THE SOUTHERN PLANTER;

Devoted to Agriculture, Horticulture, and the Household Arts.

Agriculture is the nursing mother of the Arts. *Xenophon.*

Tillage and Pasturage are the two breasts of the State.—*Sully.*

C. T. BOTTS & L. M. BURFOOT, Editors.

VOL. III. RICHMOND, FEBRUARY, 1843. No. 2.

TOBACCO.

(Continued from page 4.)

Of the Cutting, Curing and Housing.

We have now arrived at the most difficult and critical stages of the whole process; every operation from this time until the plant is cured, requiring great attention and care, as well as skill and nicety of judgment in the execution. And hence a great contrariety of practice in some of the minutiæ prevails, according to the superior skill and ability of different planters.

It is difficult to convey an idea of ripe tobacco by description. It can only be learned by observation and experience. In general, its maturity is indicated by the top leaves of the plant turning down and often touching the ground, becoming curdled, with yellow spots interspersed on their surface, looking glossy and shining, with an entire loss of fur, a manifest increase of thickness in the substance of the leaves, which when pinched in a fold between the finger and thumb, will crack with ease. But the most experienced planters acknowledge that they are more apt to err in cutting their tobacco too soon, than in deferring it too long. As a proof of this, take two plants growing side by side, of equal size and appearance in every respect, and both apparently ripe—cut one and weigh it both green and when cured: let the other stand a week longer, and when weighed like the first, the difference in favor of the latter will be astonishing. If it be asked, why we do not avail ourselves of the advantage to be derived from thus deferring the operation? It may be answered, as I have before observed, that tobacco, while standing, is liable to be injured and destroyed by more accidents than any other plant, such as hail storms, heavy rains, high winds, the depredations of worms, the growth of suckers from the root, which abstract greatly from the weight and thickness of the leaves, if suffered to grow, and which it is not always convenient to pull off. Besides this, the season of cutting tobacco is a very busy one to the planter, and too much work would accumulate on his hands by deferring it to the last moment. For these reasons it is considered most prudent to cull out the plants as soon as they will make good tobacco; in which case the loss in the aggregate amount of crop, is balanced by avoiding the risk of accidents, and being able to bestow more care and attention to what remains.

The cutters go over the ground by rows, each taking two at a time, and the plants they cut are laid in the intermediate row between them. This facilitates the picking up, as the cutting of four rows is thereby placed in one. The stalk of the plant to be cut is first split down with the knife about six inches, and after being cut off just below the bottom leaf, is inverted and laid upon the ground, to fall and become pliant for handling. The splitting of the stalk is important, both for the convenience of hanging it on sticks and accellarating the cure of the plant. To those unused to the culture and management of tobacco, it will be almost incredible to learn how soon it will *sun-burn*, (as we call it,) after being cut and turned over on the ground. This is effected by the hot rays of the sun, piercing and penetrating the tender parts of the leaves, and is manifested by the parts affected, turning white and soon becoming dry and crisp, and when cured, of a dark green color, without possessing any of the strength or qualities of tobacco. In very dry, hot weather, sun-burning often takes place before a large plant falls sufficiently to be handled without breaking off the leaves; and for this reason the cutting in such weather should always be made early in the morning, and not proceed after ten o'clock.—Sometimes it is done in the evening when there is no prospect of rain, by which the packing up may be accomplished earlier the next morning, and with less risk of burning. As soon as the plants fall sufficiently to handle without breaking off the leaves, they are *hand-fulled*, (as we call it;) that is, they are picked up, and three or four or five plants are laid together, with their tails from the sun, and the stalks inclined and somewhat elevated against the sides of some of the hills. The pickers up, after going through this ground, return and turn over each handful, that both sides of the plants may receive the benefit of the sun, and not be burned, and this operation is again repeated; if by this time the tobacco is not pliant enough to be put in *shocks*. This is putting an indefinite number of handfuls together, the stalks in an erect position, forming a sort of circle of any diameter, from two to six feet or more, at convenient distances in the field; and these shocks should be immediately and effectually covered with green bushes or some-

thing else, previously in place, for the purpose to exclude the rays of the sun.

The next operation (after the heat of the sun has declined) is to remove the tobacco to the house or scaffold, and hang the plants on sticks four and a half feet long, and about one inch square. The common pine affords the best timber for this purpose, which will rive straight and with ease. From ten to twelve plants, according to size, may be hung on each stick, the width of two fingers to be left between each plant. The scaffolds are raised four or five feet from the ground, and the poles to receive the sticks are placed four feet apart, and are made to range east and west, so that the sticks will be north and south, to give both sides an equal benefit from the sun. The tobacco is commonly removed from the field to the house or scaffold upon the shoulders of the laborers, carefully put on and taken off to avoid bruising; but if the distance is great, carts are used, greater care being necessary to avoid bruising. This is considered so important that some judicious planters make temporary scaffolds in the field, preferring the risk of injury from a smart rain, to that of bruising by moving far in a green state.

There are two modes of curing tobacco. One in the house altogether by fire; the other by the sun on scaffords. The first is esteemed the best and most effectual, but it is attended with great risk. Our houses are generally four-sided pens, twenty feet square, built of round poles, and about twelve feet pitch. The joists are placed four feet apart, the rafters immediately over them, having beams corresponding with the joists, three feet perpendicular from each other, so as to afford ranges or tiers for the tobacco up to the crown; and the same tiers are fixed below the joists and at the same distance by extending poles across the house between the logs of the pen. The house is covered tightly with pine boards, and if it is intended to cure by fire, the openings between the logs should be closed to prevent the escape of heat. Such a sized house will cure from two to three thousand weight, according to the quality of the tobacco. If it be decided to cure by fire, the tobacco is carried immediately from the field to the house, hung on sticks as before described, and these sticks crowded as close together on the tiers as they can possibly be, so as to exclude all air from the tobacco. It remains in this situation until the leaves of the plants become yellow or of the color of hickory leaves just before they fall. This will generally happen in four or five days, when the sticks must be spread and placed at their proper distances apart in the house.—About six or seven inches is the proper distance, or any other that will prevent the plants on different sticks touching each other. A moderate heat which is gradually increased to a very strong one, is then applied, by making different ranges of fires throughout the house—and that wood is preferred and sought for, which will make the greatest heat with the least blaze and smoke. The fires must be continually kept up until the curing is effected, (say from four to six days,) when not only the leaves, but the whole stalk becomes dry; and changes from a green or yellow, to a light brown color.

If it is not to be cured by fire, the tobacco is brought to the scaffold and hung, and the sticks are crowded in the same way on the scaffold, until the same yellow color is imparted to the leaves, and some planters are so particular as to cover their scaffolds with green bushes during this crowded state, to prevent sun-burning. When the proper time arrives, which is indicated by the yellow color of the leaves, the sticks are thinned and placed at such a distance as to admit the influence of the sun and air, and if the weather is warm and fair, in five or six days the curing will be so far effected as to justify the removal of the tobacco into the house, when it must be properly and finally arranged, and the cure will be gradually accomplished by time and season. But if damp, hot weather supervenes, it will be necessary, both in this and in the case of tobacco already cured by fire, to make moderate fires under each, whenever it comes in very high order. In such weather and in such order, tobacco is liable to contract a mould about the stems, which can only be prevented by keeping it dry by fires. This mould injures both the quality and appearance greatly, and cannot be easily rubbed off. Great attention is therefore necessary to prevent it by these occasional firings, until regular cool weather sets in, after which there is no danger. From the vicissitudes of our climate for some years past, and other causes, it happens commonly that some portion of our tobacco is not mature, and is left until we are compelled to cut it by the approach of frost. Such plants, even if fully ripe, seldom cure of a good color or quality for want of proper seasons. And here we may venture a general remark; which is, that tobacco cut early and fully ripe, will cure well and be of good quality under the most unfavorable circumstances, while that which comes late into the house, is difficult to cure and of inferior grade. After the housing of tobacco is all accomplished, and cool weather begins, the house should be closed with green bushes or fence rails set up on end, close around on the outside of the house, to exclude damp air, and beating rains, which generate mould, &c.

(To be continued.)

CLAY LANDS.

Mr. Allen, of the "American Agriculturist," in giving some directions for the management

of stiff clays, recommends as the most effectual mode of improvement and the most desirable where circumstances will justify the expense, the incorporation of a sufficient quantity of sand. Thorough under-draining is next advised if the cost can be incurred. At any rate, he advises where the natural fall of the land does not afford sufficient declivity to carry off the surface water, the making of beds ten or twenty feet wide with furrows leading into a common ditch with sufficient fall. He adds,

"Another mode of improvement, which to a certain extent is within every farmer's reach, and as one of the legitimate objects of every good farmer's system, is to add large quantities of coarse, unfermented manure, and all his undecayed vegetables; which may be done on a large scale, by turning in matured crops produced upon the land. There is no danger of putting on too much manure of this kind, if buried sufficiently deep, in proportion to the quantity used. And there is as little danger of suffering any loss of the manure. It will last till exhausted by the growth of vegetation. Nor will it burn the land, according to the common phrase, as an excess of manure does on light and sandy soils. It is not carried away by rains, or evaporated by heat; but like coin, securely hoarded in a strong box, it is safely retained till the owner's key is applied to unlock it. The mechanical, as well as chemical character of this soil, particularly adapts it to the preservation of manures; for in addition to its strong chemical affinity for ammonia, which is the fertilizing principle in all soils, its mechanical structure enables it to hold, beyond the possibility of escape, all the animal and vegetable substances buried beneath it."

Mr. Allen recommends, and in this we know that he is correct, that clay lands should be ploughed for spring crops in the fall. He goes on to say,

"If corn or roots are required, the land should be half ploughed the previous fall; that is, a space should be left unmolested, of the width of a furrow, on which the upturned furrow is thrown. By this operation a large dry surface is exposed to the salutary effects of air and moisture, heat and frost; and it will be in the best possible condition for early tillage, and abundant crops. It will be mellow, friable, and comparatively dry, and by thorough cross-ploughing, harrowing and rolling in the spring, it will be well fitted for the reception of the seed.

"For winter wheat we do not think them suitable, unless prepared by thorough underdraining, as the wheat is very generally winter-killed, or thrown out by the frost, or drowned by excessive rains, before the sun gets sufficiently high to protect it. But with the best varieties of spring wheat, it produces largely. For the production of rye, it is totally unsuited; but of barley, oats, peas, grass and roots, when suitably prepared, no soil produces better crops. Their chief value, however, is for grass lands, and when properly put down in meadow, they ought never to be disturbed, as with good management, they will be in a constantly improving state, and afford the most profitable and remunerating returns. But while in this condition, no animals should ever be suffered to graze them, and especially while the ground is soft. Poaching is destruction to them, and no scarcity of other food will justify the farmer in driving his cattle upon his meadows while saturated with water. It is a common opinion by those unaccustomed to them that clay lands will not produce good clover; yet we have never seen better clover, or larger crops, than we have repeatedly raised on them.

"When required for roots, corn, or other hoed crops, the soil should be well charged with manure, and the most thorough tillage will be amply repaid. 'A little land well tilled,' has a peculiar signification when applied to this kind of soil. Plaster, (sulphate of lime,) has no appreciable effect on it when applied in small quantities; and lime, (carbonate of lime,) has less than on any of the lighter soils. Ashes are valuable on any land, and, we believe, under all circumstances; yet we have repeatedly made the application of them on a very stiff clay, without deriving any immediate perceptible benefit. A longer time is required under certain circumstances, for them and other manures to act, but their action continues through a much longer period."

From the American Agriculturist.

PRACTICAL FARMING.

