

# FARMERS SOCIETY OF THE COUNTY OF MEATH.

*Communicated by J. M. Grainger, Esq. Causestowen, Navan.*

**A**T a meeting of the Farmers Society, held at Navan, on the 22d October, 1800,

The Right Hon. and Right Rev. Lord BISHOP of MEATH in the Chair ;

It was resolved, That the following plan, which was approved by the Grand Jury of Meath, at last Lent assizes, should be published and dispersed throughout the county, with the list of the subscribers ; and that the next meeting should be at Kells, on Saturday the 22d day of November next, where it was hoped, that such gentlemen and farmers who approve of the Society, would attend, or send in their names, with the sums they intend to subscribe.

THOMAS EVERARD, SEC.

## PLAN FOR A FARMERS SOCIETY.

**THAT** a society shall be formed calling itself the Farmers Society of the County of Meath.

That the county society shall be sub-divided into barony societies.

That to be a member of the county society, a subscription shall be requisite of no less than two guineas.

That to be a member of a barony society, the lowest subscription shall be half-a-guinea.

That a president, a vice-president for every barony, a treasurer and a secretary shall be elected by a majority of subscribers at the first meeting that shall be convened of the county society.

That together with the vice-president of each barony so elected, there shall be a secretary and a treasurer for each barony society ; to be elected by the majority of the barony subscribers. A subscriber to the general county society shall be, of course, a member of his own barony society.

That the county society shall assemble once in every six months, and that a committee of the members shall be appointed at every such meeting, to assemble oftner as they shall think necessary, or as they may be called upon by the barony societies.

That the barony societies shall meet every three months, and that they also appoint a committee of their members, to meet as often as they shall find necessary.

That to form a county meeting, the presence of the president, or of the majority of the vice-presidents, or of a specific number of the county society subscribers shall be necessary. The number to be fixed according to the list that shall appear at the first general meeting of each year.



That to form a barony meeting, the presence of the president, or of a subscriber deputed by him, and a certain number of barony society subscribers shall be necessary; the number to be fixed according to the list produced at the first barony meeting of each year.

That the objects of the society shall be to improve the breed of cattle, draft horses, sheep and hogs; to encourage experiments and improvements in the different branches of agriculture; to reward the skilful and industrious among the lower classes of farmers, labourers, and persons of every description employed in husbandry; to meliorate the state of the lower orders amongst us; to encrease their comforts, and to improve their habits and their morals.

That as the gentlemen of each barony are best acquainted with the species of farming most proper for it, from the nature of the soil, and other local circumstances; as they best know the particular direction that it may be requisite to give to the manners, habits and employments of its poorer inhabitants, and what may be most necessary to promote their comforts; it shall be the business of the several barony societies to specify the particular objects, to which they shall hold out rewards, and the particular exigencies to which they shall extend relief and assistance, and to fix and ascertain the quantum of their rewards and of that relief, according to the sum which shall be appropriated to each barony at the general meetings of the county society.

That the sums to be appropriated to each barony shall vary or not every year, as shall be decided by the previous general meeting, on a consideration of the general fund, and the actual state of each barony; and that no money shall be issued for the purposes of the society, but at a general meeting of the county society.

That timely notice of meetings, as well of the county society, as of barony societies, shall be given to every member by the respective secretary.

That the premiums to gentlemen and farmers, paying three hundred a year and upwards in rent, shall be appropriate medals, and to all others in money or farming utensils at their own option.

That as the Farming Society, of which the Right Hon. John Foster is president, proposes its premiums to those who shall produce their cattle, &c. &c. at the Ballinasloe fair, the candidates for premiums from this Society, for improving the breed of cattle, draft horses, sheep and hogs, must exhibit at such fairs in the county, as shall be hereafter appointed, or in the Dublin market; and all premiums for ploughing, &c. &c. shall be ascertained by a view of a special committee appointed for the purpose in each barony, which view is to be taken on the farms of the respective candidates.

That all subscriptions shall be paid at the time of subscribing, or at furthest three months after; and that every subscriber shall be deemed a debtor to the Society for the sum he subscribes, from the day



day of his subscribing, until he shall give notice in writing to the Secretary, that he means to withdraw himself from the Society the ensuing year.

Approved by the Grand Jury, at Lent Assizes, 1800.

