THE

PRAIRIE FARMER:

DEVOTED TO

WESTERN AGRICULTURE, MECHANICS, AND EDUCATION.

EDITED BY J. S. WRIGHT AND J. AMBROSE WIGHT.

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A PARAGRAPH FOR EVERY SUBSCRIBER AND POSTMASTER.

Those to whom we send this number, who do not wish to receive the Prairie Farmer, will please return it to this office—writing the name of their post office on the wrapper. When copies are not taken out of the office, postmasters will please do the same. It is to be hoped that no man will be so negligent as to let copies lie in the post office half the year before returning them, as post office on the wrapper. When copies are not wished to receive the Prairie Farmer, will please return it without paying what the office half the year before returning them, as post office on the wrapper. When copies are not wished to receive the Prairie Farmer, will please return it without paying what the office half the year before returning them, as post office on the wrapper. When copies are not wished to receive the Prairie Farmer, will please return it without paying what

IMPROVEMENT OF THE PRAIRIE FARMER.

We commence our new volume with a good degree of courage. We are happy to give our readers a better looking paper than we have, for a long time; and though we have not been able to effect all the improvements intimated in this number, we have so far succeeded as not to fear to look the best favored of our ex-

STEALING FRUIT.

One of the worst of the obstructions in the way of fruit cultivation is the thieving propensity of grown and half grown boys, who are sure to infest every neighborhood where it is attempted. What is more productive of wear and tear of temper than to find the products of our care and skill filched from the tree or garden just as it becomes fit for use?

It is the sentiment of many fruit growers, that the inventor of a patent for preventing stealing fruit, would be entitled to a statue of gold. We do not intend to put in any claim to the statue; but we know of a remedy which where it can be made to go into operation, is found to nullify the evil, so far that it is not worth naming. It is this: Let every man cultivate fruit. When this is done, the chief motive to pilfer is taken away, and a stronger one antagonist is set up. The man, boy, or man's boys who steal fruit, are those who have choice fruit of their own, or whose fathers have it. These feel an interest at once in protecting it, lest their own should slip away unawares. No, it is your idle, unmannerly, vagabond rascals who have nothing of their own to take care of, who are ready for an anabasis to any orchard, peach garden, or melon patch which promises plunder. Now if by any sort of coaxing you can induce these fellows or their parents to grow fruit of their own, you do more to disarm them of their thieving propensities than can be done with all the spring guns, man traps, and pea and salt shooting that were ever invented since melon stealing was in fashion. If therefor you have any neighbor who has a string of boys such as is described, instead of quarreling with them about gutting your fruit, induce them to grow it themselves if possible. If you have any similar publication in the Union.
A LAME SPOT IN CHEMISTRY.

The operations of the Chemist are of two kinds, Analytic, and Synthetic. By one of these he takes a material to pieces, and examines all its parts. With fire and acids he torture a substance till it yields up the names, properties, and quantities of each elementary constituent. This is analysis. The other process is that of construction. Taking certain elements, he combines them together in certain known proportions, till he produces the material wished for.

This is synthesis. In the first case he takes a quantity of atmospheric air, and by an easy and sure process, reduces it to the separate elements of which it is composed, and thereby discovers its components to be 21 parts of oxygen, and 79 parts nitrogen.

Beginning now where he left off, by the second process he takes 79 parts nitrogen, and mixes it with 21 parts oxygen and produces atmospheric air.

Now it would naturally be supposed that this would hold true as a rule—that whenever the constituents of which a body is composed were discovered in their precise proportions, that by combining those constituents, in the same proportions, the said body would be produced. This is far from being the fact. The chemist presumes that repeated and carefully skilful trials have revealed to him the components of which guano is made, and therefore he whips out his vials of acid, salts, etc., and with the nicest and most delicate weighing proceeds to make guano. He makes a guano, but it is not the guano of the birds—else ships would stop going for the latter—for the guano of the chemist is far cheaper. This is only a sample of his failures.

The chemist, whenever he thinks to construct substances with an analysis for his guide; and what is calculated to deepen his despair is the fact that often, when analysing two substances of entirely different exterior qualities, he finds them composed of precisely the same constituents of each other, combined in precisely the same proportions!—showing that nature will take A parts carbon, B parts oxygen, and C parts hydrogen, and put them together and produce D: then she will take in the second operation the identical A parts carbon, B parts oxygen, and C parts hydrogen, and put them together and produce D. The poor chemist has no resource but to look against and reply that though the elements are the same in both cases, the collocation of the particles among themselves is different; very likely. But how is he to obtain the art of this collocation?

Again, for instance, he finds hay to consist of 456 carbon, 50 hydrogen, 397 oxygen, 15 nitrogen, and 90 ashes; yet every body knows that the combination of ashes, nitrogen, oxygen, hydrogen, and carbon, in these proportions, will not of itself create hay.

We see by such examples, that the idea which many unacquainted with these facts—and some who are acquainted with them—entertain, viz: that if a correct analysis of a substance can be had, the same substance can be reconstructed, will by no means hold. We can see also that though the doctrine which we have reiterated everywhere now and then that it is only necessary to analyze a soil and find what is lacking in it to supply that lack, and thus construct a good soil, is to a certain extent true; yet that beyond a certain point, together with numerous of its inferences, it will fail.

It is one of the desiderata in chemical science, upon which light is yearly pouring, to ascertain not only what chemistry can do, but what it cannot do. Ten times the effort is yearly wasted upon the impossible that is rightly applied.

POTATO DISEASE IN SCOTLAND.

A copy of the Dumfries and Galloway Courier, (Scotland,) together with a supplement, has been sent us by a friend, containing the proceedings of the Highland Agricultural Society. Professor Johnston was present, and some conversation was had upon the subject of the potato rot, of which the following is the substance:

Professor Johnston having been called for, addressed the meeting on the subject of the disease in the potato crop. He admitted that little or nothing was as yet known on the subject, save the fact of the disease, and that there was a fungus on these diseased potatoes. He said a scientific enquiry into this subject would require immense labor, minute and refined analysis, and considerable funds, beyond the power of the Chemistry Association to devote to it. The Highland Society had offered a prize for an essay on the subject; but he did not consider this sufficient. An enquiry ought to be instituted, commensurate with the importance of the subject; and well qualified persons appointed to conduct it.

To raise the necessary funds a voluntary subscription from the various agricultural societies throughout the country might be commenced; or a slight duty levied by government on the potatoes now exported in large qualities to Belgium. Mr. Smith of Deanston said the disease was much worse on wet than on dry land; and was disposed to consider the report of its extent exaggerated.

He agreed with Professor Johnston as to the necessity of inquiry, but thought the first thing to be done was to collect the observations of practical men on the subject.—Mr. Beamish, from the South of Ireland, suggested the propriety of commencing a subscription to investigate this disease, which was a subject of paramount importance in his country. He would hand in with five pounds. Upon this hint subscription papers were prepared and handed round the room, and nearly one hundred pounds were written by the gentlemen present.—Professor Johnston stated that the inquiry would not be merely scientific, but would include the collection of information from every county in Scotland. A question was put as to whether the disease had been known on soils with a good natural drainage? which the Professor answered in the affirmative, instancing the chalk soils of Sussex, where it existed to a great extent. It was confined, he said, to no description of land. Several gentlemen confirmed this statement, and expressed their opinion that the disease was as widely spread as had been stated. It was also suggested that something should be done immediately for the purpose of preserving; as far as possible, the crop now in the ground, and to secure good seed for next year. It was stated by Mr. Scott, that the Directors of the Highland Society would take up the subject immediately.—The general impression of the meeting.
seemed to be that the disease was a mystery; this renders enquiry highly desirable, although, unfortunately, there is no certainty of a remedy being discovered."

SCOTTISH CHEMISTRY ASSOCIATION.

It is a matter of such certainty as to require no comment, that the whole business of the farmer is based on the condition of the soil he cultivates. In countries long cultivated, the business of understanding and putting the soil in proper condition forms the chief subject of labor and anxiety. Hence in Europe and the eastern States of this Union, manures are the first and chief matter of study and experiments among farmers. We in the West are generally for a time freed from this necessity; yet the time is coming, and in some places is already come, when it is a matter of interest here. And even now, though the understanding of the natures of manures is unnecessary for the purpose of repairing worn out lands, the knowledge of the nature of soils is necessary to prevent their wearing out.

In Scotland, in the year 1843, the farmers and landed gentry formed an association for the purpose of applying chemistry to agriculture. Their course was to procure a chemist of first rate eminence, whose business it should be to study and explore the subject. An outline of his duties was something of this sort:

"The farmers are to submit limestones, bone-dust, guano, and manures of all kinds, marls, decaying rocks, and such like substances to the chemist, and he is to pronounce on their value, and to point out their utility in reference to different soils, and for raising different crops. He will say, for example, whether the guano has been robbed of its ammonia, or the bone-dust of its gelatine, or whether the limestone be colored with bituminous matter which will disappear with burning, or with iron which will not; and then he will be able to say what price the article ought to bear, and with what crops, on what soils, and at what periods it ought to be used. On the part of the person who sends the substance for analysis, it is plain that no knowledge of chemistry is required; and even the chemist will not find his duty an arduous one. A few chemical tests, and an accurate balance, will be nearly all that he will require; and he will have no occasion to approach those nice and subtle operations of nature, over which there certainly hangs a delicate and almost imperceptible veil.

"But the summer duties of the chemist will be even more important than the analyses which are to occupy his winter hours. During that season he will impart information on many of the more recent discoveries and improvements in practical agriculture; and already enough has been done to admit of his giving much valuable and curious information, whether in the form of lectures, or by communicating with individuals. For example, the good effects of bone-dust, and of the phosphates generally, on peaty soils—of saline compounds for crops of hay on loams in trap districts—and of lime on granite soils—may be mentioned, and they admit of explanation. They are noticed here as a proof of the advancement already made in this kind of knowledge. But much yet remains to be done, and besides giving information, it will be his duty no less to suggest experiments. He will give instructions to farmers to make trial of substances, the composition of which is known and determinate, on different soils, and with a variety of crops, accurately noting the weight of the produce, both in its dry and moist state."

FARM BUILDINGS.

From an address delivered before the Oneida co. Agricultural Society, N. Y., by Elon Comstock, Esq., the following extract is made. Attention can hardly be too fully drawn to this matter among us, when the whole country is engaged in building and arranging the buildings on the homestead.

"There is perhaps nothing in which farmers as a class have been more deficient, than in the absence of all taste in the arrangement of their farm-buildings, not excepting the dwelling, which although it is not generally sufficiently expensive, has been too often constructed without any regard to just proportions, and especially without due regard to the arrangement of the grounds by which it is surrounded.

"There is great need of improvement in everything pertaining to the arrangement of all our buildings and grounds, including the general plan of the farm, for strange as it may sound to some, there is just as much propriety in laying out a farm in just proportions, and in fields of suitable shape and size, and with direct reference to the convenience of approaching the buildings, &c., as there is in bestowing upon the streets and public grounds of the village or city like attention. It costs no more and not unfrequently much less expenditure, to do these properly, and so as to give the whole farm an attractive and pleasing appearance, than to lay it out in such a manner as to render it repulsive to the man of taste and refinement.

"The same remarks will apply with equal force to the erection of dwellings, and the laying out of the garden and grounds in their vicinity. In the country, where land is cheap, the farmer can well afford an acre of ground to devote to the convenience and pleasure of the family, and especially when this same acre may be made to produce grass equal to any other part of the farm, besides affording room for the trees and shrubbery which should be planted in the vicinity of every farm house. An acre of ground is none too much to devote to these purposes, and in making arrangements for building, the farmer should in my judgment appropriate at least that amount, exclusive of that needed for the garden and other useful purposes. An acre of ground on most farms will not exceed in value fifty dollars, and to ornament it with trees and shrubbery may perhaps cost nearly as much more, but when we take into account the produce which may be obtained from it if properly managed, there is really very little loss to the farmer in a pecuniary view. And who is there, I ask, who had not rather have a house costing $1000, located in the centre of a beautiful and pleasant park, where the luxury of the cooling shade, and the fragrance of the surrounding vegetation might be enjoyed, rather than a dwelling costing $1200 or even $1500, situated as are most of the farm houses in this country."
OBJECTS OF THE PRAIRIE FARMER.

From a letter not written for publication, from Rev. G. A. Patterson, of Piatt co. we take the liberty of making an extract, as expressing clearly our aim in publishing the Prairie Farmer. Would that we had more such noble examples of professional teachers, who make instruction their pursuit for life, and properly appreciate the dignity of their high calling! We shall hope the columns of the Prairie Farmer will be made an efficient means of kindling zeal for improvement in the noble science of teaching.

"I am pleased with the Prairie Farmer, 1st, because it lays off its course of conduct and sticks to it; 2d, because it is not a sectional or partisan paper; 3d, because it is calculated to benefit the farming interests of the State; and 4th and last of all, it is a strong and constant common school advocate. This last reason would of itself commend it to my good wishes, without any other. I commenced school teaching in 1835, and am now teaching, and have been most of the time employed in that profession, and I know how to appreciate every effort to raise into its proper dignity, and therefore wish you success proportionate to your services. Something is needed to rouse the public from their slumbers, and to stimulate teachers to prepare themselves for the task, especially to encourage them to industry in their schools. Perhaps there is nothing so pernicious to education as an indolent or lazy teacher, one who, be his pay more or less, occupies his time in school hours in studying, reading law, divinity or politics, or allows his scholars to act as they please, or cares not whether they read, write or cipher correctly or not, so he but pass off the time and get the pay; who cares not for the culture of the mind; who takes no pains to inculcate rules and morals as principles, rather than as something blundered upon."

CHEROKEE ROSE.

BY A. MCDONALD.

MESSRS. EDITORS: I have received the September and October numbers of the Prairie Farmer, and find them, as well as the August number, full of most useful and interesting matter to the cultivator of the soil. Indeed no man, whatever may be his peculiar avocation, can possibly lay out one dollar better than for your valuable agricultural works. And in the great valley of the Mississippi, which is marching forward with such gigantic strides, if the cultivation of the soil would study their interest and reduce the size of their farms, read the Farmer, study agriculture as a science, the day is not distant when happiness and pleasure, as well as comfort, would abound to an extent heretofore unknown. Indeed I was most forcibly impressed the past summer, in the State of Illinois, where I spent the month of July most pleasantly, of the vast importance of improvements in the cultivation of the soil. Now this must be brought about by the introduction of agricultural works, the formation of agricultural societies. The principle of association is the lever of Archimedes, from the building up of a rail road and the digging of a canal to the conversion of the world.

I received, a short time since, a letter from Professor J. B. Turner, of Illinois College, calling upon me for some cuttings of the Cherokee rose. As I expect some of my Illinois connections to visit us, this winter, I presumed I could send the cuttings more readily by them. On reception of this letter, write me, or you can let me know through the columns of the Farmer who will take charge of the bundle of cuttings in New Orleans, and what direction to place on it. Then for a bundle so that it may reach Chicago, and it will afford me much pleasure to send you some of them as well as Professor Turner. I am confident, should it stand the winters of Illinois, which I have no doubt of myself, it will be of more importance to the country than anything whatever in the way of enclosing the thousands of acres of the richest lands.

Eufaula, Alabama, November, 1845.

We should be extremely gratified for the cuttings as mentioned by Col. McDonald. They can be sent to the care of J. H. Mulford Esq., of the firm of Mulford, Edgell & Co. New Orleans, who will forward them to us.

SMUT.

BY A. CURCHILL.

MESSRS. EDITORS: Where is "Incog"? Is he in the land of the living? or has he passed to the shades of "used to was"? It is time that he was at his post, for I perceive by your October number that certain bugs, unbidden and unannounced by the learned of the age, have crawled from certain grains of smut wheat into this enlightened world. They must be very ungentlemanly bugs, truly, to break the chain of scientific investigation which has been forged link by link for ages, and worse than all, to lay claim to the throne of king Fungus. Incog must give the usurper a quietus.

How easy it is to build a theory. A toad-stool is found growing on a dung heap, and theory says that the toad-stool is destroying the dung heap. Wondrous wise!

In 1825 I discovered eggs in smut wheat, in the kernel—published the fact a few years since, and was demolished by Incog. In 1845 Gen. Harmon, near Rochester, N. Y., latches the eggs, and now, ye fungi peepers, go at him, or your fungus theory goes to the shades.

Some unlucky fellow not long since published that he had found certain insects about the foot of potato stalks—all hushed up. This is not the fashionable way to destroy potatoes, be it known to bug peepers.

Now let us have a few facts about fungi, and then for my theory.

Fact the first—Fungi, when found, are always found on decaying animal or vegetable matter.

Fact the second—They are never found growing on or in sound healthy animal or vegetable matter.

Inference the first—that decomposition must commence before fungi can exist, except as seed.

Inference the second—that the office of this species of plants, the fungi, is to occupy the space between live healthy matter and perfectly decomposed healthy matter.

"Well," you say, "how do bugs make wheat smutty?" That I do not know. Only this I know, that I found eggs in the kernels of smut. How
certain suspicious looking holes through the upper sheath of the straw; and I guess some bug made the holes to get its egg into the head of wheat—that's all.

Avon, Kane co., December.

PRAIRIE FARMER AT THE EAST—ROOT GRAFTING.

BY A. P. RALPH.

MESSRS. EDITORS: I have perused very attentively, and I believe profitably, all the back numbers of the Prairie Farmer which I took with me at the time I subscribed for the same, and the one which I have received since. This work is certainly calculated to do a great deal of good. I have found it far more interesting and instructive than I anticipated. I have for a considerable time taken the PRAIRIE FARMER AT THE EAST—ROOT GRAFTING, Sundry Questions.

BY J. K. CROCKER.

I consider of vast importance. Only do something to set forth the respectability of the business itself, so that a sufficient number of men of the highest standing, learning and ability may be drawn into it, and they will soon find out the best and most profitable modes of cultivation. Too little has been said and written in praise of the first, the most noble and honorable of employments. Volumes might be profitably written and read, in my humble judgment, upon this subject, and then the subject be not half exhausted. But I have shown my regard for it, and testified my belief and full conviction in its respectability in a more substantial manner. Although educated and raised to a profession, I have abandoned that profession, and gone into the field and gone to work, where I daily follow the plow, use the hoe or any other farming utensil that occasion may require, and enjoy myself far better than I did when I was all day pent up in an office, or harrassed with the perplexity of legal proceedings, and I feel quite as respectable.