Wheatsheaf Farm.—We recently made a visit to the farm of W. A. Seeley, Esq. of Staten Island. The buildings are in a style of entire plainness and simplicity, yet with perfect adaptation to the object in view. A large and well constructed windmill, of the most substantial kind, occupies one of the group of farm buildings, which is used during a great part of the year in grinding for this and the neighboring farms. But the peculiar merits of the outbuildings consist in the barns. There are two of them, of large size, and so constructed, as to afford the greatest quantity of available room. They are both built upon a side hill, thus enabling the loaded hay and grain to be drawn in upon a level with the upper side, and the entire floor is appropriated to their occupancy, while at the same time that it affords a great abun-

dance of convenient room, saves the trouble of pitching it high, and furnishes the fodder just where it is wanted to feed into the racks for the stock below. The underground room of one is divided into stalls for horses on either side through its entire range, one hundred and thirty feet, and a large gangway, accessible by folding doors at each end, runs through the centre, affording ample room for carts or wagons for the purpose of removing the manure. Water is admitted at one end through a stop-cock from a pond above, forming a reservoir from the drains. Commodious yards adjoining, afford space for exercising the animals. This barn is expressly designed for stabling supernumerary horses from this city through the winter, yet its construction admits of its being used to equal advantage for any other stock. The other barn being designed for cattle and sheep, is open on the south, and the other three sides are occupied with racks for the stock, which are divided, when necessary, by partitions and enclosures.

But the particular advantage of these barns, consists in the admirable contrivance afforded for the accumulation and economical preservation of the manure. Under shelter from the washing rains and exhausting sun, well mixed with earthy and vegetable matter, it is here retained till it can be advantageously applied to the land. Between, and contiguous to the barns, is a tank capable of holding twenty-five thousand gallons, which is the receptacle of those enriching liquids of the farm yard, without the retention and careful application of which, to the growing crops or stercorated heap, no farming arrangement can be deemed complete. An outlet near the top conducts off the surplus liquid to a heap of compost, if it rises too high before required for use, by which it is absorbed. At all other times the cistern is emptied by sheet iron buckets attached to a revolving iron chain, and propelled either by the windmill, or if necessary, by horse-power, the shaft geering into either as required.

No particle of animal or vegetable manure produced upon the farm is allowed to be wasted. All is preserved and added to the general stock of compost. The necessity of resorting to the city for manure at a large expense, is here shown to be unnecessary, and those who at first jeered at this undertaking, are now wisely following the example. Since the full organization of the farm, there has never been less than two thousand loads of surplus manure ready for use.

A small patch of the stiffest and most unpromising clay, from which, Mr. S. says, his first attempt for a crop of buckwheat, resulted in a growth of about six inches; by an addition of a coating of sand ploughed in, and a subsequent one harrowed over the surface, produced a most bountiful yield. It is thus the intelligent and observing book farmer avails himself of all the principles of science and the experience of others, in his practise, and the consequence is, he gets rich, while his equally industrious and economical, but ignorant neighbor continues poor.

How many farmers in Virginia would find their advantage in selling two or three hundred acres of land, and applying the proceeds to the erection of such barns as these described by Mr. ALLEN. And the *windmill*, too, is no bad thing; we have been wanting to ascertain the cost and character of this motive power. With the improved machinery of agriculture, a general demand for "power" has arisen amongst our cultivators. How valuable to one of our large farmers would be a power, with which he could shell and grind his corn, thresh his grain, and cut the straw. Indeed, the want of such a power deters mechanics from getting up many labor-saving machines, that cannot be used without it. As for horse-power, we have never seen any yet that was adapted to the farmer's purposes. In twelve months, they are generally so out of order, that if constructed for six horses, they require four at least to overcome the friction of the machine. Water and wind are the free gifts of nature, and require neither food nor clothing. To be sure, like other free agents, they are a little arbitrary in their operations, but we doubt not that many, who do not, might avail themselves of the one or the other to a considerable extent. We know but little about windmills, what improvements have been made of late, and should be glad to learn the cost of erection, the degree of skill required for management, &c. &c.

OXFORD SAUSAGES.

The following recipe for making the celebrated Oxford Sausages, so much desiderated by the lovers of good eating in England, is from a late English publication:

Ingredients.—One pound and a half of pig meat cut from the griskins without any skin, and a half a pound of veal. One pound and a half of beef suet, the yolks and whites of five eggs. A dessert spoonful of sifted sage, after being well dried. Pepper and salt to taste.

How to make the above into Sausages.—Chop the meat into small pieces and then pound it together in a marble mortar till it is short and tender.

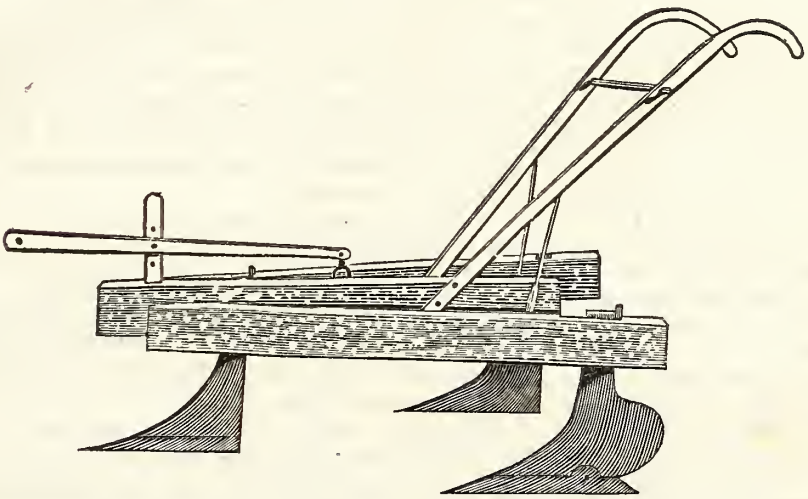
Chop the suet very fine, and when the eggs are well beaten together, after the white specks are taken out, pour the liquid over the pounded

meat and chopped suet, well kneading it together with a clean hand, throwing in the sifted sage, and pepper and salt from a coarsish pepper box during the operation, so as to let them impregnate the whole mass without being predominant in any part of it.

Press the whole when well mixed together into a wide mouthed jar, and keep it from the air in a cold place.

Roll the sausages on a flour board and use very little grease in frying them, as they will be almost fat enough to fry themselves with the aid of a frying pan.

PLOUGH CULTIVATOR.



The above is a perspective view of an implement we saw at the North, which we heard very highly recommended for the cultivation of corn. The Editor of the "Central New York Farmer" says it is superseding the common corn cultivator wherever it is introduced, and gives the following description of it:

"It is very simple in its construction, works freely in the soil and does the work much more thoroughly than the small teeth in common use.

"There is little or no improvement in the frame except that it is shorter and higher than the common one.

"The improvement consists in the use of three teeth of about four times the size of those in use—with false points; the front tooth cuts and turns the furrow both ways; the hind teeth each have a land side and false points—for the first time dressing of corn the two back teeth are set to turn the furrow inwards, that is from the corn, and at the second dressing, they are transposed so as to turn the furrow towards the corn."

This cultivator is styled "Wood's patent."—We do not know in what the claim consists, nor do we exactly see that there is novelty in the implement sufficient to sustain a patent.

From the Genesee Farmer.

NUTRITIVE QUALITIES OF CHARCOAL.

Though the importance of mixing charcoal with the food of animals, particularly that of swine, has been generally acknowledged, and its benefits extensively tested, still it has been supposed that it only acted as a corrective to the acid tendency of food, and facilitated fattening by improving the health of the animal. Some experiments are, however, on record, which would seem to show that charcoal acts a more important part in the matter than has been usually assigned to it.

In 1793, a family being driven from New York by the fever, were absent six or eight weeks before it was deemed prudent to return. A number of fowls confined in a loft to the workshop of the house, were forgotten at the time of leaving, and as it was known that there was nothing provided for their subsistence, it was expected on the return that they would be found starved to death. To the astonishment of all, the fowls were found alive and fat, though there was nothing upon which they could have fed, except a quantity of charcoal and shavings, water being supplied from the grindstone trough.

These facts coming to the knowledge of a gentleman in New York, as we learn from the

Recorder, he instituted the following experiment. He placed a turkey in a box or enclosure, four feet long, two feet wide, and three feet high, excluded light as much as could be done, and allowed a free circulation of air, and fed the turkey with soft brick, broken fine, pounded charcoal, and six grains of corn per day. The box was kept locked. At the end of a month, the turkey was killed in the presence of several gentlemen, was large and heavy, and on being opened was found filled with fat. Nothing, on dissection, was found in the gizzard and entrails but charcoal and brick. Last winter the experiment was repeated, and with the same success.

Several years since, in fitting out one of the Liverpool traders at New York, a pig on board was missing, and was supposed to have been lost. The cargo was taken on board, stowed, and the vessel sailed. It was now discovered that the pig was alive in the coal hole, but as he could not be got at readily, it was concluded to leave him to his fate. He remained in this retreat until the passage was made, when his pigship was found to be not only alive and well, but materially improved in condition, though there was nothing, coal excepted, he could have swallowed.

When it is remembered that wood, sugar, and several other substances, some of which are most nutritive, are compounded of nearly the same original elements, it would seem possible, by animal chemistry, to convert them to saving life; though all experiments with which wood or charcoal failed. The German chemists have converted wood into very palatcable bread, by roasting and pulverizing; but calcination, it has been supposed, would destroy whatever powers of nutrition wood might originally contain.—The chemical action of vegetables seems to produce the least effect on coal, and not the least particle of it has ever been found in the structure of vegetables, though mixed with the earth and water in which plants were growing, in the form of the most impalpable powder. Whether animal chemistry is able to do what vegetable organization cannot, remains to be seen; though if there is no mistake in the statements alluded to, it would seem probable that this intractable substance is, in some way, made subservient to the nutrition of animals.

AMERICAN MEAT FOR THE ENGLISH MARKET.

The liberality of the new English tariff is destined, probably, by unshackling the principles of trade, to work great mutual advantage to the producers of America and the consumers of England. Preparations are now being made to supply Great Britain with the surplus produce of the beef and pork of our bountiful land, and the time perhaps will shortly come, when man will cease to put asunder what nature has joined together; when Europe and America will see how much it is to their mutual advantage to permit the extended production and free interchange of those things to which they are respectively adapted by climate, soil, and peculiar circumstances; all of which may indubitably be effected by simply leaving unshackled the common sense and keen self-interest of mankind.

The "Cincinnati Gazette" says that one establishment in that city is packing largely for the English market, under the superintendence of an experienced packer of Irish pork. The same house is also engaged in packing a large quantity of leaf lard of snowy whiteness in bladders to suit the fastidious taste of our new customer.

The Irish pork and beef, which are unrivalled, are said to be cured in a manner very different from, and very superior to, our own. A particular and complete description of the process, which is supposed to be invaluable to the meat curers of the United States, is promised in the same paper.

This may be all very good, and we should never be too proud to learn, and we do know that John Bull has been turning up his nose lately at some of our beef and pork that has appeared in the English market, but we doubt if he has seen the best of it; it may be because of our ignorance, but we are a little sceptical of finding any thing better than some hams and rounds of American curing of which it has been our fortune to partake. We should have liked especially to have brought to the notice of this imported packer an old shoulder, sent us as a Christmas gift by our friend, Mr. Edward Hill, of King William. We think he would have confessed it equal to any thing he ever saw on the other side of the water.

From the South Western Farmer.

THE APPLICATION OF HORSE-POWER TO MACHINERY.

