certificates that at least the produce of ten acres has been harvested according to the method described, and that the whole is of equal quality with the samples, to be produced on or before the first Tuesday in January, 1806.

42. ASCERTAINING THE COMPONENT PARTS OF ARABLE LAND. To the person who shall produce to the Society the most satisfactory set of experiments to ascertain the due proportion of the several component parts of rich arable land, in one or more counties in Great Britain, by an accurate analysis of it; and who, having made a like analysis of some poor arable land, shall, by comparing the component parts of each, and thereby ascertaining the deficiencies of the poor soil, improve a quantity of it, not less than one acre, by the addition of such parts as the former experiments shall have discovered to be wanting therein, and therefore probably the cause of its sterility; the gold medal, or forty guineas. It is required, that the manurings, ploughings, and crops, of the improved land, be the same after the improvement as before; and that a minute account of the produce in each state, of the weather, and of the various influencing circumstances, together with the method made use of in analysing the soils, be produced, with proper certificates and the che-

mical results of the analysis, which are to remain the property of the Society, on or before the last Tuesday in February, 1806.

It is expected that a quantity, not less than six pounds, of the rich, of the poor, and of the improved soils, be produced with the certificates.

43. GAINING LAND FROM THE SEA. To the person who shall produce to the Society an account, verified by actual experiment, of his having gained the greatest quantity of land from the sea, not less than fifty acres, on the coast of Great Britain or Ireland; the gold medal. Certificates of the quantity of land, and that the experiments were begun after the 1st of January, 1799, to be produced to the Society on or before the last Tuesday in October, 1805.

44. The same premium is extended one year farther. Certificates to be produced on or before the last Tuesday in October, 1806.

45. IMPROVING LAND LYING WASTE. For the most satisfactory account of the best method of improving any of the following soils, being land lying waste or uncultivated, viz. clay, gravel, sand, chalk, peat-earth and bog, verified by experiments on not less than fifty acres of land; the gold medal, or thirty guineas.

46. For the next greatest quantity, not less than thirty acres, the silver medal, or twenty guineas. It is required, that the land, before such improvement, be absolutely uncultivated, and in a great measure useless, and that, in its improved state, it be enclosed, cultivated, and divided into closes. Certificates of the number of acres, of the quality of the land so improved, with a full account of every operation and expense attending such improvement, the state it is in as to the proportion of grass to arable, and the average value thereof, to be produced on or before the first Tuesday in February, 1806.

47. MANURES. For the most satisfactory set of experiments, to ascertain the comparative advantages of the following manures, used as top-dressings on grass and corn land, viz. soot, coal-ashes, wood-ashes, lime, gypsum, night-soil, or any other fit article; the gold medal, or the silver medal and ten guineas. It is required that the above experiments be made between two or more of the above-mentioned manures, and that not less than two acres of land be dressed with each manure. An account of the nature of the soil, quantity and expense of the manure and crops, with certificates, to be produced on or before the last Tuesday in February, 1806.

48. RAISING WATER FOR THE IRRIGATION OF LAND. To the person who shall discover to the Society the cheapest and most effectual method of raising water in quantities sufficient to be beneficially employed for

the purpose of irrigating land, superior to and cheaper than any other method now in use; the gold medal, or fifty guineas. A model on a scale of one inch to a foot, with *certificates* that a machine at large, on the same construction, has been used, specifying the quantity of water delivered in gallons per hour, and the height to which it was raised, to be produced to the Society on or before the first of March, 1806.

49. **PARING PLOUGH.** To the person who shall invent and produce to the Society, a machine or plough for the purpose of paring land preparatory to burning, superior to any hitherto known or in use for such purpose, and to be worked by not more than one man and two horses; the silver medal, or twenty guineas. The machine, and *certificates* that at least three acres have been pared by it in a proper manner, to be produced to the Society on or before the first of January, 1806.

50. **MACHINE FOR DIBBLING WHEAT.** To the person who shall invent a machine, superior to any hitherto known or in use, to answer the purpose of dibbling wheat, by which the holes for receiving the grain may be made at equal distances and proper depths; the silver medal and ten guineas. The machine, with *certificates* that at least three acres have been dibbled by it, to be produced to the Society on or before the second Tuesday in January, 1806.

51. **MACHINE FOR REAPING OR MOWING CORN.** For inventing a machine to answer the purpose of mowing or reaping wheat, rye, barley, oats, or beans, by which it may be done more expeditiously and cheaper than by any method now practised, provided it does not shed the corn or pulse more than the methods in common practice, and that it lays the straw in such a manner that it may be easily gathered up for binding; the gold medal, or thirty guineas. The machine, with *certificates* that at least three acres have been cut by it, to be produced to the Society on or before the second Tuesday in December, 1805. Simplicity and cheapness in the construction of this and the preceding machine, will be considered as principal parts of their merit.

52. **THRASHING MACHINE.** To the person who shall invent a machine by which corn of all sorts may be thrashed more expeditiously, effectually, and at a less expense, than by any method now in use; the gold medal, or thirty guineas. The machine, or a model, with proper *certificates* that such a machine has been usefully applied, that at least thirty quarters have been thrashed by it; and of the time employed in the operation, to be produced to the Society on or before the last Tuesday in February, 1806.

53. **DESTROYING THE GRUB OF THE**

COCKCHAFER. To the person who shall discover to the Society an effectual method, verified by repeated and satisfactory trials, of destroying the grub of the cockchafer, or of preventing or checking the destructive effects which always attend corn, peas, beans, and turnips, when attacked by those insects; the gold medal, or thirty guineas. The *accounts*, with proper *certificates*, to be produced on or before the first Tuesday in January, 1806.

54. **DESTROYING WORMS.** To the person who shall discover to the Society an effectual method, verified by repeated and satisfactory trials, of destroying worms, or of preventing the destructive effects they occasion on corn, beans, peas, or other pulse; the gold medal, or thirty guineas. The *accounts*, with proper *certificates*, to be produced to the Society on or before the first Tuesday in January, 1806.

55. **DESTROYING THE FLY ON HOPS.** To the person who shall discover to the Society an easy and efficacious method of destroying the fly on hops, superior to any hitherto known or practised, on not less than four acres of hop-ground; the gold medal, or thirty guineas. *Accounts* and *certificates* to be delivered to the Society on or before the first Tuesday in February, 1806.

56. **PREVENTING THE BLIGHT, OR RAVAGES OF INSECTS, ON FRUIT-TREES AND CULINARY PLANTS.** To the person who shall discover to the Society the most effectual method of preventing the blight or ravages of insects on fruit-trees and culinary plants, superior to any hitherto known or practised, and verified by actual and comparative experiments; the gold medal, or thirty guineas. The *accounts*, with proper *certificates*, to be delivered to the Society on or before the second Tuesday in November, 1805.

57. **REMOVING THE ILL EFFECTS OF BLIGHTS, OR INSECTS.** To the person who shall discover to the Society the most effectual method of removing the ill effects of blights, or insects, on fruit-trees and culinary plants, superior to any hitherto known or practised, and verified by actual and comparative experiments; the gold medal, or thirty guineas. The *accounts* and *certificates* to be delivered to the Society on or before the first Tuesday in February, 1806.

58. **CURE OF THE ROT IN SHEEP.** To the person who shall discover to the Society the best and most effectual method of curing the rot in sheep, verified by repeated and satisfactory experiments; the gold medal, or fifty guineas. It is expected that the candidates furnish accurate *accounts* of the symptoms and cure of the disease, together with the imputed cause thereof, and the actual or probable means of prevention, which, with proper *certificates*, must be delivered to the

Society on or before the first Tuesday in February, 1806.

59. CURE OF THE FOOT-ROT IN SHEEP. To the person who shall discover to the Society the best and most effectual method of curing the foot-rot in sheep; the silver medal, or ten guineas. It is required, that the cure be ascertained by repeated and satisfactory experiments, and the method of performing it be verified by proper *certificates* delivered to the Society on or before the first Tuesday in February, 1806.

60. PREVENTING THE ILL EFFECTS OF FLIES ON SHEEP. To the person who shall discover to the Society the most effectual method of protecting sheep from being disturbed and injured by flies; the silver medal, or ten guineas. It is required, that the method be ascertained by repeated experiments, and that a *certificate* of its efficacy be delivered to the Society on or before the first Tuesday in December, 1805.

61. PROTECTING SHEEP. To the person who, in the year 1804, shall protect the greatest number of sheep, not fewer than one hundred, by hovels, sheds, or any other means, and give the most satisfactory account, verified by experiment, of the advantages arising from the practice of protecting sheep from the inclemency of the weather, by hovels, sheds, or any other means; the silver medal, or twenty guineas. A particular *account* of the experiments made, with the advantages arising therefrom, together with the expense, and *certificates* of its utility, to be produced to the Society on or before the first Tuesday in March, 1806.

N. B. It is required that the *certificates* shall specify the length of time the sheep were so protected, and the manner in which they were maintained during that time; together with the general method of managing them.

62. IMPROVING THE CONDITION OF THE LABOURING POOR, BY ERECTING COTTAGES, AND APPORTIONING LAND. To the person who, in the year 1804, shall erect the greatest number of cottages for the accommodation of the labouring poor, and apportion not less than two acres of land to each cottage; the gold medal. The *accounts* and *certificates* to be delivered to the Society on or before the first Tuesday in February, 1806.

63. IMPROVING THE CONDITION OF THE LABOURING POOR BY APPORTIONING LAND TO COTTAGES. To the person who, in the year 1804, shall apportion to the greatest number of cottages already built upon his or her estate, any quantity of land, not less than two acres to each cottage, for the better accommodation of the respective inhabitants; the gold medal. The *accounts* of the number of cottages, and of the quantity of land apportioned to each, to be delivered to the So-

ciety, with proper *certificates*, on or before the first Tuesday in February 1806.

64. CULTURE OF HEMP IN CERTAIN PARTS OF SCOTLAND. The Society wishing to encourage the growth of hemp for the use of the navy in certain parts of Scotland, comprehending the whole county of Argyle, that part of Perthshire situated to the north of the river Tay, and west of the Military Road (see Ainslie's Map of Scotland) leading from Logierait to the county of Inverness, and such other parts of Scotland as lie north of Inverness-shire, offers to the person who shall sow with hemp, in drills at least eighteen inches asunder, the greatest quantity of land in the above-mentioned district, not less than fifty acres statute measure, in the year 1805, and shall at the proper season cause to be plucked the summer hemp (or male hemp bearing no seed), and continue the winter hemp (or female hemp bearing seed) on the ground until the seed is ripe; the gold medal, or fifty guineas.

65. To the person who shall sow with hemp, in drills at least eighteen inches asunder, the next greatest quantity of land in the same above-mentioned district, not less than twenty-five acres, statute measure, in the year 1805, and shall at the proper season cause the same to be plucked as above-mentioned; the silver medal, or twenty-five guineas. *Certificates* of the number of acres, of the distance of the drills, of the plucking of the hemp, with a general *account* of the soil, cultivation, and produce, to be delivered to the Society, along with fourteen pounds of the hemp, and two quarts of the seed, on or before the second Tuesday in January, 1806.

PREMIUMS FOR DISCOVERIES AND IMPROVEMENTS IN CHEMISTRY, DYING, AND MINERALOGY.

66. PRESERVING SEEDS OF VEGETABLES. For the best methods of preserving the seeds of plants in a state fit for vegetation a longer time than has hitherto been practised, such method being superior to any known to the public, and verified by sufficient trial, to be communicated to the Society on or before the first Tuesday in December, 1805; the gold medal, or thirty guineas.

67. PREVENTING THE DRY-ROT IN TIMBER. To the person who shall discover to the Society the cause of the dry-rot in timber, and disclose a certain method of prevention superior to any hitherto known; the gold medal, or thirty guineas. The *accounts* of the cause, and method of prevention, confirmed by repeated experiments, to be produced to the Society on or before the second Tuesday in December, 1805.

68. PRESERVING SALTED PROVISIONS

FROM BECOMING RANCID OR RUSTY. To the person who shall discover to the Society the best, cheapest, and most efficacious method of preserving salted provisions from growing rancid or rusty; the gold medal, or thirty guineas. A full description of the method, with proper *certificates* that it has been found, on repeated trials, to answer the purpose intended, to be produced to the Society on or before the first Tuesday in February, 1806.

69. REFINING WHALE OR SEAL OIL. For disclosing to the Society an effectual method of purifying whale or seal oil from the glutinous matter that incrusts the wicks of lamps, and extinguishes the light, though fully supplied with oil; the gold medal, or fifty guineas. It is required, that the whole of the process be fully and fairly disclosed, in order that satisfactory experiments may be made by the Society to determine the validity of the claim; and *certificates* that not less than twenty gallons have been purified according to the process delivered in, together with two gallons of the oil, in its unpurified state; and two gallons so refined, to be produced to the Society on or before the second Tuesday in February, 1806.

70. MANUFACTURING TALLOW CANDLES. To the person who shall discover to the Society a method of hardening or otherwise preparing tallow, so that candles may be made of it which will burn as clear and with as small a wick as wax candles, without running, and may be afforded at a less expense than any at present made with spermaceti; the gold medal, or thirty guineas. *Certificates* that 112lb. of such tallow have been made into candles, and 12lb. of the candles made thereof, to be produced to the Society on or before the second Tuesday in January, 1806.

71. CANDLES FROM RESIN OR OTHER SUBSTANCES. To the person who shall discover to the Society the best method of making candles of resin, or any other substance, fit for common use, at a price much inferior to those made of tallow only; the gold medal, or thirty guineas. Six pounds at least of the candles so prepared, with an *account* of the process, to be delivered to the Society on or before the first Tuesday in December, 1805.

72. METHOD OF SEPARATING SUGAR IN A SOLID FORM FROM TREACLE. To the person who shall discover to the Society the best method of separating sugar from treacle, in a solid form, at such an expense as will render it advantageous to the public; the gold medal, or fifty guineas. A quantity of the sugar so prepared, in a solid form, not less than thirty pounds weight, with an *account* of the process, and *certificates* that not less than one hundred weight has been prepared, to be produced to

Ag. Mag. Vol. 12.

the Society on or before the first Tuesday in February, 1806.

73. INCREASING STEAM. To the person who shall invent and discover to the Society a method, verified by actual experiments, of increasing the quantity or force of steam, in steam-engines, with less fuel than has hitherto been employed, provided that in general the whole amount of the expenses in using steam-engines may be considerably lessened; the gold medal, or thirty guineas. To be communicated to the Society on or before the first Tuesday in January, 1806.

74. SUBSTITUTE FOR TAR. To the person who shall invent and discover to the Society the best substitute for Stockholm tar, equal in all its properties to the best of that kind, and prepared from materials the produce of Great Britain; the gold medal, or one hundred guineas. A quantity of the substitute, not less than one hundred weight, with *certificates* that at least one ton has been manufactured, and that it can be afforded at a price not exceeding that of the best foreign tar, together with an *account* of the process, to be delivered to the Society on or before the first Tuesday in March, 1806.

75. PREPARATION OF TAN. To the person who shall prepare in the most concentrated form, so as to be easily portable, and at a price applicable to the purposes of manufacturers, the largest quantity, not less than one hundred weight, of the principle called by the French *tannin*, which abounds in oak-bark and many other vegetable substances; the gold medal, or thirty guineas. *Certificates* of the superior quality of the quantity so prepared, and a sample of not less than 28lb. to be produced to the Society on or before the last Tuesday in January, 1806.

76. INDELIBLE INK. To the person who shall discover to the Society, a method of making a black ink proper for writing, superior to any at present known, indestructible by chemical applications, and not dearer than that which is now in common use; the silver medal, or fifteen guineas. *Certificates* that not less than two gallons of such ink have been actually prepared, and found to possess the qualities above mentioned, with a full detail of the process of making it, and two quarts of the ink, to be delivered to the Society on or before the second Tuesday in January, 1806.

77. PREPARATION OF A RED STAIN FOR COTTON CLOTH. To the person who shall communicate to the Society, the cheapest and most effectual method of printing or staining cotton cloths with a red colour, by an immediate application of the colouring matter to the cloth, equally beautiful and durable with the red colours now generally procured from decoctions of madder; the gold medal, or

thirty guineas. *Certificates* that the above process has been advantageously used on ten pieces of calico, each twenty-one yards or upwards in length, one piece of the calico so printed, a quart of the colour in a liquid state, and a full *account* of the preparation and application, to be produced to the Society on or before the second Tuesday in January, 1806.

78. PREPARATION OF A GREEN COLOUR FOR PRINTING COTTON CLOTH. To the person who shall communicate to the Society the best and cheapest method of printing with a full green colour on cotton cloth, by an immediate application of the colouring matter from a wooden block to the cloth, equally beautiful and durable as the colours now formed from the complicated process of the decoction of weld on alumine and the solutions of indigo by earths or alkaline salts; the gold medal, or thirty guineas. *Certificates* and conditions as for premium 77.

79. RENDERING MUSLIN LESS COMBUSTIBLE. To the person who shall discover to the Society a method of rendering muslin less combustible, to be effected by a cheaper and more effectual mode than any hitherto known; the silver medal.

Specimens of the muslin so prepared, with a full *account* of the process employed for the purpose, to be produced to the Society on or before the first Tuesday in February, 1806.

N. B. It is expected that the means employed should neither injure the quality nor stain the muslin, nor damage any print or dye with which it may be coloured.

80. SUBSTITUTE FOR THE BASIS OF PAINT. To the person who shall produce to the Society the best substitute, superior to any hitherto known, for the basis of paint, equally proper for the purpose as the white lead now employed; such substitute not to be of a noxious quality, and to be afforded at a price not materially higher than that of white lead; the gold medal, or one hundred guineas. A quantity of the substitute, not less than 50lb. weight, with an *account* of the process used in preparing it, and *certificates* that at least one hundred weight has been manufactured, to be produced to the Society on or before the first Tuesday in January, 1806.

81. RED PIGMENT. To the person who shall discover to the Society a full and satisfactory process for preparing a red pigment, fit for use, in oil and water, equal in tone and brilliancy to the best carmines and lakes now known or in use, and perfectly durable; the gold medal, or thirty guineas. One pound weight of such colour, and a full disclosure of its preparation, to be produced to the Society on or before the first Tuesday in Feb. 1806.

N. B. It is not required that the colour should resist the action of fire or chemical applications, but remain unaltered by the common exposure to strong light, damps, and noisome vapours.

82. ULTRAMARINE. To the person who shall prepare an artificial ultramarine, equal in colour, brilliancy, or durability, to the best prepared from lapis lazuli, and which may be afforded at a cheap rate; the gold medal, or thirty guineas. The conditions are the same as in the preceding premium for the red pigment.

83. STATUARY MARBLE. To the person who shall discover, within Great Britain or Ireland, a quarry of white marble fit for the purposes of statuary, and equal in all respects to those kinds now imported from Italy; the gold medal, or one hundred pounds. A block of at least three feet in length, two in height, and two in width, with an *account* of the situation of the quarry, and *certificates* of its possessing considerable extent, to be produced to the Society on or before the first Tuesday in February, 1806.

N. B. In order to prevent useless expense or trouble to the claimant in forwarding so large a block, the Society will be ready to examine any smaller specimen of the marble, and express their opinion of its value to the candidate before the block required by the above premium is produced.

84. PREPARATION OF SULPHURIC ACID FROM SULPHUR WITHOUT THE USE OF ANY NITRIC SALT. To the person who shall prepare the largest quantity (not less than one ton) of sulphuric acid from sulphur, without any nitric salt, of a specific gravity, not inferior to the best sulphuric acid of commerce; the gold medal, or fifty guineas. *Certificates* that not less than the above quantity of such an acid has been prepared, together with a sample, to be produced to the Society on or before the first Tuesday in January, 1806.

85. PREPARATION OF ANY ALKALINE OR EARTHY NITRATE. To the person who shall prepare, in Great-Britain, the largest quantity, not less than one hundred weight, of any salt of nitric acid, with either earths or alkalis, by a method superior to and as cheap as those hitherto practised; the gold medal, or one hundred guineas. *Certificates* of the above quantity having been prepared, and a sample of not less than 28lb. to be produced to the Society on or before the last Tuesday in January, 1806.

86. FINE BAR-IRON. To the person, in Great-Britain, who shall make the greatest quantity of bar-iron, not less than ten tons, with coak, from coak-pigs, equal in quality to the best iron imported from Sweden or Russia, and as fit for converting into steel; the gold medal, or fifty guineas. Samples, not

less than one hundred weight, with *certificates* that the whole quantity is of equal quality, to be produced to the Society on or before the first Tuesday in January, 1806.