HAMILTON GORGES, Foreman, with Fellows.

LIST OF SUBSCRIBERS.

	£.	s.	d.		£.	s.	d.
Lord Fingal, -	5	13	9	Arch-Deacon of Meath,	3	8	3
Lord Ludlow, -	5	13	9	John Young, Esq.	3	8	3
Lord Bective, -	5	13	9	Michael Gibney, Esq.	3	8	3
Lord Conyngham,	5	13	9	Rev. William Kellet,	3	8	3
Bishop of Meath,	5	13	9	Maj. General Nugent,	3	8	3
Sir Marcus Somerville,				Robert Bolton, Esq.	2	5	6
Bart. -	5	13	9	Gustavus Lambart, Esq.	3	8	3
Thomas Everard, Esq.	5	13	9	John Fay, Esq. -	3	8	3
Thomas Barnes, Esq.	5	13	9	Rev. M. H. Noble,	3	8	3
Thomas Barry, Esq.	4	11	0	Mr. Patrick Murphy,	3	8	3
Rev. Dr. O'Connor,	3	8	3	Doctor Gibney,	1	2	9
Governor Nugent,	3	8	3	Francis D. Hamilton,			
John Gerrard, Esq.	3	8	3	Esq. -	1	2	9
John C. Nugent, Esq.	3	8	3	Doctor Nelligan, -	1	2	9
John M. Grainger, Esq.	3	8	3	John Barry, Esq.	1	2	9
Philip Barry, Esq.	3	8	3	William Disney, Esq.	1	2	9
Rev. Philip Barry,	3	8	3	Mr. Henry Hazlewood,	1	2	9
Robert Waller, Esq.	3	8	3	Mr. Thomas Russel,	1	2	9
Christ. Cusack, Esq.	3	8	3	Geo. O'Connor, Esq.	1	2	9
David Thompson, Esq.	3	8	3	Mr. Mathew Codd,	1	2	9
Rob. Thompson, Esq.	3	8	3	Mr. Thomas Flory,	1	2	9

ON FALLOWING.

BY MR. JAMES.

THE necessity of summer fallowing is at last called into question, and I have no doubt, if we could overcome people's prejudices, (which, by the bye, is more difficult to destroy than the weeds) this practice would be entirely exploded.—I conceive the intention of them is not so much to afford the earth that pause or rest, on which our author (Mr. Kent—See No. I, 61) has so ingeniously and so very reasonably remarked, as by furnishing the farmer with an opportunity of exposing the roots of the weeds to the rays of the sun, by repeated ploughings, in order to effect their destruction. But let me ask, by way of exposing the fallacy of this method of fallowing, how would this destruction be effected in the case of a dripping summer? And would it not be very unfortunate for that person who



was under the obligation, by the articles of his lease, or his unconquerable prejudice, to fallow in such a season? Would he not lose a year's rent of that part of his farm, without being one jot the forwarder, with the addition of a considerable expence, incurred by a great proportion of labour into the bargain? Surely this, if properly considered, proves incontestibly the system to be founded upon wrong principles, and ought to induce us to receive any opinion, advanced with a correct motive, as worthy our consideration at least, and by no means a fit object of our indifference, not to say contempt. The Society for the Promotion of Arts, have taken great pains upon this subject; they are actuated in this, as in every other measure, by genuine philanthropy, and are anxious to be the means of saving the tenant or landholder, one rent in three. The method which I wish to recommend is, alternately to grow meliorating and exhausting crops, and to be careful, in the progress of their growth, to hoe them occasionally. The drill husbandry, wherever it can be applied, ought, on this account, never to be neglected, and consequently, the broad-cast husbandry for the same reason, should be abolished, excepting for turnips and the smaller seeds: in fact, any method, and of which there are many extant, is to be preferred to this. It is a trite observation, that the cleaner any land is kept, the less care is requisite to continue it so; and I am clearly of opinion, if the crops are well preserved from weeds in their infancy, when they are in the most danger, and the hoeing continued as long as can be conveniently with their safety, the produce will be increased, and by the weeds being eradicated (for the bare cutting off their tops will not be sufficient) their seeding will be prevented, as well as their propagation from the roots; from hence I infer, the necessity of summer fallowing may be superseded.—*Agricultural Survey of Norfolk*, p. 70.