It is, I believe, thought by many that horse-power should be applied to mills, gins and other machinery in the same manner that it is applied to drawing ploughs and wheel carriages. This, I think, is not entirely correct; but, that it should be applied to both by *draught* equally is very certain. Horses hitched to the plough, as most farmers know, perform their labor with the greatest ease when hitched low and short, so as

to bear a part of the weight of the plough on their backs by means of the back band, thus very much lessening the friction of the plough on the bottom of the furrow. But this is not the case when horses are made to draw at the lever of a gin or mill, where every pound exerted in any other than a horizontal direction is wholly lost; for it is very evident that if the lever or sweep is very low, say one foot high only, and the chains hitched 3½ feet on the horse's shoulders, and say 7 feet from the lever, that about 5-22 of the force of the horse will be exerted in an upward direction, and thus nearly one-fourth of the power will be entirely lost.—Now, to make this plain to the mind of any one, suppose the power to be so applied as to pull upwards perpendicularly to the walk. We see the machine would not incline to move any way, (that is, if it is to be drawn by a horizontal lever;) but incline the direction of the *draught* down half way in the direction which the machine is desired to be worked, that is, to an angle of 45 degrees with the horizon or walk, and we see that half the power applied will be lost only, while the remaining half will operate on the machine to be moved.

Hence we may conclude, without the shadow of a doubt, that the nearer the direction of the daught approaches the level or plane in which the lever runs, the more effect the horses or power applied will have on the machine to be operated upon; and it will be at its maximum or greatest when pulled in the same horizontal plane with the lever.

Hence we see that horses should always be hitched to a lever at least as high as their shoulder joint, care being taken to use a belly-band, to give the right bearing and direction of the chains on the collar and shoulders of the horse. And if any one should demur and say a horse pulls best when he has some weight on him, let such one put an extra weight on him, which would be the same to the horse and not diminish from but rather increase his power on the machine; but this of course I would not recommend only to those who cleave to old things simply because they are old, or because their fathers did so before them—not that I condemn old things which are true, for truth, we know, is ever the same.

Remark, horses should be hitched as close to the lever as will allow the horse sufficient room to step, for every inch over this will be attended with evident loss; for suppose him to be hitched by traces long enough to admit him to be on the opposite side of the walk, or nearly so, we see that instead of the traces pulling round the circular walk, they would take a direction across it, and pull more or less against the end of the lever, and in a direction with its length. So, it is clear that the shorter practice will allow a horse to be hitched the better, and vice versa.

The second error in use is making the circular walk too small. A walk should never be less than twenty-five feet in diameter unless it be for a turning lathe or some very light machinery, when it can possibly be avoided. Thirty-six feet diameter makes an excellent walk; but the larger that practice will allow, the better, if it were fifty or sixty feet. But, making a just compromise between the greatest advantage to be gained from the proportion and dimensions of horse-propelled machinery and its expense, I think we may safely range from thirty to forty feet—forty feet diameter perhaps makes the very best walk.

The nearer a horse pulls in a line at a right angle or in a tangent to the circumference of the circle described by the lever, the greater will be his power; but the smaller the walk, the further he will be out of this line; and the greater the walk, the nearer he will be to pulling in it. Hence, the greater the walk, the more power he can exert.

This is a subject upon which we profess to have a little knowledge, and we do not hesitate fully to endorse the above clear and excellent remarks upon the construction of horse-powers. We would add that a very important rule in bevil gearing, and one that is too frequently neglected, is, that the horizontal shaft should be exactly level, and should be so situated, that, if extended, its centre would pass immediately through the centre of the upright shaft. From the fact of this shaft's being "out of true," we have frequently seen a power that required two horses to keep it in motion, consequently, when four were attached to it, only two were employed in working the machine; the other two were in fact engaged in grinding against one another the cogs of the bevil wheels.

DISTEMPER IN DOGS.

We published in a late number a remedy for this disease, copied from the Southern Planter. We have often succeeded in curing the disease, by administering doses of salt as recommended therein; we have, however, whenever we discovered a constipation of the bowels to supervene, given every other day boluses of castile soap, with the very best effects. If castile soap cannot be had, brown soap will answer equally well, the object being action upon the intestinal viscera. In obstinate cases, where the discharge from the nostrils is obstructed, or the cough heavy and tight, we have always found the patient greatly relieved by introducing a seton in the loose skin just back of the head; which operation is performed by threading a coarse darning

needle with a double thread of coarse yarn, and running it through the skin and confining it by a tie. The thread must be moved every morning to keep up irritation, and encourage a discharge of the viscid matter, which should be daily washed off with a little warm water and soap.—*American Farmer.*

CORN FOR HAY.

We hope our planters will take measures, during the coming season, to make experiments from which we may obtain full and satisfactory reports of the value of this new and plausible mode of cultivating our old favorite. The directions are, to sow the corn broadcast, about four bushels to the acre, upon a rich well tilled lot—cover lightly with a small plough, and either use it green for soiling, or, what is probably better, permit it to proceed to maturity until the years or nubbins get into the milky state, then cut and cure it as hay—pack it away with salt, and pass it all through the cutting box.

For turning in as a green crop, it is said to be superior to any thing known to our climate and soil.

From the Farmers' Gazette.

STABLES—LITTER, &c.

Mr. Editor,—The chief business of the farmer, through the long winter months now at hand, will be the care and attention of his stock; and we hope that every careful and judicious farmer will have provided himself with convenient sheds and stables, for the comfort and health of his animals through the cold winter months. "A merciful man is merciful to his beasts," and any farmer who will neglect and starve his animals at this season, is not worthy the name of a farmer.

Stalls for cattle should be kept warm, and well ventilated, and should be cleaned every morning after the cattle are turned out. Another important point is, to have your stalls well littered with straw, cut from three to four inches in length; and as rye straw is mostly used by us for litter, in Connecticut,—we hope that no farmer, after trial, will think of littering his stables with long straw, without being cut up.

When a large quantity of straw is thrown into the hog pen, to be mixed with rich loam, or muck, it should be cut up, and then the swine will work the whole mass together, and in the spring you can fork it out easy, without pulling, or tearing, as is the case when whole straw is put in.

Last winter, being short for straw, we went to the woods, and carted home leaves with which we littered our stables. It made a soft bed for our cattle to lie upon, and when thrown out, it made good manure for any kind of crop.

It is a good plan, where manure is thrown out into a heap, to spread it about the yard; as when it is left in a heap till spring, it is apt to heat and mould,—and this is the case in particular with horse manure.

Every farmer knows, that manure kept under shelter, is worth about double that which is left out, to be washed by the rains, and undergo the action of freezing and thawing. This being the case, it will be well in constructing barns, either to have a barn cellar for the manure, or where this is not convenient, let the stables be made wide enough, to throw the manure back in a space, of sufficient width to back in a cart, and carry out the manure in the spring.

The practice of stacking out hay about the farm, has justly been condemned by all good farmers. It is calculated, in stacking out hay, to be fed to cattle, from a quarter, to a third of the hay is wasted, and besides that, the loss of manure, the leanness and suffering of the cattle, from cold and exposure, and the time spent in foddering them, makes it all a bad business from beginning to end. We will suppose a farmer, in a cold winter's morning, after a driving snow storm, to set out for a distant stack on his farm, to fodder his cattle, and after beating his way through the snow for half an hour, he at last arrives at the hay stack. But what a picture presents itself, there stand his cattle, by the side of a rail fence, their only shelter, with their hind feet drawn up so near their fore ones, that they can stand on the bigness of a shingle, shivering and shaking with cold. If this will not stir up the feelings of a man, then I know not what will, especially if he be a man of nervous temperament. If any reader of the Gazette should be in this predicament, the present winter, we hope they will make up their minds, that before another winter comes, they will provide good sheds and stables for all their stock.

If you are under the necessity of stacking out part of your hay; then bring it up and stack it around your barn-yard, where you can take it to your cattle in their sheds and stables. But what is better than all, provide yourself with extra barnroom and stabling for all your hay and cattle. It will pay you ten per cent. on the capital laid out, in the saving of hay, and manure, and the comfort, good order, and health of your animals.

And now, brother farmers, as the year is about drawing to a close, let us not forget to return our sincere thanks to the great Giver of all good, from whence all our blessings come; that he has not only spared our unprofitable lives, but that He has crowned our labors with success; that He has filled our barns, and store houses, with plenty of food for both man and beast, and that

He has brought peace, comfort, and happiness to our houses and our firesides.

Yours, &c. L. DURAND.

Derby, Dec. 27, 1842.

COMMUNICATIONS.

In the renewal of subscriptions we have received a great many accompanying remarks and criticisms upon the conduct and management of the paper. These we were much pleased to obtain; first, because they were in the highest degree friendly and laudatory, and secondly, because they afforded us some index of the public taste to which it is our business to cater. However variant and discordant might be the advice thus gratuitously bestowed upon us, the general tenor of these communications confirmed us in the popularity of the principle upon which the Planter was founded, viz: that the farmer wants a paper in which he may find a short, clear, and condensed description of the *practical* discoveries and improvements in his profession. Circumstances of a character which no one but an Editor can appreciate, have forced us, sometimes, to admit disquisitions of a general and theoretical nature, against our better judgment, and universally, we believe, to the dissatisfaction of our readers. Now in commencing the third volume, we take the liberty of saying to our correspondents, to whom we lie under a load of obligations, that we desire to confine our disquisitions to short statements of practical facts. Not that we mean to depreciate the value of scientific essays and theoretical discussions; they are excellent in their place, but *our* paper is not the place for them. Our little sheet can be filled with what we conceive to be more to the taste, aye, and if you will, more to the *advantage* of the every day farmer. Whenever scientific investigations have resulted in the establishment of well settled practical principles we shall be most happy to receive and report them to our readers. We moreover wish it to be distinctly understood, that we claim, and intend to exercise over our communications, the most despotic power, condensing, erasing, extracting, &c. &c. at our sovereign will and pleasure; and those who are not willing to subject their contributions to this arbitrary arrangement, had better seek some other channel of communication. We do not know that we shall *exactly* adopt the advice of a correspondent, who recommends us to insert no piece longer than his hand, of which, by the bye, he did not send the measurement, but we are determined to act upon the knowledge we have acquired, that pieces to be read must be as short as their nature will admit. The very great trouble and labor incident to this plan of condensation, we are willing and ready to incur.

RECIPE FOR MAKING GOOD BREAD.

James Roche, long celebrated in Baltimore, as a baker of excellent bread, having retired from business, has furnished the Baltimore American with the following recipe for making good bread, with a request that it should be published for the information of the public:

"Take an earthen vessel, larger at the top than the bottom, and in it put one pint of milk-warm water, one and a half pounds of flour, and half a pint of malt yeast; mix them well together, and set it away, (in winter it should be in a warm place,) until it rises and falls again, which will be in from three to five hours, (it may be set at night if wanted in the morning;) then put two large spoonfuls of salt into two quarts of water, and mix it well with the above rising; then put in about nine pounds of flour and work your dough well, and set it by until it becomes light? Then make it out in loaves. New flour requires one-fourth more salt than old and dry flour. The water also should be tempered according to the weather; in spring and fall it should only be milk-warm; in hot weather, cold; and in winter, warm."

FOOT-ROT IN SHEEP.

Mr. R. North, Jr. in a note to the Editors of the Cultivator, says, after trying several recipes for the foot-rot in sheep, which he had seen recommended in their paper, to very little or no purpose, he discovered by mere accident a cheap and sure cure, without much trouble or injury to the sheep, viz: "take a few bushels of lime, and put it near some place over which the sheep have to pass, say the bars; and as it is natural for sheep to jump, take notice where they alight, and place the lime there, about three inches deep. This did effectually cure my flock in about one week. The lime should be fresh and slacked, and not less than three inches deep; if deeper, it might take the hair off the leg above the hoof."