87. PRESERVING IRON FROM RUST. To the person who shall invent and discover to the Society a cheap composition, superior to any now in use, which shall effectually preserve wrought iron from rust; the gold medal, or fifty guineas. A full description of the method of preparing the composition, with *certificates* that it has stood at least two years unimpaired, being exposed to the atmosphere during the whole time, to be produced to the Society, with ten pounds weight of the composition, on or before the first Tuesday in January, 1806.

88. REFINING BLOCK-TIN. To the person who shall discover to the Society the best method of purifying or refining block-tin, so as to render it fit for the finest purposes to which grain-tin is now applied, and not higher in price; the gold medal, or fifty guineas. *Certificates* that not less than three tons have been so refined or purified, with a full detail of the process, and a quantity, not less than one hundred weight, of the tin so refined, to be produced to the Society on or before the first Tuesday in January, 1806.

89. GLAZING EARTHEN-WARE WITHOUT LEAD. To the person who shall discover to the Society the cheapest, safest, most durable, and most easily fusible composition, fit for the purpose of glazing the ordinary kinds of earthen-ware, without any preparation of lead, and superior to any hitherto in use; the gold medal, or thirty guineas. Specimens of the ware so glazed, with proper *certificates* of its having succeeded, and a sample of the materials made use of, to be produced to the Society on or before the first Tuesday in February, 1806.

90. REFINING COPPER FROM THE ORE. To the person who shall discover to the Society the best method of separating, purifying, and refining copper from the ore, so as to render it fit for the finest purposes to which fine copper is now applied, and by a process superior to any hitherto known or in use, and not higher in price; the gold medal, or fifty guineas. *Certificates* that not less than three tons have been so prepared or refined, and a quantity not less than one hundred weight of the copper so refined, to be produced to the Society on or before the first Tuesday in February, 1806.

91. MINERALOGICAL MAP OF ENGLAND AND WALES. To the person who shall complete and publish an accurate mineralogical map of England and Wales, on a scale of not less than ten miles to an inch, containing an account of the situation of the different mines therein, and describing the kinds of mi-

nerals thence produced; the gold medal, or fifty guineas. *Certificates* of the accuracy of such map, together with the map, to be produced to the Society on or before the first Tuesday in February, 1806. The map to remain the property of the Society.

92. MINERALOGICAL MAP OF IRELAND. The same premium is offered for a mineralogical map of Ireland, on similar conditions.

93. MINERALOGICAL MAP OF SCOTLAND. The same premium is offered for a mineralogical map of Scotland, on similar conditions.

94. NATURAL HISTORY. To the author who shall publish, in the year 1804, the natural history of any county in England or Wales; the gold medal, or fifty guineas. It is required that the several natural productions, whether animal, or vegetable, or mineral, peculiar to the county, or found therein, be carefully and specifically arranged and described, in order that the public may be enabled to judge what arts or manufactures are most likely to succeed in such county. The work to be delivered to the Society on or before the last Tuesday in January, 1806.

PREMIUMS IN POLITE ARTS.

95. HONORARY PREMIUMS FOR DRAWING, BY NOBILITY. For the best original drawing, of any kind, by young gentlemen under the age of twenty-one, sons or grandsons of peers, or peeresses in their own right, of Great-Britain or Ireland; the honorary medal of the Society in gold.

96. The same in silver for the best copy.

97. The same premiums will be given, on the like conditions, to young ladies, daughters or grand-daughters of peers or peeresses in their own right, of Great-Britain or Ireland.

98. HONORARY PREMIUMS FOR DRAWING, BY GENTLEMEN. For the best original drawing, of any kind, by young gentlemen under the age of twenty-one; the gold medal,

99. For the best copy, the silver medal.

100. The same premiums will be given for drawings by young ladies.

N. B. As the foregoing honorary premiums are intended only for such of the nobility and gentry as may hereafter become patrons or patronesses of the arts; persons professing any branch of the polite arts, or any business dependent on the arts of design, or the sons or daughters of such persons, will not be admitted candidates in these classes.

101. HISTORICAL DRAWINGS. For the best historical drawing, being an original composition of three or more human figures, the height of the principal figure not less than eight inches, by persons of either sex under twenty-one years of age; the gold pallet.

For the next in merit, the greater silver pallet.

102. DRAWINGS OF OUTLINES. For the best outline, after the plaster cast, of any antique statue, by persons of either sex under the age of twenty-one, the figure not less than eighteen inches; the greater silver pallet.

For the next in merit, the lesser silver pallet.

103. PAINTINGS IN OIL. For the best painting in oil, of a landscape after nature, the size thirty-six by twenty-eight inches, by persons of either sex under twenty-five years of age; the gold pallet.

For the next in merit, the great silver pallet. Each candidate must mention from whence the view was taken.

104. DRAWINGS OF LANDSCAPES. For the best drawing, in water-colours, of a landscape after nature, not less than eighteen inches by twelve, by persons of either sex under twenty-one years of age; the gold pallet.

For the next in merit, the greater silver pallet.

Each candidate must mention whence the view was taken.

105. DRAWINGS BY ENGRAVERS. For the best finished drawing of any antique figure, the size of the drawing not less than eighteen inches, by persons under twenty-one years of age; the greater silver pallet.

For the next in merit, the lesser silver pallet.

106. DRAWING AND ENGRAVING. To the person who shall complete the best original drawing and engraving, the design and engraving to be executed by the same artist; the gold medal. It is required that the drawing, and two impressions of the engraving, be produced, such impressions to remain the property of the Society.

107. LINE ENGRAVINGS OF HISTORICAL SUBJECTS. For the best historical engraving of any size; the gold pallet.

For the next in merit, the greater silver pallet.

108. LINE ENGRAVINGS OF LANDSCAPES. For the best line engraving of a landscape, the size of the engraving not limited; the gold pallet.

For the next in merit, the greater silver pallet.

N. B. It is not necessary, in the classes of line engravings, for the artist's name to be concealed: The first aquafortis proof of the above plates are required to be sent in with the finished impression, and *certificates* that the etchings are the entire work of the candidate. The aquafortis proof also to remain the property of the Society.

109. PERSPECTIVE DRAWINGS OF MACHINES. For the best perspective drawings of machines, by persons under twenty-one years of age; the greater silver pallet.

110. ENGRAVING ON WOOD, OR METAL

BLOCKS, &c. For the best engraving on wood or metal blocks, or any other material, so that the same be rendered capable of composition with the letter-press, of any allegorical or other subject suited to the embellishment of letter-press; the gold pallet. Two or more impressions along with the block, to be produced to the Society. The impressions, but not the block, to remain the property of the Society.

111. BRONZES. For the best drapery figure or group cast in bronze; if a single figure, not less than twelve inches high; and if a group, not less than nine inches; and which will require the least additional labour to repair; the gold medal, or the silver medal and twenty guineas. The cast to be exhibited to the Society before it is begun to be repaired, with the original figure or group, together with a full explanation of the whole process.

112. ORNAMENTAL DRAWINGS FOR ARCHITECTURAL DESIGNS. For the best ornamental drawing for the purpose of embellishing architectural designs; a silver medallion with the following engraved inscription: *The Premium given by the Society for the Encouragement of Arts, Manufactures, and Commerce, in conformity to the Will of John Stock, of Hampstead, Esq.* The drawing to which the premium is adjudged to remain the property of the Society.

CONDITIONS

FOR THE POLITE ARTS.

All the claims under this class are to be produced to the Society on or before the last Tuesday in February, 1806.

No person who has gained the first premium in any class shall be admitted a candidate in a class of an inferior age; and no candidate shall receive more than one premium in one year; nor shall they who for two successive years have gained the first premium in one class, be again admitted as candidates in that class.

No person shall be admitted a candidate in any class, who has three times obtained the first premium in that class.

No more than one performance in any class shall be received from the same candidate.

All performances (to which premiums or bounties are adjudged) shall remain with the Society till after the first Wednesday in June, when they will be re-delivered, unless mentioned in the Premiums to the contrary.

No performance shall be admitted, that has obtained a premium, reward, or gratification, from any other society, academy, or school, or been offered for that purpose.

All performances that obtain premiums in the Polite Arts must have been begun after the publication of such premiums, except line engravings.

It is required, that the matters for which premiums are offered, be delivered in without names, or any intimation to whom they belong; that each particular thing be marked in what manner each claimant thinks fit, such claimant sending with it a paper sealed up, having on the outside a corresponding mark, and on the inside, the claimant's name, residence, and age; which paper is not to be opened unless the candidate be successful, or by a special vote of the Society.

To encourage real merit, and prevent attempts to impose on the Society, by producing drawings made or retouched by any other person than the candidate, the Society require a specimen of the abilities of each successful candidate, under the inspection of the Committee of Polite Arts, in every instance where such proof may appear necessary.

All candidates in the Polite Arts are required to signify, on their drawings, whether the performances are originals or copies; and if copies, whence they were taken.

PREMIUMS FOR ENCOURAGING AND IMPROVING MANUFACTURES.

113. MACHINE FOR CARDING SILK. For the best machine, superior to any now in use, for carding waste silk equally well as by hand; to be produced, together with a specimen of the cardings, on or before the first Tuesday in November, 1805; the silver medal, or twenty guineas.

114. CLOTH FROM HOP-STALKS, &c. To the person who shall produce to the Society the greatest quantity, not less than thirty yards of cloth at least twenty-seven inches wide, made in Great-Britain, of hop-stalks or bines, or other raw vegetable substances, the produce of Great-Britain or Ireland, superior to any hitherto manufactured from such substances, and which can be generally afforded as cheap as cloth of equal quality and appearance now made from hemp, flax, or cotton, and much finer in quality than any hitherto manufactured in England from hop-stalks, &c. the gold medal, or thirty guineas. One pound of the thread of which the cloth is made, and thirty yards of the cloth, together with proper certificates that the whole is manufactured from hop-stalks or bines, &c. to be produced to the Society on or before the first Tuesday in December, 1805.

N. B. The Society is already in the possession of cloth made in England from hop-stalks or bines, which may be inspected by application to the Housekeeper.

115. WICKS FOR CANDLES OR LAMPS. To the person who shall discover to the Society a method of manufacturing hop-stalks or

bines, or any other cheap material, the growth of Great-Britain, so as to render them equally fit for the purpose of supplying the place of cotton, for wicks of candles or lamps; twenty guineas. Samples, not less than five pounds weight, of the wick so prepared, to be produced to the Society, with certificates that the whole quantity is equal in quality to the sample.

116. PAPER FROM RAW VEGETABLE SUBSTANCES. To the person in Great-Britain, who shall, between the first of January, 1805, and the first of January, 1806, make the greatest quantity, and of the best quality (not less than ten reams), of good and useful paper, from raw vegetable substances, the produce of Great-Britain or Ireland, of which one hundred weight has not been used in manufacturing paper previous to January, 1804, superior to any hitherto manufactured from such substances, and which can be generally afforded as cheap as paper of equal quality and appearance now made from rags; twenty guineas.

N. B. The object of the Society being to add to the number and quantity of raw materials used in this manufacture, it is their wish to include every useful sort of paper, and to introduce such natural products as can be easily and cheaply procured in great quantities. The Society are in possession of two volumes containing a great variety of specimens of paper made from raw vegetable substances, viz.—nettles, potatoe-haum, poplar, hop-bines, &c. which volumes may be inspected by any person on application to the Housekeeper. Certificates of the making such paper, and one ream of the paper, to be produced.

117. TRANSPARENT PAPER. To the person who shall discover to the Society a method of making paper from the pulp, that shall be perfectly transparent, and of a substance and body equal to foolscap, that shall take and bear common writing ink with the same facility and correctness as writing-paper generally in use; the silver medal, or twenty guineas. Certificates of the making such paper, an account of the process, and one ream of the paper to be produced.

118. CHINTS PATTERNS FOR CALICO-PRINTERS. For the best original pattern in a new taste, of light or dark-ground chints for garment-work, fit for the purposes of calico-printers, by persons of either sex; the gold medal. The pattern to which the premium is adjudged, to remain the property of the Society.

119. For the next in merit; the silver medal, on similar conditions.

120. COPPER-PLATE PATTERNS FOR CALICO-PRINTERS. For the best pattern, in a new style, fit for the purposes of calico-printers for garment-work; the silver medal. The pattern to which the premium is adjudged, to remain the property of the Society.

PREMIUMS IN MECHANICS.

121. GUNPOWDER-MILLS. To the person who, in the year 1804, shall invent and bring to perfection the most effectual method of so conducting the works of gunpowder-mills, in the business of making gunpowder, as to prevent explosion; the gold medal, or one hundred guineas. *Certificates* and accounts of the method having been put in practice in one or more gunpowder-mills in this kingdom, and that it promises, in the opinion of the best judges concerned in such works, to answer the purpose intended, to be produced to the Society on or before the first Tuesday in Feb. 1806.

N. B. As an encouragement to persons to turn their thoughts to improvements of this nature, if any should be made on the present method of conducting the business of gunpowder-making, which fall short of the total prevention of explosion, and they are sent to the Society for the sake of humanity, the papers so sent in will receive due consideration, and such bounty or reward will be bestowed therein as they appear to merit.

122. TRANSIT-INSTRUMENT. To the person who shall invent and produce to the Society a cheap and portable transit-instrument, which may easily be converted into a zenith-sector, capable of being accurately and expeditiously adjusted for the purpose of finding the latitudes and longitudes of places, and superior to any portable transit-instrument now in use; the gold medal, or forty guineas. To be produced on or before the last Tuesday in January, 1806.

123. TAKING WHALES BY THE GUN-HARPOON. To the person who, in the year 1805, shall strike the greatest number of whales, not fewer than three, with the gun-harpoon; ten guineas. Proper *certificates* of the striking such whales, and that they were actually taken in the year 1804, signed by the master, or by the mate, when the claim is made by the master, to be produced to the Society on or before the last Tuesday in December, 1805.

124. FAMILY MILL. To the person who shall invent and produce to the Society the best-constructed mill for grinding corn for the use of private families, or parish-poor; the construction to be such as to render the working of the mill easy and expeditious, and superior to any hitherto in use; the gold medal, or thirty guineas. The mill, and *certificates* of its having been used to good effect, to be produced to the Society on or before the first Tuesday in Feb. 1806. Cheapness and simplicity will be considered as essential parts of its merit; and the mill, or the model, to remain with the Society.

125. MACHINE FOR RAISING COALS, ORE, &c. &c. To the person who shall invent a machine for raising coals, ore, &c. from mines, superior to any hitherto known or in use; and

which shall produce the effect at a less expense than those already known, or in use; the gold medal, or fifty guineas. A model of the machine, made on a scale of not less than one inch to a foot, with a *certificate* that a machine at large on the same construction has been advantageously used; to be produced to the Society on or before the second Tuesday in Feb. 1806.

126. IMPROVED WALKING-WHEEL OR CRANE. To the person who shall invent an improved walking-wheel or crane, on which the weight and power of any person or persons shall be applied with the greatest safety and effect, and so contrived that the power can be varied according to the greater or lesser weight to be raised or lowered; the gold medal, or thirty guineas. The model, on a scale of not less than one inch to a foot, with a proper *certificate* that the machine at large has been employed to good effect, to be produced to the Society on or before the second Tuesday in February, 1806.

127. MACHINE FOR RAISING WATER. To the person who shall invent a machine on a better, cheaper, and more simple construction than any hitherto known or in use, for raising water out of wells, &c. from a depth of not less than fifty feet; the gold medal, or forty guineas. *Certificates* of the performance of the machine, and a model of it, on a scale of not less than one inch to a foot, to be produced to the Society on or before the first Tuesday in February, 1806.

128. ELM PIPES. To the person who shall invent and discover to the Society a substitute for the elm pipes now in common use for the conveyance of water, which shall be cheaper, equally effectual, and more durable than any heretofore employed; the gold medal, or thirty guineas. It is required that one of the pipes so employed, an accurate *account* of the method used, and every expense attending it, together with satisfactory accounts of its being effectual, be delivered to the Society on or before the second Tuesday in January, 1806.

129. LAYING WOODEN PIPES. To the person who shall invent and discover to the Society a superior method of laying or connecting the wooden pipes now in use for conveying water, so as to lessen the injury they receive thereby; the silver medal, or fifteen guineas.

It is required that a model, an accurate *account* of the method used, and every expense attending it, together with satisfactory *certificates* of its being effectual, be delivered to the Society on or before the second Tuesday in January, 1806.

130. EXTINGUISHING FIRES. To the person who shall produce to the Society the best and most effectual method of procuring an

immediate supply of water in case of fire, or for the means best calculated to prevent or extinguish accidental fires in buildings, superior to any now in use; the gold medal, or thirty guineas. *Certificates* of the method having been practised with success, with a full description thereof, to be delivered to the Society on or before the second Tuesday in January, 1806.

131. BORING AND BLASTING ROCKS. To the person who shall discover to the Society a more simple, cheap, and expeditious method than any hitherto known or in use of boring or blasting rocks in mines, shafts, wells, &c.; the gold medal, or thirty guineas. *Certificates* of the method having been practised with success, with a full description thereof, to be delivered to the Society on or before the first Tuesday in January, 1806.

132. HEATING ROOMS FOR THE PURPOSES OF MANUFACTURERS. To the person who shall invent and discover to the Society a method of heating rooms, superior to any hitherto known or in use, and at a moderate expense, for the purposes of painters, japaners, and other manufacturers, so as to avoid the necessity of iron or copper tunnels going through the rooms to convey the smoke, whereby the danger from such tunnels may be prevented; the gold medal, or forty guineas. A model, or complete drawing and description of the method, with *certificates* that it has been successfully practised, to be delivered to the Society on or before the last Tuesday in March, 1806.

133. IMPROVED VENTILATION. To the person who shall invent and produce to the Society a mode of permanently ventilating the apartments in hospitals, workhouses, and other crowded places, superior to any now known or used; the gold medal, or fifty guineas. A model of the apparatus, and a full *account* of the means by which the effect has been produced, with proper *certificates*, to be delivered to the Society on or before the last Tuesday in February, 1806.

134. PREVENTING ACCIDENTS FROM HORSES FALLING WITH TWO-WHEELED CARRIAGES. To the person who shall invent and produce to the Society a method superior to any hitherto known or in use, to prevent accidents from the falling of horses with two-wheeled carriages, especially on steep declivities; the silver medal, or fifteen guineas. A model of the apparatus, and a full *account* of the means by which the effect has been produced, with proper *certificates* that the same has been used with success, to be delivered to the Society on or before the second Tuesday in January, 1806.

135. IMPROVING TURNPIKE AND OTHER ROADS. To the person who shall discover to the Society the most effectual and cheapest

method, verified by actual experiments, of combining the materials ordinarily employed in making or repairing roads, so as to form them of the hardest consistency by their cementing properties, or by an artificial mixture of earth, stones, &c. altered by heat or any other mode, so as to form an even, hard, and durable carriage-road, not liable to be injured by heat or rain; the gold medal, or fifty guineas. It is required that an accurate *account* of the method used, and every expense attending it, together with satisfactory *certificates* of its being effectual, be delivered to the Society on or before the first Tuesday in March, 1806.

136. CLEANSING CHIMNIES. To the person who shall invent and produce to the Society the most effectual mechanical or other means for cleansing chimnies from soot, and obviating the necessity of children being employed within the flues; the gold medal.

137. For the next in merit; the silver medal. The mechanical, or other means, with *certificates* of their having been used with proper effect, to be produced to the Society on or before the first Tuesday in January, 1806.

138. CHIMNIES CLEANSED. To the person who shall during the year 1805 cleanse, or cause to be cleansed, the greatest number of chimnies, at least two stories high, not fewer than three hundred, by any mechanical or other process, which does not require the employment of boys within the flues; the gold medal. *Certificates*, signed by not less than two-thirds of those housekeepers on whose premises the said means have been employed, and an *account* of the process, to be produced to the Society on or before the first Tuesday in February, 1806.

139. To the person who shall cleanse, or cause to be cleansed, the next greatest number of chimnies, not fewer than one hundred and fifty, upon similar conditions to the above; the silver medal.

140. RAISING THE BODIES OF PERSONS WHO HAVE SUNK UNDER WATER. To the person who shall invent and produce to the Society a cheap and portable drag, or other machine, superior to those now in use, for the purpose of taking up in the best and most expeditious manner, and with the least injury, the bodies of persons who have sunk under water; the gold medal, or thirty guineas. The drag, or machine to answer the purpose intended, to be produced to the Society on or before the first Tuesday in March, 1806.