Hempstead, Long Island, N.Y., December.

P. S. I should like your last January number, which I failed to get, because it contains an article upon root grafting, the modus operandi of which I do not exactly understand. What I want to get at is, whether or not I can graft axes of roots, and if so, the best mode of grafting them—whether I can graft them through the winter, (as I have heard said,) and lay them away in the cellar in dirt, and then set them out in the spring. If I can do this, I want to bring a few hundreds already grafted to Illinois in the spring, to put out on my land there. This makes me anxious to get that number, and to get it as soon as possible. This mode of grafting, (if such a one exists) is purely western, for I can find no one that knows any thing about it here. Downing, in his treatise upon fruit raising, hints at it, but gives no positive directions. A. P. R.

Our correspondent will not find the information wished for in the number of the Prairie Farmer alluded to—the grafting there spoken of being of a different sort. "Grafting in the root," as it is called, is no western invention, as he supposes. We practiced it years ago in Massachusetts, and it is, or was there, the most common mode of propagation. The roots of small trees are taken up in the fall and stowed in the cellar until wanted, when they are cut into pieces of five or six inches in length. The stock and scion may be joined in any of the usual modes; but the most common is by that known as whip or tongue grafting. In using this mode the scion and stock are nearly of a size. They are both sloped off an inch or more, and joined together, when they are tied with bass mattins, husks, or yarn.

It is more common, however, to make a slit in the bare part of the stock downward, and a similar one in the scion upward, as shown in the cut, when the tongue thus made in the scion is inserted into the slit of the stock, where they are both secured as before. The more fibrous roots the stock has when grafted the better. They are then laid away in the cellar, lightly covered with dryish sand until the time for setting out arrives. In setting, the junction is placed below the surface of the earth, so as to be covered by it. Grafting may be done on this plan from November till April.

SUNDARY QUESTIONS.

BY J. K. CROCKER.

MESSRS. EDITORS: I have been reading your paper for some time past, and it sets me to thinking, and thinking sets me to asking questions. Which is the best breed of hogs we have in the country? Where are they, and what do they cost? I have seen a hen of the Poland breed that laid 175 eggs in one year; I am anxious to get some of that breed. What is the best feed for hens—wheat, oats, corn, or sun-flower seeds? Would you or your contributors be so kind as to give a plan of a hen house, attended with a drawing?

Exeter, Nov. 1845.

Our correspondent is a late subscriber, and in consequence asks some questions which have been pretty thoroughly talked over in our columns.

It would be a hard matter for us to decide which is the best breed of hogs, while pork breeders and others differ so widely. It is much easier to decide which are not the best. For instance, all
HATCHING CHICKENS BY STEAM. The hatching of chickens by artificial means has been more or less practiced in all ages; and although it never proved formerly more than partially successful, has received a considerable impulse during the last two years in this country. No account has as yet however met our eye which afforded any clue to the real results of the business in these latter attempts—the letters of visitors relating only to success in hatching a few eggs, without any reference to the great numbers operated upon.

That a proportion of the eggs may be hatched is not to be doubted; but as to what that proportion is, we are left in the dark. We are not informed, either, of the strength and comparative healthiness of the chickens, but are left to conclude that they are feebler than those produced by the natural mode of incubation.

As a matter of curiosity the mode is represented below.

"The above figure will give a general idea of the apparatus. It consists of a square box of any required size. A small furnace is seen at a, furnished with a boiler. From this arises a tube, b, which traverses backward and forward through the box, and through another one, which is partly shown at c, where the chickens are kept after being hatched, and returns into the boiler, a. The eggs rest on the shelves, c.

Supposing the water heated in the boiler, it rises by its specific density through the tube to h, when it passes down to the bottom of the boiler. This circulating movement, once established, continues as long as the water is heated, because the temperature is never equal through all parts of the apparatus; and it is easy to conceive that a perfect equality of temperature cannot exist, on account of the continual loss of heat which escapes from the outside of all the tubes. It does not, however, become greatly diminished, even after having expended a large portion of its calorific on the outside of the box, in maintaining a gentle heat in the chicken box, c, adjoining. The bent parts of the tubes outside of the box are covered with woolen cloth. By means of a regulator, a regular and constant temperature is obtained.

In practice, but one twentieth part of the eggs which the apparatus is capable of holding is put in at first, and the remainder in similar pans every successive day. In this way the eggs first placed in will on the twenty first day be for the most part hatched, so that we may obtain every day nearly the same number of chickens."

RYE-AND-INDIAN BREAD.

MESSRS. EDITORS: In the October number of your paper I notice a communication from "C." on rye bread, which suited my taste first rate, only the bread would have suited me better had it been made of rye and Indian and baked in a good old-fashioned brick oven. Rye-And-Indian bread may not indeed suit "gentle" people; but it is just the thing for us Suckers. But alas! how have the times changed since the days of our grandfathers. Look at that young man, pale and complaining of dyspepsia; ah! he knows not the luxury of good brown bread: and that delicate young lady, who daily drinks her tea and coffee strong enough to bear up an iron wedge, with hot cakes at each meal—see how she turns up that dear little nose at brown bread; she never made a loaf of it in her life. Alas! alas! times are not as they used to was. I am, like C., reminded of the days of my youth, when I had to get the "oven-wood," and was sometimes gently "cuffed" when I was a little tardy, because the bread was riz, and would soon sour if not baked.

But seriously—why is it that there is so little rye raised? and why do those especially who have been reared in New England so soon forget good old-fashioned rye-And-Indian bread? Now, Messrs. Editors, though I was born a Yankee, and often got the oven-wood, yet I don't know how the stuff is made; and my wife at my elbow, having read the Farmer (as every good wife does) and of course your article on good cooking, is anxious to know how to make good rye-And-Indian bread. You see she never saw Yankee land—I found her in Sucker-land. But she is desirous of being something more than a help-eat, and is not afraid to put her hands in the dough or milk a cow because it may tend to make her hands large. Will you publish a recipe? And here I will close by urging you to give your views upon the subject; it is an important one.

Woodburn, Nov. 1845.
ADDRESS
Before the Peoria County Cattle Show. By E. Harkness. Published by request of the Society.

GENTLEMEN: The annual return of our agricultural fair should certainly be a day of rejoicing, of festivity, of the outpouring of grateful hearts for the many blessings we enjoy. On the present occasion we have many and peculiar reasons for the most lively gratitude. The recent season has been one of remarkable fruitfulness—an abundant harvest has been the reward of the labors of the husbandman, in every part of our country—general health has prevailed. The gloomy cloud which hung over our financial affairs has, to some extent, been dispelled, and we begin to see, through its mists and its darkness, the dawn of a brighter day. Surely these are causes of rejoicing to every good citizen, every patriot, every christian. We also have good reason to congratulate ourselves that we live at a period of the world's history, when the human mind has been awaked from the lethargy of ages, and is moving forward with startling rapidity, in every description of improvement. The spirit of war, so prevalent for a long lapse of centuries, has given place to the spirit of peace, and men now look for fame and fortune, not to exploits in the battle field and the plunder of conquered provinces, but to discoveries in science, to improvements made up-wards, to the great telegraph, persons can converse freely with each other, who are a thousand miles apart. These are, perhaps, the most startling instances of modern improvement, and it is often said that the farmer is in-dependent, and if he chose to do so, could live without the aid of the merchant or manufacturer. This is clearly an error. There is not a farmer present who can live comfortably a single day, without being under obligations to the sailor, the man of commerce, the manufacturer, and the mechanic. When he eats his breakfast, if it be the simplest food of his own raising, it will hardly taste well without salt—for this salt he is indebted to commerce. The manufacturer of the salt is compelled to use various implements of wood and iron, in order to carry on his business—and for these he has been indebted to a variety of mechanics, who in turn have been supplied by others for the materials and tools which they use. And thus it is easy to show that the whole circle of employments followed among civilized men have been brought into requisition, and have contributed directly or indirectly to the production of the small quantity of salt with which we season a dish of potatoes. Again we cannot make a pen and sit down to write a letter to a friend without being under obligation to almost all the branches of industry followed among men. When we take up the knife to make our pen, it may be asked, who made the knife? Who furnished the manufacturer of the knife with his materials? And who furnished him with food and clothing while he followed his trade? Who brought the knife from Sheffield, and who furnished the ship to bring it? Again, who made the ship—who furnished materials, and who fed and clothed those who built the ship? When the pen is made and the sheet of paper spread out, we are again reminded that agriculture, commerce and manufactures are all called upon in furnishing the plain sheet upon which we sketch our thoughts. The mill which produced the paper is in itself a beautiful combination, in which all the arts have contributed a share, and even the rags of which it is composed are the production of the whole circle of human employments. These illustrations are given, not for the purpose of showing what everybody admits, that we are social beings, and dependent upon each other for most of our enjoyments, but to remove, in some degree, a prejudice which I fear is too common among farmers, against men of other pursuits—a prejudice too often fostered by those who know better, for sinister and selfish objects.

The great improvements which have taken place in manufactures, and the means of prosecuting commerce, naturally suggest the inquiry whether a corresponding advance has been made in agriculture. It is clear that this great, this all-pervading branch of industry, is not keeping pace with the others in their onward progress.
And why is this so? Is it not because the other branches furnish a higher stimulant to the minds of men—and hence, more knowledge, more mind, more power, has taken this direction. But let us rejoice that the genius of agriculture is rousing up—rubbing her eyes—shaking off the Van Winkle sleep; and, we trust, will soon be able to overtake her companions in their brilliant and glorious career. Or, to speak without a figure, it is obvious that a great amount of mind is now being directed to agricultural improvement. Men of the highest attainments in science, both in Europe and in this country, are directing their best energies to this object. Agricultural books are becoming universally disseminated. The old and barbarous prejudice against book farming is losing ground. It is clearly seen by all, that scientific knowledge is an important acquisition to the manufacturer of agricultural implements, at least if not to the cultivator of the soil. The most sturdy anti-book farmer is ready to admit that he can plough his fields better with one of Toby & Anderson's beautiful steel plows, than he could with a forked log, tied with raw hide thongs to the horns of a pair of oxen, as they do the business in Africa and some parts of Asia, where book farming is unknown.

It will readily be admitted that more has been done by the aid of science and the mechanic arts in improving agricultural tools, implements and machinery, than in any other way. But these, an immense amount of labor has been saved in the cultivation of the soil—while the amount of production has not been materially increased. But the researches of science are now being directed to this object, and we have reason to expect highly beneficial results. The peculiar food adapted to all the different cultivated plants is becoming better understood. A glimpse has also been obtained of the action of a hitherto unknown agent in vegetable production. It is now known that electricity performs an important office in the vegetable kingdom, and a mode of controlling that subtle fluid, so as to act beneficially upon vegetable life has also been discovered. Although but little has as yet been gleaned from this new discovery, enough is now known in the infancy of this branch of science to lead us to anticipate a very great increase of vegetable production upon any given amount of land.

Permit me here to mention a few facts in connection with this subject, which are within the knowledge of most of you.

1st. It will be remembered that the year 1844 was remarkable for hard storms of rain, accompanied by more frequent descent of the electric fluid to the ground than had been known "within the memory of the oldest inhabitants."

2d. The same year was also remarkable for the growth of the stalks of vegetables—when at the same time the seeds were all more or less imperfect: so much so, that we had in this fruitful region, something like a failure of the main crops of the country.

3d. The beating storms of rain in 1844 kept the surface of the ground in a clammy, compact state nearly the whole season.

4th. The year 1845 has been in many respects the reverse of the preceding—the amount of rain has been extremely small—the seeds of vegetables have been very perfect—the surface of the ground from the frost in March to the present time has been loose and porous, and there have been very few storms, which discharged electricity to the ground.

I am disposed to draw the following inferences from the above facts:

1st. The barrenness of 1844 was caused by want of electricity in the soil. And the fruitfulness of the present year is to be attributed to the fact that the earth has retained its full share of electricity, for the entire season.

2d. That the surface of the ground, when in a loose, friable state, does not part with its electricity, but retains it.

3d. That the keeping the soil well cultivated, the electric fluid necessary for the production of perfect plants is retained in the soil even when rain is to a great extent wanting.

The experiments being tried with the electro-galvanic battery this season, will probably enable us soon to know more than we now do about the influence of this subtle and all-pervading fluid in the growth and preservation of vegetable life; and these remarks are made not so much for the purpose of enlightening you, as to give you notice that a faint glimmer of light is seen in the distance, which I hope and believe will soon enable us all to see clearly into this mystery.

There are a great number of ways in which scientific research is likely to lead to an increase in Agricultural production; but perhaps still more is to be expected from the experience of intelligent, close observing practical farmers, who communicate the result of their experience to the public. Great facilities for doing this now exist throughout our whole country. A successful experiment may be known by every farmer in the United States and in Europe in a very short time after it is first published, or at least by every farmer who takes an agricultural paper. Still the great element of success in farming may be said to be a steady, faithful and vigorous application of all we know, to the cultivation and improvement of the soil. It is surely our duty to learn all we can; but if we do not act upon the knowledge we possess it will be of little value to us. We subscribe to the great truth that "knowledge is power"—but this must be practical knowledge—a knowledge of the proper mode of doing...
things—not a mere vague notion of how they should be done.

The highly finished specimens of domestic manufacture this day exhibited, shows a goodly advance in all the varied arts of civilized life. They prove that we are not behind the older portions of our country, in the production of whatever is useful and beautiful. The delicate hands of the gentler sex have exhibited numerous specimens of their handiwork, which cannot be exceeded any where. These things are peculiarly gratifying, as they can alone emanate from highly gifted and refined minds. The elements of beauty and utility are alone to be found in the mind itself. When formed there, they seek development in material forms of a kindred character. Or in other words, the idea of what is useful and beautiful must be distinctly formed upon the tablet of the mind before it can be fashioned by the hand and presented to the eye. There seems to be an honorable and praiseworthy emulation among our fair countrywomen, which promises the most beneficial results.

In the different specimens of the products of the field, the orchard and the garden, there is much to encourage us. They are all remarkably perfect of the kind, and show that we possess a soil of unequalled fertility. The exhibition of fruits, though small in number, on account of the severe frosts in the early part of the season, are very satisfactory so far as they go. Enough has been already shown to convince the most skeptical that we possess one of the finest fruit districts in the United States.

The exhibition of domestic animals has been highly encouraging. Many of the specimens have been very fine, and show that a portion of our citizens at least duly appreciate the importance of this subject. But I will not trench upon the peculiar province of the different committees whose duty it is to make out for publication reports on the various subjects committed to their charge.

The first settlers of a country have a great responsibility resting upon them, inasmuch as they give the impress of their own character upon the generations which follow. The peculiar characteristics of the first band of adventurers who landed at Plymouth are as visible now as then—but instead of being confined to a few families, belong to the people of numerous States—and the same may be said of the first colony at Jamestown. We should therefore keep it constantly in mind that we are laying the foundations of a great commonwealth; and if the foundations be firm, the superstructure will be durable. Or, in other words, if the people of a newly settled country are peaceable, orderly, moral, temperate and industrious, it is reasonable to expect that the generations which succeed will follow in their footsteps; but if destitute of these virtues, how gloomy is the prospect for the future as well as the present.

One of the reasons which induce me to expect great improvements in agriculture, is to be found in the fact that in this country, capital and labor are united, whereas in most other countries it is said to be separate. It is, I believe, the case nearly all over Europe that the owner of the soil does not till it with his own hands, but lives upon the profits of the labor of others. The tendency of such a state of things is to make the tenant a drudge, a machine, while the landlord, if he takes the trouble to think at all, becomes a vague and idle theorist. But here the lords of the soil cultivate it with their own hands. Every inducement is held out for improving both the physical and intellectual man. By the exercise of industry combined with intelligence, the practical farmer becomes a man of wealth, and is much more likely to benefit his fellow citizens by useful discoveries and the lessons of experience, than the purse-proud landlord, or half-enslaved and over-tasked laborer. The absurd and contemptible notion that labor is dishonorable, or rather that it is honorable to live without labor, has been nearly banished from among our people. Indeed it has become so far an outlawed idea, that it can only find a refuge in a few empty craniums where brains ought to be.

The highest aim of worldly ambition among our young men is and should be, to become the owners of beautiful fields, orchards and gardens, cultivated and kept in order by their own hands, and the residents of neat and tasteful dwellings, reared by the efforts of their own industry. Add to these the possession of a well cultivated mind, and the society of intelligent, moral neighbors, and what more can any reasonable man ask of the blessings of this world. Let me say then to my young friends: keep these objects of laudable ambition steadily in view—be temperate, frugal, industrious, moral—cultivate your minds as well as your farms—noxious weeds will spring up in both unless you exercise due care and diligence. Seek not the honors of office—if the State needs your services you will be called upon in the proper manner, and then you must not decline. Envy not the learned professions—you know not their secrets. If you did you might perhaps find them the most miserable of drudges, toiling and sighing in secret for that very independence you now possess. If there be any class of society more free from corroding cares and debasing temptations, I will venture to say that intelligent, industrious farmers form that class. Besides, yours is a learned profession, and you are therefore on an equal footing. You should know enough of the law to keep clear of its toils—enough about the medical profession to take care of your own
health, and enough about theology to read, understand and practice the commandments of the decalogue. You must, if practicable, add to these a knowledge of chemistry, so as to be able to analyze the soil of your own farm, and thereby know to what purpose it is best adapted. There are a great many ways in which a knowledge of chemistry can be valuable to the farmer; and it has often been a matter of surprise with me, that it has not been more generally introduced as a study in our primary schools.

A little knowledge of entomology might often save to the farmer the labors bestowed upon an entire field, which is lost by not knowing the character and habits of some tribe of insects which rob him of the harvest he had expected. Botany may also be studied with advantage by the farmer, if for nothing else, to enable him to destroy such noxious plants as make their appearance upon his premises, before they get such a footing in the soil as to become troublesome. In a word, it is difficult to name any useful science, a knowledge of which is more or less advantageous to the farmer. But take care, my young friends, that your knowledge be minute and practical as far as it goes—let it not be of that loose, indefinite, theorizing, dreamy character, which is good for nothing. Your labors will not hinder you from becoming learned men. The body and mind were both formed for alternate or co-operative labor. If the body be exclusively employed, the mind becomes inert, indolent, stupid. On the contrary, if the mind alone be called into action, the body becomes weak, diseased, and often falls into premature decay. The biography of nearly all the truly great men of our country, shows that they have won their way to fame by the steady exercise of all their faculties, mental and physical. Rejoice then that your lot has not been cast among those who took upon labor as an evil—but among the honest sons of toil, who are, by their well-directed efforts, making the "wilderness and the solitary place" to become "glad, and the desert to bud and blossom as the rose." It has been the will of Divine Providence that our lot should be cast in a land possessing great beauty of scenery, richness of soil, and salubrity of climate. It will be our own fault if we do not render it in a short time one of the most delightful spots to be found anywhere. Industry, combined with intelligence and good taste, will soon accomplish this. And who among us will not engage in this noble undertaking, this bloodless, this moral conquest—this rescuing of the desert waste from its loneliness and solitude, and rearing upon it the standard of civilization, with all its train of blessings.