GRAIN FOR SEED.

The late Professor SPRENGEL, of Germany, is said to have remarked that his best seed wheat grew on some of his most inferior land, and that it was by no means the best for making bread.

This circumstance lead to some investigations which resulted in the discovery, that an excess of *gluten*, which gives value to the grain for manufacturing purposes, prevents the conversion of the starch into sugar, so necessary for the nourishment of the plant in germination. Limed lands produce good grain for seed, but if too highly manured, although the corn or wheat may be more abundant, and better for food, it will produce a less vigorous plant than seed grown upon poor land. Sandy soils in general, says the Professor, do not furnish good seed grain, inasmuch as such grain is deficient in certain substances, as lime, magnesia, &c. essential, nay, indispensable, to the perfect development of the germ.

CULTIVATION OF CORN.

We are pleased to lay before our readers the remarks of Mr. Young in regard to the cultivation of corn, and we are happy to find that he intends to say something more on the general management of his farm. Our readers may remember the short account we gave some time ago of a conversation we held with him, wherein we stated that *he had produced one hundred and ninety-five bushels of corn ta the acre, and that his crop in the dryest seasons does not fall short of one hundred bushels ta the acre.* We have no hesitation in saying that his mode of cultivation comes nearer to the perfect one than any yet published. He has produced larger crops than any one else; and his mode admits of cultivation of a larger number of acres to the hand.—He will give us, we hope, in his next, an account of his system of manuring and putting his land down in grass.

To the Editors of the Louisville Journal.

Ceylan, Jessamine Co., Ky., April 26, 1842.

Perceiving in your paper a call upon me as to my method of farming, and more particularly as to my method of cultivating corn, I hasten to comply. Your recollection of our conversation upon the subject of farming is good, though not entirely correct. As corn has been my staple, I begin with that first. My universal rule is *ta plough my corn land the fall preceding the spring when I plant. As early in the spring as passible, I cross-plough as deep as circumstances will permit.* As soon as the ground is cross-ploughed, I commence checking off the first way with my large ploughs, and the second with my small ones—the checks three feet by three. This being completed, I commence planting the way it was first checked, thereby making the checks diagonally straight; the advantage of which is, that the corn can be ploughed equally well both ways—a circumstance you rarely observe even among our best farmers.—With this portion of my crop planted, I proceed to the next, and so on throughout my crop. You here perceive the advantage of this system of planting is, that the first field planted will be in condition to work by the time the last is planted. *My planting scoson is from the 20th to the 25th of March—a rule to which I adhere with scrupulous exactness; planting from eight to twelve grains in each hill, covering the same from four ta six inches deep*—I greatly prefer the latter depth; and, in this particular, I take more pride and more pains than any other farmer in Kentucky. *I hold it as my ruling principle, thot the product of the corn crop depends very much on its being properly covered, and much on its being properly ploughed the first time.* So soon as my corn is up of sufficient height, of which any farmer can judge, I start the large harrow directly over the rows; allowing a horse to walk each side, harrowing the way it was planted. On land prepared as above, and harrowed as directed, the hoeing part will be so completely performed by this process that it will satisfy the most sceptical. Allowing the corn thus harrowed to remain a few days, I start my small ploughs with the bar next the corn; and, so nicely will this be done, that, when a row is thus ploughed, so completely will the intermediate spaces, hill, &c. be lapped in by the loose dirt occasioned by this system of close ploughing, as to render other work useless at the present. *Now for the thinning part, for I profess to know nothing about replanting. I thin to four stalks in a hill.* This process may now be easily performed; taking advantage of the close ploughing, the portion to be pulled up yields very kindly at this particular stage. The second ploughing is performed with the mouldboard next to the corn. So rapid has been the growth of the corn from the first to the second ploughing, that it is performed with perfect ease. In this stage I consider my crop safe. My general rule is never to plough corn more than four times, and harrow once.—*My practice is to put a field in corn two successive years, and then grass it, and let it lie eight years*—a rule from which I never deviate. I do contend that the labor bestowed upon a sod field to put it in a state of thorough cultivation does not meet with a fair equivalent from one crop. I presume no farmer will doubt when I say the second year's crop from sod land is as good as the first—I say better, with not more than half the amount of labor. The best system of farming is to produce the greatest amount of profit from the smallest amount of labor.

I lay it down as an axiom incontrovertible, in the cultivation of corn, that whenever a large crop has been raised, it was the result of close and early planting, and I defy proof to the contrary. I propose, to all tenacious gentlemen-farmers and

others, whose curiosity leads them to try figures; they will not lie. I plant my corn three feet by three, four stalks in a hill, allowing but one ear to the stalk, and one hundred ears to the bushel, and then ascertain how many hills there is in a shock sixteen hills square, which is the usual custom of putting it up. There will then be from fifteen to sixteen shocks to the acre—query, how much to the shock? My present crop bids fair to outstrip any preceding one. It was planted on the 20th of March. I am ploughing and thinning the first planting. More of this anon.

WALTER C. YOUNG.

POTATOES.

M. Bellamy Aubert, of France, states, as the result of experiments continued during three seasons, that abundant crops of potatoes may be grown in poor clayey soils, by simply strewing the sets plentifully with rye-chaff previous to covering them with earth at planting.

Professor Voelker, of Erfwet, covers his potato sets with a layer of tanners' spent bark, two or three inches thick, before turning a furrow over them. He says he thus provides a loose spungy bed for the young tubers; prevents weeds from springing up and growing in immediate contact with the plants; and secures an abundant supply of moisture during the season, if but one soaking rain occur after planting—as the spent bark, covered by the surface soil, will retain water during the most protracted drought.—*Genesee Farmer.*

We knew a gentleman once, who planted his potato sets upon the surface of hard, well trampled ground, and covered them over with wheat straw, about twelve inches deep. His crops were excellent, and besides saving the labor of cultivation, he enjoyed the advantage of being able to feel for and pluck the full grown potatoes, leaving the young tubers to come to maturity.

VALUE OF URINE AS MANURE.

Experiments of C. Alexander.

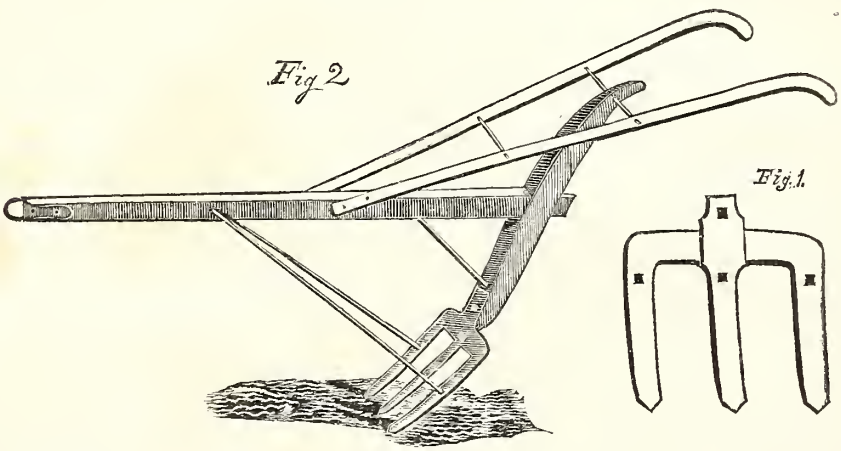
The following extract transferred from the Farmers' Magazine to that spirited and valuable agricultural work, Young's Letters of Agricola, is so important and instructive that I subjoin it:

"This intelligent farmer, Charles Alexander, near Peebles, Scotland, had long been impressed with the great importance of the urine of cattle as a manure; and he set about to discover, by a long and well conducted series of experiments, the best method of collecting and applying it. He began by digging a pit contiguous to the feeding-stall, but distinct altogether from that which was appropriated for the reception of the dung. The dimensions of this pit, according to his own account, were 36 feet square, and 4 feet deep, surrounded on all sides by a wall; and the solid contents were 192 yards. Having selected the nearest spot where he could find loamy earth, and this he always took from the surface of some field under cultivation, he proceeded to fill it; and found that, with three men and two horses, he could easily accomplish 28 cubic yards per day; and the whole expense of transporting the earth did not exceed £41 16s. When the work was complete, he levelled the surface of the heap, in a line with the mouth of the sewer, which conducted the urine from the interior of the building, on purpose that it might be distributed with regularity, and might saturate the whole from top to bottom. The quantity conveyed to it, he estimates at about 800 gallons; but as this calculation was founded partly on conjecture, for he measured not the liquor, it will be better and more instructive to furnish the DATA, that are certain and incontrovertible.—The urine was supplied by 14 cattle, weighing about 24 stone each, and kept there for five months on fodder and turnips. The contents of the pit produced 288 loads, allowing 2 cubic yards to be taken out in three carts; and he spread 40 of these on each acre, so that this urine in five months, and from fourteen cattle, produced a compost sufficient for the fertilization of seven acres of land. He states further, that he had tried this experiment for ten years, and had indiscriminately used in the same field either the rotted cow dung, or the saturated earth; and in all the stages of the crop, he had never been able to discover any perceptible difference. But what is still more wonderful, he found that his compost lasted in its effects as many years as his best putrescent manure; and he therefore boldly avers, that a load of each is of equivalent value.

"Conclusions of vast importance are deducible from this statement; and I cannot resist the feeling, of placing them in a strong and advantageous light. They speak a volume of instruction; and if we are willing to learn, they must lead to a very material alteration in the construction of our barns. It appears, then, that in five months, each cow discharges urine which, when absorbed by loam, furnishes manure of the richest quality, and most durable effects, for half an acre of ground. The dung-pit, which contained all the excrementitious matter of the 14 cattle, as well as the litter employed in bedding them, and which was kept separate for the purpose of experiment, only furnished during the same period 240 loads, and these, at the same rate, could only manure six acres. The aggregate value of the urine therefore, when compared with that of the dung, was in the ratio of seven to six; so that we are borne out by these

premises in this extraordinary inference, that the putrescible liquor which in this province, and under the management of our farmers, is wasted and annihilated as far as regards any useful purpose, is intrinsically worth more than the dung, as an efficacious and permanent dressing: and if we take into consideration, that this latter manure is not treated with any skill and judgment, it will not seem surprising, that the culture of white crops has never been carried here to any extent, since we have despised and neglected the only means of creating them."

CORN FORK.



The importance of the crop and the appropriateness of the season, will excuse our "going it strong" in the present number upon the subject of CORN.

Mr. Augustus Shriver made a report to the American Farmer, last fall, of a crop of eighty-five bushels of corn to the acre. This the Editor seems to consider a very astonishing yield for any land in the State of Maryland, and conceiving that it could be effected only by extraordinary management, calls on Mr. Shriver for his mode of cultivation. To this call Mr. Shriver responds as follows:

"Now to the mode of cultivation I have adopted for several years with the most satisfactory results. I ploughed the field, which is a light gravelly limestone soil, being a tough blue grass and clover sward, about the first of last November, to the depth of nine inches; harrowed it the 6th of April, lengthwise the furrow; the ground being at that time remarkably light and mellow. Manured it with fresh barn-yard manure, at the rate of fifteen five-horse wagon loads per acre. I spread and plough in my manure immediately after the wagon. The manure was turned under but about two inches deep. I like to keep it as near the surface as possible, so that it is out of the reach of absorption from the rays of the sun. Harrowed the ground lightly with the ploughing, and laid off the rows five feet distant, running the rows north and south. I had boys to drop, and I directed them to drop it a good step, (about twenty-six inches,) and from five to seven grains in a hill. This may seem close; but if you take into consideration the width of the rows, the distance between four hills will be something upwards of ten square feet. I am convinced that if corn has a free circulation of air one way, it can be planted almost as thick as it can stand the other. I did not harrow the field in question, which I always had done, heretofore, as soon as the corn is up, and plaster. The season being so wet at the time, I did not like to work it; when the ground was sufficiently dry the plants were too high for a large harrow to pass over them, and having but a poor opinion of the one-horse harrow, I treated my crop as follows:

"1. Cultivated it June 1st and 2d, merely setting up what corn was covered, going three times in each row.