141. FOR PREVENTING PREJUDICIAL EFFECTS TO THE PERSONS EMPLOYED IN POINTING NEEDLES. To the person who shall invent and produce to the Society a mode of obviating the prejudicial effects that attend the operation of pointing needles, by grinding them dry, during which the particles of grind-

stone dust and steel, being thrown into the air, and received with it into the lungs, occasion asthma, consumption, and other painful disorders; the gold medal, or thirty guineas. A model of the apparatus, and a full account of the means by which the effect has been produced, together with proper *certificates* of its practicability and adoption, to be delivered to the Society on or before the second Tuesday in March, 1806.

PREMIUMS OFFERED FOR THE ADVANTAGE OF THE COMMERCE OF THE UNITED EMPIRE.

142. TAKING PORPOISES. To the people in any boat or vessel, who, in the year 1805, shall take the greatest number of porpoises on the coast of Great-Britain or Ireland, by gun, harpoon, or any other method, not fewer than thirty, for the purpose of extracting oil from them; the gold medal, or thirty pounds. *Certificates* of the number, signed by the persons to whom they have been sold or delivered for the purpose of extracting the oil, to be produced to the Society on or before the last Tuesday in January, 1806.

143. OIL FROM PORPOISES. To the person who shall manufacture the greatest quantity of oil from porpoises taken on the coast of Great-Britain or Ireland, in the year 1805, not less than twenty tons; the gold medal, or thirty pounds. *Certificates* of the oil having been made from porpoises actually caught on the coast of Great-Britain or Ireland, and two gallons of the oil as a sample, to be produced to the Society on or before the last Tuesday in February, 1806.

144. CURING HERRINGS BY THE DUTCH METHOD. To the person or persons who shall, before January 1806, cure the greatest quantity of white herrings, not less than thirty barrels, according to the method practised by the Dutch, and equal in all respects to the best Dutch herrings, the same being caught in the British or Irish seas, and cured in a British or Irish vessel or port; the gold medal, or fifty guineas.

145. For the next greatest quantity, not less than fifteen barrels: the silver medal, or twenty guineas. A sixteen-gallon barrel of the herrings to be produced to the Society on or before the first Tuesday in February, 1806, with *certificates* that the conditions of the premium have been completely fulfilled, and that the whole were cured in the same manner as the specimen, together with a full description of the process employed, in order that the Society may judge how far the Dutch method has been adopted.

PREMIUMS OFFERED FOR THE ADVANTAGE OF THE BRITISH COLONIES.

146. NUTMEGS. For the greatest quantity of merchantable nutmegs, not less than ten pounds weight, being the growth of his Majesty's dominions in the West-Indies, or any of the British settlements on the coast of Africa, or the several islands adjacent thereto, and equal to those imported from the islands of the East Indies; the gold medal, or fifty guineas. Satisfactory *certificates*, from the governor, or commander in chief, of the place of growth, with an *account* of the number of trees, their age, nearly the quantity of fruit on each tree, and the manner of culture, to be produced on or before the first Tuesday in December, 1805.

147. The same premium is extended one year farther. *Certificates* to be produced on or before the first Tuesday in December, 1806.

148. CLOVES. For importing into Great Britain or Ireland, in the year 1805, the greatest quantity of cloves, not less than twenty pounds weight, being of the growth of some of the islands in the West Indies subject to the British empire, or any of the British settlements on the coast of Africa, or the several islands adjacent thereto, and equal in goodness to the cloves brought from the East Indies; the gold medal, or fifty guineas. Samples, not less than two pounds weight, with *certificates* that the whole quantity is equal in goodness, together with satisfactory *certificates* signed by the governor, or commander in chief, of the place of growth, with an *account* of the number of trees growing on the spot, their age, and the manner of culture, to be produced to the Society on or before the first Tuesday in January, 1806.

149. KALI FOR BARILLA. To the person who shall have cultivated, in the Bahama Islands, or any other part of his Majesty's dominions in the West Indies, or any of the British settlements on the coast of Africa, or the several islands adjacent thereto, in the year 1804, the greatest quantity of land, not less than two acres, with Spanish kali, fit for the purpose of making barilla; the gold medal, or thirty guineas.

150. For the next greatest quantity, not less than one acre; the silver medal, or fifteen guineas. *Certificates*, signed by the governor, or commander in chief, for the time being, of the quantity of land so cultivated, and of the state of the plants at the time of signing such *certificates*, to be delivered to the Society, with samples of the kali, on or before the second Tuesday in January, 1806.

151. The same premiums are extended one year farther. *Certificates* to be produced on or before the second Tuesday in January, 1807.

152. DESTROYING THE INSECT COMMONLY CALLED THE BORER. To the person who shall discover to the Society an effectual method of destroying the insect commonly called the borer, which has of late years been so destructive to the sugar-canes in the West-India islands, the British settlements on the coast of Africa, and the several islands adjacent thereto; the gold medal, or fifty guineas. The discovery to be ascertained by satisfactory certificates, under the hand and seal of the governor or commander in chief for the time being, and of some other respectable persons, inhabitants of the islands, or other place, in which the remedy has been successfully applied; such certificates to be delivered to the Society on or before the first Tuesday in January, 1806.

153. CULTIVATION OF HEMP IN UPPER AND LOWER CANADA. To the person who shall sow with hemp, the greatest quantity of land in the province of Upper Canada, not less than six arpents (each four-fifths of a statute acre), in the year 1805, and shall at the proper season cause to be plucked the summer hemp (or male hemp bearing no seed) and continue the winter hemp (or female hemp bearing seed) on the ground until the seed is ripe; the gold medal, or one hundred dollars.

154. To the person who shall sow with hemp the next greatest quantity of land in the same province of Upper Canada, not less than five arpents, in the year 1805, in the manner above mentioned; the silver medal, or eighty dollars.

155. For the next greatest quantity of land, in the same province, and in a similar manner, not less than four arpents; sixty dollars.

156. For the next greatest quantity of land, in the same province, and in a similar manner, not less than three arpents; forty dollars.

157. For the next greatest quantity of land, in the same province, and in a similar manner, not less than one arpent; twenty dollars. Certificates of the number of arpents, the method of culture, of the plucking of the hemp, with a general account whether sown broad-cast or in drills, the expense, soil, cultivation, and produce, to be transmitted to the Society, certified under the hand and seal of the governor or lieutenant-governor, together with 28lb. of the hemp, and two quarts of the seed, on or before the last Tuesday in November, 1806.

158, 159, 160, 161, 162. The same premiums are extended one year farther. Certificates, &c. as before mentioned, to be transmitted to the Society on or before the last Tuesday in November, 1807.

163 to 173. Premiums exactly similar in all respects to those held out for the province of Upper Canada, are also offered for the province of Lower Canada, and are extended to the same period.

174. IMPORTATION OF HEMP FROM CANADA. To the master of that vessel, which

shall bring to this country the greatest quantity of marketable hemp, not less than one hundred tons, in the year 1805, the produce of Upper or Lower Canada; the gold medal.

175. To the master of that vessel which shall bring the next quantity, not less than fifty tons; the silver medal. Certificates satisfactory to the Society to be produced by the master of the vessel on or before the first Tuesday in February, 1806, to testify that such hemp was grown and prepared in Canada.

176, 177. The same premiums are extended one year farther. Certificates to be produced on or before the first Tuesday in Feb. 1807.

178. SUBSTITUTE FOR HEMP. To the person who, in the year 1806, shall discover and produce to the Society, a substitute for hemp, equally cheap, durable, and applicable to all the purposes for which hemp is now used; the gold medal, or fifty guineas. A quantity of the substitute, not less than one hundred weight, together with proper certificates from the governor or commander in chief, if raised in any of the British colonies, or from the Secretary of the Board of Trade, if raised in the East Indies, to prove that the same has been used with success, to be produced to the Society on or before the last Tuesday in February, 1807.

179. The same premium is extended one year farther.

PREMIUMS OFFERED FOR THE ADVANTAGE OF THE BRITISH SETTLEMENTS IN THE EAST INDIES.

180. BHAUGULPORE COTTON. To the person who shall import into the port of London, in the year 1805, the greatest quantity, not less than one ton, of the Bhaugulpore cotton, from which cloths are made in imitation of nankeen, without dyeing; the gold medal. A quantity of the cotton, not less than five pounds weight in the pod, and five pounds carded, to be produced to the Society, with proper certificates, signed by the Secretary to the Board of Trade of Bengal or Bombay, on or before the last Tuesday in February, 1806.

181. ANNATTO. To the person who, in the year 1805, shall import into the port of London, from any part of the British settlements in the East Indies, the greatest quantity of annatto, not less than five hundred weight; the gold medal. A quantity of the annatto, not less than ten pounds weight, to be produced to the Society, with proper certificates, signed by the Secretary of the Board of Trade of the respective settlement, that the annatto is the produce of such settlement, on or before the last Tuesday in February, 1806.

182. TRUE COCHINEAL. To the person who, in the year 1805, shall import into the port of London, from any part of the British settlements in the East Indies, the greatest

quantity of true cochineal, not less than five hundred weight; the gold medal. A quantity of the cochineal, not less than ten pounds weight, with proper *certificates*, signed by the Secretary of the Board of Trade of the respective settlement, that the cochineal is the produce of such settlement, to be produced to the Society on or before the first Tuesday in February, 1806.

GENERAL CONDITIONS.

SOCIETY'S OFFICE, ADELPHI, JUNE 1st, 1805.

ORDERED,

That the several Candidates and Claimants, to whom the Society shall adjudge Premiums or Bounties, do attend at the Society's Office in the Adelphi, on the last Tuesday in May, 1806, at Twelve o'clock at Noon precisely, to receive the same; that Day being appointed by the Society for the Distribution of their Rewards: And before that time no Premium or Bounty will be delivered, excepting to those who are about to leave the Kingdom.

In Cases where the Society may think fit to admit excuses for not attending in person, Deputies may be substituted to receive the Rewards, provided such Deputies are either Members of the Society, or superior Officers thereof.

As the great object of the Society in rewarding individuals is to draw forth and give currency to those inventions and improvements, which are likely to benefit the public at large, candidates are requested to observe, that if the *means*, by which the respective objects are effected, do require an expense or trouble too great for *general purposes*, the Society will not consider itself as bound to give the offered *reward*; but, though it thus reserves the power of giving in all cases such part only of any premium as the performance shall be adjudged to deserve, or of withholding the whole if there be no merit, yet the candidates may be assured the Society will always judge liberally of their several claims.

All candidates are to take notice, that no claim for a premium will be attended to, unless the conditions of the advertisement are fully complied with.

All models of machines, which obtain premiums or bounties, shall be the property of the Society; and, where a premium or bounty is given for any machine, a perfect model thereof shall be given to the Society.

All the premiums of this Society are designed for Great-Britain and Ireland, unless expressly mentioned to the contrary.

The claims shall be determined as soon as possible after the delivery of the specimens.

It is expected that all articles for claims or bounties be sent to the Society, carriage paid.

No person shall receive any premium, bounty, or encouragement, from the Society, for any matter for which he has obtained, or purposes to obtain, a patent.

A candidate for a premium, or a person applying for a bounty, being detected in any disingenuous method to impose on the Society, shall forfeit such bounty, and be deemed incapable of obtaining any for the future.

No member of this Society shall be a candidate for, or entitled to receive, any premium, bounty, or reward, whatsoever, except the honorary medal of the Society. The candidates are, in all cases, expected to furnish a particular account of the subject of their claims; and where certificates are required to be produced in claim of premiums, they should be expressed, as nearly as possible, in the words of the respective advertisements, and be signed by persons who have a positive knowledge of the facts stated.

Where premiums or bounties are obtained in consequence of specimens produced, the Society mean to retain such part of those specimens as they may judge necessary, making a reasonable allowance for the same.

No candidate shall be present at any meetings of the Society or committees, or admitted at the Society's rooms, after they have delivered in their claims, until such claims are adjudged, unless summoned by the Committee.

The Society, anxious to promote the Arts of their country, have adopted the resolution of forming a Collection of Prints, to be open for public inspection; and, having arranged those already in their possession, invite engravers to send etched or finished proofs of their plates: and hope amateurs, collectors, and publishers of works of art, will also contribute to the undertaking.

Prints of models, or maps, will also come within the above arrangement.

The Society farther invite the communications of scientific and practical men, upon all subjects connected with the views of the Society, although their experiments may have been conducted upon a smaller scale than the terms required by the premiums; as such communications may afford ground for more extensive application, and thus materially contribute to the advantage of the public.

The Library of the Society, which has already become very valuable, may yet receive con-

siderable additions and improvements from the presents of members, or other persons who may be inclined to place useful books or valuable manuscripts in a repository, at once permanent and conducive to the national benefit.

All communications to be made by letter, addressed to Mr. CHARLES TAYLOR, the Secretary, at the Society of Arts, &c. Adelphi, London.

The models required by the Society should be upon the scale of one inch to a foot. The Winchester bushel is the measure referred to for grain; and, as the acres of different districts vary in extent, it is necessary to observe, that the Society mean Statute Acres of five and a half yards to the rod or pole, when acres are mentioned in their list of premiums; and they request that all communications to them may be made agreeably thereto.

The Society desire that the Papers on different subjects sent to them may be full, clear, explicit, fit for publication, and rather in the form of Essays than of Letters; and where descriptive Drawings can be conveniently sent, with the Models and Machines laid before the Society, it is recommended to be done.

* * To persons inclined to leave a sum of money to this Society by will, the following form is offered for that purpose.

Item. I give and bequeath to A. B. and C. D. the sum of _____ upon condition and to the intent that they, or one of them, do pay the same to the Collector, for the use being, of a Society in London, who now call themselves the Society for the Encouragement of Arts, Manufactures, and Commerce; which said sum of _____ will and desire may be paid out of my personal estate, and applied towards the carrying on the laudable designs of the Society.

By Order of the Society.

CHARLES TAYLOR, Secretary.

N. B. The Society for the Encouragement of Arts, &c. considering that it would be beneficial to the Commerce of the United Kingdom, to bring the British Marbles into more general use, and that the most effectual method of accomplishing their object would be, for the present, to make them more generally known in the capital, have come to the following resolutions:—

Resolved,—That specimens of British Marbles be exposed in the Society's Rooms at the Adelphi, for the inspection of the public, under the following regulations:

1st, That all specimens be exact to a given size, viz, eight inches high, six inches broad, one inch thick, and polished on one face.

2d; That a book be kept, containing the number of each specimen, and describing the situation of the quarry, the name of the parish where situated, the distance of the quarry from a beaten road, and the distance of that road from water-carriage, with the name of the donor and proprietor. Any remarks on the qualities of the marbles, or on the lime produced from them, will be gratefully received and preserved by the Society, as materials for future inquiries.

Resolved,—That as the exertions of the Society can only be beneficial to the public, inasmuch as their views are seconded by the public, the Society request, that all persons, proprietors of marble quarries, will favour them with a specimen of the marble, worked to the exact size above mentioned, with the description of the quarry as above, that the same may be entered in the book to be preserved for the use of the public.

CRITICAL CATALOGUE.

A Treatise on Agriculture, by J. Carpenter, of Chadwick Manor, Worcestershire, and No. 38, Arundel-street, Strand, in 2 vol. 8vo. 10s 6d. each, in boards. Rivingtons.

[CONCLUDED FROM OUR LAST.]

IN continuation of our observations upon this article, we repeat, that we consider it as one of the most useful (because familiar and practical) productions that have for a long time attracted our notice.

VOL. II. Letter XXII. (p. 3.) “For light soils, *one main object is totally to destroy couch or twitch grass, charnoch or cadlock and all other injurious weeds, so as not to make their appearance in future, which will be the case if, in the first place, the land is laid down in a perfect clean state, and after two or three years’ pasturing, chiefly with sheep, such land be fallowed for turnips from the turf; plowed up, the earlier in September the better, and sown with winter vetches, or rye, or a mixture of both; the turnip fallow to be laid down, the succeeding crop of grain with seeds. This method, if in general adhered to, without variation, will ensure success by continual improvements, and no one can say this kind of land can be too rich; for supposing the best kind of light soils were by this method found too luxuriant in the end for the growth of grain, it cannot be the case if continued as pasture, and it is well known that the crop of saintfoin is not sufficiently attended to, especially in those districts that are deficient in watered meadows.*

“*Second.*—An increase of winter vetches, to at least a tenth part, on all light soil arable farms, for the use of all kinds of live stock in summer, and taking the average of the kingdom, a future unlimited quantity of turnips, for the same purpose in winter and spring of the year. By this means, at least *double the number of sheep* might be reared and supplied with a sufficient quantity of nourishing food, without which no live stock can answer; for the owner will always suffer as well as his flocks, if such live stock is ever permitted to be kept upon the decline for want of being supplied with proper food; *this maxim will hold good from the time the young are brought forth.*

“*Third.*—The promoting the further increase of draining and watering land would prove to be attended with very great public and private advantage.

“*Fourth.*—Potatoes are but little cultivated in many districts to what they ought to be, when it is considered the advantages attending this valuable root, both to the human and brute creation, particularly in wet seasons, which prove so detrimental to the wheat, and cause the increase of the potatoe crop.

“*For Strong Lands.*

“*First.*—In respect to those valuable estates of rich old pasture that have, for time immemorial, been kept in such a profitable

state; these are carried on with little expence, and, in general, want the least improvement; though I have sometimes observed great advantages produced, on some old pastures, from draining, which, in a few parts of such land, had been long neglected, to the great loss of the tenant by the rot of sheep; others have suffered in some parts of the same field producing grass of a coarse quality, both of which have been prevented in those instances where that most useful practice of draining has been attended to.

“ But what I thought most material to advance, was not to run down a poor system of agriculture, so much as to endeavour to establish a better where it is wanted; that is, by pursuing such a system of culture, attended with the least expence, as will produce the most advantage in crop and live stock, from any given quantity of land, both of strong and light soils, supposing each sort to be nearly the same in respect to quality and condition.

“ *Second.*—A tenth part of winter vetches sown on all arable strong soils, will be found as proper for such farms as light soils, and for the same design, by increasing an additional and nourishing food for live stock. Turnips not being suitable for strong soils, for the purpose of sheep, dairy cows, and young cattle, in winter; but these may be supplied with the large drum-head cabbage in the beginning of the season, and with the hardy sorts in the spring; these kinds of vegetables will prove very useful on strong lands, where they flourish in a superior degree. On inferior kinds of strong soils I have heard objections to winter vetches not producing a good crop, but I have found this sort to thrive before others; however, to remove such complaints, let the farmer make a good summer fallow, which method will amply repay him for his labour and expence, in the future productive state of his crop.

“ *Third.*—Draining and watering is to be minded where necessary, the same as on other kinds of land; and where there is a considerable quantity lying together of this wet, spongy clay, the same, by reason of its close, clammy quality, requires the drains to be made more numerous than in other soils of different descriptions.

“ *Fourth.*—As light soils are best for breeding sheep, so strong soils are in general most proper for breeding and pasturing horned cattle. It is said, that the number of inhabitants in the kingdom, are more numerous than they have been heretofore estimated at, consequently an additional produce of the fruits of the earth, is requisite for their support; for it is well known, that the prosperity of a kingdom depends on the number and industry of the people, yet if the produce of the land does not keep pace with its population, great inconveniences and losses must ensue; but so far from thinking that the case in this country, I fully believe, with proper cultivation, it would be sufficiently able to supply double the number of its present inhabitants.

“ A further consideration in adhering to an improving and in-
Ag. Mag. Vol. 12. 3 N

creasing produce of sustenance, will be found necessary for the present taxes, as well as others that may in future be added; other means will be found inadequate for the purpose, without resorting directly or indirectly to the cultivation of the *fields and meadows*. Amongst others, there is no object would bring about such improvements sooner, and prove so lasting, as the increase of breeding live stock, particularly *sheep*, on account of their yearly fleece, and in respect to wool being advanced in price as three to one, comparing the period of about twenty years ago with the time present, which shews that the manufacturing of this article is greatly enlarged, owing to the facility of machinery, an encreased demand, and more sources being opened for exporting all kinds of cloathing, added to the luxuries of the age, in the immense use of carpets, &c."

Some questionable assertions will be found in this letter, but if those directions which are of a different character, are properly attended to, little doubt can be retained of their utility and success.

Letter XXIII. (p. 12.) "How far the quantity of strong soils in this kingdom exceeds those of light lands, has not yet been ascertained. That the proportion of strong lands is much the largest is admitted by every one: Hence the old English proverb:—

"When the Clay dothe feede the Sonde,
 "It is well for Old Englonde;
 "But when the Sonde dothe feede the Clay,
 "Then, Old Englonde, lack-a day!"

"That is; in consequence of wet, cold, unkind seasons producing scarcity on strong soils, this, though a public loss, is gain to the cultivation of light land, when in a good state, by having more grain and live stock to dispose of at an advanced price.