## PLAN FOR PROMOTING GOOD HUSBANDRY.

BY CAPTAIN ARCHER, DUBLIN.

TO THE EDITOR.

SIR,

THE best means of promoting and diffusing the knowledge of agriculture, would be by means of county farms, conducted by scientific persons, in which the most productive, profitable and useful crops, should be raised on the most improved plans; the best modes, and best implements for such purposes practised and explained in the most public manner; and above all things to raise winter crops for stall-feeding and improving of cattle, hitherto so shamefully neglected to the loss of the individual and the whole nation. These farms might be simply confined to raising food for man and beast. In order to render them extensively useful, two objects should



should be attended to; they should be near the greatest market towns, and central as possible, not to the county only, but to that part of it where the greatest body of the farmers reside, in order that they might have access to it on market or any other days for information, and to have ocular proofs of the effects of *good husbandry* and good management, divested of all doubtful and intricate transactions. This would make converts beyond what could be effected by any arguments, which many would suspect and reject.

There is something so pleasing to the eye in luxuriant crops that have been put neatly into the ground, that the very appearance should draw forth comparison and excite competition. Here the farmer might recur for information and instruction, which should be granted him liberally at all times.

About 100 acres might answer this purpose, half of which may be under pasture, and the remainder will give employment to a plough, and would contain not only the rudiments, but the very science itself, as far as would be *necessary* to instruct any farmer, or even the rising generation, which would in time be of as much or more advantage than instructing the farmer himself.

The expense of this farm would be only in the first laying it out, buying cattle and implements, and paying for labour until the crops would return: this might be well effected upon a farm of 100 acres for about £.2000, a sum that might be easily raised by any county having so great an object in view.

Here a fund would be established to recur to, in time, for another useful purpose. The annual produce of this farm should be appropriated for premiums in the different lines of agricultural improvements of merit. Two or three proselytes, gained over by these means, would reciprocally communicate to each other through the county, and when once they found their advantage it would make hasty and extensive strides, emulation would be excited, and they would proceed from good to better, until they would arrive at the wished for perfection, and themselves be able in time to communicate information to others.

These farms, under what authority soever established, should annually communicate with each other, compare the nature of soil, produce, &c. &c. in order to advance the general prosperity.

An agricultural academy should constitute a branch of the farm, and it should be extended in a given ratio to the extent and population of each county, and they should be instructed in every branch of the most approved husbandry, and at stated hours, reading, writing, and accounts.

The accomplishment of this beneficial purpose might be effected by different modes.

A voluntary subscription may be one mode to produce this sum; a few spirited gentlemen in a county might probably soon effect it in this way.

Another mode I would suggest for consideration, would be a loan upon the credit of the enterprize.



Various other mains will naturally occur to gentlemen impressed with the importance of the business.

“ The late Empress of Russia, among other wise regulations, established an agricultural college at Sophisk.”—See Irish Agricultural Magazine, No. I, 5.

I am, Sir, &c.

JOSEPH ARCHER

## AGRICULTURAL SURVEYS OF IRELAND.

**T**HE Dublin Society give this public notice of their intention to have Agricultural Views or Examinations of each county in this kingdom, made with all convenient speed.

They trust, that after the example in Great Britain, many gentlemen may offer their services for so useful a work, and the necessary expences to be incurred by those, whose offers the Society shall accept, in pursuit of it, the Society will be ready to defray.

In counties where no such offers shall be made, they will pay any capable persons, who shall be well recommended, for their time and labour.

These surveys are intended to contain an accurate statement of the extent and mode of agriculture; of planting; size of farms; population; wages; food; cloathing and habitations of the lower orders; farm houses; manufactures; roads; draining, &c. breed of cattle; nature of soil; of fuel; the state or probability of mines; with observations on all defects in practice, and the probable or possible remedies and improvements in every particular.

A detailed statement of the Society's wishes will be delivered at their house in Hawkins-street, or sent free by post, to any person who shall desire it, and all letters, or applications, are to be directed to the Right Hon. John Foster, Right Hon. Lord Frankfort, John Leigh, Thomas Burgh, Esqrs. General Vallancey, or Right Hon. David Latouche, Vice Presidents; Dublin Society, Hawkins-street.