"2. June 7th and 8th, cultivated it as before, thinning it down to four stalks, and if a hill had less, left enough stalks around it to make up the deficiency. Gave it a thorough hoeing, that is, chopped away the old hill and gave it fresh ground, cutting up every spear of grass.

"3. Ploughed it with shovel ploughs June

13th, 14th, 15th, going four times in each row, throwing the ground well up to the corn. Having given it a good hoeing before, it was quite clean, and might have done without it this time. However, I made my hands follow the ploughs and lev l off around and between the hills.

"4th, and last time, I used a large iron fork with three prongs, about fourteen inches long, attached to a shovel plough. I prefer this implement to the cultivator for the last working, as it cultivates the ground deeper, and can be run nearer the corn without injury.

"The last working I consider of the most importance; by leaving the surface level and well pulverized, you insure to the roots every advantage in searching out for nourishment.—Nothing, in my opinion, is so much calculated to check the growth of corn as leaving deep furrows in the rows. We all know that the roots of corn extend for many feet around the hill, and also that their depth in the soil is regulated by the season. Knowing this to be the fact, how can it be otherwise when a root comes in contact with a deep furrow, than that it has to turn down into the cold uncultivated ground, and as a natural consequence, the stalk becomes sickly and decrepit. I have often been surprised that intelligent farmers should continue to have their fields *gutted*, by having so many ditches running through them, extracting the substance from the soil, when a moment's reflection would have convinced them of the absurdity of the system.

"One great advantage of the mode which I have adopted, is, that the manure is applied in the spring, while it is yet warm, and contains all the gases and salts; a great part of which it loses by remaining in the yard subject to the absorption of the atmosphere, not to mention the great loss sustained by the heavy spring and summer showers. Whether manure loses as much by being applied in the spring to corn, as it does by remaining in the yard till fall, is, in my opinion, a very doubtful point. I believe it is a general opinion that corn does not require the same kind, or at least does not extract that portion of the manure which is more particularly adapted to wheat; hence I have concluded, that taking a crop of corn does not impair its capabilities for producing a crop of wheat; but, the contrary, prepares it for wheat by having it fully incorporated with the soil."

In a subsequent number, Mr. Shriver gives a drawing (of which our engraving is a copy) and the following description of the fork alluded to above:

"Fig. 1, represents a front view of the fork itself, which is made of iron 3 inches by ½ inch; the teeth should be 14 inches long, and the whole fork 16 inches broad. The middle prong must be made very strong when it is attached to the leg.

"Fig. 2, is the plough with the fork appended to it. It is attached to the plough by ten screws, the same as a shovel. In rocky ground there is great strain on the outside prongs occasionally, and to obviate this difficulty I had them secured by half inch rods, screwed to the outer prongs four inches from the upper corner, and secured to the beam by staples. The points of the prongs are made in the shape of cultivator teeth. If you think this implement worthy of notice in your valuable paper, you are at liberty to use it in any manner you please.

Yours truly, AUGS. SHRIVER."

STAYS.

McPherson, in his work on China, after describing the singular and unnatural process to which the foot of the Chinese lady is subjected, sarcastically remarks, "It would be as difficult to account for the origin of this barbarous practice of the Chinese, as for that of squeezing the waists of English women out of all natural shape by stays, or flattening the heads among the natives on the Columbia." We hardly think it fair to place the three in the same category, for whilst the *civilized* habit of lacing is equally ridiculous, it is much more injurious to the health, than the other two.

For the Southern Planter.

RUTA BAGA.

Messrs. Editors,—In my communication on the culture of the white carrot, I promised to give you my method of cultivating, and the product of my field of Ruta Bagas.

The piece you saw when at my farm, contained about three and a half acres, and had lain in pasture a number of years; it was carefully turned over in the fall of 1840; and in the spring following, cross-ploughed and harrowed, and laid out in furrows two and a half feet apart, and planted with potatoes. The knolls, which incline more to sand, were manured with horn-shavings and hogs' bristles, one handful to each set. Twelve rows through the middle were manured with salt mackerel, which were spoiled, half a fish to every set. It was an unfavorable season for potatoes, a severe drought in the summer having injured their growth. The rows manured with the salt fish, I noticed, stood the drought much better than any other part of the field; vines large and of a dark healthy color, when the others were brown and shrivelled, and on digging we found them of a large and even size, and of excellent quality, and the yield far better than any other part of the field.

Last winter, I purchased twenty-six two-horse loads of the refuse of a glue factory, consisting of lime, bones, wool, hair, and pieces of pelt, some of which had lain for two or three years. To twenty loads of this I added forty loads of yard manure, and had it well mixed. In the spring it was ploughed seven inches deep, and left until the middle of June, when the manure was hauled on and evenly spread, which covered all except about three-quarters of an acre, on which was put six loads of the factory refuse, without any yard manure. The piece was then ploughed and harrowed, thoroughly mixing the soil and manure. It was then thrown into ridges twenty-seven inches apart, the same as for the carrots; tops flattened with the roller, and seed deposited with the drill, (Bement's,) on the 18th of June.

On that part of the field where the yard manure was applied, the plants made their appearance on the fourth day after sowing, while on that part where the refuse of the glue factory was put, they showed very few plants until the tenth day, and then they were sickly in appearance, and grew so tardily that the flea devoured them about as fast as they made their appearance. In fact, we were obliged to transplant to fill up vacancies, on the whole three-quarters of an acre—showing most conclusively the ruta bagas require a quick and active manure to give them an early start to get them out of the way of their greatest enemy, the turnip flea or beetle.

On the 18th of July, the cultivator was run between the rows, and they were thinned with the hoe in the same manner as the carrots, leaving the plants from eight to ten inches apart in the drills. In August, the cultivator was again run through them, and they were hoed at intervals when convenient. Nothing more was done to them until we commenced pulling in November. The crop measured 2,355 bushels. I will here remark, that when the salt fish was used the year previous, it was strikingly visible, at some distance; the tops being of a darker hue, higher, and more vigorous, and they continued so through the summer, and on raising we found them thicker and longer in the neck and smaller in the bulb, showing that salt will increase the top at the expense of the bottom.

The greater part of the crop was stowed in a cellar—the remainder was put in heaps, in the field, for feeding my ewes when they have lambs in the spring. The heaps are made in the following manner, which I never knew to fail, when they were properly attended to. A trench six feet wide, of any length required, and one foot deep, is dug in a dry situation, generally on a knoll; the roots are thrown into this trench and piled up in the form of a roof. A coat of straight straw of from eight to ten inches in thickness, is put on in such a position as to conduct the water off, if any should reach it. Earth is now thrown on by digging a trench around the heap, beginning at the bottom and going around until the whole is covered. The earth will press the straw, which prevents its running through to the roots. A coat of ten to twelve inches, in this climate is sufficient for our common winters. The trench will prevent the water from getting into the heap. There is more danger of getting the covering too thick than too thin. I have suffered more from heat than frost. After the earth is all put on, it should be carefully clapped down with the spade, to make it more effectually shed the rains. After a few days I take a crowbar and thrust it in the top along the ridge down into the heap, no matter if it breaks some of the roots, and open holes about three feet apart, to let the gas or vapor off, which is generated by a partial fermentation. A flat stone, raised a little, on one edge set up an inch or two, or a wisp of straw may be put into the holes to prevent the rain from getting in, which completes the work for the winter.

With me the ruta baga is a valuable crop.—They afford the greatest quantity of food, for my stock, from an acre, while they seem to exhaust the land less and leave it in the best possible condition for a succeeding crop. It is too rich for oats, but well calculated for barley, and clover seed always "takes" well, sown with it. I feed them to my cattle, sheep, hogs, (boiled,) and occasionally to my horses. For calves, the first winter, they are very valuable, keeping their bowels open and loose; they will grow and thrive without running too much to fat; their coats smooth and glossy, and continue to grow through the winter, and "go to grass" in fine condition, by which they gain at least six months in their growth over those wintered in the too common and ordinary way. Heifers wintered in the above manner will answer to come in at two years old. I have one now in my yard that will not be two years old until January next; she had a calf last March, and has been milked ever since, and I cannot perceive that her growth has been retarded in consequence, and she is now as large as common three year olds.

C. N. Bement.

There is a simplicity, perspicuity, minuteness, and exactness in Mr. Bement's reports of agricultural experiments, worthy the imitation of all those who would assist in the collection and dissemination of agricultural facts.

PEACHES AND GRAPES.

Great difficulty has been experienced in this region, in raising peaches and grapes. We were informed by a gentleman who lately visited New Haven, Connecticut, that a plan has been adopted there, which secures to them an abundant supply of peaches and grapes. The plan

is to place a barrel round the tree or vine in the winter, and fill it with snow well pressed down, and leave it until the whole has melted away. The tree and the grape vine are thus prevented from putting forth early, and escape the early frosts, which in this region, is a matter of great difficulty. It is certainly worthy of an experiment. The notices in our paper, of the delicious peaches raised at Utica this season, encourage us to hope, that we may yet have an abundance of this choice fruit.—*Massachusetts Ploughman.*

For the Southern Planter.

VALUE OF SEASONING FIRE-WOOD, &c.

We make the following extract from a letter received from Mr. GEORGE W. CRAVEN, of Albemarle. We shall be very happy to have a description of his tobacco fixtures, which we doubt not would be highly interesting and instructive to a large class of our readers.

"Perhaps, gentlemen, I can throw out a useful hint (whilst I sit by a cheerful *seasoned* wood fire,) on the importance, comfort, and saving of labor by having seasoned wood instead of green. In the first place, it does not require more than half the labor to load and unload, and half the labor to haul, which is no small consideration. And then half the quantity of seasoned wood makes as good a fire; for two or three sticks of seasoned wood makes a good fire, and you get the benefit of the whole of it, as none goes off in smoke to make foul chimneys. For smoke is nothing more nor less than unconsumed fuel. Therefore, I would advise all farmers to cut their fuel the winter before it is used; split it and set it up. If for market, no one that considers comfort and economy will object to it because it is seasoned. It is a fact, that any wood, when seasoned, makes a good fire, whereas, there are many kinds of green wood that make an intolerable one. For instance, pine wood green will scarcely burn at all—when seasoned, it makes a respectable fire. All kinds of timber are better for being seasoned. If farmers would cut and split their stakes there would be no need of burning. Fencing and hauling is more expeditiously done when the rails are seasoned. I consider one of the greatest secrets in farming is a judicious saving and application of labor in the various operations of the farm. For labor saved is money made. I have spent some fifty dollars in the last twelve months (as hard as the times are) in labor-saving machines, and consider the money not badly spent. In the first place, it occurred to me that a great saving of time and labor might be made in the tedious process of shelling corn by hand. I therefore had a machine made with no extra work but a whirl for the machine band to run on, cost, $12 50. I can in ten minutes detach my machine (threshing box) and attach my corn sheller, and in a day, I can shell corn sufficient to last man and beast for a month or more, with but two horses and two men and a boy to drive. I also had a straw cutter made with the same extra work, a whirl, cost $25, which I can attach to the same machine in five minutes, and cut straw enough in one rainy day to last several weeks for some twelve head of horses, and as many cattle. So you see it is not only a saving of labor but you do it all in bad weather with but few hands.—And then when the weather is fair, I have no hindrance of this kind to delay my work, but go right ahead, from morning until night, and no stopping to shell corn and cut feed. I cut up every thing for my horses (or rather I make them do it) and I never allow a ear of corn to go in their troughs until it is ground and mixed with some kind of cut straw or chaff. In the winter months, I have my servants' breakfast prepared for them while they are feeding, so that they do not go to work before sun-up in cold weather, which I consider a saving of time, for they cannot do much in cold weather before breakfast.