"Though there may be as great a variety of strong lands, as there is of the light in respect to difference in quality; yet the latter bears but a very small proportion in the kingdom, of rich old pasture, in comparison of the former. Much has been advanced on the utility of converting old pasture into tillage, particularly in times of scarcity. With due regard for such authority, I believe that good old turf, of superior quality; is of more public value to be continued in such state, and all that could be spared of such useful land for the growth of grain, would not answer the purpose to such an extent as some are ready to imagine. Such essential service must be effected, or nearly so, by the four following heads, or divisions, being properly attended to.

"*First*.—By an improved cultivation of arable lands already inclosed.

"*Second*.—In observing a better method for the future, with respect to tillage, in those strong land common fields, where the proprietors do not choose to inclose.

"*Third*.—By a general Act of Parliament for inclosing waste or unprofitable lands.

“*Fourth.*—By laying up a sufficient quantity of bread corn in years of plenty. But it is to be feared, such a useful precaution will not be sufficiently attended to, unless Government should assist the Board of Agriculture in accomplishing so great a national benefit.”

Mr. Carpenter justly laments the effects of inattention to these rules, and of underdraining, by which the sub-stagnant waters frequently injure, by a variety of diseases the finest flocks. He regrets, with much benevolence, the cruel custom of folding sheep, badly fed, to manure the fallows during the night, without any provision at all, a custom of which the apparent gain is a certain loss.

On spring-wheat, as advantageous to strong soils in wet seasons, we have the following observations, (p. 19).

“The time of sowing is best in March. This spring-wheat, which is a little bearded, makes excellent bread, and I have had as much grow, per acre, succeeding turnips, as the winter corn, and a greater weight. This kind of wheat cannot exhaust the land so much as winter wheat, being not half so long on the ground, and is ripe as early, with the additional advantage of not being subject to mildew. Even this year of harvest, 1804, when there is in these parts so much mildew wheat, yet out of a great number of fields of this spring wheat, I particularly remarked not to have observed a single acre to have been injured, but the straw and ears are as bright as in favourable seasons.”

The following notice is acute and useful, (p. 20).

“When enclosures take place, it is but equitable and humane that the poor should not be forgot, but that a proper proportion of land should be allotted for their use, both for the purpose of raising fuel and the erecting of cottages.* And I do not know of an instance where such desirable objects ought not to have been obtained, and as well spared out of the *gains, some how or other, acquired by commissioners, solicitors, &c.*”

Letter XXIV. (in continuation). Contains some positions less clear and correct than those of Mr. C. in general.

Letter XXV. (falsely printed III.) is on that never-failing and contentious subject—Tythes. Much were it to be wished that such a bar to amity between the Clergy and Laity did not exist. “They are,” says Mr. Carpenter, “now generally understood to be the tenth part of the increase of the fruits of the earth, and are, in some places, paid to the clergy for their maintenance, and in others to the layman. These tythes were settled in England, it is said, about the year 786, and not, as some may suppose, in the reign of Egbert, first king of England, who did not begin his reign till the year 800.”

“* To their credit be it spoken, of those worthy and affluent persons, who look upon it as ornamental, as well as beneficial, to erect neat cottages near their seats, for the accommodation of the clean, industrious, and honest peasantry; while others from different motives and mistaken pride, will not suffer such useful and deserving inhabitants to reside within reach of their respective views. But it would be well, if the latter should alter their conduct for the future; and call to mind such precepts as are to be met with in Psalm 41, Eccles. 11, &c.”

We enter not into this painful subject. The following notice may be useful, (p. 34).

“ I know of no instance in a proprietor of tythes taking so good a method [to prevent their operating as a check to industry] as Mr. —, who allows a draw back of 10 per cent. to the farmer for his yearly improvements, by which prudent conduct, this gentleman, and the farmer as well, have received very considerable advantage.”

Letters XXVI, XXVII, XXVIII. On Fences, Manure, and Live-Stock, contain a variety of facts and instructions, but we must refer the reader to the work itself for an account of them—some are rather equivocal in their tendency, but the greater part useful. The following historical anecdotes are given, (p. 62).

“ The Cotswold sheep are a hard and handsome sort of sheep, and for their size bear a fine and soft wool. They have, ages ago, been held in high estimation. Edward IV. gave licence and liberty for some Cotswold sheep to be transported into Spain, in 1468, but the reader must not from hence infer, that there were no sheep in that country before: for the contrary is evident from a patent of King Henry II. granted in the 31st of his reign, to the weavers of London, importing, that if any cloth was found to be made of Spanish wool, the Mayor of London should see it burnt.* Rapin's Hist.

Might not an inference be drawn from hence, that we are ourselves the authors of the Spanish breed of sheep, which we court so ardently?

Letter XXIX, On Dairies, cannot fail to be an useful vade-mecum, but an epitome of the most valuable domestic economy.

Letter XXX, On the management of Servants, is an effort of philanthropy and sound sense, every line of which we dwell upon with the most exquisite pleasure. We will not injure it by an analysis, but we should consider the author as conferring the highest service on his country, in re-printing this letter in a convenient (and perhaps ornamental) form, for dispersion throughout the kingdom; and we do not doubt of its adoption in every farm-house, with evident marks of utility.

Letter XXXI, Describes the noxious plants by which cattle are frequently poisoned.

“ **HEMLOCK**, with stems and branches spotted with brown or black, and white flowers; the whole plant is poisonous, grows in hedges, orchards, or among rubbish, and is very common.

“ **HENBANE**, with blossoms purple and brown, indented leaves, cleaving to the stem, grows on road-sides, or among rubbish; the seeds, roots, and leave, taken internally, are all poisonous.

“ **NIGHTSHADE** grows in moist brakes and hedges, with bluish blossoms, sometimes inclined to a flesh colour, sometimes white.

“ **DEADLY NIGHTSHADE**,—Dwale, or Belladon, is the worst; it

* This historian likewise relates, that in the year 1466, or 1468, according to the collection of public acts, King Edward sent the King of Aragon a present of some ewes and rams, which so multiplied in Spain, that it proved very detrimental to the wool trade in England.”

grows in woods, hedges, among lime-stone, or rubbish; the stem of a herby nature; the leaves spear or halbert shaped; the flowers of a bluish purple, with a bright yellow thrum, appearing like the snuff of an expiring candle; the berries grow in very handsome bunches, first green, then a fine red, next a beautiful black; [these appearances] are very tempting to CHILDREN *having* [and have] cost many their lives, causing stupor, delirium, and convulsions, and are certain death if not prevented by timely and plentiful vomitings. This plant cannot be too well known, being so very common in most countries, and so tempting both to children and cattle.

COW-BANE, or Water-hemlock, is well known as a fatal poison to cows in the spring of the year: but as the summer advances, and its smell becomes stronger, they carefully avoid it unless compelled by hunger. Horses, sheep, and goats, eat it with safety.

“COW-WEED, or Wild-cecily, grows in hedges; blows in May or June, with white flowers; roots like a parsnip, and is very poisonous.

“WATER-WORT, or Water-hemlock, or Water-skeleton, is esteemed a fatal poison to horses, occasioning them to become paralytic; grows in rivers, ditches, and pools.

“DROP-WORT, or Dead Tongue, grows on the banks of rivers; bears a white flower, in June, the leaves of the flower sharp. The whole of this plant is poisonous, but the root is the rankest and most virulent of all vegetable poisons.—I have known fatal effects ensue from the branches of the Yew Tree, eaten in a withered state. Box is said to have the same bad qualities. The branches or clippings of these trees should be carefully placed out of the reach of cattle.

“The above herbs and leaves are pretty well known from their fatal effects; but the two most fatal herbs to cattle and deer, which are hitherto but very little known, the reader will find an account of, in the Observations, with their engravings.

“One is the MEADOW SAFFRON,—it is very fatal to cattle, as I can prove in many instances, when eaten in a withering state, and the root is still more poisonous. This herb cannot be eradicated but by digging up the root.

“The other is STAVES-ACRE, and a certain poison. It is used, when the seed is ripe and reduced to powder, to destroy bugs and lice, but should be planted, as well as Meadow Saffron, in place of safety.”

Letters XXXII and XXXIII, describe an interesting agricultural tour.

Letter XXXV, is supplementary and miscellaneous: We extract an elegant sketch of the early English writers on agriculture, which we wished to have been continued, (p. 169).

“Agriculture was, antiently, very imperfect in England. The sudden transitions so often mentioned by historians, from the lowest to the highest price of grain, and the prodigious inequality of its value in different years, are sufficient proofs that the produce depended entirely on the seasons, and that art had, as yet, done nothing to fence against the injuries of the weather.

“The first English writer on agriculture is said to be Fitz Herbert, born at Norbury, in Derbyshire. He was made Judge of the Common Pleas in the 15th year of Henry VIII. His first work is entitled the “Book of Husbandry,” printed in *italics*, of which the author speaks as follows:

“As touching the points of husbandry, I will not say it is the best way, and will serve best in all places, but I say it is the best way that ever I could prove by experience, in the course of forty years and more.”

“His second work in husbandry is entitled “Surveying,” and consists of instructions to noblemen and gentlemen, who manage their estates themselves, and to land-stewards, bailiffs, &c. &c.

“During the peaceable reign of James I. considerable improvements were made in most arts, and in this the most beneficial of any. A numerous catalogue might be formed of books and pamphlets treating of husbandry, which were written about this time. The nation, however, was still dependant on foreigners for daily bread; and though its exportation of grain has, at different times, formed a considerable branch of commerce, there was, at that time, a regular importation of corn from the Baltic, as well as from France; and if it ever stopped, the bad consequences were sensibly felt by the nation. Sir Walter Ralieggh, in his observations, computes, that two millions sterling were sent out at one time for corn. It was not till the fifth of Elizabeth, that the exportation of corn had been allowed in England; and Camden observes, that agriculture, from that time, received new life and vigour.

“Sir Richard Weston’s Discourse on the Husbandry of Brabant and Flanders, was published in 1645, by Hartlib, and has been always looked upon as a capital performance. It is remarked, in the Philosophical Transactions, that England has profited in agriculture to the amount of many millions, by following the directions laid down in this little treatise.

“About this period Samuel Hartlib published his Legacy, consisting of a general answer to the question, namely: *what are the defects and omissions, as also the possible improvements in English husbandry?* published in 1650.

“English husbandry, at this time, seems to have been much improved, occasioned by the preceding wars making the country gentlemen poor, and, in consequence thereof, industrious; though sometimes the reverse of this happens in many kingdoms. But these wise men found the cultivation of their own lands the very best post at which they could be found.

“Hartlib was in much esteem by all ingenuous men, particularly by Milton, Sir William Petty, &c. And Cromwell, who was a great favourer of agriculture, allowed Hartlib a pension of 100l. a year. In his preface, Hartlib greatly laments that no *public director of husbandry* was established in England by authority; and that we had not adopted the Flemish custom of letting farms on improvement. “If it please God, (says he) to bless these motions, and that accordingly, the national husbandry of this commonwealth be improved, we may hope, through God’s blessing, to see better days, and be able to bear necessary and public burdens with more ease.”

‘to ourselves, and benefit to human society, than hitherto we could attain to.’”

Letters XXXVI and XXXVII, Miscellaneous. The author resumes the subject of Leases, very laudably to acknowledge that his objection to the assignment of Leases* was perhaps too *unqualified*. We trust, however, he will continue to feel, as he asserts (p. 168) that his “business is to assert facts, and not to flatter.” He wishes (p. 180) “that the Board of Agriculture would give a premium to the best constructed short lease, to answer all essential points between landlord and tenant, which, he thinks, might be done in the space of about 50 lines for small estates, and not to exceed 100 in large ones; and if there are any objections made by those whose business it is to make them, let it be remembered *that it is better to pay a greater sum for a short, well formed, useful lease, than be spackled with an unnecessary long one.*”

On the mischievous vermin are some useful observations, and of Rats it is said, “wherever these destructive animals make their appearance, I do not know so effectual a method to get rid of them, as by continually hunting and harrassing them with Ferrets, till you have entirely cleared them from your premises; and as these useful animals are kept at so small an expence, there is no neighbourhood should be without them.”

On the use of TEA among the peasantry, Mr Carpenter is less happy than on many other subjects; yet with the same benevolence that prevails in other parts of his work, he does not wish to deprive the females who have frequently no other enjoyment, of this exotic, without a compensation of a kind with which the favourers of tea cannot be dissatisfied, and which, he says, has been recommended by Sir J. Sinclair—“allowing them a portion of land to support a cow,” or “a supply of milk for themselves and families.” The author’s objections are, the time lost to labour in drinking it, the increased consumption of butter and other expences, and the complaints usually urged against its use in diet. With respect to the first of these objections, it is certainly futile. In the present state of mind of the labouring orders, if the sipping a few cups-full of this infusion did not afford an opportunity for giving vent to the gossip of the village, other and more dangerous condiments would be found; and the use of ardent spirits is known to be very infrequent where tea is adopted. The second argument can only be exerted by those by whom the substitute is ready to be accorded; and the insufficiency of the last, has been already so admirably asserted, † that little is now required to be said in defence of tea. Of a fragrant, refreshing, and exhilarating beverage, which never fails to exert its cheering influence, at all times and under all circumstances, alike agreeable and salutary to the healthy and the sick, the laborious and sedentary, who that is guided by experience can ever complain? But the artifices of trade have contrived to adulterate this delightful shrub to the poor, and there is reason to fear,

* See Agricultural Magazine, for May 1805, page 354.

† By Dr. Johnson on the Essay in Hanway’s Journal.

render its wholesome dilution a deleterious drug. In this respect, it would be desirous to render the venders of it as responsible for the circulation of improper substitutes, as any other poison, and the interests of the East India Company might induce as cautious a regard to this, as any other species of injury. But Mr. Carpenter is too well acquainted with his native plants, not to be pardoned a common error in respect to an exotic on which the wisest have indulged in a vulgar prejudice; particularly when it is to recommend British independence, and an inclination to the produce of the farm.

Of the receipts at the end of the second volume, we perceive some that are judicious, and others that will be considered obsolete, as some trouble is manifested in their prescription, it is desirous to hope they may be found something more. Each of the volumes contains a plate, very neat in the execution, and correct in the design.

On the whole, these volumes have much excited our interest, and afforded us considerable pleasure; and we do not doubt that an early opportunity will be afforded by a second edition, for a better arrangement of the matter they contain; which is the only object required to render them a collection of agricultural experience, highly deserving a place in every farm-house in the kingdom.

HISTORY, Agriculture.

WOBURN SHEEP SHEARING.

FIRST DAY.

ON Monday morning, June 17, the Duke of Bedford's Agricultural Society commenced by a public breakfast, at Woburn abbey, and about eleven o'clock the company arrived at the exhibition room, at the Park-farm. The greater part of the morning was occupied by the examination, one by one, of the new Leicester rams, intended for letting yesterday afternoon; these rams had been just shorn, and their fleeces were hung up round the room, numbered and labelled, with the exact weight of each, for the inspection of the gentlemen present. His Royal Highness the Duke of Clarence was among the company, and during the whole day continued in the most familiar conversation with the agricultural gentlemen and farmers present. Among the many interesting groupes which were formed for conversation, on subjects connected with agriculture and rural affairs, we noticed Mr. Tollett shewing specimens of wool, fifteen inches long, of a sufficient fineness for the finest broad cloths, taken from the back of a wether sheep, of his breeding, half Spanish and half South Down, on which it has been growing three years; Mr. T. stated it as his opinion, that he can grow fine wool of almost any length, by delaying the shearing of this particular breed of sheep, for a proportionally long time, provided the manufacturer can give a price proportionally great.

Mr. Cowley, of Aspley-Guise, exhibited a plan of a water-meadow, which he has recently constructed at that place, said to be the first attempt at irrigation by a Bedfordshire farmer.

The exhibition-room was ornamented with correct drawings and views of the statue now erecting on the south side of Russel-square, London, to the memory of that great promoter of the useful arts, the late Duke of Bedford.

Mr. Taylor, from the Society of Arts, produced a pair of sheers, for which a reward had been given to Capt. Miller, during the late session of that Society, which his Grace caused to be tried by the sheep-shearers who were at work.

Mr. Bellamy attended to distribute his work on the Diseases of Cattle.

Mr. Garrard distributed his proposals for a large print, to be engraved from a picture which he is painting, of the Woburn Sheep-shearing, with portraits of the principal agriculturists; and before the company went to dinner, several of them were shewn the present state of this picture, in the great saloon of the Abbey.

The particulars of the premiums offered by the Smithfield club, in December next, were stuck up, as were also several papers, descriptive of cattle, to be seen and hired, or bought at this meeting.

Soon after three o'clock, near 200 persons sat down to a most excellent dinner in the great hall and room adjoining. His Grace the Duke of Bedford was supported on his right hand by his Royal Highness the Duke of Clarence, the Marquis of Huntley, and Lord Sheffield; and on his left by Earl Darnley, Lord Somerville, and Mr. Curwen. As soon as the cloth was withdrawn, his Grace gave—

“The King,” then “Success to Agriculture.”

Shortly after which, his Royal Highness the Duke of Clarence arose, and in a short, but very excellent speech, adverted to the last toast as a very proper occasion for proposing a bumper to the health of the Duke of Bedford, to whom the country is in so peculiar a manner indebted, for his laudable and well directed exertions for the improvement of the agriculture of the kingdom; it was drank with three times three and loud plaudits, and his Grace in a speech equally concise and appropriate, returned thanks to his Royal Highness and the company.

Mr. Conyers shewed round the table specimens of a particular species of elm timber, which he has discovered in Kent, applicable to several purposes in ship-building.

The utmost hilarity prevailed among the company, and their interesting conversations on rural subjects were enlivened by the following toasts:

“The Plough.” “The Fleece.” “Small in size and great in value.” “Good grazing.” “Breeding in all its branches.” “Irrigation.” “Prosperity to all improvements in agriculture.” “The Farming Societies of Ireland.” “Earl Winchelsea.”

Before the company broke up, his Grace addressed them and said, that it was not unusual to drink the health of distinguished friends of agricultural improvement who were absent, and as, unfortunately, they had now to lament the absence, on account of illness, of one who had so often contributed, not less by the extent and variety of his information on the most useful subjects, than by his great urbanity of manners, to the entertainment of this meeting, he should propose.

“Sir Joseph Banks, and his speedy recovery.”

At the table we observed

His Grace the Duke of Manchester.

Earl Talbot.

Lords—Ludlow, and Cawdor.

Sirs—Harry Featherstone, John B. Riddle, John Wrottesley, William Rowley, Robert Lawley, and Hugh English.

Colonels—Dalrymple, and Dorrien.

Ag. Mag. Vol. 12,

S O

Messrs:—William Lee Antonie, Culling Smith, Curwen, Marshall, Burgoyne, Francis, Mosely; Motteaux, Wing, Sandford, Isted, Dudley, Smer-nove, Corbet, Gunning, Hoare, F. Sitwell, W. Bosville, C. G. Gray, J. M. Crips, Reeve, Ellman, Westcar, Buckley, Walton, Crooke, Bithrey, Toller, S. Stone, T. Stone, Fellowes, Smith, T. Grace, J. Grace, S. Chandler, Bridger, Hudlon, Lowndes, N. Stubbins, R. Tubbs, Runciman, J. P. Moore, Cowley, T. Mossman, Parkinson, Garrard, Williams, Smith, Taylor, Farey, Bellamy, Durham, Harvey, Symes, Campion, Strickland, Hinton, Purchase, Hose, Vertue, J. C. Wood, Sarney, Shelton, Nash, Chapman, Lee, Burgefs, C. A. Dashwood, Davis, Cox, Hickman, Athestone, Loraine, Colchester, Leader, Wood, Whitmore, Davey, Bell, Fane, Watkins, Pollet, Baynes, Rose, Apperley J Pearse, Girdlestone, Barber, Edwards, Bryant, Rolfe, Charge, Clarke, Maynard, Manghan, Roper, J. E. Price, &c.

On returning to the farm-yard, four lots, consisting of five Leicester sheep each, were sold, viz. 1st, five ewes to Lord Somerville at 15 guineas; 2d, five ditto to Lord Cawdor at 19½ guineas; 3d five theaves to Lord Somerville at 14 guineas; and 4th, five ditto to ditto, for 18 guineas.

Mr. Coke, of Norfolk, and Mr. Northey, being arrived, they joined the company after dinner. In the course of the day, Francis Sitwell, Esq. M.P. issued particulars, and gave very general invitations to his Barmoor sheep-shew, near Berwick, on the 8th of next month.

We have seldom seen a meeting more select, and the day proved very pleasant, except a slight shower towards the evening.

SECOND DAY.