The Society earnestly intreat the assistance and information of all gentlemen and farmers upon this important object, which, if thoroughly well executed, must lead to a knowledge of the real state of the kingdom, and, of course, point out the most probable means of extending agriculture, improving its modes, furthering manufactures, and drawing forth all the ample resources of the country into general and effectual use.

*Suggestions of enquiry for gentlemen who shall undertake the forming  
Agricultural Surveys.*

GEOGRAPHICAL STATE AND CIRCUMSTANCES.

Situation and extent,  
Divisions,

Climate,



Climate,  
Soil and Surface,  
Minerals,  
Water.

#### AGRICULTURE.

Mode of culture,  
Extent of it, and of each species of grain sowed,  
Course of crops,  
Use of Oxen—how harnessed,  
Nature and use of implements of husbandry,  
Markets for grain,  
Use of green food in winter.

#### PASTURE.

Nature of it,  
Breed of cattle—how far improved,  
————— how far capable of further improvement,  
Markets or Fairs for them,  
General prices,  
Modes of feeding—how far housed in winter,  
Natural grasses,  
Artificial grasses,  
Mode of hay-making,  
Dairies, their produce,  
Prices of hides, tallow, wool, and quantity sold.

#### FARMS.

Their size,  
Farm-house and offices,  
Mode of repairing them, whether by landlord or tenant,  
Nature of tenures,  
General state of leases,  
————— of particular clauses therein,  
Taxes or cesses paid by tenants,  
Proportion of working horses or bullocks, to the size of farms,  
General size of fields, or, enclosures,  
Nature of fences,  
Mode of hedge-rows, and keeping hedges,  
Mode of draining.  
Nature of manures.

#### GENERAL SUBJECTS.

Population,  
Number and size of villages and towns,  
Habitation, fuel, food and cloathing of the lower rank—their  
general cost,  
Price of wages, labour and provisions,  
State of tithe, its general amount on each article—what articles  
are exempt, and what charged by modus,  
Use of beer and spirits—whether either or which is increasing,  
State



- State of roads, bridges, &c.  
 — of navigations and navigable rivers,  
 — of fisheries,  
 — of education, schools, and charitable institutions,  
 — of absentee and resident proprietors,  
 — of circulation of money or paper,  
 — of farming or agricultural societies,  
 — of manufactures, whether increasing,  
 — of encouragement to them, and the peculiar aptness of the situation for their extension,  
 — of mills for every kind,  
 — of plantations and planting,  
 — of the effects of the encouragement heretofore given to them by the Society, particularised in the list annexed,  
 — of any improvements which may occur, for future encouragement, and particularly for the preservation of trees, when planted.  
 — of nurseries within the county and extent of sales.  
 Price of timber and state of it in the county,  
 Quantity of bog and waste ground,  
 Possibility and means of improving it,  
 Obstacles to it, and best means of removing them,  
 Habits of industry, or want of industry among the people,  
 The use of the English language, whether general, or how far increasing.  
 Account of towers, castles, monasteries, ancient buildings, or places remarkable for any historical event,  
 Churches—resident clergy, glebes, and glebe houses,  
 Whether the county has been actually surveyed, when, and whether the survey is published,  
 Weights and measures, liquid or dry—in what instances are weights assigned for measures—or *vice versa*,  
 The weight or measure by which grain, flour, potatoes, butter, &c. are sold.



## CHICORY.

BY ARTHUR YOUNG, ESQ.

LAST year I viewed with much pleasure, the farm of Monsieur Cretté de Palluel, near St. Denis, (near Paris;) his culture of chicory in particular I thought promising. He had sowed it by way of artificial grass with clover. I bought, at Paris, ten pounds of the seed, the quantity recommended for an acre, (16lb. to the Irish acre) and sowed it amongst barley with my grass seeds. The lateness of sowing, owing to the drought last spring, and the barley not being yet (July 25, 1788) cut, makes me uncertain what its fate will be. But, in April, I sowed a small spot (60 square feet) with it alone, in drills at a foot asunder. This flourished well, and was cut July 24th; the weight, green, 29 pounds, at which rate an acre would produce nine and a half tons (about fifteen tons on the Irish acre). I ordered it to be given half to a cow and half to a horse, both which were soiling on lucerne. The man mistook, and gave it all to the horse, who presently eat it up clean. There will, I suppose, be a second growth, and as it is a perennial plant, will probably produce more the second year, and the third, &c. than the first.