"I have been at considerable expense in the last year in constructing buildings and other fixtures for the more convenient management of the tobacco crop, and I flatter myself that I have, in a measure, succeeded, which if you consider of sufficient interest, I would furnish you with, together with the process of managing this troublesome but profitable crop.

Your sincere well-wisher,

GEORGE W. CRAVEN."

DRIVING CATTLE.

I have often witnessed the infliction of cruelties on dumb beasts accused of sullenness, by persons attempting to lead or drive an animal alone. This subject was brought to my mind so forcibly a few days since, by a neighbor sending a boy to lead a heifer a distance of several miles, by a rope attached to her horns and nose, that I determined to write a line upon it. The restiveness of cattle in such cases is caused by skittishness. The remedy is simple and efficient. Fasten a board before the face, in the usual manner of blinding breachy cattle, and the wildest cow or heifer may be led or driven with perfect ease.—*Maine Cultivator.*

OUR CLIMATE.

A Mr. LOCKE, who is highly spoken of as a gentleman of undoubted scientific attainments, has been delivering a series of lectures at the North, to establish a doctrine which he has been for some time promulgating. His theory is, that

the climate of every country is constantly and regularly changing from its greatest degree of cold, to its greatest degree of heat, and then, from heat to cold again. Each progression, Mr. Locke conceives, occupies about 333 years, and our own climate, since the year 1791, the period of maximum cold, has been gradually getting milder, whilst during the same time, the climate of Europe has been undergoing an opposite change; thus, Mr. Locke asserts, that the United States will soon possess, as he declares they formerly did, the verdure of the vine clad hills of France, whilst France will again be bound in the icy chains of ancient Gaul. This variation in climate, Mr. Locke thinks, is attributable to the same cause that produces the variation in the magnetic needle.

The fact of regular and gradual variation in climate, for which Mr. Locke attempts to account, is said to be fully established by a reference to history.

SCOURS IN CALVES.

We have never found any remedy for the scours preferable to boiled skimmed milk. This should be given warm, and it is more safe than poisons of any kind.

TO PROTECT FRUIT FROM LATE SPRING FROST.

The following article appeared in the "American Farmer" last spring, and attracted our attention on account of its novelty and ingenuity. Since that period, we have seen a gentleman who assured us he had tried the preventive recommended with the most entire success. It is at least curious, and for the preservation of the fruit of a particular and favorite tree, might be esteemed useful.

"Many expedients have been resorted to for the protection of fruit from the blighting influence of late frosts. Throwing a sheet over the tree, hanging iron upon it, kindling a fire under it, &c. have each been found to have a beneficial influence, but none have been more efficient than the experiment which I am about to describe.

"My friend, Major Ruff, who is a virtuoso, lately informed me that many years ago he saw it stated in a French paper that by throwing a hempen rope over the top of a fruit tree, when in bloom or near the time of blooming, and by letting its lower end touch the ground, the tree would thus be protected from the influence of frost. This I thought quite rational and philosophic, I accordingly made the experiment.—To prove more fully the *modus operandi* I took two dishes half filled with water, and set them a few feet distant, under the tree, on the night before an expected frost, the tree being nearly in full bloom. Throwing the rope over the top of the tree I let the other end hang in the water of one of the dishes—the event proved the correctness of the theory. There was a hard frost on the morning of the 27th instant and the dish into which the rope was deposited, contained ice of the thickness of a dollar, while that in the other dish was scarcely of the thickness of paper.

"The philosophy of the above experiment is this: the rope, which was previously wetted, was a conductor of heat; the air, and of course the limbs of the tree, became *colder* in the night than the earth—the rope conducted the heat from the earth to the tree, thus keeping up an equilibrium and preserving the tree from frost.

"As far as my observation extends, the critical time for fruit is long before it is in blossom; but it is nevertheless true, that severe and protracted cold at that time, or even later, will destroy the fruit. This was the case last year. The fruit was killed by severe frost after it had been formed.

"There is not in my mind a doubt that by attaching a rope to each tree of choice fruit, and thus letting it permanently remain through the winter and spring, that the fruit would be secured from the effects of frost.

"To the incredulous and the supercilious, who balance their grist all their lives with a big stone—who, sufficiently wise, despise knowledge and instruction, the above may appear unworthy their attention. Let such be informed that it is not less philosophic than lightning rods attached to buildings to protect them from the influence of electricity—let them be informed that

> "There are more things in heaven and earth
> Than their philosophy has ever dreamed of."

W. L. Horton."

Woodlawn, Hartford Co., March 29, 1842.

TO MAKE PERMANENT MARKING INK.

Take six and a quarter cents worth of lunar caustic, and, having put it in an ounce vial filled with vinegar, cork it tight and hang it in the sun. In a couple of days it will be fit for use.

To make the preparation for the above, take a lump of pearlash the size of a chesnut and dissolve it in a gill of rainwater.

The part of the muslin which is to be written upon is to be wet with the preparation, and dried and glazed with a warm flatiron: immediately after which it is ready for marking.

A little vinegar in which a rusty nail has re-

mained for a few days, makes a mark on linen which is not easily obliterated—forming what is commonly called iron-mould.

Louisville Journal.

CORN.

A writer in the New Genesee Farmer states, that, "when David Thomas travelled through Indiana in 1818, he visited a prairie near Vincennes, on which a luxuriant crop of Indian corn had grown for more than sixty years in succession, without the aid of any kind of manure." The writer suggests that this continued product was probably owing to the existence of some mineral substance in the soil, and seems to think a similar effect could be produced by a continued and bountiful supply of wood ashes.

We know that the greatest product of corn we ever saw, we obtained from a square in a garden, by planting three feet every way, four stalks to the hill, and making free use of wood ashes, which we imagined might counteract the tendency to "fire." The season, however, was not a dry one, but still we always thought the corn was much greener, and fresher, and fuller, than it would have been, under the same planting, without the ashes.

BRINE.

One of our citizens, a grocer, informs us that he has for a few years past been in the habit of emptying the brine from his pork and fish barrels on his asparagus bed; and he thinks none of his neighbors have better asparagus than he. The effect of the brine is entirely to destroy the weeds, while it makes his plants much more thrifty. And why is not this reasonable? Asparagus is known to be a marine plant, and is found in abundance in many places along the shore of the ocean.—*Ed. Farmers' Gazette.*

For the Southern Planter.

IMPROVEMENT OF VIRGINIA.

The lands of Virginia are *slowly* improving, but this snail's trot does not suit me, who am restless in disposition, and earnestly desirous of seeing again ere I die, this my own, my native land, the first in the Union. Can it not be done in twenty-five years? Fie on the lubbard who says it cannot, and I hope to live yet twenty-five years, and fie on him who is not willing and ready to assist in making the effort. Considering land and climate, Virginia was once equal to any part of the Union, and if I live and retain my senses yet twenty-five years, that portion which I claim as my own, although a few years past it was generally barren, galled and gullied, shall be more productive than when first reclaimed from nature. Now, reader, are you satisfied to lie down and jingle your dollars, which your children may spend in a few months, or are you desirous of giving them rich *lands* instead of rich *purses?* If you are for the first, I have nothing more to do with you, but if for the last, then am I ready to go hand in hand with you in the attempt; and without the effort nothing can be done. Indeed, my worthy fellow, let me tell you that for several years I have been making some experiments in the way of improving my lands, and these having generally been to my satisfaction, I am emboldened to proceed on a larger scale.

What then is the first thing to be done?—Read. What second? Reflect. What third? Act. By reading, we acquire that knowledge which others possess, without which we would be but as savages; by reflection, we are qualified to judge of true or false positions, and to act; and by judicious action, we prosper. Improvement, is my motto, and I contend that lack of improvement, is, as it were, standing still, and standing still is equivalent to doing nothing. We read in the sacred Book "that he who does not provide for his own household is worse than an infidel?" Now what kind of provision is this spoken of? Is it money? Certainly not. Is it bread? Surely it is—and I would ask any one how bread can be provided from poor land? "Oh, but," says one, "when my land has become poor, I will move to the West." And when you have made that poor, where then?—to the moon, I suppose. But reader I beg your pardon, for my object is not to quarrel with you, but to convince you that the true and proper policy is, to improve the soil and the mind, and let the dollars be the last thing to be estimated. The dollars are merely representatives of things, and if you have the things themselves what do you want with the representatives? Only give me a plenty of rich land, whereon I can grow enough to eat, and enough to wear, and you may have all the *dollars*, and welcome. And how doubly delightful the employment of improving the soil and the mind; for be it remembered, that whilst improving the soil, the mind is improved also, and thus they act and react on each other, till,—I had like to have said, perfection is attained.

As I have so highly recommended reading, perhaps one may ask, what books and periodicals? Liebig's Agricultural Chemistry is first in the list, then I suppose you take the "Southern Planter," to which you may add as many as you like.

I verily believe from what I have seen and learned, that the mulatto soils, and ferruginous earths, of any color whatever, of Virginia, are

as susceptible of improvement as any land on the face of the earth. I verily believe that there are natural deposites of manure in Virginia fully sufficient to make all the arable lands in the State rich; and I verily believe that the time will come, sooner or later, when Virginia will be the Eden of North America. Marl, lime, gypsum, charcoal, rotten wood, ashes, and other matters of minor importance must do all for the agriculture of Virginia, that could be desired.

I had often thought of trying charcoal on my land, but neglected it till I read Liebig's Agricultural Chemistry. I am now engaged in burning coal, and shall burn one thousand or more bushels this winter, which will be pounded fine and spread on clayey land, at the rate of about two hundred bushels the acre. I have no pine, which Liebig says is best, therefore, I burn chesnut, which with me is abundant, and if my first experiment proves satisfactory, I intend hereafter to burn several thousand bushels, annually. The burned earth, and offal coal about the pits, are both moved so soon as cool, and spread on the land. See Liebig's Agricultural Chemistry, third edition, page 79, 80, 104, 207, 250, 365.

I lately informed the Editors of the Southern Planter, that I intended to use charcoal in connection with animal flesh, but whereas the *coal* would have a tendency to stay the putrefaction of the flesh, I have not used it; but made the layers, rotten wood, flesh, ashes, earth, rotten wood, &c. The flesh lately used is six sheep, killed to keep them from dying; and to-day, I had about four hundred pounds of the offal of wool from a carding machine, spread in the stead of flesh; which I have no doubt is fully equal in virtue to the carcass of a dead horse; and we are informed that such a carcass is sufficient to decompose twenty tons of peat earth, and transfer it into the most enriching manure. See L. A. C. page 259.

Za. Drummond.

Amherst, Dec. 20, 1842.

In this communication breathes the true spirit of agricultural improvement. From what we have learned of him, we have formed a very high estimate of the vigor, zeal, and energy of Mr. Drummond, and, if ever the opportunity offers, we shall be most happy to make the personal acquaintance of a gentleman, to whom the agricultural community in general, and we in particular, stand so largely indebted.

For the Southern Planter.

FOUNDER.