The largest oak in the world is one in Dorsetshire, England, which measures 63 feet in circumference.
will require support, the stock being tall and extremely slender. The tulip, hyacinth, daffodil, and narcissus are the earliest in bloom—the gladiolus following much later. The crown imperial shows well singly, and if put far enough from the house, is a great addition to the flower garden. This flower belongs to the genus Fritillaria, and is a Persian blossom.

Of tuberous roots, there are about a dozen varieties of Peonies, the Iris, and the Dahlia. The greater numbers of Peonies are pretty much unknown to the most of farmers' gardens. The common double scarlet is that which best meets our taste, both from its profusion of large staring blossoms, and the early associations connected with it. No garden should be without this magnificent flower. It is so truly beautiful—that its commonness can never deteriorate its value; and it requires no more care than a currant bush. Of the other kinds, several are beautiful, and one (perhaps more) is quite fragrant. They are most of them cultivated with great ease, and hold their blossoms for a considerable time.

The Dahlia has perhaps held its sway as a fashionable blossom longer and more universally than any other, and is now everywhere known and cultivated. It is not too much to say that it is worthy of its popularity. The continual succession of flowers it affords from June to December, their size, and the richness of multitudes of them, together with the endless variety of colors of which it is capable, justly render it a favorite. The only difficulty attending its culture is in keeping the bulbs safely over winter. With a good cellar, however, there is little more trouble attending this than belongs to the keeping of as many potatoes.

**Annual, Biennial, and Hardy Herbaceous Plants.** Of this the multitude and variety are so great that no individual cares to do more than make a selection of a few which are grown with little trouble, which afford a suitable variety, and which keep longest in bloom. We shall merely name such kinds as occur to us, without any particular order. And first, as one of the first in bloom, we will name the

**Violet.** That most commonly cultivated is the viola tricolor, or garden violet, in some places called pansy or heart's ease. This every garden may have—it only requires to be once introduced, and so far as supply is concerned, it will take care of itself. And what is more beautiful than its modest blossom, following close on the heels of winter, and often peeping out of the snow even? The violet is beautiful on a border in clumps or in a bed; but a prettier way of cultivating is upon mounds. This insect, called by Dr. Harris the aniospteryx metaria, is thus described: The male is a moth
with pale, ash colored wings, with a black dot a little more than an inch across. The female is wingless, oval, dark ash colored above, and gray beneath. As far as we are informed, this is about the description of our canker or span worm. It is to be hoped that full trial will be made of the wood, as recommended in the September Prairie Farmer.

The Plum and its Enemies.

The plum is one of the most delicious, and, if successfully cultivated, most profitable of our numerous fruits. The tree is extremely prolific and hardy; and for one or two enemies, would be perhaps more universally cultivated than any other choice fruit. These enemies are, however, so indefatigable and successful, that many fruit growers have given up the plum in despair, and turned their attention to others whose precariousness depends upon a different order of enemies. The curculio or plum weevil, *Rhynchites nemus*, is a little dark brown insect, of the beetle tribe, spotted with white, yellow and black, of about one fifth of an inch in length. It has two humps like a draymey, and a snout somewhat like an elephant; though unlike both of these animals, it is furnished with wings, but of so much service they are a disputed point.

As soon as the young fruit is fairly under way, this little pirate begins its work. It marches up to a young plum, and selecting a place near the stem, gives it a semicircular dig, as shown in the cut, and deposits its egg in the wound thus made. This egg soon hatches a white worm, which begins gnawing about him as soon as possible, and in about a month from the time the egg was laid, has made his way to the stone of the fruit, when it (the plum) falls at once to the earth. The insect does the greater part of its work in May, and the month of July witnesses the destruction of the fruit. When the plum has fallen, the insect makes its way into the earth, where it remains till the ensuing spring, when it comes forth a beetle like its parent, ready to the earth. The insect does not correspond, and the curculio finds in them a new home. Where this insect has obtained possession, he is very plenty; and as he seldom punctures a single plum more than once, it is a wonder if any fruit escapes him.

A great deal of ingenuity has been expended in devising ways to rid the curculio, and with various success. It is an exceedingly timid and shy insect; and if a smart blow be given the tree, when he is at work, he folds himself up and drops to the earth as if dead, where he lies till the alarm has subsided. Taking advantage of this, some have spread sheets under the tree, and with a mallet administered a few blows to the trunk, to bring them down, when they are gathered and killed at once. This operation, repeated a sufficient number of times, has been found to lessen their numbers materially.

Others have watched the time when the fruit falls, and gathered it for the hogs or for the flames before the larva has made its escape. Others let loose fowls and swine to pick up the fallen fruit as it comes to the earth. Others rely upon common salt for its destruction, and Mr. Downing thinks it may be relied on with certainty. The mode of its application is to spread it over the surface of the ground beneath the tree, and the impregnated plums begin to drop. It thus destroys the larvae before they are able to reach the earth. Others still have endeavored to prevent the descent of the worm to the earth by paving the surface of the ground with brick or with lime mortar.

This has been found highly successful. A coating of the latter may be spread under a few trees with some success and trouble. The same purpose is to a good degree answered if the tree stand in a yard much trodden, especially if the soil be inclined to clay, so that it becomes hard and impervious.

Another drawback upon plum culture is the knots or black gum. Every one who has seen an eastern plum patch knows what this is. It not only gives the tree a most unsightly appearance, but if unchecked, very soon destroys the whole race of plum trees.

The course of the disease is this. The bark swells and bursts, and soon grows into a black, frightful looking wart, dry within, stopping the regular flow of the sap, and spreading itself over the tree, which breaks out in various places in the same manner. It sometimes also makes its appearance on the morella cherry. Some kinds of plums are much more liable to it than others, of which are the horse and damson.

Dr. Harris thinks this to be caused by the same little insect which destroys the fruit, viz: the curculio, the second brood of which being too late for the fruit, stings the bark in place of it. It is generally thought to be the work of an insect, but much doubt hangs about the matter. Mr. Downing thinks that though the curculio may sometimes deposit its eggs in these excrescences while yet soft, that he is not their author, and mentions, in confirmation of his opinion, the fact that when the curculio is plenty, the knots often do not appear, and when they are often plenty there are no curculios.

The remedy for this latter disease is the knife. The first shoot that shows it must be cut away and burned. No quarter must be given it for an instant. To extirpate it, however, the remedy must not only be applied by one gardener, but the neighborhood must be treated in the same manner.

Soil and Culture. The best stones for sowing are those obtained from the blue gage or horse plum. Like other seeds of stone fruit, they should be planted as soon as gathered, or if not planted, at once put in sand and kept moist. When two years old, the trees may be taken out of the seed beds, the top roots cut off, and planted in nursery rows.— They may be budded the same season if set in the spring. This requires to be done earlier with the plum than with the peach or cherry. The proper time is early in July. The trees require very little pruning, and this should be done early in the summer.

The plum will grow in almost any of our soils, but it prefers a loam or mixture of clay, in which it perfects its fruit most beautifully. In sandy soils the tree is sufficiently stimulated, but the fruit does not correspond, and the curculio finds in them a
warmer and better harbor. Salt is not only a cure for the curculio, but an excellent dressing for the soil, and may be applied in the ratio of half a peck to the earth under each bearing tree annually.

A great error which ignorant fruit growers fall into is suffering too much fruit to ripen on a tree; but while this is a great error in any case, it is peculiarly so in plum culture. The fruit grower sees his trees loaded with fruit, and congratulates himself on a plentiful crop, and though it only half ripens, and is of most miserable quality, he is not half the time aware of his mistake, but continues to commit the same fault as often as his trees muster energy for the same occasion. Mr. Downing lays down the rule that no two plums should touch each other on the tree. The fruit requires the full influence of sun and air to ripen it perfectly, and it should be suffered to hang on the tree till fully ripe.

The varieties of plums, though not as numerous as those of some other fruits, are very respectable. Some of the choicest are The German Gage, Coe's Golden Drop, Emerald Drop, Green Gage, Hudson Gage, Keyser's Plum, Imperial Gage, Orange Washington, White Magnum Bonum, Columbian Gage, and many others, of which we will append a catalogue hereafter.

The fruits shown in the cuts are the Washington and White Magnum Bonum, of which Mr. Downing's descriptions are given.

"The Washington undoubtedly stands higher in general estimation in this country, than any other plum. Although not equal to the Green Gage and two or three others, in high flavor, yet its great size, its beauty, and the vigor and hardiness of the tree, are qualities which have brought this noble fruit into notice everywhere. The parent tree grew originally on Delaney's farm, on the east side of the Bowery, New York, but being grafted with another sort, escaped notice, until a sucker from it, planted by Mr. Bolmar, a merchant in Chatham street, which he purchased of a market woman, came into bearing about the year 1818, and attracted universal attention by the remarkable beauty and size of the fruit. In 1821, this sort was first sent to the Horticultural Society of London, by the late Dr. Hosack, and it now ranks as first in nearly all the European collections."

"The White Magnum Bonum, or Egg-Plum, as it is almost universally known here, is a very popular fruit, chiefly on account of its large and splendid appearance, and a slight acidity, which renders it admirably fitted for making showy sweetmeats or preserves. When it is raised in a fine warm situation, and is fully matured, it is pretty well flavored, but ordinarily it is considered coarse, and as belonging to the kitchen, and not to the dessert."

""The Washington has remarkably large, broad, crumpled and glossy foliage, is a strong grower, and forms a handsome round head. Like several other varieties of plum, the fruit of this, especially in sandy soils, does not attain its full perfection until the tree has borne for several years. We have measured them very often six inches in circumference, and once from Mr. Bolmar's original tree, seven and a quarter inches."

"Wood light brown, downy. Fruit of the largest size, roundish-oval, with an obscure suture, except near the stalk. Skin dull yellow, with faint marblings of green, but when well ripened, deep yellow, with a pale crimson blush or dots. Stalk scarcely three fourths of an inch long, a little downy, set in a shallow, wide hollow. Flesh yellow, firm, very sweet and luscious, separating freely from the stone. Stone pointed at each end. Ripens from about the middle to the last of August."
A STRAWBERRY. The cut below is, according to J. S. Skinner Esq. editor of the Farmers' Library, the exact outline of a strawberry, grown the past season by Mr. John Stobbs, gardener at Doddington Hall, near Lincoln, England. It is of a kind called the British Queen. We have been in the habit of supposing that pretty good sized strawberries had been grown in this country from Hovey's Seedling and Ross' Phoenix; but they dwindle to common little more than an ounce and a half—or in the ratio of ten to the pound! If it proves as prolific as its namesake, we may look for a plenty of this fruit.

The pear leaf has 20,000 pores to the square inch, on the under side. The pink has 38,500. Some plants have as many as 160,000.

INQUIRIES.

MESSRS. EDITORS: Having lately received a lot of the most splendid scions I ever saw from Mr. E. Harkness, nurseryman, Peoria co. Ill., I am somewhat anxious to learn the method of raising them, or the trees on which they grow, which, as he informs me, were 3 yrs old. root grafts, or 2 yrs old buds. Believing that it would interest many of your subscribers, as well as myself, I take this method to enquire of him, hoping he will answer as publicly. Among other things I should be glad to know what his surface soil and subsoil are—the slope of land on which his nursery is located—is it elevated? How is it possible, where trees are so very thrifty, to guard against their total destruction, the first or second winters from the graft, by the bark bursting near the ground? The rest I will leave to him, hoping that he will begin at the "root of the matter," and tell us all about it.

Delevan, Wisconsin, December, 1845.

The pear leaf has 20,000 pores to the square inch, on the under side. The pink has 38,500. Some plants have as many as 160,000.

LATe PROGRESS IN INVENTION.

Of all the shows, fairs, and gettings together, which are truly worth going to see, there is not one in this Union which can claim precedence of the Fair of the American Institute in New York. Whether we regard this institution in respect to its age, giving it a character of solidity and respectability, or its affiliations by which it has become in a sense a national institution, or the great numbers attending its exhibitions, or the character of its members, or the hand it has had in recommending and introducing into notice and use, the many important improvements which have thus become known and used, or its equal connection with agriculture and mechanics, it stands forth in every aspect great and important.

For many years the inventions exhibited at its fairs have been improving in the finish of their workmanship, and the completeness and importance of their design. In its last exhibition—the eighteenth in number—we are told, exceeded all the rest in beauty and richness of display. Those who have returned from a personal attendance assure us that the published accounts convey a very imperfect idea of the variety, beauty and utility of the articles shown. That very few or none of the latest inventions find their way west, we are certain. While we cannot find a horse rake, a straw cutter, or a corn crusher in our market, we need no assurance that we are to a good degree ignorant of what is done at the east in the line of mechanical and manufacturing progress.

Among the articles exhibited we are informed that the variety of India rubber goods was beyond conception. Not the least curious of these were the various accoutrements necessary for army and naval service. One of these was a bridge for rivers, made wholly of India rubber cloth. The construction of its sections is something like that of a common bed tick. These sections are hooked together, blown up with air, and strung across a stream, and afford a secure passage for men, horses, guns, and all the paraphernalia of an army. If any one is so curious as to ask where the breath is to be found to fill such a multitude of bags, a little air pump answers the question. Then there are beds for soldiers, of like construction, of which the soldier has to swell out with his breath, while he walks over. Gloves of the same material are ready for the hands; a sure defence against water, paddles over. Gloves of the same material are made of India rubber—light, smooth, and elegant.

Less pliable in its uses, but equally important when needed, is the patent cement pipe, whereby a pipe of tin or iron is lined inside, and then laid down...
A Description and Historical Account of Hydraulic and other Machines for raising Water.

We should be glad to treat our readers to extracts from the ancient modes of raising and using water; but must pass by that for this time, as well as a most interesting description of all the sorts of pumps, now, or at any other time, in use. The history of the steam engine we must for a like reason pass by. We will merely give one or two curious extracts from the appendix:

“If biblical critics would pardon our temerity, we would also suggest that the Laros or images which Rachel stole from her father's dwelling were, like the small Saxon idol, and those referred to in Isaiah, eoliophile fire blowers. They have exceedingly perplexed commentators, who after suggesting numerous explanations, generally conclude by observing that their nature and uses are unknown; but had these writers called to mind the ancient employment of the domestic hearth of brazen eoliophiles of human form, they would have perceived that the name of Laban's images gave an indication of what they were. In all ancient languages proper names were invariably expressive of some prominent feature, attribute, or design of the object named; so of these images—they were named 'teraphim,' a word signifying 'blowers,' from teraph, 'to blow.' So also the eoliophile idol Pusterich was named from puater, to 'blow.' Eoliophiles, like the Laros, were located on the hearth, and as they were avowedly made and named after a god, Eolus, and were designed to imitate him in producing blasts of wind, [Varro makes the laros gods of the air, it was natural enough to adopt them as household deities. Rachel was evidently an intelligent and very shrewd woman; and as we have no reason to suppose she was an idolater after having lived twenty years in the same house with Jacob, (if indeed she ever was,) it is not at all likely that she coveted the images—they were named 'teraphim,' a word signifying 'blowers,' from teraph, 'to blow.'
In the Inquisition of Spain cost that country at least 2,000,000 of lives.

"Imprisoning Chairs. Such devices are very ancient. The first proof of Vulcan's mechanical ingenuity is said to have been a throne or chair of gold, with secret springs. This he presented to his mother, and no sooner was Juno seated in it, than she felt herself pinioned and unable to move. The gods interfered, and endeavored to release her, but without effect; and it was not till the artist had sufficiently punished her for her want of affection towards him that he consented to let her go.

"Nabos, the tyrant of Lacedemon, had a device for extorting money from the wealthy. It was a statue of a female clothed in rich apparel. When any one refused to part with his wealth, the tyrant introduced him to the image, which by means of springs seized him in its arms, and put him to the most excruciating torments, by forcing numerous beaded points into his body."

**A MOURING MACHINE.**

Considerable inquiry has been made hereabout of late for a machine that would cut grass. It seems by the following, from the Buffalo Advertiser, that the want is in the way of being answered.

A new and important machine for the cutting of grass has lately been completed by Capt. Wilson, of this place, and is now to be seen by applying at the bar of the American Hotel for the inventor. It is well worthy the attention of all the farmers of the West, where it is destined to become of the greatest importance in performing the harvest duty hitherto most excruciating torments, by forcing numerous beaded points into his body.

STEAM ENGINES are now afforded so cheaply that they may be applied to almost every sort of mechanical business requiring a very small power. A manufacturer advertises engines in the N. Y. Farmer and Mechanic for $350, of one horse power, and $100 for every additional horse power.

The Canada Thistle, the enemy of all farmers, is a native of Canada, but it has crossed the Atlantic, by means of wings with which its seeds are provided.

"An Encyclopedia of Domestic Economy, comprising such subjects as are most immediately connected with House-Keeping. By Thomas Webster, F. G. S. Assisted by the late Mrs. Parks: with Notes and Improvements, by D. Meredith Reyer, A. M., M. D." Published by Harper & Brothers, No. 82 Cliff street, 1845.

This is a remarkable book—one which will make our house-keepers, who have been accustomed to see the doctrines of Domestic Economy peddled out in shilling doses, under such titles as "House-Keeping Made Easy," "The Frugal Housewife," and "The House-Keeper's Companion"—start with both eyes.

The work bears its foreign origin on its face, or rather in its body. An American never could have written such a book. He could not have sat still long enough by any possibility. Here is a work upon the science and practice of house-keeping swelling itself out into 1238 large octavo pages, with all sorts of cuts, illustrating all sorts of subjects. Nor is it a mere stringing together of crude and picked up recipes, some giving the lie to others and some mere mistakes and the others impracticable. It is a patient, scientific and philosophical discussion of whatever relates to house-keeping—including buildings, warming buildings, ventilation, illumination, furniture, food, drinks, cooking, clothing, dress, dairy, renovation of health, and many others, which are spread out into all their details, and treated upon at length with all their rationale.