One must not be too sanguine from small trials; but I am inclined to think, that it deserves the attention of cultivators. I shall this year procure more seed from Paris\*.—*Annals X.* 216.

October 17th, it was cut a second time and weighed, the amount 30 lb. or per acre 9 tons 14 cwt. Weight of the two cuttings, 19 tons 4 cwt. (about 30½ tons per Irish acre) the year of sowing.

As cattle and horses eat this plant with avidity—as the first growth above registered was in the period of an *uncommon drought*—and as the cultivation of it is perfectly easy and simple, (sown broadcast on *rich land* in barley or oat crops in spring, after the manner of clover) it ought, I think, to be considered as a most important object in agriculture, especially for the summer soiling of cattle and horses. And in the last volume of the *Memoirs of the Royal Society of Agriculture at Paris*, is an account of its being freely eaten also by sheep.—*Annals XI.* 145.

May 21, 1789, I cut it for the first time this year, the produce 39 lb.; I should not have been so early, but six or seven stems were pushing for seed; 60 square feet producing that quantity is in the proportion of 12 tons 11 cwt. (about 20 tons per Irish acre) per acre. The 10 lb. of the seed which I sowed with other grasses amongst barley, now shews itself to as much advantage as the rest, scattered over five acres of land, and proves that it will make its

---

\* This plant is indigenous in Suffolk, but makes, in its natural state, a very poor appearance.



way good amongst other plants, though the extreme dryness of the present season, is much against all.

We have had but one slight rain this spring, and all pastures and upland meadows promise to yield *no* hay; what an acquisition, therefore, is a plant that will give 12 tons per acre, cut in May!

There is, however, in all small experiments, some falacy: this has always been cut with a knife, *close* to the ground, whereas in mowing there is some waste; allowance must be made for this.—*Annals XII.* 186.

During my absence I gave directions that this experiment should be carefully attended to,—the report of the result was as follows:

The second cutting was on July 24th, produce 50 lb.

The third cutting December 3d, produce 30 lb.

The 50 lb. is in proportion, per acre, of 16 tons 4 cwt. (about 25½ tons per Irish acre) and the 30 lb. in that of 9 tons 14 cwt. (about 15½ tons per Irish acre.)

			Tons.	Cwt.
Its produce in May, was	-	-	12	11
In July,	-	-	16	
In December,	-	-	9	14
			<u>38</u>	<u>9</u>

Thirty-eight tons nine cwt. (about 61 tons per Irish acre) of green food, at three cuttings, of a vegetable greedily eaten by all sorts of cattle, appear to be a great and valuable object, that calls for much more attention than it has met with: I am very glad to find that I have a fine plant over two acres, sown with barley last spring, which will give me a command of the seed, without the expense of bringing it from Paris, where I had intended buying enough for ten acres, but found the price risen so high, that I was forced to content myself with enough for two, which I shall sow the ensuing spring. It thrives well also on the five acres, sown with other grasses, in the spring of 1788. It will not be improper to add here, that I saw two or three crops of it, in France, applied in soiling, and eaten clean, when the seed stalks were four and five feet high. I pride myself a little on being the *first person* that introduced this plant into the agriculture of England: and if my travels, in a neighbouring kingdom, should be productive of no other effect, the time was not lost: I wish every traveller would bring something as good.\*—*Annals XIII.* 252.

---

\* Five or six pounds of white clover seed, to the Irish acre, is recommended to be sown with the chicory seed, in order that the interstices between the chicory plants may be completely covered with good herbage. (*See No. 1. 81.*)—J. H.



## MOUNTAIN IMPROVED BY WATERING.

BY MR. YOUNG.