Messrs. Editors,—I lately had occasion to try a recipe published in your valuable periodical, with the most complete success. Not long since, my barouche horse being badly foundered, I had holes dug in the ground, nearly knee deep, and filled with water; the water was then heated with hot stones, and the horse lead into it, where he was kept for two or three hours. At the same time, I had him well bathed up to his shoulders and hips with hot water, and then rubbed dry. On the second morning, he started on a journey of two hundred miles, which he performed without any apparent inconvenience at all.

Your obedient servant,

W. H. Dupuy.

Cœlebs, Pittsylvania.

If we can procure any more of the grass roots referred to in the first part of Mr. Dupuy's letter, we will forward them with pleasure.

For the Southern Planter.

Messrs. Editors,—I am a reader of the Southern Planter, and am often amused, and I hope much benefitted, by many very interesting communications, and though I do not know that my opinion is worth anything, yet I think it is due to you to say I think it a most interesting and valuable periodical, especially to such persons as will be judicious in their selection of subjects for experiments, taking care not to make them upon too large a scale. I am not much in the habit of newspaper writing, and am no farmer or planter, and hardly any thing else, yet will I try, in my plain manner, to state some facts, of which I have become possessed from many years' experience and close observation, in reference to feeding or managing stock hogs; I mean such as range in the forest or large pastures. It is a very common practice with many persons to call their hogs up in the morning, by or before day, and give them a small allowance, depending upon their rooting or grazing for the balance of their support. Some give another allowance at night. The best plan is, to give the entire allowance at night. When called up early, (especially in cold weather) before they otherwise would stir, they become chilled and receiving a small allowance, it stays the appetite or cravings of nature, and they return again to their beds, or seek some sunny spot and lie down, where they often remain (hog-like without thought) until ten, twelve, and sometimes three o'clock in the day; they then have but little time to seek a supply of food by grazing or rooting; when night comes on, they again lie down hungry, empty and cold, and are climbing upon each other and squealing during the night, without rest, and if by chance there be any small ones in the number, their complaints (if they happen to be at bottom) are disregarded and they fare badly. If not called up in the

morning, they take their natural rest; then urged out by hunger as soon as the sun is up, they travel and labor hard all day, taking a much wider range, and as they are formed for rooting, perhaps roots may act as a medicine for them, as I have never known wild or forest hogs die by eating mushrooms. By night, they are pretty well supplied; then being called up and receiving their allowance, in addition, they lie down contented, and lying together and still, sleep warm, aided by the additional warmth naturally derived from food. It is well known, hogs fatten best when still, and in warm weather. It is my opinion, that one ear of corn, each, to hogsat night, witha tolerable chance to range the forest or graze in pasture, is equal to two in the morning, or one at night and one in the morning. Such has been my experience for nearly forty years, and I have often imparted it to my acquaintances, who have adopted the plan, much to their advantage, as many have told me. Hogs raised about a mill, should be treated in the same way, saving all the sweepings until night, and they will go off in the morning and cease to be troublesome. I think it injudicious to raise any pigs that come between 1st September and 1st March. I know it is said hogs fed at night are more apt to ramble and be lost. That is a mistake; be punctual to your hogs and they will meet you at the time to receive their allowance, and if it is given at night, they will sleep near where they are fed; if fed in the morning, after taking their morning's nap, they ramble until night overtakes them, and having no inducement to return, they lie down to rest, and in the morning, are out of hearing, being too cold to rise early; if they return at all, it is after the time of feeding, and they perhaps miss their allowance.

W. Timberlake.

Family Mills, Albemarle, Dec. 21, 1842.

We understand that Mr. Timberlake is an old miller, of great experience and reputation for his management of hogs.

BEESWAX.

The neatest way, says the Farmers' Cabinet, to separate beeswax from the comb, is, to tie it up in a linen or woollen cloth or bag with a pebble or two to keep it from floating; place it in a kettle of cold water, which hang over the fire; as the water heats, the wax melts and rises to the surface, while all the impurities remain in the bag.

For the Southern Planter.

DURHAM CATTLE AND BERKSHIRE PIGS.

Messrs. Editors,—If in this age of improvement in *stock* and all the apparatus of farming it be not absurd to revert to the virtues of stock of the olden time, I should like to call up the memory of "*Bergami,*" that justice may be done his family, and that his descendants wherever found may be properly appreciated. "Bergami" was a Teeswater bull, sent to Virginia by John S. Skinner, Esq. about the year 1823, *when your correspondent was a little boy.* The late Henry S. Turner, Esq. of Jefferson county, purchased him and bred from him for a number of years upon selected cows from the South Branch, by which he greatly improved his breed of cattle in the requisites of that valuable race. "Bergami" subsequently came to this county, where he sojourned for a few years, dispensing his favors most liberally amongst our cow-pens, and was a few years ago, when advanced in life, carried hence to the *far west*, leaving behind him not only a most enviable reputation, but a most numerous progeny to attest it. Such is the estimate in which his race is held now by those who have tried it that it would indeed be difficult to find one who would be willing to admit that the "Improved Durham Short Horns," valuable as they are, are in any essential superior to the descendants of "Bergami." I have myself a cow, now ten years old next grass, whose dam and grandam were both by "Bergami." She herself was by Meade's Durham Short Horn, "Frederick." She has brought me ten calves, having had twins twice—is among the most abundant milkers I ever saw and has never been *dry but once* since she brought her first calf. In color she follows her Short Horn ancestry (being white, with some little mixture of red)—in weight, fine bone, round barrel, long frame, deep chine, &c. &c. She exhibits the leading characteristics of the Bergami race. I have seen many other cows of this particular breed of cattle, but have yet to lay my eyes on one of them that is not above mediocrity, most of them would compare favorably with the latest and most fashionable importations of British cattle.

Now, Messrs. Editors, I will leave my cow, *Io*, to her *ruminations* awhile, and give in, in as few words as possible, my experience of *Berkshire pigs.* I have given them a fair trial, and find that the cross upon our common hog is a *decided* improvement, but not sufficient to justify by any means the exorbitant prices that are paid for them. I have sold some of the *young* pigs at ten dollars ahead but have not been able to get that price for any of them when grown and fatted. I have no disposition to ridicule either the *raisers* or *praisers* of Berkshires, nor yet the hogs themselves. Were I to attempt that, every *grunter* I have would *curl his tail* at me—for I have no other kind—but the truth I will tell about them, and the whole truth. 'Tis true "they live on less than any hogs in the world," and, therefore, I think it a pity to *kill* them. 'Tis true that "they come to maturity early," and 'tis equally true that they rarely

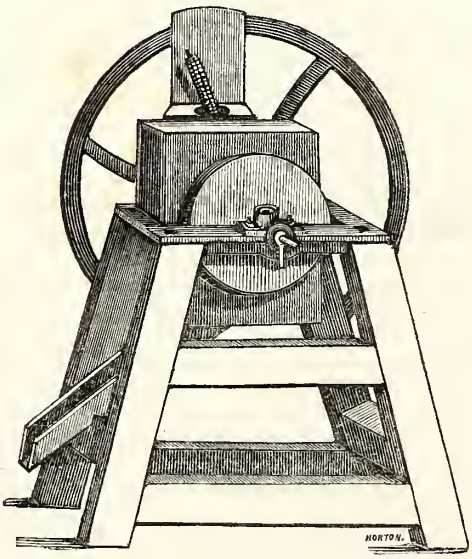
overgrow themselves. I am done buying them at ten dollars ahead. Parson Turner may get all he can for his, but in future I will sell my full blooded pigs for five dollars ahead—buy common *shotes* at two dollars, and lay out the balance of the pig money in corn to feed them on, and that will make bacon good enough for me if well cured,* and cheap *at that.*

A Loudoun Subscriber.

Middleburg, Loudoun, Jan. 11, 1843.

* Some of these days I'll show you how to do it.

HUSSEY'S CORN AND COB CRUSHER.



The public have become satisfied, at last, that in throwing away the cob of the Indian corn, they have been wasting very good feed. The experiments of Mr. Peter Minor, of Albemarle, which have been detailed over and over again, and the testimonials daily published in the agricultural journals, of the nourishment and beneficial effects of cob meal, have awakened a very general interest in the subject. We have often expressed the opinion, which we take this occasion to repeat, that the farmer wants nothing more than a good, cheap, and simple horse-power, to induce him to apply it to many operations at home, that are now, either totally neglected, or performed abroad, at the expense of much cost and more trouble. Amongst the chief of these we reckon the grinding not only corn and cob for stock feed, but the grinding of corn meal for human consumption. Every farmer who has to send five or six miles to mill, knows, that the toll is the smallest portion of the expense of grinding; and the greatest difficulty in persuading our farmers to do what, under almost any circumstances, their interest would dictate, that is, to grind all the grain they feed away, arises from the trouble and inconvenience of "sending to mill." For this reason, we have been asked, over and over again, by persons living within five miles or less of a public mill, "can you not find or construct us an implement with which we can grind our own corn?" With the increased desire to grind the corn and cob together for all the stock, this demand has greatly increased. To answer this demand, various machines have been gotten up; there are Hussey's, Baldwin's, Murray's, and Birely's, that we have seen. We have not, however, had sufficient opportunity to examine and test them, to enable us to compare them, or speak of their respective merits. Of Mr. Hussey's, of which the engraving is a representation, we have received and worked one or two, and we

confess ourselves highly pleased with its construction and performance. It is as naked and simple as possible; from which are derived the three advantages, of engendering but little friction, being easily kept in order, and being furnished cheap. It occupies a space of about three feet square, and weighs, we should guess, about three hundred pounds. Upon a horizontal shaft, is placed a cast iron grooved plate, armed also with steel cutters, which works against another plate, which is stationary, being screwed to cast iron projections fastened to the frame. Both of these plates, with the cutters affixed, may be displaced and substituted by new ones, by the mere turning of two or three screws. The extra plates are furnished at a dollar and a half a pair. By means of a screw, shown in the front part of the engraving, the plate affixed to the shaft, may be made to approach or recede from the stationary plate, at pleasure; so that, in a few turns, you change the grinding from the finest meal, to the coarsest hominy.

In answer to our inquiries as to the wear of the plates and efficiency of the machine, Mr. Hussey says, that he has had no opportunity yet of testing the wear of the plates, the machine having been in use only about a year.—"With the ordinary horse-power used in threshing wheat, it will," he says, "grind from eight to ten bushels per hour of dry corn; if the corn be damp, it will make quite a difference in the quantity, although the meal will be equally good."

The machine is intended for *horse-power*, and has a whirl on the shaft of such a size as will give it the proper motion when driven directly from the drum which drives an ordinary threshing machine. It is also fitted with a crank and handle, and although it is tolerably hard work, two men, by spelling each other, can, of a rainy day especially, do very respectable work with it. It is fed through a tube or hopper, ear at a time, and requires the constant attendance of a feeder, although his task is an easy one.

This machine, although it is sold for less, we believe, than any other constructed for the same purpose, bore away the palm and received the first premium at the agricultural fair at Albany last spring.

We will keep a supply of them which we will deliver at our wareroom, in Richmond, for $37 apiece.

NEW FABRIC FOR SERVANTS' CLOTHING.

Mr. Chase, of Baltimore, has invented a hand machine for carding and spinning wool. It also wraps one or more threads of cotton with the wool. The only two machines of this kind he has made, are now in use on the plantations of George Kelso, Esq. of Louisiana. Mr. C. exhibited to us some linsey manufactured by Mr. Kelso's negroes, which is an excellent and very singular fabric. The chain is of cotton, and the filling consists of three threads of cotton wrapped with wool. The cloth combines strength with warmth and cheapness. Mr. K. uses McIntyre's spinning machine to prepare the cotton. Mr. Chase says that a number of his spinning machines have been ordered by the cotton planters. Very excellent blankets may be prepared by wrapping the warp and filling with wool.