Extensive, however, as this work is, and completed as it is in its parts, there is one omission in it at which we cannot forbear to marvel. It has nothing in relation to the numerous insects which annoy the house-keeper. Cockroaches, crickets, bed-bugs, lice, ants, flies, and twenty others, busy and mischievous enough to emulate them to consideration, are all passed over without a word. Perhaps the author meant to treat them with silent contempt.

To undertake to give our readers any idea of the book by a few selections, would be much like undertaking to give an idea of an enormous edifice by the exhibition of a few of its brick.

We will however give a few samples, taken pretty much at random. For instance, the following on lamps:

"Several improvements have been made in the simple lamp. The size of the wick is a circumstance very important to attend to. We have already shown how essential it is that the air shall have access to every part of the flame, in order to secure complete combustion: if the wick be large, a great deal of carbon vapour remains unburned in the interior of the flame, and breaks out at the top in the form of smoke; and the flame appears yellow, or even brownish. This is the case with torches, which always give a great deal of smoke. The smaller the wick, the clearer and whiter will be the flame; because, from what has just been said, it is obvious that there will be less unconsumed carbon in the interior of the flame; but you cannot give much light, as it diminishes with the superfluities of the flame. The inconvenience of..."
thick wicks has been long observed, and many attempts have been made to remove it.

It was first noticed by Dr. Franklin that two small wicks, placed close together, gave more light than one equal in quantity to both; the air being admitted between them, there is more surface of flame than in one only. Three wicks, for the same reason, give still more light, but consume oil in proportion; but it is rather difficult to keep several wicks always at the same height, and there is a good deal of trouble in adjusting and trimming them.

A flat wick is found to obviate this inconvenience, and to give a much better and clearer light, with less smoke, than a round one that consumes the same quantity of oil. These are, consequently, now much used.

Or the following upon polishing tables:

“Wax Polish. This is the most ordinary kind of polish, where it is desirable not to darken the color of the wood; but it is not good for table tops, or many other parts of furniture, as it is apt to leave a degree of clamminess that causes every touch of the hand to leave a mark; and water spilled upon it tarnishes the lustre, which it requires hard rubbing to restore. Nevertheless, it answers sufficiently for many general purposes. It is applied in the following manner:

To four ounces of bees’ wax scraped fine, add one ounce of black resin pounded very fine, and on these pour oil of turpentine sufficient to dissolve them, so that the solution shall be of the consistence of cream. Suffer this to remain for twenty-four hours, till the whole is completely dissolved. Apply this solution with a clean linen rag, to the cabinet work, until the whole wood is covered. After the liquid is absorbed by the wood, rub the latter hard with a roll made of baize, and afterward with soft woollen cloths, taking care that no part shall be left clammy, and also taking great care that no dust or dirt attach to the work to occasion scratches. Repeat this in a few days, or a week; if any part of the polish be rubb’d off, a little more of the solution that is used to get the work to shine, and the more rubbing is employed, the better.

Oil Polish. This is the best polish for the tops of dining tables. It is prepared and executed as follows: Before application of the polish, clean the table top: by washing it with oil of turpentine, so as completely to eradicate any stains of grease that may be on it: then clean this well off by linen cloths. Dip a brush similar to the medium sized painter’s brushes, or a piece of linen cloth, into some of the best cold-drawn linseed oil, and apply it to every part of the table top, or other article of furniture. Let the oil remain on for six or twelve hours, or more, taking care to guard it from dust. Then rub it with a clean woollen cloth for an hour or more. As soon as it appears perfectly clean and dry, apply linen rubbers, to remove any moisture that may be left on the surface. In three or four days repeat the application of oil, as before; and when this operation has been performed about four times, before the oil is again applied, take a sponge with water blood warm, and wash the table-top all over: wipe it quickly, and dry it with linen cloths, to extract all dirt. The oil will have saturated the wood sufficiently to have prevented the water from penetrating. The lustre may not come out so soon as may be expected; but, by perseverance for a month, or perhaps two or three, the labor will be amply compensated by the result. The polish will be brilliant and lasting; it will bid defiance to stains from hot dishes, fruits, boiling water, and other liquids, and may be kept to its maximum of lustre with a very slight proportion of regular labor. Some persons have recommended the use of alkanet root and rose pink with the oil; this gives a rich reddish hue when the wood is too light; but the effect of these ingredients is to darken and to destroy the beautifully-variegated shades in good mahogany. Even with the oil alone, the wood will become darker than with wax, as in the last receipt: but after it has come to the proper polish it will change very little. The polish must not be used for rosewood, as it would render it too dark.”

Or the following, which may remind some housekeeper not to leave tubs, kestles, or cisterns, filled with water, these cold nights:

“Water, in freezing, and increasing in bulk, expands with great force; and hence it very frequently bursts very strong vessels in which it may be contained; to this cause must be attributed the rupture of pipes in frosty weather. The expansive force of ice in freezing is well shown in an experiment made by Major Williams. A bomb-shell, thirteen inches in diameter, and more than two inches thick, was filled with water, and the fuse-hole plugged up with an iron bolt; thus charged, it was exposed to the cold of a severe frost, and the consequence was that the bomb burst by the congelation of the water. This expansive power of water in freezing is of infinite importance in the preparation of soils by the disintegration of rocks, and the pulverization of the ground after it has been turned up.”

We will close with one more extract:

“As an illustration of the power of cookery, it may be observed that the alteration produced in the qualities of substances by the application of heat is remarkable. The cassava root, when raw, is a fatal poison to man and beast; but, prepared by fire, it is not only innocent, but forms the common food of the West Indians. The strong odor of the onion is destroyed by boiling. The root of the wakerobin has a juice that will blister the skin; but when boiled it is as mild as the potato. Mushrooms have little taste when raw, but become very savory when cooked. The raw potato is ill-flavored, extremely indigestible, and could not be eaten as human food unless it was cooked; but by roasting or boiling it becomes farinaceous, sweet and agreeable to the taste, wholesome, digestible, and highly nutritious. Coflee is disagreeably bitter in its raw state, and the fine aroma for which it is distinguished is entirely the result of the process of roasting. When, in the preparation of bread, considerable heat is applied to the dough, a complete change is produced in its chemical properties; the raw substance differs entirely from the flour; it no longer makes a tenacious paste with water, nor can starch and gluten be any longer extracted from it.

The application of considerable heat to raw animal food by any of those processes produces in it several chemical changes. Much water is evaporated, the muscular fibre is rendered opaque by the coagula-
tion of the albumen, and it becomes likewise more tender; the gelatin, which is never liquid in the raw state, is rendered soluble; the fat is partly liquefied, without being melted out of the cellular substance.

By applying heat to vegetables, the more volatile and watery parts are, in some cases, dissipated. The different principles, according to their peculiar properties, are extracted, softened, dissolved, or coagulated; but most commonly they are changed into new combinations, so as to be no longer distinguishable by the forms and chemical properties which they originally possessed. Raw vegetables contain much free acid, a great part of which counteracts the digestive functions; the heat of the cooking process destroys this acid, partly by extraction, and partly altering nature: boiled vegetables, therefore, contain little or no acid. By heat, sugar is often formed, as in the case of apples, and new and agreeable flavors are developed; the alimentary properties have been improved, the farinaceous matter is rendered soluble, and the vegetable fibre is softened. Numberless other instances might be mentioned of the influence of heat upon the nutritive properties of substances employed as food.

The whole subject of food and its preparation by cookery, are, as we have before more than once stated, so dependent upon the chemical history of the various substances employed, that it is impossible to study them advantageously without reference to that science; and it is for that reason we have endeavored to prepare the reader in our present section for some preceding ones. Cookery, indeed, may be considered, in some respects, as a branch of practical chemistry. On a general view, we may divide the various processes of the cook, as generally practiced in England, into roasting, baking, broiling, frying, boiling and stewing.

We are heartily glad to see such a book as this offered to our American readers; and we invite all those who wish to see how the common details of life can be made interesting by showing the connection between them and the teachings of science—those who wish to avail themselves of its teachings—to buy this book. To all newly married beginners in housekeeping, we commend it particularly. It will not only be found of use in the kitchen in compounding cakes, pastry, or in cooking steaks, joints, ham, etc., but will afford many a page of pleasant reading to beguile the long winter evenings.

FALL BUTTER.

BY MRS. S. H. TALLMADGE.

MESSRS. EDITORS: I have been perusing your Prairie Farmer to find a better way of making fall butter than mine; but do not succeed. My plan is as follows: As soon as the frost kills the grass, I strain the milk into pans, and put them on the stove; and let the milk get scalding hot, and set it into the milk-room, and in twentyfour hours I take the milk off, which is very thick and yellow. I then put it in a stone churn, and churn every other day, and the butter has rich flavor as I make in June; and I get a good price for it, while butter is selling very low.

BREAD MAKING.

THE RISING. Boil a quantity of hops, strain them, stir flour into the liquor when boiling hot; let it cool sufficiently, put in a small quantity of brewer's yeast; let it stand until perfectly light, then knead in half milk, mead into thin cakes and dry it in the sun.

FOR MAKING BREAD. Soak a small quantity of the cake in warm water an hour or two, put it to sponging in your flour until it rises; knead it and let it stand until it rises again; knead it again and put it in parts for the oven; let it stand until it rises, then bake the usual time.

M. D. ROCKWELL.

TO MAKE MILK YEAST. Take half pint new milk, one pint hot water, half teaspoonful salt, half tea spoonfull saleratus, stir in flour to the thickness of common batter, keep warm; when light, make small loaves, bake thirty minutes.

TO MAKE CRACKERS. Take 5 ounces butter, 4 eggs, 1 pint milk, beat the eggs and stir in as much as you can; then beat with a flat iron 10 minutes without adding flour; then break off a place large enough for a cracker; knead and roll out thin, and bake in a hot oven.

The above is from Sugar Grove, and we are sure must be good. —Ed.

WINTER TREATMENT OF HOUSE PLANTS. Plants kept in the house, in pots, are subject to several liabilities which those growing out of doors are freed from. Among these are sudden variations of temperature, and improper watering. This is peculiarly the case in winter; and yet upon these two points depend, in a great degree, their health and beauty.

The great and principal object of growing house plants is to have something green and fragrant, or which will produce blossoms during the winter months, when every thing else is frozen and lifeless. In the summer, plants for more fragrant and beautiful, and more permanently blooming than most of those grown in pots, can be had in abundance. It seems to us a work of great folly to grow pot plants, carefully tending and watering them all the summer, merely to send them off to a green house out of sight for the whole winter.

But to grow plants to any purpose during the cold months requires a tight house, capable of being kept at a tolerably even temperature in all sorts of weather. We say an even temperature, because this is the important point; for more than that the degree of heat be great. A temperature of about 60 degrees is high enough; and even if it falls below that, most plants will flourish in it, provided it be kept even. Many, however, finding their rooms cold in the morning and their plants nearly frozen, conclude that they need thawing at once, and so set them down by a hot stove. This is the very way to kill them. Plants hate the heat of a stove worse than a little cold; because this is the important point; far more so than that the degree of heat be great.

Now, suppose that the degree of heat be great. The plants will thrive best in the room where the stove is. Watering is one of the most difficult operations to practice successfully. In winter, it should be known, they require much less water than in summer; and the higher the temperature in which they are kept, the more water they will need; but they will be the more tender and liable to be killed by the frost. No rule for watering can be laid. To all newl y married beginners in housekeeping, we commend it particularly. It will not only be found of use in the kitchen in compounding cakes, pastry, or in cooking steaks, joints, ham, etc., but will afford many a page of pleasant reading to beguile the long winter evenings.

FALL BUTTER, BREAD MAKING, WINTER TREATMENT OF HOUSE PLANTS.
In what does Agricultural Improvement consist. Horse Shoeing.

It is customary when men have been long asleep and inattentive to their duties or interests, or being partially awaked, to make considerable noise and splutter; and their efforts are often ill-directed; because, like newly awaked people, they do not clearly see what is to be done; and some of them are often in such a hurry that they cannot take time to do it.

Similar to this was the case a few years since, when a part of the American public first began to discover that their Agriculture was not precisely what it should be, and such is, to some degree, the case since, wherever this idea makes progress.

Hence, in the earlier part of the movement, many mistakes, as was all natural enough, were made. One of them, which was rather more practical than theoretical—was that improvement was to be made by riding some particular hobby. Under this idea a good many seemed to suppose that Berkshire Hogs were the improvement sought in agriculture; and that the growing of them would be all that was necessary to do it. -

Similar to this was the case a few years since, when Rohans were Agricultural Improvement, saw some particular society go to pieces, they imagined the whole thing exploded, real or fancied, hobbies.

Now the great mistake of these persons is, that they fancy Agricultural Improvement to be something which it is not. And it would be well for them to take notice, that it is not identified with any breed of swine, or of cattle—or any particular sort of sheep; or with Agricultural Societies, or with any new sorts of seeds, or with agricultural papers. These may wholly or partially explode, and the main thing remains untouched. Some of these things are branches in which improvement may be prosecuted; and others are among the means by which it is carried on; but there is a wide difference between the means and the end, though mankind are always confounding the two, and mistaking the one for the other; and, as a great truth always lies next to some great lie, it requires care and discrimination to avoid mistaking the latter for the former.

The evils connected with the mistakes alluded to, are, that men supposing Agricultural Improvement to be identified with some of those things spoken of, take hold of them at first perhaps with great zeal, but as they see them afterwards explode, their faith in the cause is shaken, if they do not come to regard the whole matter with disgust.

Let it be kept clearly in mind, then, that our cause does not consist, nor is it identified with, any one or two things, or dozen things; but that it contains better modes of cultivating the earth—including all those branches which belong to it; and the cultivation of the farmer's mind, when that mind is brought to bear upon agriculture. Of course the nature and means of improving soils—of selecting and adopting crops to the climate and soil—of economy in raising stock, in providing buildings, and in household management, together with an intelligent understanding of all these things are included in it, with others which cannot well be enumerated. Any body can see by a moment's attention that this is a great and important work, and will stand out just as important and ennobling, though there should be fifty thousand Multicaulis and Rohan potato earthquakes, all ending in sulphurous, inodorous smoke.

We beg therefore, all new beginners, especially, to beware of the mistake pointed out; and not to be too sanguine of any new seed, or new breeds of animals, or any other new thing, which they imperfectly understand or are not in circumstances to meddle with, but to try cautiously all such things without being too sanguine of success, or supposing if they do fall in the trial, that they have made fools of themselves.

Those also who have seen many new things fail, or have had their fingers bitten in the operation, need not lose heart. Amid the thousand mistakes which men make, there sprout forth vigorous successes; about the roots of which the mistakes decay; and for which they form the aliment, as natures do for the fresh and strong growing grain.

Horse Shoeing. The old shoe must first be taken off. We have something to observe even here. The shoe was retained on the foot by the ends of the nails being twisted off, turned down, and clenched. These clenches should be first raised, which the smith seldom takes the trouble thoroughly to do; but after looking carelessly round the crust and loosening one or two of the clenches, he takes hold first of one heel of the shoe, and then of the other, and by a violent wrench separates them from the foot; then, by means of a third wrench, applied to the middle of the shoe, he tears it off. By these means he must enlarge every nail-hole, and weaken the future and steady hold of the shoe, and sometimes tear off portions of the crust, and otherwise injure the foot. The horse generally shows by his flinching that he suffers from the violence with which this preliminary operation too often is performed. The clenches should always be raised or filed off, and, where the foot is tender, or the horse is to be examined for lameness, each nail should be partly punched out. By the common system of procedure, many a stub is left in the crust, the source of future annoyance.

The shoe having been removed, the smith proceeds to rasp the edges of the crust. Let not the reader be object to the apparent violence which he uses, or fear that the foot will suffer it: it is only means that he has to detect whether any stubs remain in the nail-holes; it is the most convenient method of removing that portion of the crust to which dirt and gravel have insinuated themselves.
THE SMALL FARMER’S HOUSE.

It is often made a subject of complaint that our agricultural publications and agricultural societies prepare their articles and offer their awards on the supposition that their readers and contributors are all rich men, and able to carry out any scheme proposed, however expensive—overlooking the fact that the great majority are men of small means or none at all. To a certain extent this is not true—to a further extent it is true, from the necessity of the case; and to a further extent still, it is true needlessly, and not from any necessity. There are many branches of pioneer improvement in agriculture as in other things, which a poor man cannot dabble with; he would starve while doing it. Hence such branches are laid out for those who have more means and leisure. There are other improvements, which contemplate only a saving of means, and only require to be made known to commend them as matters of economy; these belong to the poor man as well as the rich, and often more particularly to him. There are other branches of improvement which though they require some expenditure, belong equally to the man of large and the man of small means, as matters of thrift and economy.

An agricultural paper ought never to lose sight of these varied interests, but to afford something for each condition.

The Prairie Farmer a few numbers since contained a plan and cut of a very tasteful cottage—a plan which it is needless to observe, can only be followed by a man of some means. We now offer a plan which is adapted to the means of any man who is able to leave his log cabin, and whose means improve so as to enable him to extend his house by small degrees afterward. This is the mode which nine tenths at least of our farmers follow in their building. Scarcely one tenth in fact are able to put up at once the establishment which they will in time need. Most of our settlers in fact need only small houses at first; they are young men, just married, with perhaps one or two little ones and a brother or sister, or hired man, constituting the whole family. A large house would not only be a useless expenditure, but a useless incumbrance. Matters change gradually, however, in the course of a few years. Grown-up sons and daughters, hired help, and all the et cetera of extension in the family line, require more elbow room. How shall the thing be managed? A few will be able to tear down the old house, or to move it off and turn it into a granary, a tool house, or stable, or something else, and build entirely new. Not so the great number. They wish to add a little this year, and two years hence a little more, and five or ten years afterwards considerable more, when they wish to consider the house finished. Besides the questions of ability and interest in the matter, there are pleasant associations connected with living always in the same house. There spring up attachments to the old rooms and walls, especially on the part of the female members of the family; and it is more pleasant to have the old house grown, than to tear it away and begin new.