On Tuesday morning, after breakfast, an adjourned meeting of the Smithfield club was held at Woburn Abbey, his Grace the Duke of Bedford in the chair; Mr. Arthur Young, the Secretary, we are sorry to hear, was absent on account of a recent family loss. At this meeting it was resolved, that the future number of members of this very useful society shall be unlimited; and, at the instance of Lord Somerville and Mr. Gray, it was strongly recommended to the next general meeting of the society, to alter a little the time of the annual exhibition in Smithfield, so that it may be more practicable for gentlemen to attend the Bath meeting and the Smithfield shew also, in future.

The next business of the morning was to view the fat wethers exhibited in their wool, at the stables near the Abbey, by the candidates for his Grace's two prizes, of which Lord Somerville, Richard Ashley, and William Chapman of Fleet-market, were appointed the judges.

Soon after 11 o'clock the company assembled at the farm-yard, and the South-down tups intended to be let on Wednesday evening, were shewed out singly to the company; after which, several Hereford and Devon cattle, intended for sale that evening, were exhibited and examined. Four new Leicester theaves, bred in Bedfordshire, belonging to Mr. Moore, of Apsley, and three belonging to Mr. Circuit, of Woburn, were examined; as were also, a boar of Mr. Western's; and two sows, one seven, and the other five months old; and a boar of Mr. Isted's (China and Suffolk); and a very handsome pig of the same breed. Mr. Gray, Mr. Pickford, and Mr. Lambert, were selected as the judges to decide on their respective merits.

Mr. Smith explained, and shewed to several gentlemen, the progress making in his Mineralogical Map of England and Wales, shewing the out-crops of the various strata of which they are composed.

Mr. Parkinson distributed several copies of his recent work, called "The Experienced Farmer's Tour in America."

The meeting of this day was much fuller attended than yesterday, and seemed, in interest, and in the increasing excellence of the stock exhibited, so equal, if not excel any of the former years' meetings. Before dinner his

Grace, and a large party of his noble Visitors, took a ride to Crawley-heath, to view the drilling of some turnips; and soon after three o'clock, as many persons as the two spacious dinner rooms could accommodate, sat down to an elegant dinner; after which some very interesting conversations took place on the great subjects connected with agricultural improvements, and similar toasts to those of the preceding day were drank, as also,

The Union of Husbandry and Commerce; Mr. Foster; the Earl of Egremont, &c.

His Grace of Bedford stated from the chair, that a sweepstakes of one guinea each was on foot, for guessing the weight of mutton in one of the fat three-shear South-down weathers of his, which had been shewn that morning, which, having been subscribed to by His Royal Highness the Duke of Clarence, and seventeen other of the gentlemen present, he should hand it round for the signatures of any others, and that the sheep would be submitted for the examination of those who may wish further to examine it previous to naming their opinion of the weight, and the animal's being slaughtered to decide the sweepstakes.

At the dinner this day we noticed, besides those noble personages already mentioned,

Lords--Robert Spencer, John Townshend, Ossory, and Ongley.

Sirs--Robert Lawley, George Osborn, and John Seabright.

General Cuyler.

Colonels--Beaumont and Dalrymple.

Major Sandiford.

Captains--White, J. C. Berisford, C. G. Gray, and C. Towers.

Archdeacon Fowler.

The Rev. Dean Dudley.

Reverend Messrs. Symes and Smerhove.

Messrs.--Coke, of Norfolk, Edward Coke, Anton, Lee Antonie, Northey, Culling Smith, Marshall, Conyers, Francis, Motteux, Charles C. Western, Lambert, Sandiford, Isted, Reeve, Williams, Trevor, Jenning, N. N. Hoare, J. P. Moore, J. M. Crips, George Gunning, John Higgins, James Harvey, Alex. Gordon, A. Boyce, R. Honeybourn, S. Stone, John Bithrey, John Walker, William Maxey, William Runciman, John Ellman, John Ellman, jun. Thomas Walton, Martin Webber, William Chandler, G. Payne, Edward Smith, E. Perter, Thomas Croke, N. Buckley, M. Buckley, N. Stubbins, R. Tubbs, S. Chandler, T. Stone, P. Gibley, John Westcar, A. Ashley, W. H. Apperly, L. Mosely, Burton, Cobb, J. Cobb, W. R. Purchase, R. Dell, Watkins, Cotton, S. Hofe, B. Higgins, J. Slater, Bridges, J. Bennet, J. Barber, Rose, Thomas Corder, John Pearle, Thomas Girdlestone, Biake, Bruere, Halstead, R. M. Leeds, John Gomalin, J. E. Belcoe, J. Gardner, J. Kemp, Roberts, John Sanburn, Robert Vertue, Newman, Rolfe, Baynes, J. Road, John Cooch, J. S. Burgess, Charge, Lax, Bainbride, John Maynard, John Davies, William Bryan, John Dent, George Henton, Edwards, J. Hoare, William Folcut, Leader, Fane, Fisher, Henry Strickland, W. Pollet, H. Wood, J. C. Wood, William Chapman, Warberry, Richard Parkinson, Gerrard, J. Bellamy, Charles Taylor, Poyntz, &c.

As soon as the company had retired to the exhibition Room, the letting of Leicester tups commenced.

No. 4. A shear hog, by a son of Surprise; fleece 7lb. was let to Lord Somerville, for the ensuing season at 20 guineas.

No. 5. A ditto, by In and In; fleece 7lb. 12oz. to Mr. Martin Webber, for 40 guineas.

No. 6. A ditto, by a son of In and In; fleece 6lb. 8oz. to William Maxey, for 25 guineas.

No. 8. A two-shear, by Surprise; fleece 6lb. 8oz. to Mr. Crook, for 50 guineas.

No. 9. A ditto, by In and In; fleece 7lb. 2oz. Lord Ludlow, for 50 guineas.

No. 11. A three-shear, by Carcase; fleece 6lb. 4oz. to John Wing, for 50 guineas.

After which the sale of cattle commenced, and a Hereford cow was sold to Edward Cox, for twenty-two guineas, a ditto to William Stop, for 20 guineas, a Devon cow to J. M. Cripps for 16 guineas and a half, a ditto to Mr. Coke for 15 guineas, a ditto to ditto for 13 guineas, and a three year old Devon heifer to J. Clayton, jun. for 14 guineas and a half.

The day proved exceedingly favourable to this interesting meeting, except a short thunder-storm after dinner.

His Royal Highness the Duke of Clarence seemed increasingly to enjoy the company of the intelligent and useful body of men which he had fallen among.

THIRD DAY.

Wednesday proved a very busy day of this highly interesting meeting; early in the morning, Lord Talbot, Mr. Williams, Mr. Reeves, Mr. Wakefield, Mr. Ashley, and several other gentlemen set off for Cresslow in Buckinghamshire, to view Mr. Westcar's excellent farm and stock, and to dine with that amiable and spirited agriculturist and grazier. Another party, consisting of Messrs. Montague Burgoyne, John Martin Cripps, William Bruere, William Smith, Charles Taylor (of the Society of Arts), the Rev. Mr. Otter, Mr. Crisp, Mr. Simmons, Mr. Farey, and several others, rode over to Prilley, to view the Duke of Bedford's water meadows, in occupation of the Duke of Manchester; and the highly improving, state of these meadows was a source of much gratification. The first matter which called the attention of the company in general at the Abbey, was the exhibition of the carcases of the fat wethers, which the company had examined alive on the preceding day. The company then repaired to a field on Crawley-heath, where they were joined by a large concourse of the neighbouring farmers; eight patches, of half an acre each, had previously been measured and marked out, in the corner of a field of clover leas, and after the necessary preliminaries had been settled by Lord Somerville, the Rev. B. Dudley, and another gentleman who were appointed judges for the ploughing; eight ploughs started, viz.

No. 1, Mr. Western's two-horse swing Essex-plough; No. 2, Mr. Whitbread's two horse Norfolk wheeled-plough; No. 3, a two horse swing Nottingham-plough, made by John Cooch, belonging to Arthur Barrett; No. 4, a two-horse Norfolk wheeled-plough, belonging to the Duke of Bedford's Park Farm; No. 5, Sir John B. Riddle's Scotch two-horse swing-plough; No. 6, Mr. James Pott's swing-plough, drawn by a poney and an ox; No. 7, the Duke of Bedford's Norfolk two-horse swing-plough; and, No. 8, Joseph Cowley's double-furrow Staffordshire four-horse-plough, with a driver; all the other ploughs were conducted by the holder, by means of reins. Mac Dougal's spring whipple-tree was made use of to determine the force of draught to the ploughs.

In order to prevent the great interruption and spoiling of the work, by the spectators, which took place in other ploughing matches at this place, the judges appointed the spectators to continue in an adjoining field, from whence they had an uninterrupted view, over the young quick-hedge, of the rival ploughmen's operations; and so strictly was this order enforced, that his Grace of Bedford and his Royal Highness the Duke of Clarence, who came up after the ploughing had began, and being unacquainted with the regulation, were about to enter the field, but were denied admittance by the judges, which these noble personages took with the greatest good humour, and took their stand among the other spectators, without the field, till after

two or three of the first ploughmen had finished their work, they, with the company in general, were admitted in, to inspect the work, and view more closely the concluding operations of the other ploughs. A smart shower of rain drove the company out of the field to the neighbouring trees, rather sooner than they otherwise would have left it. The implements exhibited for his Grace's premiums were next examined by the company; Mr. William Dickins shewed a watering-cart, made by him for John Folter, Esq. for watering drilled crops of any kind, by means of six leather pipes affixed thereto. Mr. Lester shewed a potatoe-washer. William Shepherd, shewed a clover-feed threshier, and a plough. Mr. Noon shewed the jointed scythe, which he laid a few weeks ago before the Society of Arts. Mr. James Essex shewed specimens of his mats, or rather cushions made of wool, for a variety of purposes. Mr. Solomon Williams issued his cards of proposals, for a print to be engraved of the Holkham sheep-shearing, from a painting which he had now in hand; and Mr. George Garrard exhibited at the Abbey his picture of the Woburn sheep-shearing.

Soon after three o'clock nearly as numerous a company as on Tuesday sat down to an excellent dinner in the great hall of the Abbey; after which his Grace gave the usual and standing toasts of this meeting, as we have before particularized them, in one of the intervals of which, Mr. Coke, of Norfolk, rose and stated to the company, that the trial of ploughs to be produced by Sir John Sinclair and himself, in consequence of their bet made at Lord Somerville's last cattle shew, would have taken place at this meeting, as then proposed, had it not been agreed to postpone it a short time back, in consequence of the very dry weather which then prevailed, and the prospect of its long continuance, which he thought improper for a decisive trial. Sir John Sinclair, in reply, assured the company that there was no intention of abandoning the bet, and that Mr. Small, an eminent Scotch plow-maker, was ready to attend in his part, and (alluding to the toast which was then circulating, he said, very jocosely, that he hoped the plough he should produce would, "though Small's, prove of great value;" shortly after, it was agreed between the parties, that the bet should certainly be decided at the next Woburn sheep-shearing, however the weather may then happen to be. In the course of Mr. Coke's speech on this occasion, he spoke in commendation of one of the ploughs (Mr. Cooch's we believe) which he had seen that day at work. His Grace of Bedford then rose and said, that the subject they were then upon, would naturally recall the circumstances of the last year's ploughing match, in which Mark Duckitt had deservedly won the prize by his skim-coated plough, and begged the serious consideration of the gentlemen present, to some particulars which Lord Somerville had to state, respecting Mr. Mark Duckitt. On which his Lordship rose, and with a zeal and energy highly creditable to himself, stated the unfortunate pecuniary embarrassments of Mark, one of the three sons of the late worthy, ingenious, excellent, and well known farmer, Mr. Duckitt, of Esher; and he strongly recommended the measure, of a subscription for his relief, grounding his proposal principally on the advantage of shewing to the world, that ingenious and worthy men in this country, may rely on the public gratitude being extended, not only to themselves, but to their children after them. His Lordship concluded by stating that his Royal Highness the Duke of Clarence, who was well acquainted with Mr. Mark Duckitt's unavoidable misfortunes and situation (to which his Highness signified his most hearty assent), had set his name to a paper, as a subscriber of ten guineas; and his Grace of Bedford, Henry Hugh Hoare, Montague Burgoyne, and himself, the like sum each.

Mr. Burgoyne rose, and assured the company of his own personal knowledge of Mark Duckitt's merits and misfortunes, which unfavourable seasons, crops, and markets, had principally contributed to bring upon him, and not any neglect or intemperance of his own. And Mr. Hoare and himself began immediately the task of submitting individually to the gentlemen present, the

subscription list, which filled apace; and we hope and trust, that a sufficient sum for the beneficent purposes intended will be collected.

The result of yesterday's sweepstakes for guessing the weight of a sheep, to which 31 gentlemen were parties, was declared by his Grace; the weights named laying between $33\frac{1}{2}$ and 38lb. per quarter, and Mr. Cullen Smith having named the exact weight that the sheep proved to be when slaughtered, viz. 35lb. 9oz. per quarter.

The printed proposals for his Grace's premiums at the sheep-shearing next year, differing not at all from the present ones, were circulated. And his Grace gave as a toast:

"Prosperity to all efforts at improvements in agriculture."

His Grace also drank the healths of Lord Sheffield, Arthur Young, and Mr. Overman of Norfolk, to whom his Grace paid the compliment of being one of the very best plough farmers in England.

Mr. Platt this day shewed a handsome Leicester and Suffolk pig nine months old. In the evening the South-Down tupps were as follows, viz. the two sheers No. 2, fleece 5lb. 12oz. to Mr. Knight, at 40 guineas; and No. 6, fleece 6lb. 8oz. to Sir John Seabright at 30 guineas; of the three sheers, No. 4, fleece 5lb. to Mr. Wakefield at 30 guineas; and No. 10, fleece 6lb. 8oz. to Mr. Simms at 20 guineas; a four shear, No. 13, fleece 4lb. 12oz. to Mr. Coke at 25 guineas; and a five years old, No. 22, fleece 5lb. 4oz. to Mr. Britt at 10 guineas.

The business of the day closed, with a sale of sheep and cattle, as follows:

1st. 10 South Down ewes to Mr. Knight, at 22 guineas—2d. 20 Ditto, to Mr. Pickford, at 48 guineas—3d. 10 Ditto to Mr. Knight, at 24 guineas—4th. 20 ditto to Mr. Gordon, at 40 guineas—5th. 10 South Down theaves, to Mr. Knight, at $24\frac{1}{2}$ guineas—6th. 20 ditto, to ditto, at $41\frac{1}{2}$ guineas—7th. 10 ditto, to ditto, at $28\frac{1}{2}$ guineas—8th. 20 South Down ewes, to Mr. Kemp, at 47 guineas—9th. 10 ditto, to Mr. Sains, at 35 guineas—10th. a Hereford cow, to Mr. Edward Coke, at $21\frac{1}{2}$ guineas—11th. a Hereford heifer, two years old, to Mr. Ratlif, at $14\frac{1}{2}$ guineas—12th. a Devon cow, to J. Clayton, jun. at $15\frac{1}{2}$ guineas—13th. a ditto, to Lord Ludlow, at $21\frac{1}{2}$ guineas—14th. a Hereford cow, to Edward Coke, at $18\frac{1}{2}$ guineas—15th. a Devon cow, to Lord William Russell, at 20 guineas—16th. a Hereford bull, three years old, to John Wing, at $18\frac{1}{2}$ guineas; and 17th. a Devon ditto, to Lord Ongley, at $16\frac{1}{2}$ guineas.

The company at the abbey this day received the accession of Sir John Sinclair, Col. Dalrymple, the Rev. Dr. Randolph, and Mr. Willshire.

And besides most of those mentioned on the former days, we noticed at the dinner on Wednesday,

Lord Ongley.

Major-General Ward.

Reverend Dr. Wood.

Messrs.—M. J. Praed, Higgins, W. H. Hammer, Stephen Dickson, William Smith, J. Butfield, B. Nevan, William Lester, Orlebar, Waters, Morant Gale, Thomas Non, William Pollett, J. H. Palmer, Benjamin Bushel, John Campion, E. Hillyard, John Claridge, &c. &c.

The country, after the fine showers of rain that lately fell, looks remarkably well, and the beautiful grounds of his Grace are now seen to great advantage.

FOURTH DAY.

This being the last day of the fete, was particularly appropriated for the agriculturists and farmers of the county and neighbourhood. The business commenced by a second shew of Leicester tups, after which a shew of Hereford and Devon cattle took place. Mr. Joseph Cowley shewed a model of a threshing barn, with a double set of ox stalls adjoining. The subscription list opened for Mark Duckitt's family, was hung up, containing near eighty names, and the sum amounted to 195l. 10s. About three o'clock the com-

pany repaired to the Abbey, and partook of a very excellent dinner in the great hall. The table was adorned with the several silver cups which his Grace has been at different times honoured with, from the Bath, Smithfield, Lord Somerville's, and other exhibitions of cattle. After giving "the King," his Grace of Bedford rose, and congratulated the company on their being able to drink the health of this exalted personage, not only as the King of the country, but as a distinguished patron of agriculture, and on the pleasure which none present could have failed of receiving from seeing among them one of his illustrious sons, who was so nobly emulating his father's conduct, and who so well knew, and had shewn it by the close attention he had been paying to every part of the business of this meeting, the importance of agricultural excellence to the well being of the state. His Grace concluded a very excellent speech, by proposing "the Duke of Clarence;" a toast which was honoured with unbounded applause. His Royal Highness thanked the company, drank their healths in return, and expressed his hope that he should have the high satisfaction of meeting them a gain another year; after a short interval, His Royal Highness rose again, and, in a very admirable speech, stated his inability to express his feelings at the very flattering manner in which his Noble Host had spoken of him, and on the gratifying manner in which his name had been just received. He could not suffer so highly useful and gratifying a meeting as this to close, without repeating what he had proposed on the first day of it, viz. "The health of the Duke of Bedford." As soon as the applause attending this toast had subsided, his Grace rose, and thanked the company, and, after proposing the "the plough," proceeded to open the sealed adjudications of the Judges appointed in the several departments where premiums had last year been offered, the silver cups for which, six in number, were on the table before him.

The first adjudication read was that of the cup, value ten guineas, for the best two shear fat wethers; and another cup, value ten guineas, for the best pen of three theaves, bred in Bedfordshire, to Mr. John P. Moore. The next adjudication was that of a cup, value five guineas, to Mr. John Circuit, for the second best pen of three theaves, bred in Bedfordshire; and, after his Grace had delivered this cup, he addressed himself with great earnestness to the Bedfordshire farmers present, lamenting the little competition that appeared this year among the sheep-breeders; so that one of his four prize cups for sheep remained undisposed of.

His Grace next proceeded to read the adjudication of a cup, value five guineas, to Charles Western, Esq. for the best boar. On delivering this cup to Mr. Western, his Grace again endeavoured to stimulate the Bedfordshire farmers, lamenting that so few of them had ever exhibited pigs.

The next premiums were those of sheep-shearers, and his Grace remarked, that thirteen candidates had offered to try their respective skill in this useful art; and that much good and neat shearing had been shewn. The prizes were adjudged as follow: five guineas to John Arnold, three guineas to Samuel Moore, two guineas to Wiffia Wadsworth, and one guinea to William Swannel.

On the class of implements, his Grace said, that he had to lament an unfortunate omission, in giving the necessary information to the candidates who had come forward with their implements; in consequence of which, several of them were taken away before the judges had an opportunity to view them, and of course no adjudication had taken place. His Grace proceeded to the ploughing premiums, and read the adjudication of the judges, by which it appeared, that the Duke of Bedford's swing plough, as improved by John Bailey, Esq. had, in one hour and fifty minutes, ploughed a rood of land, the furrows being five inches and a half deep, and the force of draught three hundred weight. That Mr. Barret's Northamptonshire plough, made by Mr. Cooch, had ploughed a rood in one hour and twenty five minutes, the furrows being four inches deep, and the force three hundred weight. That

Mr. Whitbread's Norfolk plough had performed its rood in one hour and thirty minutes, the depth of the furrow being five inches, and the force of draught two hundred weight and a quarter. The judges stated, that they had adjudged the above three the best of the eight ploughs tried. Mr. Pott's Bedfordshire plough having performed much to the satisfaction of the judges, his Grace presented Mr. Potts, who was himself the maker and holder also of his plough, with a bounty of two guineas.

His Grace expressed his concern, that no trials of the merit of broad cast and drill culture, in Bedfordshire, had this year been sent to him.