Louisville Journal.

M'CORMICK'S REAPER.

As we have received a great many inquiries about M'Cormick's Reaper since we published our last number, and as they are pretty much embodied in the following, from Mr. Smith, we will undertake to answer them all, as well as we can, through the columns of the Planter. Mr. Smith asks,

"First. Will the wheat cutter answer upon land smartly undulating, or upon flat land bedded—the beds eighteen feet wide—or upon the same kind of land simply drained by water furrows ten or twelve feet apart?

"Second. Will the cutter operate well when the straw is damp from dew or rain?

"Third. Can the cutter be easily drawn by two horses, when the land is wet?

"Fourth. Can the cutter be conveniently used unless the wheat ripens in large bodies? And,

"Fifthly. What will be its probable last?

GEO. A. SMITH.

Orange C. H., Va."

1st. The width of the machine is about seven feet, and where there are no very great inequalities within that space, it will operate without difficulty. Upon hill sides that are tolerably level, and not too steep, we understand it works well.

2d. We have the authority of one gentleman, Dr. BRAXTON, for saying, that during the last harvest, which was a very wet one, he cut a great deal of his crop immediately after heavy rains, and found the dampness of the straw to offer little or no obstruction to the operation of the machine.

3d. When the ground is dry, two horses work the Reaper with perfect ease, when it is wet, the wheels sink and make the work much harder, requiring sometimes the assistance of a third horse. But for the coming harvest, the width of the wheels will be increased, by which, it is supposed, the sinking will be avoided.

4th. The term "large" is a very indefinite one; it is certain that a very small crop would not justify the expense of the machine, but knowing what it will do, every one can judge for himself whether it would be to his interest to have it.

5th. As to the probable last, if well taken care of, we see nothing about it liable to wear out in twenty years, if applied only to the crops of a single farmer.

It must be understood, however, that we have never seen the machine, and that all the knowledge we have concerning it, is derived from the information of others, and from a personal inspection of the model.

RICE.

It is said rice was first planted in Carolina, in 1668; but owing to bad seed it was abandoned. In the year 1695, a vessel from Madagascar, the master of which furnished a gentleman with a small quantity, from which has sprung immense sources of wealth to the southern States. "So much for a remnant of a sea store left in the bottom of a bag."—*Nashville Agriculturist.*

THE POET AND THE BASKET MAKER.

I am no enemy to learning—no enemy to colleges. On the contrary, I am the steadfast friend of both. But I am opposed to having them both overrated as they are; and the advantages of both so abundantly exaggerated, by the great mass of our people—as if no other learning were valuable, no other knowledge worth having.

I would remind them of the basket maker; the only man of a large crew, cast ashore among savages, who was able to turn his past acquisition to account; while the remainder sat twirling their thumbs, liable every moment to be knocked in the head for their ignorance, the basket maker was made a chief upon the spot; and almost worshipped for his ingenuity.

Or I might remind them of that other crew taken by a Barbary corsair. When they were before the Dey, he inquired their several occupations. The riggers, and blacksmiths, and carpenters were all sent off to the dock yard.—The sailors had a comfortable berth provided for them, and even the officers were turned to account one way or another. At last his highness came to a literary man—a passenger and poet—what to do with him, for a long while, his highness could not say, till at last, on learning that the prisoner was a man of sedentary occupations, and having them explained by the interpreter, he ordered the poet a pair of feather breeches and set him to hatching chickens.

And now which of these two was the educated man, the poet or the basket maker?

John Neal.

THE GOOCHLAND AGRICULTURAL SOCIETY.

Four or five weeks ago, we received through the Secretary, a report of the agricultural fair in Goochland, and a copy of the address delivered by their able President, Dr. Wight. By request, we left them at the office of one of our city papers, where they were unfortunately mislaid, and it was not until to-day that we were enabled to regain them. We regret this delay particularly, because, an examination of the address satisfied us that it more than sustained the high reputation for science and practice that Dr. Wight has acquired in the circle where his merits as a farmer are known. We shall probably draw largely on it in our next.

REBELLIOUS HENS.

A neighbor of our's states that hog's lard is the best thing he can find to mix with the dough he gives to his hens. He says one cut of this fat, as large as a walnut, will set a hen to laying immediately after she has been broken up from her setting; and thus his hens lay through the whole winter. Will some more experimenters try the virtue of hog's lard.—*Massachusetts Ploughman.*

From the Central New York Farmer.

CUTTING FEED FOR CATTLE.

Messrs. Editors,—My location is among the mountains in the southern part of the State of New York, but my exact whereabouts it is not proper at present to define. The result of my reflections will, from time to time be forwarded for publication, and as I sometimes emerge from my hiding place, I shall tell of some of the faults, as well as the merits of the farmers where I travel. In this communication, I shall touch upon some of the errors which prevail to a considerable extent, not only in my neighborhood, but in nearly every part of the country. The first error which I shall name is the wasteful manner of feeding stock which too generally

prevails. It may be assumed as a safe calculation, that at least one-fourth of the fodder may be saved by the use of the straw-cutter; and yet, how few of these machines are in use. But as arguments rather than mere assertions will be expected, we will enter into an estimate, for the purpose of showing the actual saving in dollars and cents; for this, after all, is one of the great objects of the farmer. Let us suppose, then, that a farmer has thirty head of cattle, which at a moderate estimate, will consume one and a half tons of hay each. Judge Buel and others, who have given the experiment a fair trial, estimate a saving of one-third, or half a ton to each cow in one winter. But for fear of being considered extravagant, I will suppose that eleven and one-fourth tons, or one-fourth, would be saved by the use of the machine.—Eleven and one-fourth tons of hay at six dollars per ton, which would perhaps be less than the average price for a term of years, amount to sixty-seven and one-half dollars. The extra labor in taking care of the stock would be worth, say thirty dollars, which, deducted from sixty-seven and one-half, leaves thirty-seven and one-half, a sum sufficient to pay for two good machines. With this view of the subject, then, it will be seen that in a course of years, a considerable saving would be made; but this is the most unfavorable view which can be taken of this subject. Hay in many parts of the country will average ten dollars per ton, and is frequently worth that price in nearly every part of the State. It is, however, in feeding straw and corn stalks, that the greatest saving is effected by cutting, and so great is my confidence in the propriety of this method of preparing coarse fodder for stock, that it is my firm conviction, that it would be better for any farmer who has not the means at command, to sell a sufficient quantity of fodder to pay for the machine and extra labor, than to feed in the old-fashioned and slovenly method, without cutting. Every farmer knows that in feeding stalks whole, about one-half of the value of the fodder is wasted, while stalks properly cut with a machine, will be entirely consumed.

Straw properly cut, may be mixed with hay or stalks, when the necessity or the convenience of the farmer may require it, and will be more readily eaten by cattle than when fed whole; for every farmer has found some difficulty in making cattle eat straw, in any considerable quantity, unless, (as is the practice with some,) a considerable quantity of grain is left in the straw. Taking into view all these advantages, it appears to me that the saving in the winter's keeping of a cow, cannot be less than half a ton of hay, which in the stock of thirty cows, would make a saving of fifteen tons, or ninety dollars, from which deduct thirty dollars for extra labor, and we have a saving of sixty dollars for the use of the machine in a single winter. There is, however, another point which ought not to be overlooked, and which is second in importance to no other branch of agriculture. Instead of selling the fodder which would be saved in the way we have pointed out, the farmer may keep a greater number of cattle, and consequently, the quantity of manure will be so increased, as to aid materially in the renovation of the soil. This cannot fail to have its proper weight with every calculating farmer. But as I may hereafter touch upon the subject of manures, it is proper to abstain from a discussion of this branch of agriculture.

A Mountaineer.

REPORT OF THE VIRGINIA BOARD OF AGRICULTURE.

We are indebted to the politeness of the Public Printer for a copy of this valuable document. We have no space for extracts, hardly for comments in this number, but this we will say, that the practical character of the report will recommend the Board from which it emanates to the regard of the agricultural community, and will put to shame those gentlemen of the Legislature who could with difficulty be brought to vote for the printing of 1,500 copies of a document which they ought to have taken pride and pleasure in placing in the hands of every farmer in Virginia.

REMEDY FOR COLIC IN HORSES.

Take two quarts of cold water in a hand basin, add with your fire-shovel say a pint of hot wood ashes or embers, and stir. Cut off an inch and a half from a common hand of tobacco and shred in the mixture—stir all up and let it stand fifteen minutes and settle. Pour off a common black bottle full of the fluid and drench your horse—in half an hour he will be well.

Rationale.—The gas which bloats the horse is probably carbonic acid gas and light-carburetted hydrogen, the product of the vegetable decomposition which is going on in the intestines—at any rate it is a gas which is immediately absorbed by its combination with an alkali. The tobacco is a powerful anti-spasmodic and cathartic—it, therefore, prostrates the nervous sensibility, checks the inflammation and increases the action of the lower intestines. In a critical or extreme case it will be well to give an enema of a strong decoction of tobacco with a common syringe. Out of more than one hundred instances in which I have seen this remedy used, I have yet to witness the first failure. It also has an advantage over very many remedies, viz: it cannot injure a horse in perfect health. Feed light for a day or two.

Causes of Colic.—The main cause consists in the presence of a greater amount of food than the intestines can elaborate into nutriment, or of a kind of food difficult of digestion, producing spasm, obstruction, vegetable decomposition and consequent inflammation. *Hard driving on a full stomach* will produce colic, because the effort weakens the tone of the digestive powers and they cannot elaborate the food—which then produces irritation and inflammation. *Cold water when the horse is heated*, because it is a powerful stimulus and will produce spasm or obstruction, or by the re-action produces weakness of the digestive organs. It also gives too much fluidity to the food—fluids are more difficult of digestion than solids. It also increases the fermentation. *Hearty feeding after hard driving*, because the stomach and intestines sympathize with the general fatigue of the system and are easily overloaded, and the appetite will induce the horse to eat more than he can digest.

Colic is first flatulent, then inflammatory. In the flatulent stage, or in what is called belly-ache, aromatic remedies or half a gill of spirits of turpentine, or a pint of whiskey and black pepper may be given; all these stimulate the system and may assist it in overcoming the difficulty. But in the latter and inflammatory stage, which rapidly succeeds the former, these same remedies would produce speedy death by increasing the inflammation. In nine cases out of ten, this disease is not observed by the ordinary driver until it has assumed the inflammatory form—in which stage the remedy at the head of this article should be given with as little delay as possible; although it should not be omitted even if the horse be supposed to be in the article of death itself—for I have seen them recover when every by-stander had dismissed all hope.

Yours truly, T. N. Welles.

French Creek, Peoria Co., Nov. 25, 1842.

P. S.—*Change of feed* will sometimes produce colic, for the reason that the digestive organs do not readily adapt themselves to it—and the food lies there in its unchanged state, producing by heat and moisture, fermentation, irritation and inflammation.

Colic produced by oats is not as obstinate as that produced by corn. T. N. W.

THRESHING SEED GRAIN.

"It has gone the rounds of the papers, on the authority of the New Genesee Farmer, that the use of threshing machines in getting out grain, will prevent a large part of it from vegetating. Several farmers who have made careful observations tell us, that new machines, before the edges of the teeth are worn smooth, will destroy the vital principle of many kernels, but that old machines will not injure seed grain more than the flail."

The use of the threshing machine is universal in Virginia, but we never heard of any injury resulting to the grain. There are, however, many varieties of the machine, and some may so break the grain as to destroy its vegetating properties, but if so, whether old or new, it should be discarded at once.

CONTENTS OF NO. II.