Taste and economy need not be sacrificed in this proceeding. There are many modes of managing the business so as to secure due respect to both. But to do this, regard should be had in the outset to some plan. Otherwise the whole proceeding is a mere succession of patch work, and the result inconvenient, expensive, uncouth, and wholly unsatisfactory. Let then some plan, as perfect in detail as possible, be laid down in the beginning, and steadily adhered to, where it cannot be improved, in the successive additions and alterations.

We will suppose the farmer has not more than two or three hundred dollars to expend in the first building he erects, which is to be his dwelling. He can build with this sum a house perhaps 16 by 20 feet, with posts 14 feet; and finish it in a neat and substantial manner.* This is about the style of house of which hundreds will now be found scattered all over the West, when the settler has just emerged from his log cabin; or where his notions of living would not permit him to build one in the first place. This is, in fact, the second grade up.

* Houses of the size given, well finished, can be bought in this city for the sum named.
ward, in house building—the log cabin being the first step.

In this case the house can be divided as in the small plan, and will give him the principal room A, the large bedroom B, with a hall and pantry. This is about as much room on the ground floor as such a building can afford. He will soon, however, be able to add on a kitchen to the rear, as shown by C in the larger plan. This may be one story in height, and be jutted out properly, so as to stand where wanted when the whole is finished.

At a subsequent time, as his purse allows, and his needs require, an addition of one story may be made to the room B, and the pantry D be swelled out into a respectable bed room. The piazza G may then be extended around the front, a pantry, F, erected, and its outer wall be produced in the back piazza K. The dwelling will now give three rooms. A 13 by 16 feet, B 16 by 14, and C 13 feet square, a bedroom D, pantry F, hall E, and the closets I I I. The cistern and well are shown at H. and L, and the sink can be placed against the wall adjoining them, furnished with two small cast iron or copper pumps costing $5, and drawing the water through lead pipes.

The whole cost of such a house, as labor and materials are at present in this city, would not amount to more than from $600 to $600; and it would be as large as three fourths of families would ever need. Of course the size of rooms, finish, etc., might be varied to suit circumstances and tastes.

The objections which might lie to cutting away the studs to extend the rooms B and D would be obviated by any skillful carpenter.

But in building this or any other house of wood do not fail to apply the paint. This should be done as fast as any part is finished. Money cannot possibly be laid out on a building more economically than in paint; and as for ornament, nothing comes within five thousand per cent of it. One would suppose, in going about the country, and noticing the wo-begone appearance of villages and farm residences, that white lead, or any other pigment, had not yet been invented. The residents seem to think that because the dull and weatherbeaten appearance of the buildings has become familiar to them, it must look well enough. This is a great mistake. It is better to pay the painter something, even though the carpenter gets less.

CRANBERRIES.

We extract the following from the conversation at the meeting of the Club on the 4th inst., as reported in the N. Y. Farmer and Mechanic:

Gen. Chandler—I present to the Club cranberry plants, some with their great crop of fruit on, at the request of Mr. Sullivan Bates, of Bel-lingham, Mass. A few years ago, he first exhibited this fruit, produced by his new method—transplanting from low grounds to high. His success has been complete; he has gathered from one acre about 400 bushels of cranberries in a season! He plants them, in drills, 20 inches apart; in hills, 7 inches. The soil must be such as does not bake.

Chairman—I took from swamps on Gen. Johnson’s place, some cranberry plants, and planted them on ground 80 or 100 feet above the swamp; they thrived, and their fruit was so close together that one could hardly put a finger in without touching the cranberries. It is a highly profitable crop. I am of opinion that five hundred dollars might be obtained for a full crop of one acre.

Dr. Underhill—The cranberry probably improves in all respects by the transfer from marsh to upland. Wild grapes love alluvial wet positions, but their flavor is not to be compared with those growing in dry soils. The wild grape has a thick skin, hard pulp, large seeds. By culture in dry situations, the skin and seeds become one half less thick and large, and the pulp almost disappears.
Winter Management of Sheep.

In animals having a propensity to fatten, we find the chest of a circular form; the ribs spring from the spine more horizontally than in others, almost at right angles; this is observed in the ox, compared with the horse, and still more so in the sheep. The effect of this conformation is certainly greater in one respect to increase the width of the chest, but another important effect is to increase very considerably the size of the abdomen; for in order to obtain the greatest possible nutriment from the food, it is essential that the organs of digestion should be capacious, which cannot be the case unless the cavity in which they are situated is large. The abdominal muscles and membrane which support the domes are attached to the cartilages of the ribs, and the short ribs in some measure cover the abdomen. It must, therefore, be evident that in proportion to the width between the posterior ribs must be in proportion to the horizontal direction in which the ribs are given off. The ribs must correspond with the ribs; the transverse processes are long and horizontal in proportion to the horizontal manner in which the ribs spring from the spine; for, in fact, they are but a continuation of the same roof, and must possess the same relative proportions. We must illustrate this point by comparing it with an umbrella, which, when thoroughly open, the whalebone ribs, so to speak, coin here, the broad circular animal, and, when half extended, to the narrow-chested, flat-sided beast. In its former state the umbrella forms the roof of a much greater space of ground than it does in its latter state: and, in the same manner, the long transverse lumbar processes must form the roof of a larger abdominal cavity than the short transverse processes found with narrow loins. The same form that extends the roof of the abdomen, also gives a larger surface for the muscles of the back and loins to rest on; and thus we find in sheep of this description a very considerable development of the flesh or muscles of the loins—the primest part of the carcase. It is a common observation with judges of sheep, that one of the best points is a channel between the shoulders and along the back: this is, indeed, a desirable form, for it is connected with those necessary qualifications for producing flesh and fat. The channel along the back is owing partly to the large development of the muscles of the loins and back arising from the form we have commenced, and partly to the shortness of the upright or spinous processes of the vertebra of the back. Now the use of these processes is to afford leverage to the muscles, and their length, therefore, enhances the activity of the animal. Sheep, however, do not possess nor require these active powers, and they would, in fact, be very detrimental to the principal object of the animal's existence; it is a quiet state, and a quiet disposition that disposes an animal to increase in flesh and fat. The shortness of these processes is illustrated in the sheep as compared with the goat, and in the improved breeds of the former as compared with those of the mountain and the forest.

With a view rather to confirm principles already stated, the following remarks by Mr. Spooner, and the examples in illustration, are quoted. It will be proper to add, that in no other country is the system of fattening better understood than in England, established by numerous experiments of her many enlightened and sagacious breeders.

"Quietude and warmth greatly contribute to the fattening process. This is a fact which has not only been developed by science, but proved by actual practice. The manner in which these agents operate is simple and easily explained:—motion increases respiration, and the excess of oxygen thus taken requires an increased quantity of carbon, which would otherwise be expended in producing fat. So, likewise, cold robs the system of animal heat, to supply which more oxygen and more carbon must be employed in producing extra combustion, to restore the diminution of temperature. Nature enforces this restoration of warmth by causing cold to produce both hunger and the disposition for motion, supplying carbon by the gratification of the former, and oxygen by the indulgence of the latter. The above facts are illustrated by Lord Dوقع:

"One hundred sheep were placed in a shed, and ate 20 lbs. of Swede turnips each per day, whilst another hundred, in the open air, ate 25 lbs., and at the end of a certain period the former animals weighed each 3 lbs. more than the latter, plainly showing that, to a certain extent, warmth is a substitute for food. This was also proved by the same nobleman in other experiments, which also illustrated the effect of exercise:—No. 1. Five sheep were fed in the open air, between the 21st of November and the 1st of December; they consumed 90 lbs. of food per day, the temperature being about 40°; at the end of this time they weighed 2 lbs. less than when first exposed. No. 2. Five sheep were placed under shelter, and allowed to run at a temperature of 49°; they consumed at first 58 lbs., then 70 lbs. per day, and increased in weight 23 lbs. No. 3. Five sheep were placed in the same shed, but not allowed any exercise; they ate at first 64 lbs., then 58 lbs., and increased in weight 30 lbs. No. 4. Five sheep were kept in the dark, quiet and covered; they ate 35 lbs. per day, and increased in weight 9 lbs.

"A similar experiment was tried by Mr. Childers, M. P., and is thus related by that gentleman in the Journal of the Royal Agricultural Society of England for that year. He says, 'This winter enclosed a small yard with posts and rails, and erected a low thatched shed, just large enough to allow a score of sheep to lie down at once. The floor of this shed was covered with rough slabs, and was raised eighteen inches above the surface of the ground, the boards being placed three-eighths of an inch apart, in order to allow the free passage of water and keep the boards dry, as my great fear was that the sheep might get the foot-rot."

"I then proceeded, on the 1st of January, to draw forty wethers out of my flock of Leicesters, and divided them into two lots, as equal in quality as I could get them. On weighing each sheep separately, I found the weight of one score to be 2565 lbs., and that of the other 2580 lbs. I put the first lot into the yard, and placed the other lot on turnips. The field was a dry sandy soil, well sheltered, and
peculiarly favorable and healthy for sheep. Each
lot had exactly the same quantity of food given them,
which was as follows:

- 1st. As many turnips as they could eat,
  which was about 37 lbs. per day for each lot.
- 2d. Ten pounds of linseed cake, at the rate of
  half a pound per sheep per day.
- 3d. Half a pint of barley per sheep per day.
- 4t. A little hay, and a constant supply of salt.

For the first three weeks both lots consumed
equal portions of food; but in the fourth week there
was a falling off in the consumption of the wethers
in the shed of 52 lbs. of turnips per day; and in the
ninth week there was also a falling off of 28 lbs.
more; of linseed cake there was also a falling off
of 3 lbs. per day. The wethers in the field con-
sumed the same quantity of food from first to last.
The result of the experiment was as follows:

**| Year | Sheds Weigh | Field Weigh | Sheds Increase | Field Increase |
---|------|------------|-------------|--------------|
| Jan | 2595 lbs. | 2590 lbs. | 20 lbs. | 25 lbs. |
| Feb | 305 lbs. | 273 lbs. | 214 lbs. | 132 lbs. |
| Mar | 215 lbs. | 291 lbs. | 178 lbs. | 178 lbs. |
| Apr | 335 lbs. | 309 lbs. | 20 lbs. | 4 lbs. |

Total increase, 730 lbs. 612 lbs.

Consequently the sheep in the shed, though
they consumed nearly one fifth less food, made
above one third greater progress. The circum-
stances of the experiment were, if anything, unfa-
forable to the sheep in the shed. The turnips, by
being stored in a house for their use, became drier
than those consumed by the sheep in the field; and
also in February the shed wethers were salted or
rubbed with mercurial ointment, which is generally
supposed to give a check to feeding sheep. The
floor of the shed was kept clean by fresh straw litter
after every rain.

Mr. Spooner adds the following:—The result
of these important and valuable experiments is pre-
cisely what we should expect from theoretical rea-
soning on the principles of the subject. It shows
the pecuniary advantage of attending to the con-
forts of sheep and other animals, the expediency of
providing proper sheds, and affording shelter when
the weather is severe, and lessening, as much as
possible, their exercise.

Quietness, as has been observed, is indispens-
able to rapid fattening of sheep, or cattle, and to con-
tribute as much as possible to this object, regularity
is requisite not only in the quantity of the food, but
the time when it is given. It is not a little surpris-
ing how quick animals, especially when fattening,
will learn the stated hours when their food is to be
supplied; and if it is transgressed, they become
restless, which greatly retards the process. The
observance of this, with full measure of feed, are of
paramount importance.

**DOMESTIC MATTERS 400 YEARS AGO.** Mr. Meigs in his Address before the American Institute thus contributes the present with the past:

"What was England for fifteen hundred years?
Her history will show you, that her population
ever exceeded six millions during all that time.
In 1509 gardening began to be of some importance
in England. Before that time vegetables were im-
ported from the Netherlands. Then began the cul-
ture in England of cabbages, gooseberries, mus-
keteens, apricots, garden roots, &c. The damask
rose was introduced by Dr. Linacre, physician of
Henry VIII. In 1526, roses were first consecrated
as presents from the Pope! Hops from France! Pippin apples, by Leonard Mascia, in 1525. Ca-
rinthian grapes, now called currants, from Zante,
in 1555. Musk roses, and several plums from Italy,
by Lord Cromwell. July flowers, and currans,
in 1567. Tulips from Vienna, in 1579. As-
paragus, oranges, lemons, artichokes, cauliflower,
bay, peas, lettuce, in 1660. Then began the popu-
lation of England to grow. Then began the cre-
atation of the farmer. Then arose the delightful
dwellings of the yeomanry of England, on the do-
mains which, for more than a thousand years, had
been occupied by feudal vassals, styled in the old
laws villeins, over whom, in their subject con-
dition; the eleven hundred military castles of Eng-
land had for so many ages frowned in aristocratic
power! Now behold the magic changes wrought
by the power of farm and garden. You see now
the annual jubilee of those noble interests, attended
by all the gentlemen, lords and ladies of the British
empire. Victoria (to her credit I proclaim it) per-
sonally shows to her subjects the example of
love and regard even for a poultry yard."

**OBTAINING PATENTS.**

The question has been frequently asked us—what is the mode of proceeding, when an inventor
wishes to obtain a patent for his invention.

The steps to be taken are laid down in the N.
York Farmer & Mechanic, which we give for the
benefit of those whom it concerns.

Dear Sir—Please let us know through the me-
dium of your paper what the law is with regard to
obtaining letters patent from the patent office at
Washington. What the expense, &c. is. Is the fee
fixed by law? What is to be done to secure a
patent for a time before taking out letters, in order
to give the inventor a chance of first taking his in-
vention. I learn that some have paid $40 and oth-
ers $60 to obtain a patent. Is not part of this sum
charged by agents for their good will or influence
in obtaining the patent? Please give the particu-
lar and obliges

A Subscriber.

**REMARKS.** The public fee, fixed by law, is $30.
For this the Patent office examines the application,
and decides on granting it, if new, or rejecting it
if old. Before the application can be examined, a
memorial, praying a patent, on both of originating,
and priority, of invention; a descriptive specifi-
cation, setting forth the intents, construction and use of
the invention, closing with a claim of the parts
that are new, conjointly with duplicate representa-
tive drawings and a model [if it can be shown by
a model] of the invention, must be all lodged in the
patent office. If the invention is not mechanical,
ought of chemical or other materials must be sent
in order to make an experiment with.

If the application is rejected for good cause, $20
of the public fee is then returned, and the office
keeps the papers and model. A caveat, praying
protection for one year, while perfecting an inven-
tion, may be lodged on paying $20, which ensures
the applicant a knowledge of any interfering appli-
cation for that time, and if the patent in the subject
of the caveat is perfected, the $20 for the caveat becomes part of the public fee of $30.

No knowledge exists of any agent who can exercise any influence independent of the legal claims of the applicant. But the agents referred to are probably those who prepare the needful papers and drawings constituting the application for the inventor, which are charged for according to extent and trouble, at rates varying from ten dollars to two hundred, which a friend of ours once received for a specification of thirty-two foolscap pages with three wheels and about twenty figures of drawings.

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**SUGAR GROVE FARMING.**

We have been favored with several Reports upon crops given in to the Sugar Grove institute, which we lay before our readers.

**Five Acres of Oats—1845.** By S. S. Ingham.

- 1st. Ploughed the ground last fall. Ploughed it very deep.
- 2d. Manured it in the spring, about 25 loads to the acre.
- 3d. Spread the manure.
- 4th. Gave it a thorough dragging.
- 5th. Ridged it—ridges four feet apart.
- 6th. Furrowed it across the ridges, 4 feet apart.
- 7th. Planted it, four kernels in a hill.
- The time spent in harrowing, plowing, and bushing, was five days.
- 8th. Raised 76½ bushels per acre.

**Five Acres of Corn—1845.** By S. S. Ingham.

- 1st. Ploughed the ground last fall. Ploughed it very deep. Spring wheat stubble.
- 2d. Manured it in the spring, 25 loads to the acre.
- 3d. Spread the manure.
- 4th. Gave it a thorough dragging.
- 5th. Plated it, four kernels in a hill.
- The time spent in plowing, sowing, and bushing, was five days.
- 6th. Raised 76½ bushels per acre.

**Wheat Field Entered for a Premium.** By W. B. Gillett.

- Broke the ground by odd spells between the 1st of May and the 15th June. Cross ploughed, or rather ploughed very fine and shallow the same way that it was broken—say one inch deeper. Ploughed the last of August. Sowed the first week in September—11½ bushels to eight acres, China wheat.
- The above crop produced 22½ bushels per acre—not an extraordinary yield; but would recommend the above plan in cultivating sod land for winter wheat.

**W. B. Gillett,**

Account of Farm Expenses. Dr.

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st. Winter wheat. Sowing and plowing in amongst corn, 12 acres, occupying 4 days at 6s.</td>
<td>$3 00</td>
</tr>
<tr>
<td>29 bushels seed, 4s.</td>
<td>10 00</td>
</tr>
<tr>
<td>Harvesting 19 days, 10s.</td>
<td>15 00</td>
</tr>
<tr>
<td>Stacking, 37b.</td>
<td>4 50</td>
</tr>
<tr>
<td>Thrashing, 270 bushels, 7c.</td>
<td>18 00</td>
</tr>
<tr>
<td></td>
<td>$51 40</td>
</tr>
</tbody>
</table>

Cr. By 270 bushels wheat, 58c, $136 60

Net gain, $85 20

Leased 12 acres which produced 292 bushels, for which I receive 1, 94 bushels at 58c, $54 52

Which shows an advantage in favor of cultivating your own land of 12 a. to be 30 76

**Spring Wheat.** Dr.

- Ploughing 3 acres, 14 days, $1 50
- Sowing and harrowing, $75
- Harvesting 3 days, 10s., $3 75
- Stacking 10s., $1 25
- Thrashing 75 bushels, 7c. $15 58
- Cr. 75 bushels at 5s $37 50

**Gain,** $21 92

- Oats, Dr.
  - Ploughing 44 acres, 24 days 8s, $2 50
  - Sowing and harrowing, 1 day, 8s, $1 00
  - 14 bushels seed, 2s, $3 50
  - Harvesting, 4 days, 18s, $6 00
  - Stacking, 12s, $1 50
  - Thrashing 270 bushels, 5c, $13 50 $27 00
  - Cr. by 270 bushels oats at 1s6d, $50 62

**Gain,** $23 62

- Corn, Dr.
  - Ploughing 16 acres, 9 days at 8s, $9 00
  - Marking and planting, 13 days 4s, $6 00
  - Ploughing cut corn, 16 days, 6s, $12 00
  - Cost of Husking 900 bushels at 4s 12 50
  - Hoeing, 6 days, 4s, $4 00 $42 50
  - Cr. 1000 bushels corn at 2s, $250 00

**Gain,** $205 00

- Potatoes, Dr.
  - Ploughing 4 acre for potatoes, 2s, $0 25
  - 5 bushels seed Is Cd, $0 94
  - Ploughing out and marking, 6s, $0 75
  - Hoeing, 6s, $0 75
  - Digging, 3 days work, 4s, $1 50
  - Cr. by 100 bushels potatoes, 1s6d, $18 75

**Gain,** $14 56

The winter wheat was got in between the 27th of August and the 5th day of September—put in with a double shovel plough—went twice in a row—no ploughing.