OF all the improvements of which mountains are susceptible, there are none more profitable, cheaper, or easier practised than this, and yet none so much neglected. From viewing them, I have been greatly surprized at this, because there are scarcely any that do not contain such spontaneous proofs of the advantage, as might have been sufficient for a hint to the stupidest clown. The firm spots by the sides of the torrents, from flooding, acquire a beautiful verdure, that proves a perfect contrast to the dreariness of the waste around; and where there are little rills on the mountain sides, not considerable enough to cut a regular bed for their waters, but which spread, they are attended so universally with a verdure from the grasses, getting the better of the heath, owing simply to the water, as shews the advantage in the clearest manner. I am confident that, with a little attention, out of 20 or 30,000 acres on a range of mountains I have viewed in Ireland, water might be thrown over three parts in four. The declivities through which the streams run are considerable, and extensive tracts of land slope off on either side, so that by obstructing those streams, by piling torrent stones across them, at various heights, and drawing small channels in the mountain sides, just above such obstructions, to receive the water, this most advantageous work might be done at small expence, and a single experiment of it would presently shew the prodigious advantage of the practice.

In case these papers should come into the hands of any possessors of mountain tracts, willing to try it, but not acquainted with the proper mode of executing the work; I shall here offer a few directions, not by way of going minutely into the whole business, but in order to put every man in such a train as to enable him, by practice to instruct himself in the rest, and to carry it farther than many books on the subject will teach.

The principle upon which he is to proceed, is to throw as much water as possible over the sides of the mountain, and as equally as possible—and in doing this to guard against two circumstances; 1st, its remaining in any spots; and 2d, his works being blown up by sudden floods, from heavy rains, which come in large tracks of mountain, with an impetuosity incredible to those who are used to a flat country.

It would be right to begin by choosing a place where the declivity of the mountain is gentle, in order that the space improved may be more useful and obvious, than it can be when very steep: going up as high as the water can be conveniently commanded, make a wear across a torrent of stone, just high enough to form a little basin among the rocks, if there is none executed to your hand by nature; in the Galties (co. Cork) you find these at every ten yards. At the



spot where you have made, or found one of these basons, open a trench from it, letting the waters flowing after the workmen be the rule where to conduct it, taking care to give it no more fall than necessary, to bring the water in a very gentle current. The stream is to be made to overflow out of this carrier-trench all the way it runs; for which purpose, small cuts with a spade may be made; the trench must be made gradually smaller to the end, as the body of water it brings lessens as it advances.

At a certain distance below this trench, a drain should be cut to receive the waters, which should be so varied in its line as to prevent the water flowing into hollows, &c. from whence it would not get out again. The distance between the trench and the drain, should depend on circumstances. Where the declivities are steep, it should be greater, and less where they are gentle, and must also depend on the number and convenience of places in the river below, from which fresh trenches may be directed. From sixty to one hundred yards may do very well, but sometimes the distance may be greater.

The drains should have the same gentle fall that is given to the trenches, and should be themselves used as trenches to water the land below them, if it lies so as to admit it; but where any hollows or other obstructions prevent it, the water must be carried past those places, before it is let out.

In meadows, the drains do not often serve as trenches, except it be to convey the water into another meadow, where a fresh system of trenches and drains is found. But on mountain sides it is different, and if the declivity was regular, no drains would be wanting; and the only cuts would be regular trenches to let the water out of the stream. If there were not drains in common watered meadows, the water would remain, stagnate, and destroy the herbage; but in the mountains, the declivities are so great, that not a drop would remain but in hollows.

I would advise the proprietor to see the experience of a year or two, watering with no further expence than I have described (which is evidently too trifling to be an object). If he finds the effect great, as in all probability he will, I should then advise his levelling the spaces over which he throws the water, to that exactness which is necessary for mowing ground; this, in most mountains, is the most expensive part of the business; for rains which drive down their sides, in almost universal torrents, work thousands of little channels round the tufts of heath that are so deep and sharp, as every sportsman knows, who has been tired with walking, or rather tumbling over them; these must all be levelled, and the water let gently over, which will soon cover them with grasses, and other beneficial plants. The heath lives in its own acid water, that stagnates in the moss and peat, as in a dish; but will die away by being flooded in the manner I have described. The progress of the work will naturally arise from success; if the proprietor is attentive, he will find his success so great



great and obvious, as to be induced to go into the business with the utmost spirit. He will then level all inequalities—cut a variety of inclosures—and divide the declivities into fields, by good and sufficient fences.\*—*Annals* XX. 360.

## CIDER-MAKING PROCESS.

BY JOHN BILLINGSLEY, ESQ.

THE fruit being properly matured, every necessary utensil ought to be set in order for cyder-making; the mill, press, tubs, casks, and pails, clean washed, and suffered to dry before they are used.