The shepherds who were rewarded for saving the greatest number of lambs, were:—John Holland, five guineas, Charles Pain, four guineas, Luke Coleman, three guineas, James Allen, two guineas, and Joseph Pouch, one guinea. His Grace proceeded to the new premium for irrigation, and stated, that Lord Sheffield, Lord Wm. Ruffel, and Mr. Marshall, were of opinion, that the new water-meadow made by Mr. Cowley was not formed on the best system, or sufficiently raised for the water to have the proper effect, and not, therefore, entitled to the premium of fifty guineas; but his Grace begged to present him with the sum of twenty-five guineas, which gave great satisfaction to the company.

His Grace, after mentioning that the premiums would be the same for next year, gave "the successful candidates;" and shortly after, "emulation is good husbandry;" then "Lord Somerville, Mr. Coke, and other distinguished agriculturists, who have honoured this meeting with their presence," and, "the judges of the premiums." His Grace next stated his regret, that the business of that evening in parliament obliged himself, and several of his noble friends, to leave them before the conclusion of the day, but he hoped to see them all again on the next.

The Duke of Clarence, who seemed excessively to enjoy the business of this day, rose, and said—After the very kind invitation they had all received, he could not leave them without proposing to drink another bumper; "may we meet the Duke again next year, in the same good health and spirits, as at present."

The company, excepting those who set off for London, adjourned to the park-farm, and the Leicester tups were lett, as follows:

Of the shear-hogs, No. 5, by Mr. Buckley's son, of Sire and Sire, fleece 7lb. 12oz. to Mr. Bitherey, at fifty guineas

No. 6, ditto, fleece 7lb. 4oz. to Mr. Chase, at twenty-five guineas.

The three shears were lett as follows:

No. 12, by Sire and Sire, fleece 7lb. 4oz. to William Daniel, at ten guineas.

No. 13, ditto, fleece 7lb. to Mr. Circuit, at ten guineas.

No. 14, ditto, fleece 7lb. 12oz. to Mr. Barret, at ten guineas.

No. 15, ditto, fleece 7lb. 8oz. to Mr. Barret, at twenty guineas.

No. 16, by Carenc, fleece 9lb. to Mr. Isled, at fifteen guineas.

The sales this evening were as follows, viz.

First, twenty South-down ewes to Mr. Trevor, at forty-three guineas.

Second ditto, to Mr. Morand, at forty-five guineas.

Third, twenty-one ditto, to Mr. Klugsley, at twenty-one guineas.

Fourth, twenty ditto, shears, to Mr. Sims, at sixty guineas.

Fifth, a Devonshire old heifer to Mr. Colman, at sixteen guineas and a half.

Sixth, a ditto to ditto, at twenty-one guineas.

Seventh, a ditto, to William Stop, at twenty-two guineas and a half.

And eighth, a Kent two year old heifer, to Mr. Mollman, at fourteen guineas and a half.

The greater part of his Grace's visitors before mentioned, continued at the Abbey till after dinner this day; and among the company at table we noticed,

Professor Warberg, of Copenhagen, Sir Thomas Hanmer, W. H. Hanmer, E. Hanmer, John Higgins, J. Praed, Charles Gordon Grey, J. P. Moore, Captain White, Henry Brandreth, R. A. Reddal, H. W. Cowley, Joseph Cowley, Rev. Dr. Trenchard, Messrs. Westcar, J. Ellman, jun. Thos. Crook, N. Buckley, M. Buckley, Ashley, Harvey, Garner, William Morfe, M. Gale, J. Gough, Charles Riddlecombe, — Waters, J. Holbrook, R. N. Purchase, J. Tomadin, J. Watts, Thomas Blifs, John Claridge, J. C. Barret, R. Earl, — Adkins, Ab. Barret, William Runciman, J. Circuit, R. Circuit, George Rock, J. Goodman, J. Preston, Edward Platt, William Platt, G. Wood, J. Potts, William French, William Rutley, James Fosley, William Unwin, John Stopp, J. Butfield, William Butfield, J. Atterbury, J. Seer, William Daniel, G. Spreckley, J. Mead, Thomas Linnel, J. Riley, H. Sandford, Robert Battams, J. Burc, William Green, John Edwards, William Smith, Mr. Clax, Benjamin Bevan, John Farrey, William Smith, Richard Parkinson, Richard Lawrence, John Cooch, E. Chapman, Thomas Noon, William Lester, T. Bellamy, &c.

Kent Society, for the Encouragement of Agriculture and Industry.

AT the anniversary of this society, holden at the Fountain Tavern, in the City of Canterbury, on Friday the 7th June, 1805. The following premiums were given.

Class I. To servants in husbandry for long service.

Married Servants.

To Henry Elliot, bailiff to John Toker, Esq. of Ospringe, forty years, two guineas.

To George Downe, Bailiff to Mr. Thomas Castle, of Folkstone, seventeen years, two guineas.

Single servants.

To John Adams, waggoner to Mrs. Austin, of St. Martins, Canterbury, sixteen years, two guineas.

To Edward Cunly, allworks, to Mr. Mace Noble, Braborne, ten years, two guineas.

Female servants.

To Martha Groombridge, dairy-maid to Mr. John Cullen Ashbee, of Charing, nine years, two guineas.

To Rebecca Sims, dairy-maid to Mrs. Swain, Petham, eight years, two guineas.

Boy.

To John Waters, allworks, boy to Mr. John Boulding, of Waltham, six years.

Class II. Labourers in husbandry for long service.

To Drayton Dad, labourer to George J. P. Leith, Esq. of Walmer, and predecessor, forty-six years, two guineas.

To Richard Soines, labourer to Mr. John Boys and his father, at Northbourne, thirty-six years, two guineas.

To Robert Levitt, labourer to Mr. Richard Roust, and predecessor, at Benenden, thirty-three years, two guineas.

Class III. Cottagers for having brought up large families, with the least assistance from their respective parishes.

To James Brooks, of Kingiton, twelve children born and brought up two guineas.

To Richard Baker, of Patrixbourne, twelve born, eight brought up two guineas.

To John Osborn, of Patricxbourne, ten born, eight brought up, two guineas.

Bee premium.

To Mary Pilcher, widow of a labourer in husbandry, of Nackington, for eight stocks of bees, two guineas.

To James Weeks, of Ospringe, for his cart stallion, being the best of six produced, five guineas.

N. B. A premium of five guineas was offered, for the best bull produced, but none were exhibited.

The following officers were chosen for the year ensuing.

Right Hon. Lord Soudes, re-elected president.

Charles Baron De Montesquieu. }
Rev. J. C. Beckingham. } Stewards.

Mr. Allen Grebell, re-appointed treasurer and secretary.

And the following gentleman were named a committee,

Hon. George Watson, M. P.	Richard Milles.
Lieutenant General Harris.	Captain Honeywood.
George M. y.	William Hougham.
Edward Taylor.	John Plumptre.
James Tillard.	Thomas Brett.
Rev. Thomas Randolph.	Reverend Ralph Price.
Thomas Gibbs Hilton.	Edwin Humphrey Sandys.
Pilcher Ralfe.	George Carter.
William Wightwick.	Thomas Castle.
George J. P. Leith.	Carr Culmer.
John Boys.	Robert Rich.
Thomas Neame.	Austen Neame.

Wrexham Agricultural Society. (Denbighshire.)

May 30, 1805.

At an annual meeting of the society held this day, premiums were adjudged as follows:

To Mrs. Sarah Hughes, of Hafod y wern, for having laid down the greatest quantity of water meadow—Five Guineas.

To Mr. Samuel Price, of Beroc, as tenant and occupier, for the best crop of turnips—Five Guineas.

To Mr. Samuel Jones, of Poulbon, for the best cart stallion—Five Guineas.

To Mr. Humphrey Hughes, of Althrey, for the best bull—Three Guineas.

To Mr. Wm. Rogers, of Hafod y lowch, for the best yearling heifer—One Guinea.

To Robert Williams, servant in husbandry to Mrs. Jane Williams, of Lletty Wigren, parish of Bryn Eglwys, for 24 years faithful servitude in the same place—Three Guineas.

To Martha Mörty, dairy maid to Mr. Thomas Brassie, of Saughton, for 12 years faithful servitude in the same place—Three Guineas.

To Hugh Owen, of Bersham, labourer, for having brought up nine children to industry, without any assistance from the parish—Three Guineas.

To Ditto for having been 26 years member of a Friendly Society—One Guinea.

To Edward Jones, of Ponkey, for good plashing—One Guinea.

JOHN ROBERTS, Secretary.

Hereford Agricultural Society.

The Hereford Agricultural Meeting on Monday June 3, was attended by Lord Oxford and many of the principal proprietors and occupiers of land from all parts of the county.

The successful exhibitors of stock, to each of which a silver goblet was presented, were—

- Mr. Tully, of Huntingdon, for the best working ox.
- Mr. Knight, of Elton, for the best yearling heifer.
- Mr. Edwards, of Horn-Lacy, for the best yearling ram.
- Mr. Knight, for the best three years old ram.
- Mr. Goode, of Yazor, for the best boar.

A bust of the late Duke of Bedford was placed in the room where the members dined, it was given by Mr. Westcar to the society, and welcomed by an unanimous vote of thanks.

Essex Agricultural Society.

On Thursday, May 30, a select party of distinguished Agriculturists, of various districts, assembled at Felix Hall in this county, to view the farming improvements of C. C. Western, Esq. After inspecting his capital stock of Devonshire cows, South Down sheep, and celebrated pigs, they rode over his corn lands, and viewed the improvements on his new farms, which were deservedly admired; they saw a three-horse convex-breasted wheel-plough at work, called the old Essex plough, with which the ploughman crossed a stiff piece of land so skilfully, that the gentlemen made a subscription for him on the field, as a reward for his merit. Among the gentlemen present were, the Duke of Bedford, Lord William Russell, Lord Robert Spencer, Sir W. Rowley, Sir Robert Harland, Mr. B. Howard, Mr. Curwen, Mr. Birch (member for the Bedford) Colonel Tuffnel. Colonel Burgoyne. Mr. Kortwright, Rev. J. Rowley, Rev. H. B. Dudley, Mr. Vaux, Mr. O. Hanbury, Mr. Wakefield, &c. who dined with the hospitable Lord of the domain.—The next morning they went to the Essex Agricultural Meeting at Chelmsford, where the cattle, &c. were exhibited for the prizes of the year. Here the party was joined by Lord Petre, Mr. J. Fane, Mr. Conyers, Mr. P. L. Wright, &c. &c.—His Grace the Duke of Bedford very kindly consented to become one of the umpires on this occasion, conjointly with Sir Wm. Rowley and Mr. Western. The society, &c. afterwards adjourned to the shire-hall, where more than a hundred members and their friends sat down to a plentiful dinner, Colonel Burgoyne in the chair. After dinner the adjudication of prizes, of the society's silver medals, was made as follows:

- Best cart stallion, Mr. James Scratton.
- Best two years old bull, Mr. Hobb.
- Best cow giving milk, Mr. Clarke.
- Best pen ewe lambs, long wool, Mr. Salter.
- Best ditto, ditto, short wool, Col. Burgoyne.
- Best long wool hoggets, Mr. Ambrose.
- Best short wool fat wether, Mr. P. L. Wright

Mr. Cooke shewed five fat short horned oxen on their way to Smithfield, which were much admired. On the health of the umpires being drank with three times three, his Grace the Duke of Bedford returned the thanks of himself and colleagues for the honour thus conferred upon them. The Chairman, in proposing the health of Mr. Western, called to the recollection of the meeting the essential service which he had rendered his country, by steadily promoting the late resolution in our corn laws. Mr. Western returned his thanks to the company in an elegant, pertinent speech, in which he remarked that he could not possibly assume the merit so handsomely ascribed to him from the chair, knowing that it was principally due to the laudable perseverance of others, but feebly aided by his best exertions. His opinion, however, on this important subject remained unaltered, as every day's experience convinced him, that the late regulation corn-law had been the means of giving bread to the people on moderate terms, while it only secured to the grower a fair and moderate return for his industry; of which the artifices of ex-

porters and importers would have deprived both." This manly address was received with the warmest applause.—Dignum (who accompanied Lord Petre) sang several patriotic songs, and the day was spent, as usual, in the most rational conviviality.

Harlow Agricultural Society, (Essex.)

The Harlow agricultural meeting was held on Thursday the 13th and Friday the 14th of June, when the following prizes were given:

To the best ploughman—One guinea.

To the lad, under 15 years of age, who ploughs the best—One guinea.

To the best holder of a drill—One guinea.

To the best sheep shearer—One guinea.

To the best mower—One guinea.

The principal gentlemen and yeomanry of that part of the country met at ten o'clock, at Mark-hall, the seat of Montague Burgoyne, Esq. where having breakfasted, the company proceeded to view the different sorts of stock, and the farm, which they found in the best state of cultivation. The nearest part of the land seems to have been cultivated according to the system of Mr. M. Duckitt, the comparison between the drill and broad cast system appeared much in favour of the latter. Two fields of about thirty acres have been allotted as an experimental ground, for the different sorts of crops. One field is on a deep soil, the other on a very light one. Both fields were under the immediate inspection of Mr. M. Duckitt, who on each soil has evinced the superiority of his mode of drilling and hoeing the different crops. Various implements, invented by him, were also exhibited. Those which chiefly excited the attention of the company, were his skim-plough, his drill, and his hoes, which are so contrived that twenty acres may be hoed in a day, the hories always going in the furrow. Mr. Duckitt's agent, who lives in a cottage near the 21 mile-stone on the Newmarket road, received many orders for these implements which were much admired. The company dined at an ordinary at the Green-man, in Harlow, where the greatest good humour prevailed, and every person seemed desirous to support the annual meeting, so well calculated to promote the agriculture of the country and landed interest of the kingdom. A very numerous body of yeomanry from different parts of the country was present, who were much gratified in meeting the distinguished agriculturists who were assembled, among whom we particularly noticed the Duke of Bedford, Lord Somerville, the Earl of St. Vincent, Lord Ongley, Sir Wm. Rowley, Mr. Western, Mr. Moseley, Sir Harry Vane, Mr. Curwen, Mr. Wilbraham, Mr. J. Fane, Mr. Chipps, Mr. Sitwell, Mr. Hoare, &c. &c. &c. The important business in the House of Commons prevented Mr. Foster and Mr. Coke, and several other persons of distinction, from being present.

Hundred of West Derby Agricultural Society, (Lancashire.)

PETER PATTEN, Esq. President.

NICHOLAS ASHTON, Esq.

THOMAS EARLE, Esq. and

WILLIAM ROSCOE, Esq.

} Vice-presidents.

Mr. JAMES OKILL,

Mr. JAMES WARING, and

The Rev. JOHNSON TATLOCK.

} Inspectors.

This society having for its object the promotion of a general spirit of agriculture, in the Hundred of West Derby, and being particularly desirous of encouraging the tenants and farmers within the same district, have resolved, that in future there shall be a class of premiums, which shall be given to tenants only, who are invited to attend at the general meetings of the society.

and to state their respective claims, with which the owners or proprietors of land will not in futur: be allowed to interfere.

The following premiums are therefore offered to tenants at rack-rent, holding estates at will, or for any term not exceeding 21 years, the estates containing not less than 40 statute acres.

1. To the tenant who shall have his farm in the best general state of cultivation, and in the neatest and best order, as to fences, drains, fern yard, cleanliness from weeds, &c.—A silver cup, value seven guineas.

2. To the tenant who shall have his farm in the next best state of cultivation—A silver cup, value five guineas.

3. To the tenant who shall lay down the greatest quantity of land, not less than twelve statute acres, for pasture, in the best manner and cleanest from weeds, and sowed with white clover or grass seeds—A silver cup, value five guineas.

4. To the tenant who shall raise on his farm the greatest quantity of good manure, and shall therewith cover the greatest number of acres, in proportion to his farm—A silver cup, value five guineas.

5. To the tenant who shall, in the most effectual and judicious manner, lay a quantity of peat earth, with a sufficient mixture of lime, potash, soap-er's-waste, dung, dung-water, &c. on not less than ten statute acres of land.—A silver cup, value five guineas.

6. To the tenant who shall improve the greatest quantity of land, not usually overflowed in time of flood, by throwing water over it in the most equal and effectual manner, the quantity of land improved not being less than ten statute acres—A silver cup, value seven guineas.

7. To the tenant who shall most effectually improve the greatest quantity of land, not being less than five statute acres, by plowing in any green crop.—A silver cup, value seven guineas.

8. To the tenant who shall raise and consume on his farm, the best crop of turnips, to be cleared from weeds either with the drill or hoe, the quantity not being less than four statute acres—A silver cup, value five guineas.

9. To the tenant who shall raise and consume on his farm the best crop of cabbages, in every respect, to be planted in rows or ridges, to be kept perfectly clean, the quantity not being less than two statute acres—A silver cup, value five guineas.

10. To the tenant who shall raise the best crop of drilled beans, to be hoed at least twice, and weeded with the hand, the quantity not being less than two statute acres—A silver cup, value five guineas.

11. To the tenant who shall raise the best crop of dibbled beans, not less than four inches asunder, and to be well weeded, the quantity not being less than two statute acres—A silver cup value five guineas

12. To the tenant who shall produce in the most judicious and effectual manner the greatest quantity of lucerne, not being less than one statute acre—A silver cup, value five guineas.

13. To the tenant who shall raise the best crop of winter tares, preparatory to a summer crop, not being less than five statute acres—A silver cup, value five guineas.

14. To the tenant who shall drain the greatest quantity of enclosed ground, not being less than twelve statute acres, in the most approved and effectual manner—A silver cup, value seven guineas.

15. To the person who shall drain in the most effectual manner with stone or brick, the greatest quantity of land, not being less than five statute acres—A silver cup, value five guineas.

16. To the person who shall drain the greatest quantity of land, with sods, turf, or wood, in the best and most effectual manner, not being less than twelve statute acres—A silver cup, value five guineas.

17. To the tenant who shall marl, in the most approved and judicious

manner, the greatest number of acres of moor, moss, or heath, not less than fifteen statute acres.—A silver cup, value seven guineas.

18. To the tenant and occupier of any farm, who, in proportion to its size and the usual number of draught horses worked on it, shall employ in his husbandry business, the greatest number of single horse carts of the most approved construction for strength, lightness, and cheapness.—A silver cup, value five guineas.

N. B. All quantities are to be measured according to the statute measure, and not including hedges, pits, &c. but are to be land actually improved, or bearing crop.

Notices in writing of claims are to be sent to the Secretary on or before the 30th day of June, or they cannot be received. The premiums will be adjudged at the Anniversary Meeting, on Tuesday the 23rd July next, at Hoult's, Prescott.

MR. WILLIAM STANISTREET,

Secretary, 6, Leigh-street, Liverpool.

The above premiums form the third class only offered by this society. Class I, being GENERAL PREMIUMS; Class II, being premiums to OWNERS, and all to OCCUPIERS, of land, in competition; and Class IV, being premiums to LABOURERS and SERVANTS.

Airdrie Agricultural Society, (Scotland.)

At a shew of cattle, appointed by the Airdrie Agricultural Society to take place at the Airdrie May fair, for the purpose of distributing their annual premiums, as a number of very superior bulls and cows were shewn; the society adjudged

The first premium, of five guineas, for the best bull, to Henry Monteith, Esq. of Monkland.

The second premium, of two guineas, for the second best bull, to Mr. Hamilton, of Orbeilston.

The first premium, of three guineas, for the best milk cow, to Henry Monteith, Esq. of Monkland.

And the second, of one guinea and a half, to William Creelman, Esq. of Coats.

F A I R S.

Stourbridge large horse fair, commenced on Monday, April 25th, and ended on Friday the 28th. It was as usual attended by numerous breeders from all parts of the kingdom. There was a tolerable shew of fine road and blood horses, on the first day or two; the general prices asked being from 40 to 200 guineas. Some were sold for 200l. each. Good ones went off briskly; but the supply fell short of the expectation.

Carmarthen fair on June 3d. exhibited a large shew of cattle, few of which however were sold, and those at reduced prices. There was likewise a great number of horses, but good ones were scarce and dear.—On the next day, however, the fair was plentifully supplied, and prices run very high.

Exeter fair on the same day was tolerably well attended. There was the greatest exhibition of cattle that we witnessed for a number of years, the prices very high, and the most part of them were purchased by government contractors. One person, it is said, bought 600. Good horses were scarce and dear.

At Shrewsbury fair, during the same week. Cattle and sheep maintained a good price. Good horses sold high. Cheese from 30s. to 60s. per cwt. and much remained on hand.

On Wednesday June 5th, being Morpeth fair, there was very little

corn at market, but a very great shew of cattle, the fat met with a ready sale; lean cattle sold high, and good sheep maintained their prices.