The winter wheat I entered for the premium was on sod, put in about the 4th day of September—sowed 11½ bushels on 8 acres, and it produced 22½ bushels per acre.

I hired 18 acres of wheat among corn this fall, at an expense of $5 exclusive of sowing.

From the returns of this farm it appears there have been raised 552 bushels winter wheat, 70 bushels spring wheat, 270 bushels oats, 1000 bushels corn, and 250 bushels potatoes.

Likewise it appears from the above returns that the cost per bushel on the 12 acres cultivated by himself was 19½ cents. 12 acres leased gave $4 54½ for the use of land.
75 bushels of spring wheat cost 20 4-5 cents per bushel.
270 bushels oats cost 10 cents per bushel.
1000 bushels corn cost 44 cents per bushel.
100 bushels potatoes cost 4 1-5 cents per bushel.
3 acre land leased for potatoes gave $8 for the same.

Improvements have been introduced the present season by the successful operation of a machine adapted in every respect to the wants of the prairie wheat grower, for harvesting and threshing, by which this part of the labor can be accomplished at the same time, for a ten per cent. cost. When to this is added the increased facilities for transportation, either by railroad or a feeder from Fox River for the Illinois and Michigan canal, which will reduce the cost of hauling from 12 to 3 cents per bushel—it will then be placed in the power of the owners of wheat farms 50 miles west of Chicago to deliver wheat in Buffalo for—say 6 cents for making the crop, 7 for harvesting and threshing, 3 cents by steam to Chicago, 4 from Chicago to Buffalo—20 cents per bushel, and 5 cents for contingencies, and you have your wheat in Buffalo at 25 cents per bushel. The first white male child born on Fox River will not be entitled to his freedom suit until all these things shall be accomplished.

PREMIUMS AWARDED AT THE SUGAR GROVE INSTITUTE.
To Wm. B. Gillett, for the best cultivated farm, with reference to the greatest income with a given amount of outlay.
To Wm. B. Gillett, for best five acres Winter Wheat.
To S. S. Ingham, for best five acres Corn.
Do do do do Oats.
To Silas Reynolds, for best kitchen garden, including peach, pear, cherry, plum and quince trees and grape vines.
To Clark Fitch, for best horse team.
To Thomas Judd, for best bull.
To E. D. Terry, for best horse.
Do do do do piece flannel.
To M. D. Rockwell, of Aurora, for best loaf bread, milk rising.
To Miss Mix, of Aurora, for best crackers and loaf bread, milk rising.
To S. Reynolds, for best dairy of cows, not less than four.
To A. H. Hinds, for best cow.
To A. C. Fitch, for best steer calves.
To S. S. Reynolds, best heifer calf.
To C. Franklin Paull, best stud horse.
To Mrs. John Morris, best specimen cracknels.

AGRICULTURAL FAIRS. As our cattle shows have usually been conducted, the application of the title Fair has been wholly a misnomer. A Fair, as the term is used in England where it was invented, means a gathering of stock and products for sale; while a Show is the bringing of stock and products together for the purpose which the name imports.

The late Show at Utica however was turned to account in a way which goes far to justify the more common title. Numerous sales of choice sheep, cattle, and horses, nothing of these—were effected in a manner highly satisfactory to all. It is gratifying to see this feature intro-

HEIGHT OF TROTTING HORSES. The annexed list gives the height of many celebrated horses estimated only, but by two most experienced men, one of whom had groomed or ridden almost every one named, and the other is an old amateur, who has the quickest eye for a horse, and who rode after most of those named, and has seen them all repeatedly. Of the thirty in the list, they differed only about eight, and of these only by one inch, save in a single case. In the eight cases we have given the estimate of the jockey who had ridden or driven them, and have great faith in its accuracy.

Names.  
Dutcheman, 15 34
Lady Sniffik, 15 2
Columbus, 16 1
Aaror Burr, 16 1
Rattler, (the latest) 16 2
Screwdriver, (old) 16 —
Do (latest) 15 —
D. D. Tompkins, 15 —
Lady Warrington, 15 1
Lady Victory, 15 2
Togglallant, 15 3
Sir Peter, 15 2
Whalebone, 15 3
Shakspere, 15 2
Betsy Baker, 15 3
Cato, 16 —
Edwin Forrest, 15 —
Burster, 15 —
Norman Leslie, 15 3
Confidence, (latest) 15 2
Looeoment, 16 —
Sally Miller, 15 3
Charlotte Temple, 15 —
Washington, 15 1
Moidey, 14 2
Greenwich Maid, 15 —
Awful, 15 3
Henry, 15 1
Paul Pry, 16 —

MULTICOLO R RY. It will be recollected that much noise was made about this grain some two years since, and that considerable quantities of it were obtained from France and scattered over the country. Very few particular accounts of the results of its cultivation have met our eye. Those published, as far as we have seen them, only regard its culture for the grain. So far it is a decided failure. The berry is pronounced very small, and inferior in quality. If any body has been disappointed in this, they have been disappointed very needlessly. One who had ever seen a bushel of good rye, needed at a glance at a handful to say anything as this was described to do, is not apt to produce a berry of the plumpest sort.

Of the multicolored rye as a feed, we have seen no report. It was with a view to feeding only that we ever proposed its trial.
EDUCATIONAL DEPARTMENT.

Several well written but long articles are on hand, intended for the Educational Department, which we shall be obliged to pass by. It is impossible for us to insert any but short practical articles in this department, and we often select an inferior in preference to a better one, on account of the length alone.

LETTER WRITING.

It is hoped that those who have or expect to have letters to write, will pay attention to hints contained in the following letter. We are continually misled or left in doubt, or put to great inconvenience, by intended for the Educational Department, which youth in the public schools throughout our country and which might be in a great measure obviated if of folding them up. I have seen many people are directed, and the clumsy and awkward manner in which letters are directed. Old people are excusable for such things, but the education of all the boys and girls in relation to this thing ought to receive attention.

Messrs. Editors: Allow me to call your attention, and the attention of your subscribers, to an evil which has existed since mails, mail couches, and post offices were invented, or since letter writing has been the vehicle of communicating our thoughts and wishes to those at a distance from us, and which might be in a great measure obviated if those who are entrusted with the instruction of those who attend our public schools, in the art of writing a letter, directing it properly and intelligibly—then to fold and direct it so that it will reach its destination without traveling like Noah's dove for weeks and months, unable to find a resting place. A uniform method of folding letters is also desirable. It is a fact that by far the greater part of the miscarriage of letters is owing to their being badly directed, frequently the names of places spelt so as to defy the combined efforts of the clerks of the post office to decipher, (and you must admit, Mr. Editor, that in this office they must admit, Mr. Editor, that in this office they will be written, for it is not perhaps generally known that there are towns of considerable importance which have post offices of a different name from the town. If the place is known to the post master or clerk, the letter will go safe enough, but if not, it is as likely to take a north course when it should go south, or east when it should go west. After trying all points of the compass, if it is not worn out in the mean time, it may chance at last to be found by some one who will give it the right clue. An example of misspelt names is taken from letters passing through the office in this city. We have seen Chicago spelt in 23 different ways, e.g. Tschigo, Sketegu, Korgaga, etc., Mount Morris for Mount Morris, Ooraura for Aurora, Pheryay and Panshur for Pora, Augh-ti-way for Ottawa, Lakeharm, Maclach co. for Lacon, Marshall co., High- way for Iowa, West Conduct for Wisconsin, Seater co. for Cedar co., Granatur for Grand Deour, and Elen Oys for Illinois, "in care of Thomas Johnson for young John Johnson's wife."

With respect to folding letters, various modes are often adopted. Sometimes they are done up so as to look as diminutive as possible, as though the saving of paper was a great object, and scarcely room left to direct in the smallest hand. Sometimes they come nearer to old fashioned tile in size, paper stiff as pasteboard, and the direction across instead of lengthwise, and look as though a stick had supplied the place of pen. Frequently the paper is twisted into diamond or three cornered shapes, which is undoubtedly intended to be exquisitely nice; and these are generally supposed to be love missiles. Now who is there that does not dislike to receive letters in any of these awkward or fantastic shapes? How much better that a uniform system should be adopted and taught to the rising generation, and that this matter should be treated as it deserves. Suppose you try and bring it about, Messrs. Editors, and confer great obligations upon Post Office Clerks.

Chicago, December, 1845.

CRANBERRIES IN ENGLAND. The Farmers' Journal (Eng.) contains an article under the head of "Extraordinary Produce of Cranberries," in which it is stated that the astonishing quantity of six bushels had been taken from 11 acres, and that four bushels remained to be gathered. If the farmers on the other side of the big waters would take lessons from the American cranberry growers, who often get at the rate of one or two thousand bushels from 11 acres, they will find in very deed that the system, both the fold and direct, for bushel pursued in America. It has been stated that a boy in Lincoln, gathered over one hundred bushels of cranberries in one day. Have you any such lads in Old England?—Boston Cultivator.

Some person who had nothing else to do has ascertained that there are 560,000 grains in a bushel of wheat, 520,000 in barley, 1,260,000 in oats, 37,000 in horse beans.

It is supposed by many naturalists that the Elm tree produces 530,000 seeds per year.
CATALOGUE OF PLANTS
Growing spontaneously in the State of Illinois, the principal part near Augusta, Hancock county.*

ET 9. B. MEAD.

CLASS I. EXOGENE.

Clematis Virginiana L (T) Virgin's bower, traveler's joy.

Anemone nemorosa L (T) low, or wood anemone

Anemone virginiana L (P) wild flower, thimbleweed

Anemone virginiiana L (P) wild flower, thimbleweed

Anemone nemorosa L (T H M) heart, or kidney

Anemone hepatica L (T H M) heart, or kidney, liverleaf, tonic, deobstruent diuretic

Anemone abortivus L (B)

Anemone purshii Rich (P & Bts)

Anemone repens L (P & T 1)

Anemone hispidus Mx ? (W P)

Anemone recurvatus Poix (B)

Myosurus minimus L (P 1) acrid, poisonous

Caltha palustris L (W P 2) American cowslip, or marsh marigold

Isopyrum biternatum T & G (Bts) emetic, sudorific, poisonous

Aquilegia Canadensis (T 0) wild columbine

§ Delphinium consolida L Larkspur

§ Incomito Mx (T 0)

§ Aznreina Mx (B 3 0)

Arum palaestinum Mx (T 0)

Hydrastis canadensis L (T M) orange root, tumorish, poisonous

Leontice tialactroides L (T M) poppoose root, tonic

Podophyllum peltatum L (T M) mandrake, May apple, cathartic

Capsella bursa—pastoris Moeench, shepherd's purse

Sanguinaria canadensis L (T M) blood root, acrid, narcotic, cathartic

Dielytra cucularia D C (T 0) colic weed

§ Funmria officinalis L (cult F) fumitory aperient

Cheiranthus hesperidoides T & G (Bts)

Nasturtium palustre D C (P & Bts) stimulant, diaphoretic

Nasturtium nutans v Americanum D C (Pds) stimulant, diaphoretic

Arabis hirsuta Scop (P & T H) antiscorbutic nutritious

Arabis hirsuta Scop (P & T H) antiscorbutic nutritious

Cardamine roundifolia Mx W P) antiseptic, diuretic

Dentaria lueciufa M[T] antiseptic, nutritious

Sisymbrium officinale Scop[R] antiseptic, antiscorbutic

Capsella bursa—pastoris Moeench, shepherd's purse nutritious

Polanisia gravyolens N[Bks] false mustard, poisonous, stimulating vermifuge

Polygala purporea N [B P] acrid, sudorific

Polygala incarnata L[P&B] milkwort

Polygala verticillata L [P & B] dwarf snake root, acrid, sudorific

Ambigua N [T B]

Senega L [B H M] Seneca snake root, mountain flux, acrid, sudorific

Polygama Wult [W P & B 4 & 5] ground flow, acrid, sudorific

Viola pedat L [P O] pale blue violet, tonic, cathartic

Delphinium N [P B]

Heliathemum canadense Mx [P] rock rose, frost plant, stimulant

Lechea major Mx [P] pineweed, tonic

Minor Lenn [B]

Hypericum pyrnmidatum Ait[T 0] cathartic, febrif.

Hypericum pyrnmidatum Ait[T 0] cathartic, febrif.

Hypericum corymbosum Mx [B] do do

Hypericum spheroarum Mx [B 1] do do

Hypericum mullilum L [P] do do

Hypericum canadense L [H] do do

Paronychia jamesii L[B H 5] astringent

Anychia dichotoma Mx [T] fokk, chickweed, astringent, tonic

Nymphaea odorata Ait (Pds 3) white pond lily, narcotic, astringent

Nuphar advena Ait (Pds) yellow water lily, narcotic, astringent

Nuphar lutea (F) sycamore water lily, narcotic, astringent

Sanguinaria canadensis L (T M) blood root, acrid, narcotic, cathartic

Dielvtra cucularia D C (T O) colic weed

§ Funmria officinalis L (cult F) fumitory aperient

Cheiranthus hesperidoides T & G (Bts)

Nasturtium palustre D C (P & Bts) stimulant, diaphoretic

§ Cvaccaria L field soapwort
Portula oreacea L [P I] purslane or "pursley" nutritive, laxative
Claytonia virginica L [T O] spring beauty, emollient, tonic
Linum rigidum Ph [P] $L$ usitatissimum L \textit{flax}
Geranium maculatum L [M T] crow-foot geranium, cranesbill

\textit{To be continued.}

Explanations of characters and abbreviations used in the preceding catalogue.

\$ This sign is prefixed to such plants as have been introduced and occasionally seen growing spontaneously about gardens or cabins.

\# This mark denotes that the species are not satisfactorily determined, or implies some doubt.

(1) These plants I believe not to have been introduced, but native.
(2) Found growing in Knox co. III-
(3) Near Mississippi river.
(4) In Cass co.
(5) Mason co.
(6) Adams co.
(7) Near Spoon river.
(8) Illinois river, or on its banks.
(9) 5 miles below Chester, Ill.
(10) Along the banks of the Mississippi river.
(11) Clark co, Mo.
(12) Warsaw.
(13) Pike co.
(14) Cape Girardeau co. Mo.
(15) Chicago.
(16) This plant does not flower here, probably for want of moisture and thick shade.
(17) Sangano river.
(18) Supposed to produce salivation in horses.
(19) Used for hedge.
(20) For making hay, and for bottoming chairs.
(21) Cut for hay often in newly settled places.
(22) Denoting plants growing in barrens.
(B) Hills.
(Bs) Along rivers or creeks.
(Bu) Timber bottoms.
(Ch) Cultivated.
(D) Useful for dyes.
(E) Having exalting roots.
(Fd) Affording food or pasture for cattle.
(fr) Bearing good fruit, or eatable.
(H) Hills.
(hy) Fit for making hay.
(M) Possessing medicinal qualities.
(O) Ornamental, such as are curious, or furnish showy flowers.
(P) Growing in prairies.
(Pn) Poison.
(Puls) Growing in or about ponds.
(R) Roadsides.
(Sd) Sand.
(T) In timber.
(Ta) Used for making common tea.
(Wd) A troublesome weed.
(W) Wet.

The district of country in which these plants have been observed, has been but partially examined, and there are probably many more to be found, which I may hereafter notice, as well as all that have been detected within the limits of this State by other botanists.

\textbf{VETERINARY DEPARTMENT.}

\textbf{SWINEY.} Mr. E. Gridley, of Half-Day, communicated to us a short time since, a remedy which he has used with perfect success. Take a quantity of powdered copperas and mix it with lard and rub it on the part affected; then heating a fire shovel, hold it near the copperas thus applied and "heat it in" as the term is, for a considerable time.

\textbf{FOR SOME TREATS IN COWS.} Take the back of the root of the shrub commonly called bitter-sweet, wash and simmer it with a small quantity of lard, until it is very yellow, and when cool, apply it to the parts that are swollen, two or three times a day, until the oilder and teats are perfectly soft and free from kernels.—\textit{Cultivator.}

\textbf{CURE FOR THE BLACK TONGUE.} A handful of fine salt rubbed upon the tongue of a horse that has the black tongue, will cure it, in at the most, two applications.—\textit{Ib.}

\textbf{FOR SOME BACKS, OR GAILS IN HORSES.} Rub white lead in sweet oil until a good point is made, and apply a coating of this to the injured place; milk will do, where the oil is not to be had. It is one of the most effective applications. Some for the same difficulty use a solution of vitriol in water, for a wash; but in most cases, the white lead is to be preferred.—\textit{Ib.}

\textbf{CURE FOR WOUNDS.}—\textbf{KING OF OILS.} By Silas Gaylord, of Skaneateles, N. York. Take 1 ounce of green copperas, 2 do. of white vitriol, 2 do. of common salt, 2 do. of linseed oil, 8 do. of West India molasses. Boil over a slow fire 15 minutes, in a pint of urine, when almost cold, add one ounce of oil of vitriol, and four ounces of spirits of turpentine. Apply it to the wound with a quil or feather, and the cure will be speedily effected.—\textit{Ib.}

\textbf{WORTHLESS SCHOOL LANDS.} Messrs. Editors: Will you give me some information in regard to the mode of proceeding to obtain a grant for other lands in lieu of the school, or 16th section, when said section is worthless. As you are interested in school matters, I thought you would give us the desired information, if within your reach.—T. F. PHILpS.

Pre-emption, Mercer co., Ind. Dec. 1845.

We have made inquiries but cannot ascertain that there is any other remedy provided than what follows: If the school section, or any part of it, proves to be an inaccessible swamp or a pond, and is considered as unsuitable or unsuited, the trustees of schools for the township may proceed to the land office and select other unpupiled lands, to the number of acres so returned as swamp or pond; provided the township be a whole one. If it be a fractional township, then the number of acres selected shall correspond to the size of the fractional township. If however the school section be surveyed and returned as land, we cannot find that there is any remedy provided, however poor and worthless it may be. We should suppose, however, that a petition to Congress might secure a hearing and a remedy.