Several methods are practised for converting apples to pommage; but the two most chiefly in use are, the bruising stone with a circular trough, and the apple-mill. The best internal construction of a mill seems to be that which has two pair of rollers, the upper pair being stuck with *coggs* and *dags*; and the under pair being of very hard wood, turned smooth, and worked with coggs only. The upper rollers grinding the apples to a coarse pommage, and the under ones squeezing it to a very fine pulp.

The apples being, by either of the foregoing methods, properly bruised, the pommage is carried to the press, and a square cheese made thereof, by placing very clean sweet straw or reed between the various layers of pommage, or else by putting the same into hair-cloths and placing them one on another.† To this cheese, after standing a while, a slight pressure is at first given, which is gradually increased, until all the juice or *must* be expressed; after which, this *must* is strained through a sieve and put into vessels.

Thus far cyder-making is a mere manual operation, performed with very little skill in the operator; but here the great art of making *good cyder* commences. Nature soon begins to work a wonderful change in this turbid liquor; and by fermentation converts it in-

---

\* The subject of this paper is strongly recommended to the attention of the occupiers of mountainous districts. The Editor is informed that there are some tracts of mountain in the county Cork, on which this practice has been lately introduced with great success. Accounts of such valuable improvements will be very thankfully received.—J. H.

† It is of importance, that the straw or reed be sweet and perfectly free from any fustiness, lest the cyder be impregnated therewith. Particular care ought also to be taken to keep hair-cloths sweet, by frequent washing and drying, else the ill effects of their acidity will be communicated to the cyder.



to a wholesome, vinous, heart-cheering beverage, nearly equal to the juice of the grape itself.

It is well known, that there are various stages of fermentation in these juices, each of which changes the very quality and nature of this fluid; but the principal, which are to be particularly attended to in the instance now under consideration, are three; namely, the *vinous*, the *acetous*, and the *putrefactive*. The first converts the *must* from its turbid fulsome state, to a transparent spiritous liquor.

If the juice be expressed from *sour* apples, this fermentation is perfected in two or three days; but if from *sweet* apples, not under a week or ten days.

The next stage of fermentation gives an acidity to the vinous liquor before spoken of, converting it to vinegar.

This fermentation begins soon (frequently in few hours) after the vinous is ended; and, if the fermentation be improperly hastened by heat, *before* the vinous is perfected. The third (and all succeeding fermentations) disengages an alkali from the liquor, and gives it a tendency to putrefaction.

To regulate the first, and to check the others, is then the great business of that cider-maker who would attach to himself the satisfaction and fame every one is emulous of.

Let us, therefore, consider how these ends are best attained.

It is well known, that fermentation should not by too much heat be carried on rapidly, nor by extreme cold too slowly; as in each case the fermenting body will be injured.

Hence it appears, that a certain degree of warmth, or rather imperceptible heat, conduces best to regulate this operation. This degree of warmth may be understood to rest between thirty-eight and forty-six degrees of Fahrenheit's thermometer. If then the warmth of the cellar in which new-made cider is placed be between these points, we may expect (no adventitious cause interrupting) that the vinous fermentation will commence and go on with due regularity.

It has been observed above, that fermentation is an intestine motion of the parts of a fermentable body; this motion, in the present case, is always accompanied with a small hissing noise and evident ebullition; the bubbles rising to the surface, and there forming a scum or soft spongy crust over the whole liquor. This crust is frequently raised and broken by the air as it disengages itself from the liquor, and forces its way through it. These effects continue while the fermentation is brisk, and at last gradually cease. The liquor now appears clear to the eye, and has a pungent vinous sharpness upon the tongue.

Now is the critical moment which the cider-maker ought not to lose sight of; for if he would have a strong and generous liquor, all further sensible fermentation must be stopt. This is best done by racking off the pure part into open vessels, and placing them in a  
more



more cool situation for a day or two: after which, it may again be barrelled and placed in some cool place for the winter.

It is possible, however, that a variety of avocations at the season of cider-making may take off too much of the farmer's attention from this branch of œconomics, and give opportunity to the acetous fermentation to come on, ere he is aware of it. What remedy (it may be asked) has he to prevent the ill effects thereof running to full extent?—Several have been tried; sometimes with a degree of success, at other times wholly unavailable.