The shew of horses at Beverly fair, on June 6th. was a very poor one; the best having been previously purchased, as usual, by the dealers, at high prices. Those of an inferior description, were scarce saleable at any price. Fat cattle, of which the shew was considerable, sold well.

Wool Fair.

At a Meeting of Wool Growers of the county of Essex, and that part of Suffolk in the neighbourhood of Colchester, holden at Colchester, on Saturday, June the 11th, 1805.

EDWARD WAKEFIELD, Esq. in the Chair.

It was resolved, That in consequence of there not being a fair or public market for wool, at or near Colchester, the growers are obliged, in that neighbourhood, to sell it to a certain limited number of customers, who are in the habits of fixing their own price.

2dly. That the present system of selling it, at nearly the same rate per lb. for all qualities, does not afford the due and adequate price to the grower of wools of the best quality.

3dly. That in order to procure a fair market value to the seller, it is necessary to establish a Wool Fair annually at Colchester, whose buyers from all parts of the kingdom, may have the opportunity of attending, with a certainty of finding a sufficient quantity of wool to render it worth their attention.

4thly. That in order to establish an annual wool-fair at Colchester, we whose names are hereunto subscribed, engage not to dispose of our wool, until Friday the 19th-day of July, (being the following Friday to the Thetford and Harlow-bush wool fairs), when we will attend at Colchester, and be willing to accept a fair market price, according to quality.

5thly. It is hoped that buyers in general will attend the fair, as there is no desire to establish a sale for wool, upon any other principle than that of procuring its fair market value, and Mr. Daniel Blyth, of Colchester, will find sufficient warehouse room, and shipping for any quantity which may be purchased.

6thly. That we will endeavour to procure the best information of the state of the trade, and the demand for wool at the time of the fair, and state it to those then present.

7thly. That it should be recommended to the growers of wool, to send to the warehouses of Mr. Daniel Blyth, at Colchester, a proportion of about one fleece in twenty of their growth of a fair average quality, previous to the 19th of July.

8th. That a copy of these resolutions should remain at the bar of the White Hart Inn, Colchester; and at Messrs Meggy and Chalk's, Chelmsford, to receive the signatures of such wool growers as may feel desirous of establishing the fair.

9thly. That a subscription of 5s. each from such persons as are willing to give it, shall be paid to the landlord of the Whitehart inn, Colchester, in order to defray the expences of advertisements, &c. &c.

10thly. That the resolutions should be inserted in the Essex, Suffolk, and Norwich Papers; County Chronicle, Morning Herald, Bell's Weekly Messenger; in the Leeds, Halifax, Hull, Exeter, and Chichester Papers.

EDWARD WAKEFIELD, Chairman,

That the thanks of this meeting be given to the chairman, for his attention to the business for which the meeting was convened.

At Worcester toll-free market, on Monday, June 5, there was but a moderate supply of fat and lean cattle.

At Evesham fair, on the same day, there was a capital shew of fat beasts, and sheep; the former sold from 7d to 7d. three farthings per lb. sinking the offal, and the latter, at about 7d. per lb. sinking the offal. The beasts were nearly all sold, but many of the sheep were turned out unsold. There was but an indifferent shew of horses, which sold very high.

At Barnsley fair, (Norfolk), on Monday, May 13th. the shew of cattle was pretty large, and those that were of the better kind sold readily at good prices, in the early part of the day, but a considerable depression took place in all kinds of stock towards the close, and many of those of an inferior quality were driven away unsold, though offered at reduced prices from what was readily obtained in the morning. The shew of good horses was small, and very great prices were eagerly given for them; indifferent ones were in great numbers, and sold at prices proportionably high. A very numerous company attended, and the light-fingered gentry were unusually successful; Mr. Rhodes of Croiton, had his pocket picked of between 20 and 30l. and several other neighbouring gentlemen were equally unfortunate.

At Auchinleck cow fair, (Scotland), held on the first Tuesday after Old Whitsunday, there was a great shew of cattle, and sales were made at very high prices.

Government have contracted for 3000 men to make the intended canal and military road from Shorncliff battery in Kent, to Rye in Sussex, which is proposed to be completed by August next.

Preservative against the fly in turnips, communicated by J. Blunt, esq. of North Wallop, near Stockbridge, to A. Young, esq.

This preservative is no other than sowing a small quantity of buck wheat with the turnips.—In 1803, he sowed upon pared and burnt land, a bushel of buck wheat, and 2lb. of turnip seed per acre, and letting the buck wheat stand for a crop, he mowed it for seed and reserved it for stubble, a full crop of turnips untouched by the fly, though upon the same land, pared and burnt also, and sown at the same time, but without the buck wheat, the turnips were utterly destroyed by the fly.

Conceiving from this trial, that the buck wheat had proved a preservative from the enemy, he repeated the experiment in 1804, with only a peck an acre of buck wheat, the plants being cut out in hoeing the turnips. Wherever the buck wheat was sown, the turnips escaped the fly, and proved as fine as any in the country, though others were eaten in the adjoining piece. Mr. B. intends repeating the experiment this year, with various proportions of buck wheat, in order to discover the smallest quantity that will secure a crop.

June 9th. The farmer's club at Narberth, held their annual sheep shearing last week, when Mr. David Rees, of the Castle Inn, Havreford-well, won both the prizes for the best lambs; the first was a ram lamb of the Leicester breed; the second a ram of the same kind, crossed by a Welsh ewe, they are both considered by the best judges, to be the finest and most promising stock ever viewed there. The five premiums for shearers were adjudged to farmers' servants in the neighbourhood.

A provincial paper states, that a greater quantity of foreign wheat will be imported this summer than has ever been remembered: From 100,000 to 250,000 quarters, from Dantzic and other ports are already contracted for, and a considerable part is already arrived.

Salisbury Plains, lately a dreary unprofitable waste, now in extensive tracts, presents the most gratifying appearance of cultivation and produce. A few years since there was scarcely an inclosure, or a spot of tillage for upwards of 20 miles between Andover and Blandford, the whole is now reclaimed and under various crops of excellent promise.

A most remarkable instance of fecundity in the breed of sheep has occurred

this season on the farm of Jonathan Sutterby, at Clouchwarton, Norfolk; out of little more than 200 ewes, he had 35 threes, only nine single lambs, and the rest couplets.

Fine, new, large-sized potatoes were sold in Preston market, (Lancashire) on Saturday, May 25, at four-pence per pound, and very fine gooseberries at four-pence per quart.

On the same day, was gathered, in a garden, on St. Michael's Hill, Somerset, a cowslip, the stem of which was flat, and eleven inches high; one inch in circumference, and which had 122 pips, or blossoms on it. Several others were cut at the same time with 60 or 70 buds.

Two malsters in Rutlandshire have lately paid the penalties of 200l. on conviction of having wetted barley, contrary to the statute 42 Geo. III. cap. 38. § 30.

Scotland has contributed this year to supply her Southern neighbours with wheat, having sent no less than 10,000 quarters to London in one week; that country also exported large quantities of oats last year to Portugal, Scotland escaped the blight last year, and besides has been making rapid strides towards an improved culture.

We cannot help noticing with our approbation a Plan, which has lately been projected, and received the Sanction of His Royal Highness the PRINCE of WALES, the Earl of MOIRA, and a large number of Nobility and Gentry, including many literary and philosophical characters, which we have no doubt will be amply extended to agrarian ameliorations, and receive the good wishes of every friend to science, virtue, and the poor. This is the establishment of a periodical repository, for the reception of appeals upon every subject that concerns the interest and happiness of mankind, under the title of a "PHILANTHROPIC REPERTORY." We hope to be furnished by its respectable Conductors with a particular account of their objects, for a future number.

Prices of Raw Hides, Hay and Straw, &c. for June, 1805.

	1st Week		2d Week		3d Week		4th Week	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
<i>Raw Hides.</i>								
Best Heifers & Steers, pr ft.	3 6 to 3 8	3 6 to 3 8	3 6 to 3 8	3 6 to 3 8	3 6 to 3 8	3 6 to 3 8	3 6 to 3 8	3 6 to 3 8
Middling — —	3 2 to 3 4	3 2 to 3 4	3 2 to 3 4	3 2 to 3 4	3 2 to 3 4	3 2 to 3 4	3 2 to 3 4	3 2 to 3 4
Ordinary — —	2 10 to 3 0	2 10 to 3 0	2 10 to 3 0	2 10 to 3 0	2 10 to 3 0	2 10 to 3 0	2 10 to 3 0	2 10 to 3 0
Market Calf — —	12	12s	12	12	12	12	12	12
Eng. Horse — —	17s to 21s	17s to 21s	17s to 21s	17s to 21s	17s to 21s	17s to 21s	17s to 21s	17s to 21s
Lamb Skins — —	2 6 to 4 0	2 6 to 3 0	2 6 to 3 0	2 6 to 3 0	2 6 to 3 0	2 6 to 3 0	2 6 to 3 0	2 6 to 3 0
Sheep Skins — —	4 0 to 8 0	4 0 to 8 0	4 0 to 8 0	4 0 to 8 0	4 0 to 8 0	4 0 to 8 0	4 0 to 8 0	4 0 to 8 0
<i>Prices of Hay and Straw.</i>								
St. James's—Hay —	4 7 6	4 4 0	4 — 0	4 2 6	4 — 0	4 2 6	4 — 0	4 2 6
Straw — —	2 11 0	2 11 9	2 10 6	2 11 0	2 10 6	2 11 0	2 10 6	2 11 0
Whitech.—Hay — —	4 8 0	4 10 0	4 5 0	4 5 0	4 5 0	4 5 0	4 5 0	4 5 0
New — —	0 — 0	0 — 0	0 — 0	0 — 0	0 — 0	0 — 0	0 — 0	0 — 0
Clover — —	4 13 0	5 0 0	4 14 6	4 14 6	4 14 6	4 14 6	4 14 6	4 14 6
Straw — —	2 11 0	2 5 0	2 5 0	2 13 0	2 5 0	2 13 0	2 5 0	2 13 0
<i>Newbury.</i>								
Wheat — — —	64s to 108s	64s to 108s	70s to 102s	66s to 105s	64s to 108s	64s to 108s	70s to 102s	66s to 105s
Barley — — —	33s to 44s	33s to 44s	36s to 42s	36s to 44s	33s to 44s	33s to 44s	36s to 42s	36s to 44s
Oats — — —	27s to 30s	27s to 30s	27s to 31	20s to 30s	27s to 30s	27s to 30s	27s to 31	20s to 30s
Beans — — —	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s
New ditto — — —	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s
Peas — — —	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s
<i>Salisbury.</i>								
Wheat — — —	—s to 98s	78s to 96s	76s to 96s	74s to 94s	—s to —s	—s to —s	—s to —s	—s to —s
New ditto — — —	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s
Barley — — —	40s to 44s	38s to 42s	36s to 42s	36s to 42s	40s to 44s	40s to 44s	36s to 42s	36s to 42s
Beans — — —	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s
Oats — — —	29s to 33s	28s to 33s	28s to 33s	29s to 33s	29s to 33s	29s to 33s	28s to 33s	29s to 33s
Peas — — —	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s	—s to —s

**Prices of Hops, Meat, Seed, Leather, Tallow, &c. for
June, 1805.**

<i>Price of Hops.</i>		1st Week	2d Week	3d Week	4th Week
<i>Bags.</i>		s. s.	s. s.	s. s.	s. s.
Kent	—	84 to 110	88 to 110	90 to 120	100 to 126
Suffex	—	84 to 100	88 to 100	90 to 112	100 to 116
Essex	—	84 to 100	88 to 100	90 to 112	100 to 112
<i>Pockets.</i>					
Kent	—	80 to 120	90 to 120	100 to 126	112 to 132
Suffex	—	90 to 105	90 to 112	100 to 114	112 to 126
Farnham	—	140 to 160	140 to 160	140 to 160	140 to 160
<i>Seeds.</i>					
Broad Beans, (per quarter)					
Long Pods					
Tares					
Rye-Grass					
Carraway, (pr cwt.)					
Coriander					
Tre oil					
Red Clover					
White, ditto					
White Mustard Seed, pr bu					
Brown ditto					
Canary Seed					
Turnip,					
Rape Seed, (per last)					
<i>Meat at Smithfield,</i>					
To sink the offal, p. ft. 8lb.		s. d.	s. d.	s. s.	s. s. d. s. d.
Beef	—	4 6 to 5 6	4 8 to 5 6	4 8 to 5 10	4 4 to 5 6
Mutton	—	4 0 to 5 0	4 0 to 5 0	5 0 to 5 4	4 4 to 5 4
Veal	—	5 0 to 6 4	4 6 to 6 0	4 6 to 6 4	4 8 to 6 0
Pork	—	4 4 to 5 4	4 0 to 5 0	4 8 to 5 4	4 8 to 5 4
Lamb	—	6 0 to 7 0	5 0 to 6 4	5 0 to 6 4	5 0 to 6 4
Head of Cattle—Beasts about		1,700	1,700	1,800	1,800
— Sheep		15,000	9,500	9,000	12,000
<i>Price of Leather.</i>					
Butts, 50lb. to 56lb. each		22 to 23	22 to 23	22½ to 23	22½ to 23
Ditto, 60lb. to 65lb. each		24 to 25	24 to 25	24 to 25½	24 to 25
Merchants Backs		22½ to 23	24½ to 25	— to 22	— to 22½
Dressing Hides		22 to 24	22 to 23	22 to 23	22 to 23
Fine Coach Hides		23 to 25	23 to 25	23 to 24½	23 to 24
Crop Hides for cutting		22½ to 23½	22½ to 23	22½ to 23	22½ to 23½
Flat Ordinary		21½ to 22½	21½ to 22½	22 to 23	22 to 23
Calf Skins, 30 to 40lb. p. doz		36 to 40	36 to 40	35 to 40	35 to 40
Ditto, 50lb. to 70lb. do.		35 to 39	35 to 39	35 to 40	35 to 40
Ditto, 70lb. to 80lb. do.		34 to 38	34 to 38	34 to 38	34 to 38
Sm. Seals (Greenland)		42 to 45	42 to 45	42 to 45	42 to 45
Large do. (per dozen)		51 10s to 91	61 1s to 81	61 to 9	61 to 91
Goat Skins per doz.		30 to 65	30 to 65	30 to 65	30 to 65
Tanned Horse Hides pr hide		25s to 42s	25s to 42s	30s to 42s	30s to 42s
<i>Price of Tallow.</i>					
St. James's Market		3 10	3 10	3 10½	3 11
Clare Market		3 10	3 10	3 10½	3 11
Whitechapel Market		3 9	3 9	3 10	3 11
Per stone of 8lb. Average		3 9½	3 9½	3 10½	3 11½
Town Tallow		65 0	66 0	67 0	67 6
Russia (Candles)		— to 67s	67 6	66 to 68	66 to 68s.
Russia ditto (Soap)		65 0	66 0	66 0	67 0
Melting Stuff		55 0	55 0	56 0	55 to 56s
Ditto rough		36 0	36 0	38 0	38 0
Graves		11 0	11 0	11 0	11 0
Good Dregs		10 0	10 0	10 0	10 0
Yellow Soap		76 0	76 0	76 0	76 0
Mottled ditto		86 0	86 0	86 0	86 0
Card ditto		90 0	90 0	90 0	90 0
Candles, per dozen,		11 0	11 0	11 0	11 0
		12 0	12 0	12 0	12 0

LONDON PRICES OF GRAIN for June, 1805.

MARK LANE, Monday, June 4, 1805.

Having a large supply of Foreign Wheat, and several thousand quarters now on sale at the Coffee-house up stairs, at reduced prices, it has caused a general decline on the Market of about 5s. per quarter; with the late customary exception, however, of a few select samples of fine white obtaining rather more money than stated in our currency. Barley continues a heavy article, with no improvement in price. Peas of the various kinds remain nearly as last reported. Tick Beans are dearer. Good Oats, of which there is no scarcity, obtain good prices. Flour heavy, at 75s. 78s. nominal 80.—Correct a literal error in our last Monday's figures—For Fine Old Dantzic to 88—read to 98.

Price of Grain, on board Ship, as under.

Wheat	55s 70s to 88s	Malt	65s to 72s od	Old	51s
Fine	89s to 90s	White Peas	38s to 42s od	Tick Beans new	36s to 42s
Superfine	92s	Boilers	44s to 47s	Old	45s
Dantzic	95s	Suffolks	—s to 49s od	Oats	26s 29s to 32s
Rye	48s to 52s	Grey Peas	40s to 45s	Polands	33s to 34s
Barley	32s to 38s	Beans, new	43s to 48s od		

Monday, June 10.

Our imports of foreign Wheat last week are stated at between 5 and 6000; the fine, whether of our own growth or from abroad, are dull and cheaper, though a few select samples obtained rather more money than stated in our currency below; the coarse and ordinary are at all prices, mostly declining, and a heavy sale. We have not much variation in either Barley or Malt; of the former, there is little of prime quality on hand. White and other Peas, with Beans of both sorts, are in request, and something dearer. Oats, of which we have some foreign arrivals, are full as high as last Monday.

Wheat	54s 68s to 86s	Malt	66s to 72s od	Old	53s
Fine	87s to 88s	White Peas	38s to 45s od	Tick Beans new	38s to 44s
Superfine	—s to 90s	Boilers	45s to 50s	Old	47s od
Dantzic	92s	Suffolks	—s to 52s od	Oats	24s 28s to 31s
Rye	46s to 50s	Grey Peas	42s to 46s od	Polands	32s to 34s od
Barley	30s to 37s od	Beans, new	44s to 50s od		

Monday, June 17.

There are not many fresh arrivals of Wheat to-day, but a full supply on hand, mostly of the second and ordinary qualities, all except the fine have declined materially since this day fortnight, say from 10s. to 15s. per quarter; and to this may be added, that the sales on the market have been considerably affected by an auction of upwards of 10,000 quarters, now selling at the Coffee-house. In other grain we have no very specific alteration; some articles had a start last Monday, but they are become stationary at our currency below.

Wheat	46s 60s to 84s	White Peas	36s to 42s	Old	51s
Fine	86s to 90s	Boilers	43s to 48s	Tick Beans new	37s to 42s
Superfine Dantzic	92s	Suffolks	—s to 50s	Old	45s
Rye	46s to 50s	Grey Peas	42s to 46s	Oats	24s 28s to 30s
Barley	32s to 37s	Beans new	42s to 47s	Polands	32s to 34s
Malt	64s to 70s				

Monday, June 24.

The fresh supply of Wheat for this day's Market was large, and composed chiefly of Foreign; a few select samples of Dantzic obtained 98s. per quarter. In our last report, we stated that all Wheats, except fine, were from 10s. to 15s. per quarter cheaper; the expression should have been, "all Wheats, of ordinary and inferior quality, were from 10s. to 15s. per quarter cheaper;" and this morning the same Wheats were almost unsaleable.

In Rye, Barley, and Malt, we have little to note, the demand at this season being inconsiderable; prices nearly as last week.—White and Grey Peas likewise continue nearly at last quotation.—Beans are something dearer.—We have abundance of foreign Oats in, which article has slackened in sale, and is from one to two shillings per quarter lower than last Monday.