\textbf{EXTINGUISH FIRE IN CHIMNEYS.}—Put a wet blanket over the whole front of the fire place, which soon stops the current of air, and extinguishes the flame.—\textit{Farm. Monthly Visitor.}
CHICAGO MARKET.

[no date provided]

The receipts of wheat have been rather light of late, considering prices, the state of the do, and the season of the year. From $1 to $6 cents may be considered the ruling rates for a week past. A little tightness in money market has been felt during that time, which has had some effect on prices. It is not anticipated that this will more than transitory.

The frequent rise and fall in breadstuffs in Europe; and as this expectation has risen and had some effect on prices. It is not anticipated that this will be calmed by the remark that these fluctuations have had the effect of having been brought in of late from quite a distance.

BEEF is only in demand for city use, and brings about $3 per hundred.

Butter for the table is in demand, and will bring from 15 to 15 cents per pound.

Eggs are now retaiing at 38 cents per dozen.

COIN and OATS are much inquired for; and it is believed that the winter holds on as it has begun, they will be still more so.

Hay meets a readier sale and better prices than over before in this city, and has been brought in of late from quite a distance.

Clearances have receded a little—$4 having been, for some days, the highest, while light pork has been sold as low as $2. The quality of the article is superb—being far superior to that ever before offered in this market.

M E T E O R O L O G I C A L R E C O R D.

| 41° 45' N; Lon. 87° 32' W; from Nov. 27 to Dec. 25. | By Geo. F. Wilson, Principal of Chicago Academy, for Chicago Mechanics' Institute. |

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Monthly mean of Barometer, 28.94. Monthly mean of Thermometer, 17.33. N. B. The cistern Barometer is placed 36 feet above the surface of Lake Michigan. The external Thermometer northern exposure, and is out of the reach of the direct rays of the sun. In the column headed "Rise of the sky," 0 represents entire cloudiness—10 entire clearness. The figures 1 2 3 4 5 6 e the force of the wind, 2 denoting a gentle breeze, 4 a strong wind, 6 a violent gale, &c.
Editor's Table.

Under this head we have been accustomed, during the past year, to string together such items of information as seemed to belong nowhere else in our journal; and to treat of sundry matters in rather a freer tone than we felt at liberty to do elsewhere. We shall continue to do so; and would remark, that those who think we ought always to look "proper solemn," will find some things here, which they may skip lightly over.

Niconza Nursery. A catalogue of this Nursery, situated at Niconza, Miami Co. Ind., has been received. The Nursery numbers 80,000 grafted and budded trees—and is made up of Apples, Pears, Cherries, Peaches, Grapes, and Miscellaneous Shrubbery. The bill may be seen at our office.

Also that of the Edgar Co. Nursery, mentioned by us last month.

Our acknowledgments are due to Prof. E. Kellogg, of Williams College, for copies of Dr. Hopkin's sermon before the A. B. C. F. M. at Brooklyn, and of one by Dr. Spring, before the Mille Society of Williams College.

About 200 copies of the President's Message have reached us. It is perhaps needless to say that we have not read the half of them.

Hillsdale County, Mich. The Hillsdale Gazette gives the amount of wheat raised, and the number of sheep in that county the present season as 220,114 bushels of the former and 12,220 head of sheep in that county the present season as 220,114 bushels of the former and 12,220 head of the latter. The numbers are given in a census lately taken there.

Our Present Number. To those into whose hands the Prairie Farmer for the first time falls, it may be well to remark, that the present is not in all respects, a fair sample. It lacks the usual amount and variety of correspondence. Our correspondents seem nearly all, at once, as if by common understanding, to have deserted us in this number. Perhaps they all forgot it, and perhaps they thought best to stand back and see if we could fill out the number ourselves, without them. We presume they will be satisfied with one trial of us, and will let us hear from them hereafter.

The Penny Magazine, Part 14, is received, from W. W. Barlow & Co., filled like its predecessors with interesting matter. We are glad to see that our notices of this work have attracted notice, and brought the bookseller sales.


This is a small treatise on the government of the United States and the State governments, designed for the use of schools. It is very certain that at present our youth are either not instructed at all in the theory of their own government, or generally very poorly instructed, and it is equally certain that this ought not so to be. The work before us appears to be well adapted to the purpose intended.

Dog Labor. The Wheeling Times notices a dog belonging to a German blacksmith in South Wheeling which is somewhat remarkable for its sagacity. The blacksmith has one forge that he devotes altogether to making nails for the coarse shoes. At this a boy makes about a thousand a day, having the dog to blow the bellows which is done by a wheel attached to a crank. The dog blows when the iron is in the fire; but as soon it is taken he stops to rest, and commences once when it is in again.

Woollens at the South. A woollen factory has just been put up in Richmond, Va. The building is 420 by 45 feet, and four stories high. It is capable of manufacturing 9000 yards of flannel a week and working 210,000 lbs of wool per annum. The machinery was manufactured mostly by Henry Sheldon and Phelps & Dickford, of Worcester Mass.

The Boston Cultivator states that a pea orchard in New Jersey yielded fruit in a single year which sold for sixteen thousand dollars.

Red Water among Cattle. Mr. E. Grisley, Half-Day, informs us that he saved, as he thought the life of a fine heifer by using a recipe given the Prairie Farmer for June, 1845. This was his first year's subscription, and he certainly got a good bargain for his dollar.

One way to do it. We notice a good many articles now in circulation whose paternity belongs to the Prairie Farmer—the articles are credited to work noticed by us some time since entitled T. Emigrants' Hand Book. We should not have spoken of this, but that the fellow who compiled it work obtained five volumes of our paper, in which he called pretty liberally—but forgot to put up for the volumes, and although we have, in various ways and at various times, endeavored to "poke up the fountain of his memory, so that this mud might come to the surface—those waters still main stagnant.

We can stand one cheating, but not too much fire for our shell. We will send this N of the P. F. to the gentleman, and if he still remains unrelenting, we will chronicle the fact.

Where are the Southern Planter, South Cultivator, and Western Cultivator? They have stepped off our list very silently. They have gone together to the land of Nod.

Littell's Living Age, after a little season of suspension, is again on our table. The numbers filled as usual with choice selections from foreign and domestic Reviews and Magazines—among which we notice Lord Chesterfield's Letters, Welles' Dashes at Life, Dr. Bethune's Oration, and others.

Blackwood's Edinburgh Magazine. Seven numbers of this well known, long established, and rapid journal are received from Leonard St & Co., the re-publishers at New York. Also copies of the Westminster, London Quarterly and Edinburgh Review, whose terms will be found on our cover. They will be noticed more particularly hereafter.

Hunt's Merchants' Magazine. This work has been received by us complete from the commencement—thirteen volumes in all. We shall hereafter testify our high sense of this work by suitable notices, but for the present refer our readers to the list.
New York Advertisements. Those concerned, which we believe there are many, are referred to in the advertisements on the cover, of firms in New York city.

Recommendations of the Prairie Farmer. A great many of the letters received by us contain warm recommendations of our journal. Heretofore we have published many of these in the means of letting new readers know what others thought of the work; but believe that the minds of most men are now made that the Prairie Farmer is worthy of support; and we are daily receiving in the type of hard and soft dollars—all of which we are very willing to get. We have therefore left out of these in the present number, and hope there I not be occasion hereafter to make them public, though we are glad to find that our efforts are satisfactory.

A great number of Books and Magazines are put out for notice, most of which we are unable to review this month, but hope to get at it in due time. Presently we refer to our list on this page.

Money Deposited with Postmasters. As some of our friends choose to deposit money with their Postmasters in our favor rather than send it to us, we put below forms which must be substantially filled in to enable us to draw the money of the Postmaster here.

Money Deposited with Postmasters. Form to be sent to us of the following form:

P. O. (Date.)

Sir—Please pay the publisher of the Prairie Farmer—dollars, being the amount this is deposited by A. B. as subscription money for one year. (Signed,) C. D. Postmaster.

To the Postmaster at Chicago, Ill.

Sir—Mr. A. B. has this day deposited in this office—dollars, which you will please pay to publisher of the Prairie Farmer on presentation of his order on you for the amount. (Signed,) C. D. Postmaster.

The situation of the farmer is that in which the Almighty placed his people in their days of comparative innocence, and to that situation many of the best of which we have any knowledge, whether in the United States or in the old world. Many of them are too well known to require more than the mention of their names. Others, though not as well known, are equally excellent. Samples may be seen at our office; and subscriptions paid for will be cheerfully forwarded.

Electric Culture. Some time since quite a sensation was produced by certain announcements of which a young man in the place to whom they addressed their inquiries, as to whether the crops were better where the poles and wires were placed than elsewhere. His reply was—"Well, the crop may be better, considering the additional pickle glue it got besides the wires, but he could not say there was any difference in it."

Sounding Names. The Boston Olive Branch tells a good story of a lady who seeing some ornamental trees advertised under a new and strange name, sent and bought them; but after having them nicely planted out, discovered that they were all balm Gilead—a tree, which above all others being her abhorrence—she had just rooted out from her ground. It is well to look beyond a name.

LIST OF JOURNALS, Literary, Agricultural, and Scientific, exchanging with the Prairie Farmer.


Albion, $5 New York, Weekly.
American Journal of Science and Art, (Stillman's) 5 New Haven, Conn. Monthly.
Boston Medical and Surgical Journal, 2 Boston, Weekly.
North American Review, 2 New York, Quarterly.
Knickerbocker, 2 Boston, Weekly.
Knickerbocker, 2 Boston, Weekly.
Penny Magazine, 2 Boston, Weekly.
Spirit of the Times, 2 New York, Weekly.

* Published in Parts, at 25 cents each. † Republished.
2 In 21 Parts, at 25 cents each.

These publications are all—each in its particular line—the best of which we have any knowledge, either in the United States or in the old world. Many of them are too well known to require more than the mention of their names. Others, though not as well known, are equally excellent. Samples may be seen at our office; and subscriptions paid for will be cheerfully forwarded.

Quincy's Address.
### Chicago Prices Contents. Prospectus. [Jan.]

#### WHOLESALE.

**PROVISIONS.**

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef</td>
<td>$100</td>
</tr>
<tr>
<td>do. do.</td>
<td>$100</td>
</tr>
<tr>
<td>Pork</td>
<td>$100</td>
</tr>
<tr>
<td>do. Mess</td>
<td>$100</td>
</tr>
<tr>
<td>Lard</td>
<td>$15</td>
</tr>
<tr>
<td>Butter</td>
<td>$1.50</td>
</tr>
<tr>
<td>Cheese</td>
<td>$0.90</td>
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</table>

#### RETAIL.

**SUNDRIES.**

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hide, dried</td>
<td>$1.25</td>
</tr>
<tr>
<td>do. green</td>
<td>$2.43</td>
</tr>
<tr>
<td>Feathers</td>
<td>$0.25</td>
</tr>
<tr>
<td>Beans</td>
<td>$0.75</td>
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<tr>
<td>Cranberries</td>
<td>$0.15</td>
</tr>
<tr>
<td>Potatoes</td>
<td>$0.25</td>
</tr>
<tr>
<td>Onions</td>
<td>$0.40</td>
</tr>
<tr>
<td>Wood</td>
<td>$0.25</td>
</tr>
<tr>
<td>Eggs</td>
<td>$0.20</td>
</tr>
<tr>
<td>Flax seeds</td>
<td>$0.85</td>
</tr>
<tr>
<td>Turkeys</td>
<td>$0.50</td>
</tr>
<tr>
<td>Geese</td>
<td>$0.31</td>
</tr>
<tr>
<td>Chickens</td>
<td>$0.10</td>
</tr>
<tr>
<td>Barrels</td>
<td>$0.69</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Item</th>
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</thead>
<tbody>
<tr>
<td>Wheat, winter</td>
<td>$0.75</td>
</tr>
<tr>
<td>do. spring</td>
<td>$0.65</td>
</tr>
<tr>
<td>Oats</td>
<td>$0.25</td>
</tr>
<tr>
<td>Col. shelled</td>
<td>$0.31</td>
</tr>
</tbody>
</table>

#### GRAIN.

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flax</td>
<td>$0.25</td>
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</table>

#### SUGAR.

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butter</td>
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#### GRAPE AND FIELD SEEDS.

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>Blue Grass</td>
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</tr>
<tr>
<td>Red Top</td>
<td>$0.25</td>
</tr>
<tr>
<td>Red Clover</td>
<td>$0.12</td>
</tr>
<tr>
<td>Dried Apples</td>
<td>$0.20</td>
</tr>
<tr>
<td>Lard Oil</td>
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#### LUMBER.

<table>
<thead>
<tr>
<th>Item</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Boards, 1st quality</td>
<td>$0.14</td>
</tr>
<tr>
<td>do. 2nd quality</td>
<td>$0.19</td>
</tr>
<tr>
<td>Flooring and siding</td>
<td>$0.12</td>
</tr>
<tr>
<td>Lath</td>
<td>$0.25</td>
</tr>
<tr>
<td>do. board</td>
<td>$0.70</td>
</tr>
<tr>
<td>Shingles</td>
<td>$0.75</td>
</tr>
<tr>
<td>Sash—8 by 10</td>
<td>$0.87</td>
</tr>
<tr>
<td>Square timber</td>
<td>$0.69</td>
</tr>
</tbody>
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#### FLOORS AND FIELD SEEDS.

<table>
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<tr>
<td>Barrels</td>
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**APOLLO**

In consequence of New arrangements, we are unable this month to get in all our advertisements. The next month's cover will be double the present size, when we shall have room for all.

### CONTENTS OF THE PRESENT NUMBER.

2. I LUMBER.
3. Dried Apples i^bush 1 50.00.
4. White Fish do 5.50.
5. Salt $bbl 1 75.00.
6. SUNDRIES.
8. GRAIN.
9. Corn, shelled.. do 33.
11. Hides , dried ^16.
13. PROVISIONS. $ cts.
14. Flour, superfine $ bbl 1 30.00.
15. Casseroles and cream $1.
17. Hides , dried ^16.
18. Corn , shelled.. do 31.
20. SUNDRIES.
22. Corn , shelled.. do 31.
23. Oats.. do 25.
24. GRAIN.
25. Wheat , winter , ^bush 75.
26. do. fine .. do 300.
27. Flour , superfine $ bbl..... 350.
29. SUNDRIES.
30. Hides , dried ^16.
31. Corn , shelled.. do 31.
32. Oats.. do 25.
33. GRAIN.
34. Wheat , winter , ^bush 75.
35. do. fine .. do 300.
36. Flour , superfine $ bbl..... 350.
37. Butter do.......12.
38. SUNDRIES.
40. Corn , shelled.. do 31.
41. Oats.. do 25.
42. GRAIN.
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44. do. fine .. do 300.
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77. Oats.. do 25.
WINE MAKING FROM NATIVE GRAPES.

BY D. LATHROP.

MESSRS. EDITORS: If any of your numerous correspondents or readers of the Prairie Farmer know any thing of the properties of the native wild grape of Illinois, for wine making, they would confer a favor on one at least, by communicating the same to you for publication. I am of the opinion an excellent wine may be made from them, and that it would be far better to make all the wine we use for medicinal and sacramental purposes than to purchase the foreign wine. I have several experiments in progress with the juice of the above mentioned grapes, some of which I think bids fair to produce a good article. I have supposed the grape to be deficient in saccharine matter, and have supplied that deficiency with sugar. My experiments are all by weight and measure, a register of which I have kept, and will give you, together with the result, if you think the matter worthy of notice.

La Salle co. III. January, 1846.

The native grape referred to by Mr. Lathrop is, we suppose, the frost grape, vitis vulpina, which is the only wild grape we have seen in this State—although we believe there is more than one variety of it. Are there not larger and better wild grapes in the south of this Slate than the native wild grape of Illinois, for wine making, they would consider as of incalculable value to the farming interest, will some time since of the rowing together a few thoughts in relation to the first introduction of the steel plow in the West, which I will now attempt to do.

That there has been improvement made in the plows used on our prairies within the last six years, of inestimable value to the farming interest, will be denied by none who have had sufficient acquaintance with the matter to judge; and that the important result has been gained through the efforts of any one individual exclusively, will, I presume, be claimed by none. Indeed, among the half dozen of our prominent plough manufacturers within the bounds of the Union Agricultural Society, who have, with such commendable spirit and perseverance, aided in bringing out the invaluable implement which now blesses many of our farmers, it is hard to make distinction. Each is entitled to honor greater than the conqueror of armies. Mr. Lane of Will county, Messrs. Pierce, and Scovill & Gates of Cook, Jones of Dupage, the lamented Bristol, with Gurnell & Renwick of Kane, and among the rest your humble servant would claim a place. In the first place every farmer should have a good time piece, and then in the second place he should plan out his time systematically, so as to make room for the improvement of the mental faculties entrusted to him. I believe there is not a farmer in this western country that cannot with proper management obtain at least two hours out of the twenty four, to devote to the cultivation of his mind; and many can go as high as five or six hours out of the twenty four, and still not encroach on their working hours, especially in the winter season.

I fear that many such, that plead their want of time to read, waste, they know not how, from one to three hours in every twenty four, in doing in bed after the wants of nature have been fully gratified, or for the want of a proper division of their time, or a little energy or perseverance, in spending said time to the best advantage, which would be ample time to read the Prairie Farmer through carefully every month, and a large amount of other profitable reading besides.

Supposing we just ask ourselves the questions— What is done with my time from six until nine in the evening, and then again from four until seven o'clock? One friend of mine, whose estate was in the country, which he had purchased for one thousand dollars, and which was let at five hundred dollars a year; in the spring of 1843 the proprietors of the Elgin plow factory, Mr. Renwick and myself, negotiated through Mr. I. B. Eddy of your city, with manufacturers in Pittsburg and Philadelphia, to have a quantity of steel made of sufficient width for an entire moldboard. Owing to various delays in the manufacture and forwarding, the steel which was expected in July had not arrived, when the Ottawa fair crowded hard upon us in October. Having waited until within a very few days of the fair, and the plough arriving, our minds being made up for a steel plough for that occasion, we purchased the largest and thickest circular saw to be found in Chicago, from which we made two plows of steel face entire; one of which the first premium was awarded at the Ottawa Fair in October. About the 1st of November of that year some of the steel was received from each of the manufacturers at Philadelphia and Pittsburg, and before the close of navigation in 1845 another small lot was received by Mr. Eddy from Sheffield, England, an agent in New York finding the article coming into requisition, and having prompted manufacturers there to make and forward steel of that description. So that from those different establishments many of our prominent iron dealers at Chicago and other western towns are now supplied, and steel plate for moldboards is very extensively used in prairie soil. As to the comparative merits of steel and boiler plate, for plow moldboards, there is some diversity of opinion, I find, among farmers. Time and observation on the durability and operation of each, when made of the same form, will settle the question, and it is one deserving the attention of practical farmers.