The most popular ones are the following:—a bottle of French brandy, half a gallon of spirit extracted from the lees of cider, or a pailful of old cyder poured into the cask, soon after the acetous fermentation is begun; but no wonder if all these should fail if the cyder be still continued in a close warm cellar. To give effect to either, it is necessary that the liquor be as much exposed to a colder atmosphere as conveniently may be, and that for a considerable length of time. By such means, it is possible to repress the second fermentation in a great measure; and if a cask of good cider cannot from thence be obtained, a tolerable one may.—These remedies are innocent; but if the farmer or cyder-merchant attempt to cover the accident occasioned by negligence or inattention, by applying any preparation of lead, let him reflect that *he is about to commit an absolute and unqualified murder on those whose hap it may be to drink his poisonous draught.\**

Stumming of cider is a provincial phrase, signifying the fuming a cask with burning sulphur; and is thus performed: take a strip of canvas cloth about twelve inches long and two broad, let it be dipped in melted brimstone. When this match is dry, let it be lighted and suspended from the bung of a cask (in which there are a few gallons of cyder) until it is burnt out; the cask must remain stop-

---

\* Should, however, any one be wicked enough thus to sophisticate a cask of cyder, his villainy may be detected in the following manner: Make a decoction of orpiment in lime water, drop a small quantity hereof into a glass of suspected cyder, and if it has been impregnated with any preparation of lead, its colour will soon change to a brown, dirty red, or black; but if it be genuine, its colour will remain nearly the same. Some liquid liver of sulphur will have a similar effect. Bishop *Watson* directs us to boil together, in a pint of water, an ounce of quick lime and half an ounce of flowers of brimstone; a few drops of this liquor being let fall into a glass of cider containing lead, will change the whole into a colour more or less brown. *Essays*, vol. iii. p. 371.

In the 4th and 5th vol. of the Bath Society's Papers, there are several valuable papers on the pernicious effects of lead vessels in dairies, which deserve public notice and attention.



ped for an hour or more, and then be rolled to and fro, to incorporate the fumes of the match with the cider, after which it may be filled. If the stumming be designed only to suppress some slight improper fermentation, the brimstone match is sufficient; but if it be required to give any additional flavour to the cider, some powdered ginger, cloves, or cinnamon, &c. may be strewed on the match when it is made:—the burning these ingredients with the sulphur will convey somewhat of their fragrance to the whole cask of cider; but to do it to the best advantage, it must be performed before the vinous fermentation be fully perfected.

To perfect a vessel of cider, after the foregoing steps have been taken, it will be found necessary now and then to supply the waste occasioned by evaporation and insensible fermentation with fresh cider; and about the beginning of April following to give it a final racking. At this time a commixture of cider made from the Jersey or any other luscious and sweet apple, with that of the sour apples, may be recommended, to give it a general regular colouring. —Should, however, a higher colour be required than what results from such commixture, a small quantity of burnt or melted sugar, prepared in the following manner, will produce the desired effect: Take a pound of sugar, and put into a stew-pan with a little water, and place it over a clear fire, stirring it frequently till it turns black; take it off the fire, and as it cools apply some cyder thereto, by little and little, and continue stirring it till it be thoroughly mixed. This colouring tinges to perfection, is very cheap, gives no luscious sweetness, but rather an agreeable bitterness, and thus recommends itself to the nicer palates.

Soon after this, in the same month, the cider may be bottled; and by the month of June the owner may expect to find himself possessed of a rich, pleasant, and wholesome liquor.

“ If there be a general characteristic of good cider fruit, it seems to be this: that the apple be of a yellow or light red ground, tinged with red streaks on the sun side, of a smart acid flavour, with firm but juicy parenchyma:—if it possess these criteria, be it called by what name soever it may, it will, doubtlessly, make good cider.”

Before I quit the rich and delightful Vale of Taunton, I must not pass by unnoticed, their orchards, from which cider is made in the highest perfection. There are many gentlemen in the neighbourhood of Taunton who sell their best cider for five or six pounds per hogshead; and it is supposed that they possess an art, peculiar to themselves, of conducting the fermentation, and thereby preserving a rich and delicious flavour.\* The best fruit de-  
lights

---

\* In part of this county, the art of making sweet rich *cider*, which sells from three to five or six guineas per hogshead, is reduced