Wheat	46s 60s 86s	White Peas	36s to 42s	Ditto, old, to	52s
Fine	88s to 90s	Boilers	44s to 48s	Ticks, new	37s to 42s
Superfine Dantzic	94s	Suffolks, to	—s to 50s	Ditto, old, to	46s
Rye	45s to 50s	Grey Peas	42s to 46s	Oats	22s 25s to 28s
Barley	30s to 37s	Beans, new	43s to 48s	Polands	30s to 32s od
Malt	64s to 70s				

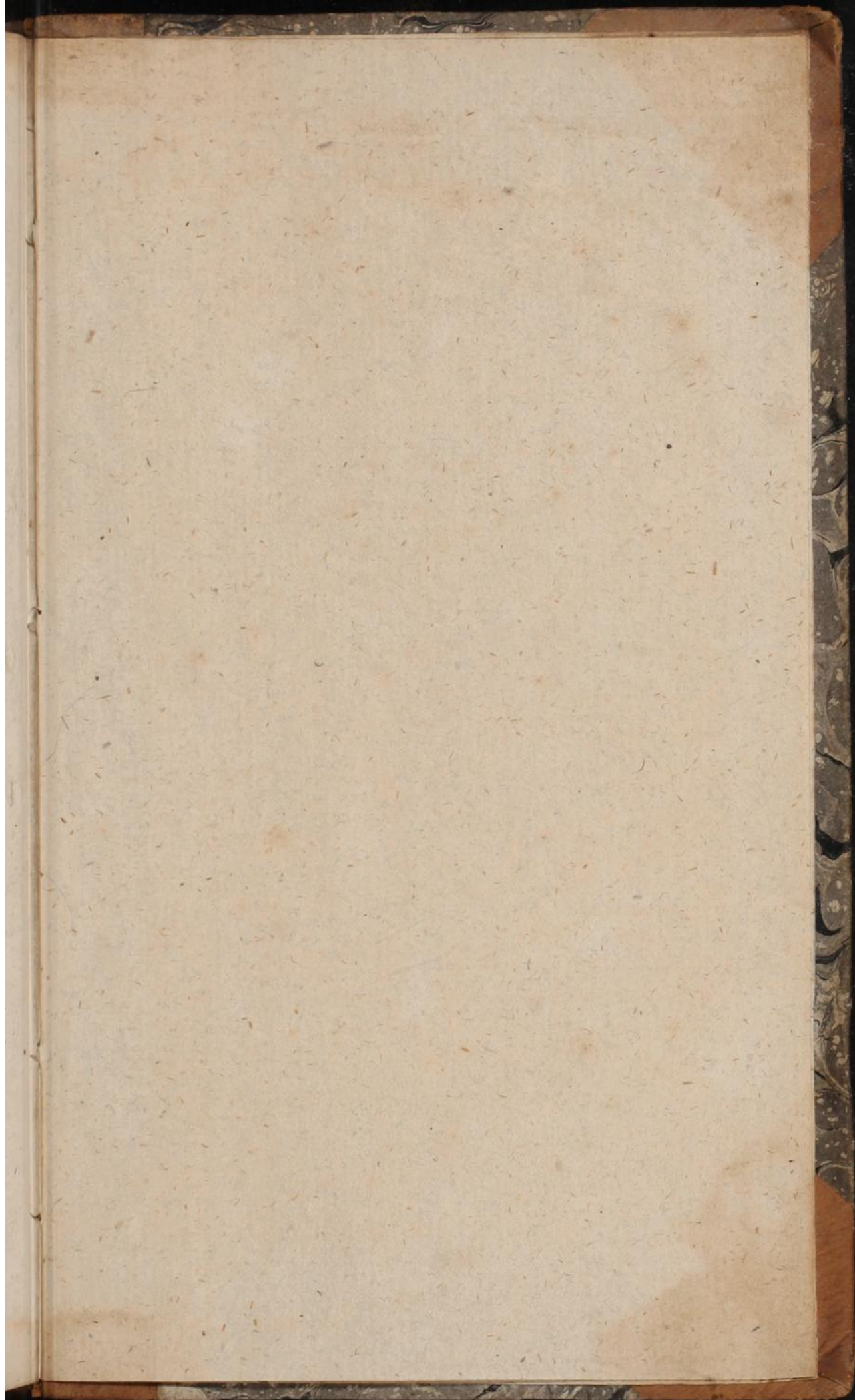
AVERAGE PRICES OF CORN, by the quarter of eight
Winchester bushels; and of OATMEAL, per boll, of 140
pounds Avoirdupoise:

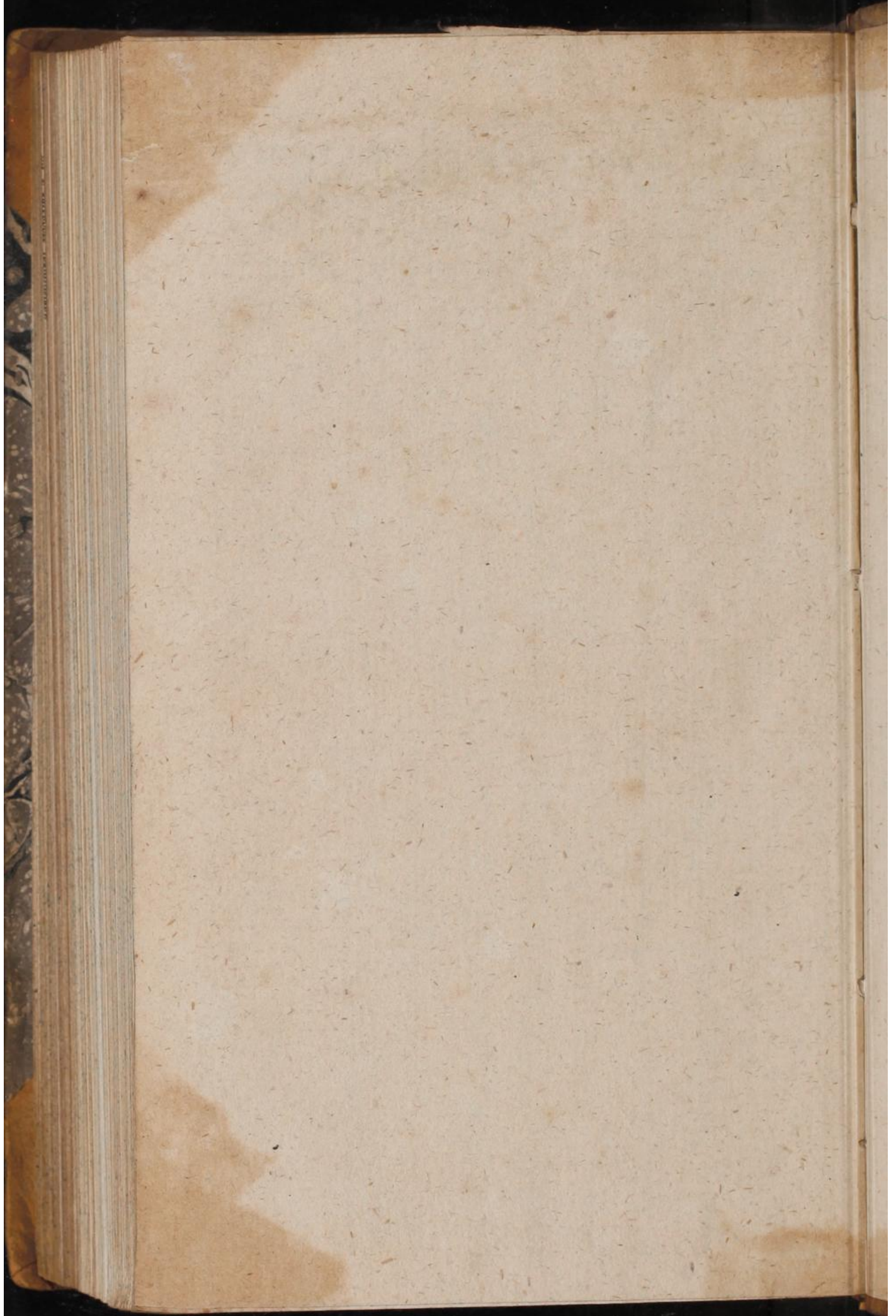
From the Returns received in the Week, ended June 15, 1805.

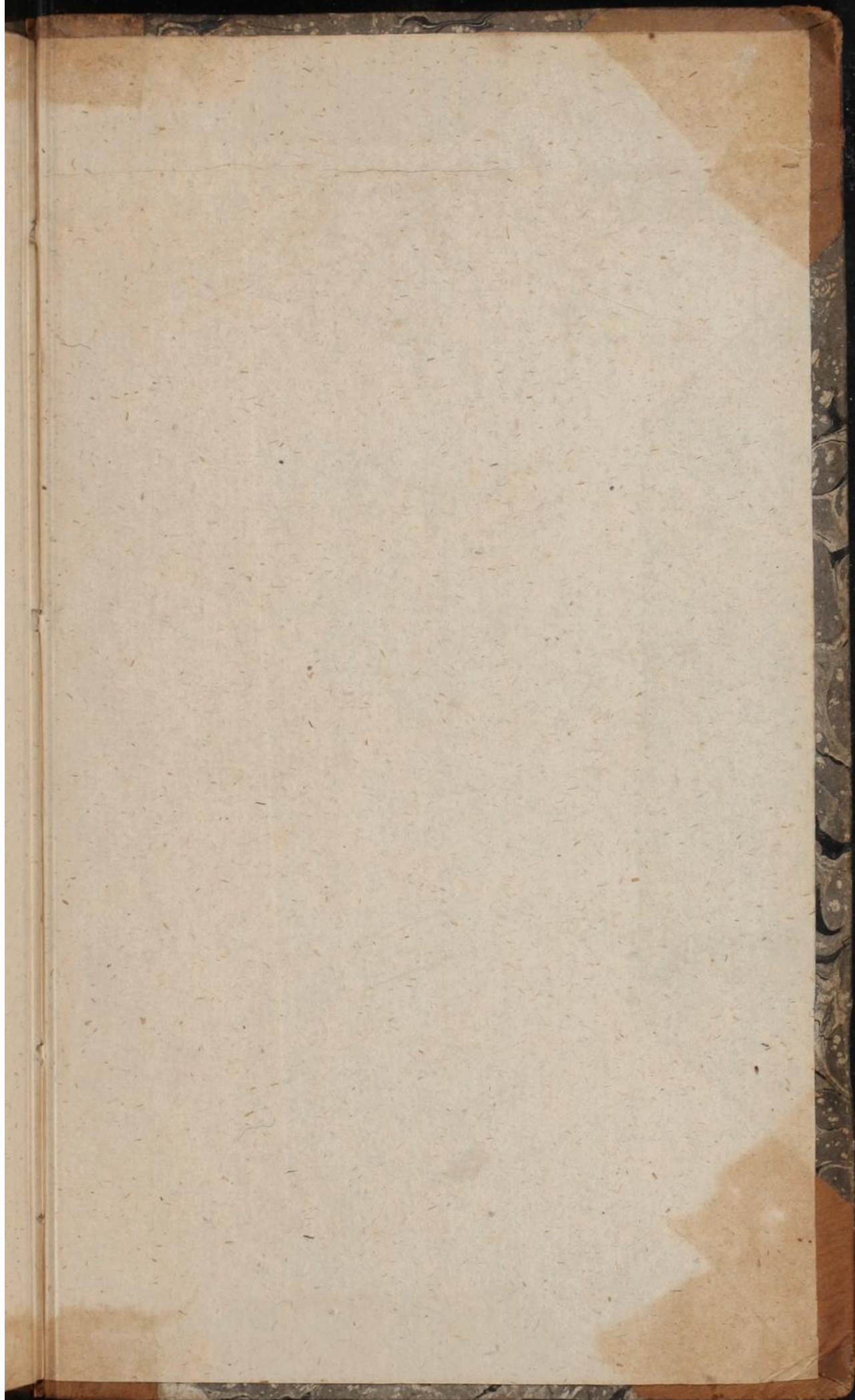
COUNTIES.	Wheat.		Rye.		Barley.		Oats.		Beans.		Peas.		Oatmeal.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Middlesex	82	9	53	0	38	3	30	2	45	1	46	0		
Surrey	97	8	45	0	39	6	31	10	45	0	48	0		
Hertford	85	10	40	6	42	0	26	10	41	6	42	3		
Bedford	86	1	64	0	43	2	28	1	41	7	47	2		
Huntingdon	58	6		40	6	23	8	38	3	43	1			
Northampton	90	9	67	0	47	0	24	8	44	0				
Rutland	92	6		51	0	26	0	48	0			62	0	
Leicester	88	0		46	6	25	9					41	6	
Nottingham	94	4	69	0	49	0	28	4	46	4				
Derby	89	4		54	0	25	9	49	4	49	0	42	1	
Stafford	93	10		44	7	28	4	51	5			41	8	
Salop	90	10		50	6	32	4							
Hereford	91	1	51	2	42	3	30	8	48	9	45	8	64	1
Worcester	90	1		45	3	28	7	49	1	44	6			
Warwick	99	4		47	6	29	2	53	4			46	9	
Wilts	83	8		40	8	30	1	4	4	52	0			
Berks	83	6		39	2	30	10	49	6	50	0			
Oxford	83	6		40	8	30	2	46	9					
Bucks	83	4		43	6	29	1	46	2	47	3			
Brecon	96	0		48	0	27	10					43	2	
Montgomery	87	2			2	31	1					50	10	
Radnor	86	11		47	2	4	0		44	9				

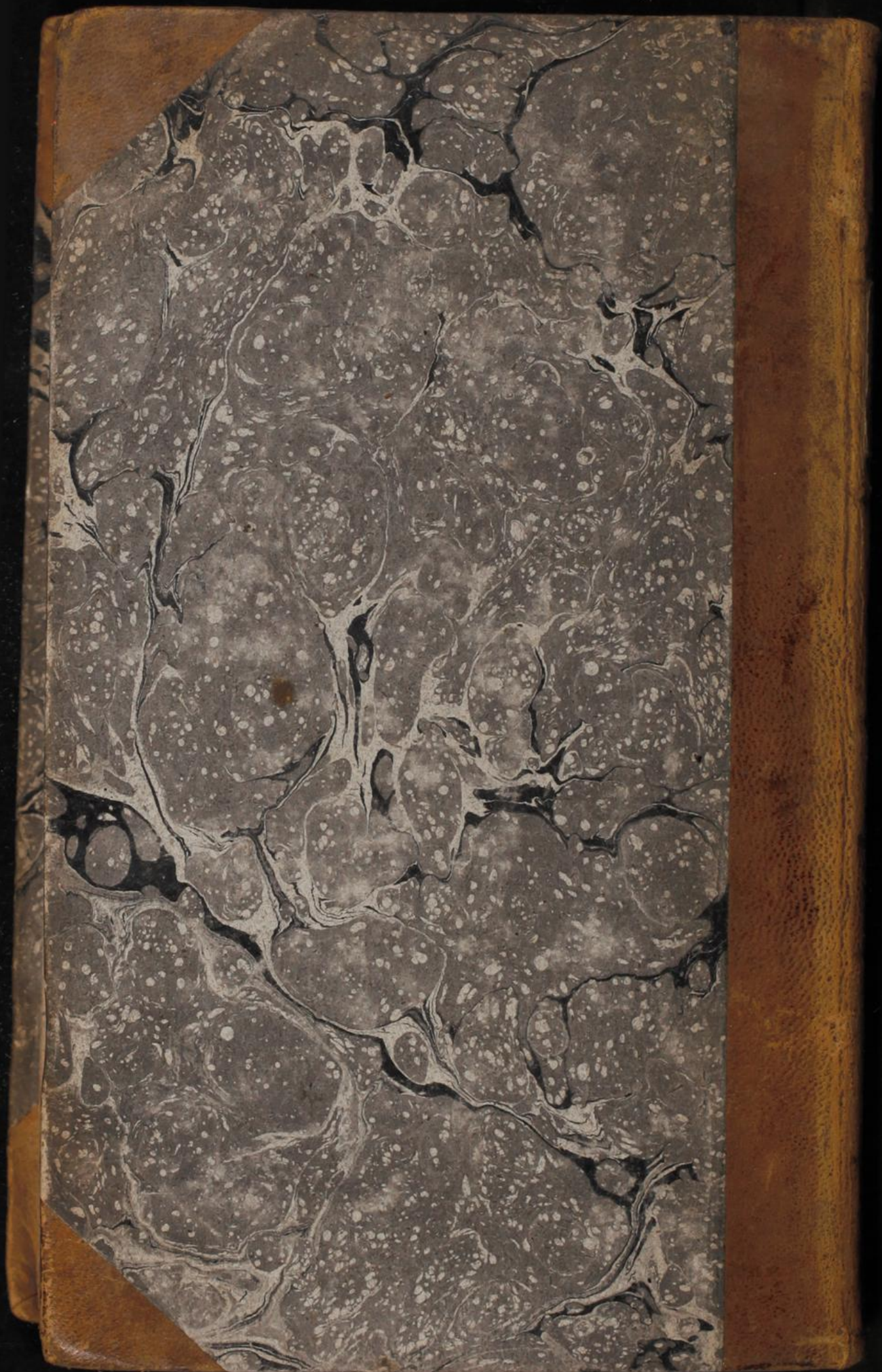
Maritime Counties.

Essex	91	4	51	6	39	0	31	4	43	4	46	0		
Kent	96	0		39	6	32	3	44	9	46	0			
Suffex	100	4		41	0	32	8							
Suffolk	89	5		38	0	33	5	39	8					
Cambridge	90	9		37	7	23	0	39	10	42	0			
Norfolk	93	8		33	8					41	0			
Lincoln	83	5	67	6	43	5	24	5	41	10				
York	81	2	80	0	36	10	26	0	41	10	69	4	55	8
Durham	90	10				26	4							
Northumberland	86	1	60	0	46	4	25	11				17	9	
Cumberland	84	7	58	0	41	4	27	4						
Westmoreland	98	11	64	0	40	2	29	6				21	4	
Lancaster	92	0		37	0	26	6	47	0			21	8	
Chester	83	4				30	4					23	2	
Flint						27	8							
Denbigh	96	1		53	4	29	7					50	10	
Anglesea	80	0		42	0	21	6							
Carnarvon	87	4		44	0	19	9					43	8	
Merioneth	92	10		52	0	24	10					43	2	
Cardigan	82	0				20	0							
Pembroke	75	2		40	2	20	0							
Cardiff	87	10		48	0	22	0							
Glamorgan	92	0		58	8	16	10							
Gloucester	89	0		45	7	26	4	51	3	48	0			
Somerset	91	10		44	5	30	0	50	0					
Monmouth	102	1												
Dorset	97	7		43	8	29	2							
Devon	97	11		45	3	26	4							
Devon	99	8		38	6	33	11							
Wiltshire	95	0		40	3	34	6	50	6					







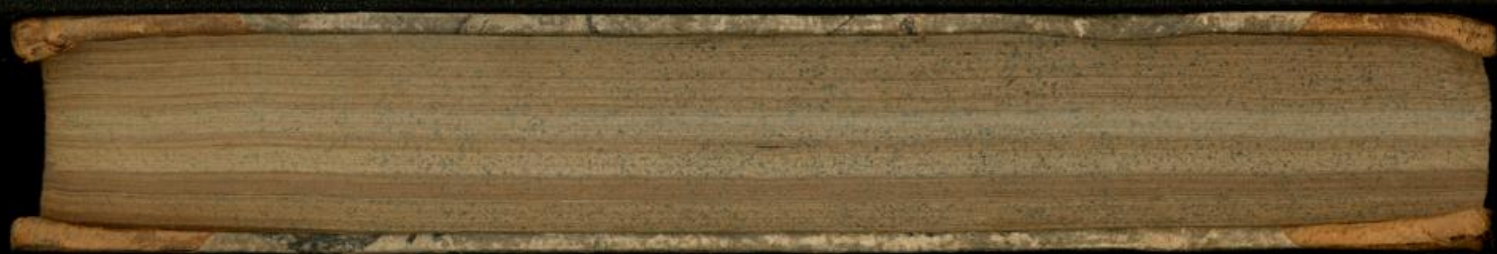


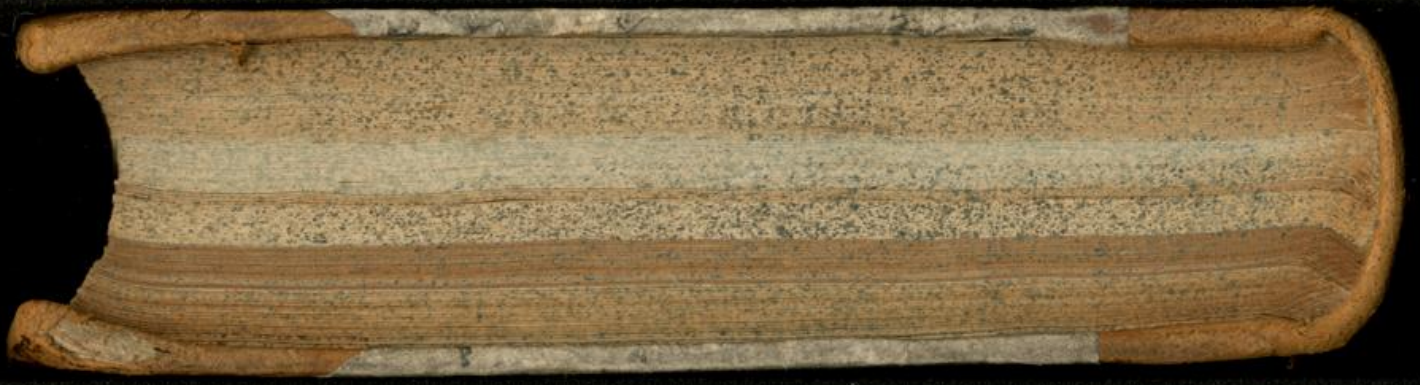
COMMERCIAL
AND
AGRICULTURAL
MAGAZINE

XII

852.







Inches 1 2 3 4 5 6 7 8
Centimetres 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

Farbkarte #13

B.I.G.

Blue	Cyan	Green	Yellow	Red	Magenta	White	3/Color	Black
								
								