Elgin, January, 1846.

WANT OF TIME TO READ—EARLY SOWING.

BY J. T. GIFFORD.

MESSRS. EDITORS: If any of your numerous numbers of your paper, the perusal of which gave me the greatest satisfaction, being the first of the kind that I ever read. I believe it is just the paper that every farmer in the entire West should take, —if he is able to take but one—in preference to any other. I think there are many farmers in this vicinity who are able to take it, but have not the disposition; or rather, (as they say) have not the time to read it if they should take it. This will not apply to all. I would just ask if there are not many such farmers that are criminally profligal of their time. In the first place every farmer should have a good time piece, and then in the second place he should plan out his time systematically, so as to make room for the improvement of the mental faculties entrusted to him. I believe there is not a farmer in this western country that cannot with proper management obtain at least two hours out of the twenty four, to devote to the cultivation of his mind; and many can go as high as five or six hours out of the twenty four, and still not encroach on their working hours, especially in the winter season.

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in the morning? I question whether some will not be obliged to say (if they tell the truth) that a large proportion of the above mentioned time is either spent in unnecessary sleep, or else in hanging about stores, groceries, taverns, grogshops, or in some other unprofitable place.

Now supposing every such farmer should save each fragment of spare time, and diligently and studiously apply the same in poring over a well selected library of books, periodicals (monthly and weeklies) for a term of twenty years; what a vast amount of information might he have laid up in store for his own and others’ benefit. It is my humble opinion that farmers as a general thing (myself with the rest) are very much in fault with respect to systematic farming, especially in reference to a proper division of their time. Farmers are not aware of, or are prone to forget, the fact, that they have within their possession the time, the means, (if disposed,) the physical strength, and the natural powers of mind, that can be cultivated to almost any extent, at least to that extent that they are not to be scarcity at by the best educated youth that ever graced the walls of a New England college.

Now concerning my crops. I have only been in the West long enough to raise two crops of wheat—the first not worth noticing. The second I sowed on ground that I stumbled in, in the fall of 1844, which I cut last harvest. It yielded me about a bushel to nine sheaves. In the spring of 1845 I sowed some hedge-row spring wheat, which produced about 25 bushels to the acre. I think I sowed the fore part of March, two bushels to the acre. I see that some of your correspondents recommend planting corn as early as possible. I believe it will not do every season. Those that planted the earliest last spring, in this vicinity, almost entirely failed, as their corn was cut down two or three times with the frost.

I am of the opinion that there will be a scarcity of fodder in this neighborhood in a few years, unless farmers come upon some plan that will produce more feed than I have seen yet. I have noticed several pieces of tame grass, but none of them appear to do well. It is probable this is owing to bad management. What kind of feed would millet make for cattle? I see it is highly recommended for sheep. Will some one of your subscribers give his experience in growing corn sowed broad-cast and harrowed in purposely for provender—the amount used to the acre, the time of sowing, &c? Will some one also please give through your columns his method of making a dwelling house out of unburnt brick—the probable cost, one story high, fourteen by twenty feet on the ground?

A Reader of Pr. Farmer.

Walworth, Wisconsin, Jan. 1846.

An orchard in Westchester county Pennsylvania, contains 20,000 apple trees, which have yielded the present year about 4,000 barrels of apples, which are readily sold for six dollars per barrel in Philadelphia, for exportation to England, where they are expected to command $12 to 20 per barrel. They are the Newton Pippins.

REVIEW OF THE NOVEMBER NUMBER.

Messrs. Editors: Where is your reviewer? Self-constituted, here. November No. received here 10th December. Who did it?

“Farmers’ warehouses.” Ask the “forty thieves” of the Wisconsin Legislature why such warehouses were not established years ago. Any “banking privileges” tucked under your wheat sacks? Look out, Messrs. Southport farmers, that you don’t get Sweet-ened in the operation.

“Winter management of sheep.” Mr. Morrell should be voted an annuity for what he has said on this subject, if only for the attention which his remarks are calculated to awaken on the subject of feeding, as applied to all manner of stock.

“Wire Fences.” No go! Too many posts—too much iron—too little fence.

“Agricultural Fairs.” Encourage Wisconsin in getting up “such doings.”

“Southern Illinois for Wheat.” I fear you ploughed too “shallow” when you ploughed no deeper for the causes of wheat failure. Are there no good farms in Southern Illinois? I think I’ve seen some there who failed in their wheat crops, and ploughed well too.

“Fattening Hogs.” Worth at least one year’s subscription to the farmer. But I am so exceedingly dull that it is by no means “obvious” to me why corn boiled soft in the grain is not as soft, as easily digested, as nutritious, containing as many of the essentials to make fat, and as readily digested, as though it were first “ground” and then cooked soft. If so “easily explained,” give it a little “further remark.”

“Tom Jones on Wheat culture.” Friend Chur- chin, did you ever rotate corn, oats, and wheat, (wheat following the oats) for a few years in succession? If not, try it and write again.

“Horticultural Festival.” If the time of the exhibition was taken “up in eating fruit,” &c. I think your “iron is hot” enough, that you’ll have no difficulty in getting “strikers” enough to help you.

“Coleman’s European Agriculture.” I say now, had thee rather write about the “Galway women” and other women in general, or about “European Agriculture?” That “natural difference” of thine. “Too bad!

“Wealth raising compared with cows.” Try your cultivation over again, brother farmer, or folk’s might think you were looking through cow-skin spectacles, and think ones at that.

“Carlyle Truth Teller.” “By their fruits ye shall know them.”

“Sweet Potatoes.” How I would like to manage myself into an invitation to dine with you occasionally in “sweet potatoe time.” I shall certainly try your plan of raising the “long roots” in this northern country, and report in proper time. Do tell us more about it.

“A Pencil sketch.”

“That strain again (!!!) it hath a dying fall; Enough! No more!!

‘Tis not so sweet now as it was before.”

“Okra.” Pretty good, but not quite equal to the “ginmewine” berry. I’ve tried it, “off and on” for the last twenty years.
"Fall Ploughing." Why is it being abandoned by old farmers at the east? My limited experience is decidedly in its favor.

"The Potato Rot." A subject of very great interest and importance, on which I hoped to have found more in the present number of the Farmer. Many causes are assigned for this terrible malady. There are one or two of them which are likely to lead farmers astray for the next season. They are erroneous. I therefore state them, with the hope that they may divert the attention of those believing them into other channels. I do not pretend to tell what is the cause—only what is not.

1st. The opinion often expressed, that potatoes grown upon dry land will not suffer, is an error. I raised two acres on dry, gravelly land. More than half rotted. 2d. The notion that the rot is occasioned by the potato's having "run out," and that a resort to the ball for seed will remedy the evil, is equally erroneous. I keep always a nursery of seedling potatoes. This year I planted nearly an acre of land with potatoes two years from the ball (the present crop three years old.) They have rotted quite as badly as my old potatoes. I have lost about three fourths of them, and of my whole crop some 35 acres, (of which about one half were Neshanocks.) I think I shall not save a single Neshanock, either seedling or other. Let those, then, who have ground their hopes of a sound crop upon either of these sources, look to some other, or they will be disappointed. It is true, however, that on either of these sources, look to some other, or

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HEDGE LOCUST—PRAIRIE GRASS.

MESSRS. EDITORS: I wish to make one enquiry of you. Is there such a shrub as thorn locust—a thing of the locust species, different from the honey or black locust, that will make a good hedge? I have heard two or three reports of some man in Dodge county, who with such a named shrub has made a hedge of three years' growth that would turn cattle, and defy the veriest land pike in all Suckerdom. I think, however, there is too much turn cattle, and defy the veriest land pike in all Suckerdom. I think, however, there is too much extreme. I have kept sheep four years in one place, and have never seen on the prairies and particular locations to which our remarks allude to would not apply, we are satisfied that they are true as regards most of the country spoken of. Our correspondent will see from his own letter that his location is strictly an exception.

The next table, showing the nutriment of a large number of articles of food, is translated from the French, by W. Rham, of England, and is said to be "the result of the experiments made by some of the most eminent agriculturists of Europe in the actual feeding of cattle." Mr. Rham accompanies it with the following observations:

"Allowance must be made for the different qualities of the same food on different soils and in different seasons. In very dry summers the same weight of any green food will be much more nourishing than in a dripping season. The standard of comparison is the best upland meadow hay, cut as the flower expands, and properly made and stacked, without heating; in short, hay of the best quality. It yields me 75 bushels and 6 quarts. It took me one day to drag it each time, two days to plow it, and four days each time to hoe it. It is fenced all round with rail fence six rails high, stacked and riddled.

The whole that has been raised on my farm for the year past is about as follows: Winter wheat 349 bushels, spring wheat 194 do., corn 1500 do., potatoes 425 do., oats 590 do., peas 9 do., beans 2 do., wool 82 lbs.

Sugar Grove, January, 1846.
by enumerating 252 plans which they eat with 'relation to the fondness of sheep for variety of food, I PETRI confirms what has already been said in relation to the fondness of sheep for variety of food, by enumerating 252 plants which they eat with

<table>
<thead>
<tr>
<th>Plant</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Wheat bran</td>
<td>45</td>
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<tr>
<td>Peas</td>
<td>45</td>
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<tr>
<td>Beans</td>
<td>45</td>
</tr>
<tr>
<td>Wheat bran</td>
<td>105</td>
</tr>
<tr>
<td>Wheat and oat chaff</td>
<td>167</td>
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"Lattermuth hay is good for cows but not for horses. Raw potatoes increase the milk of cows, but they must be given with caution, and only a few at a time, till the stomach is accustomed to them; boiled, they fatten every kind of stock; mixed with cut chaff, they are excellent for horses; 14 lbs. of boiled potatoes will allow of a diminution of 8 lbs. of hay; hence their value in this way is calculated.

"Every kind of cattle eat turnips except horses. Turnips will feed store pigs, but they will not fatten them. Carrots and parsnips are excellent for horses, and, when boiled, will fatten hogs. Rutabaga is liked by horses; it makes their coats fine, but it must not be given in too great quantity, or it will gripes them."

In the German Farmer's Encyclopedia, PETRI, an honorary and corresponding member of many societies for the promotion of agriculture, contributed a valuable paper on "The keeping, care, and breeding of Sheep," in which will be found the following table of the comparative nutriment of various kinds of food.

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<th>Plant</th>
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<tr>
<td>100 lbs. aromatic meadow hay contains 50 lbs. nutritious matter.</td>
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<tr>
<td>100 &quot; clover hay, 65 do</td>
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<tr>
<td>100 &quot; tender vetch hay 65 do</td>
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<tr>
<td>100 &quot; wheat straw 14 do</td>
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<tr>
<td>100 &quot; corn straw (stalks) 20 do</td>
<td></td>
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<tr>
<td>100 &quot; barley straw 47 do</td>
<td></td>
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<tr>
<td>100 &quot; oat straw 25 do</td>
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<tr>
<td>100 &quot; pea straw 25 do</td>
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<td>100 &quot; vetch straw 20 25</td>
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<tr>
<td>100 &quot; millet straw 26 do</td>
<td></td>
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<tr>
<td>100 &quot; chaff 27 do</td>
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<tr>
<td>100 &quot; potatoes 25 do</td>
<td></td>
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<td>100 &quot; cabbage turnips 25 do</td>
<td></td>
</tr>
<tr>
<td>100 &quot; yellow turnips 25 do</td>
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<tr>
<td>100 &quot; white turnips 12 do</td>
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<tr>
<td>100 &quot; beets 16 do</td>
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<td>100 &quot; corn 95 do</td>
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<td>100 &quot; wheat 95 do</td>
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<td>100 &quot; rye 90 do</td>
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<td>100 &quot; barley 82 do</td>
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<td>100 &quot; buckwheat 78 do</td>
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<td>100 &quot; oats 70 do</td>
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<tr>
<td>100 &quot; peas 93 do</td>
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<td>100 &quot; vetches 93 do</td>
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<tr>
<td>100 &quot; wheat bran 48 do</td>
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<tr>
<td>100 &quot; rye bran 46 do</td>
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</tbody>
</table>

PETRI confirms what has already been said in relation to the fondness of sheep for variety of food, by enumerating 252 plants which they eat with salutary effects, and 39 others of which they partake, of an injurious tendency.

He gives the following as examples of average of fodder for a ewe in the month of January, when the yearning commences in March:

1st day—morning 1 lb. good oat straw evening 1 " good hay or clover
noon 4 " good hay or clover

2nd day, morning 1 millet straw evening 1 " barley straw
noon 2 " potatoes with 4 oz. chopped straw, and 4 oz. of oats

3rd day, morning 1 " hay evening 1 " wheat, oat, barley or buckwheat straw
noon 1 " hay

4th day, morning 1 " summer straw evening 1 " winter straw
noon 1 " chopped straw, with 3 oz. oats and 3 oz. bran, moistened with water

5th day, morning 1 " hay evening 1 " winter straw
noon 2 " potatoes with 1 lb. chopped straw

6th day, morning 1 " hay evening 1 " winter straw
noon as in 4th day

ECONOMY—WHAT IS IT?

It is not economy to burn green wood. The water contained in the wood requires a certain proportion of fuel to drive it off, which must be done as combustion proceeds; so that there is not only a loss of so much heat, which instead of passing into the room passes up the chimney, but the extra hauling amounts to about one sixth of the whole.

It is not economy to delay banking the house till the ground freezes, and the winds are left to play their pranks under the floors, through the cracks of which they will ever be whistling during the whole winter.

It is not economy to keep a smoky house. The smoke blackens the paint, plastering, or papering—if there is any; at any rate it gives a dingy and disagreeable tinge to the whole interior—spoil the complexion of the women and children, which is worth something—causing weak eyes and uneasy throats, a great wear and tear of temper, and thus makes life more uncomfortable than there is any need of.

It is not economy to keep a cold house. Modern ways of economizing fuel are so many and cheap, and it costs so little more to make a house tight than it does to leave it open, that cold feet, colds, inflammation of the lungs, and twenty other diseases—to say nothing of the discomfort endured—are paid for too high, when their price is a little neglect and want of enterprise in fitting up an abode to prevent them.

It is not economy for children and the females of a family to wear calico or other light material for dress in winter. Their price may be a little less, but the horrible deaths occasioned by their taking fire, of which the papers are full every cold season, a thousand times overbalance this little advantage; besides, woolen stuffs are plenty,
SPIRIT OF THE AGRICULTURAL PRESS.

Moss on Roofs. The Amherst Express says that white lead, sprinkled on a roof so as to be washed down by the rains, effectually kills the moss which grows upon them and causes the decay of the shingles. Would not salt do the same?

Improved Farming. A good many people imagine that all the talk about improvement in farming is a mere fancy matter, fit only to be attended to by men of wealth and leisure. On the contrary it is in good part a matter of dollars and cents, as the following extract from a letter to the New York Farmers' Club, by a farmer in Yates county, will show.

"Eighteen years ago, Yates county was not more than one half of it considered a wheat-growing county, and the rest of it hardly fit for grazing. It has abundant water power.

It has been no uncommon thing to raise thirty and forty bushels of wheat on an acre—this has been an average of many crops this season. In one instance fifty seven bushels of spring wheat was raised on one acre, measured by a surveyor's chain. In 1844 three acres produced 135 bushels of the Hutchinson variety, a bearded wheat. The lands which ten years ago would not produce ten bushels an acre are now giving twenty to twenty-five. The soil is chiefly clay, loam, sand, and marl. Barley has been raised among us in great quantities, and pays better than wheat. Corn and potatoes are chiefly consumed in our own county. Some farmers have undertaken to raise carrots—the drought has discouraged them.

When I began on my farm, white beans would not grow on it, and I found wheat on it at about eight bushels an acre. By plowing eight inches deep, by good manuring, &c. I have had thirty bushels of wheat from an acre, forty seven of barley and instead of twenty bushels of shelled corn to an acre, I have forty. I have 300 bushels of potatoes from an acre, and from two and a half to three tons of hay per acre. I have used plaster with great advantage."

Canada Thistles. This pest is gradually finding its way into the western country, and we are informed that in some places no effort is made to stay it. Every farmer within ten miles of a patch of it had better spend a week for details some of the ways in which it may be destroyed.

Some one says, the water in which potatoes have been boiled, sprinkled over plants, completely destroys all insects in every stage of their existence, from the egg to the fly.—N. E. Farm.
A statement of a few experiments may place this in a clearer light:

Daniel Wilson, of Covington, Genesee co., N. Y., had a patch of Canada thistles so dense that the roots formed a complete mat. ‘He plowed the ground at regular intervals of four weeks for four successive times, when after the fourth plowing, there was not a thistle to be seen, and the ground was in fine tilth for sowing wheat, loose and nice enough for any garden vegetables; and now, July, 1833, there is a most luxuriant crop of wheat on the old thistle bed, and not a solitary thistle has been found, although it has been carefully examined by those interested in testing its efficacy.’

‘I commenced about the first of June,’ said the late V. Yeomans, of Walworth, Wayne co., N. Y., ‘and ploughed them about once a month, and harrowed them as often, till about the first of October. The result is, their entire destruction, except a few places where the ploughing could not be well done.’

Augustus D. Ayers, of Romulus, Seneca co. N. Y., says, ‘The field contained six acres, principally occupied with Canada thistles, on which a Florida war had been waged for twenty-five years or more, with little prospect of success or termination. In the latter part of May I broke it up, plowed the ground deep four times, and harrowed it in the heat of summer. The result was, it killed the Canada thistles, and my ground is in good condition for after cropping.’

An experiment of the kind I also tried myself on about four acres of Canada thistles, by causing the ground to be plowed thoroughly four times during the season. The occupant, who bought the land that year, informed me that none appeared the following season.

The importance of doing the work well, and of cutting off and deeply burying every plant, must be obvious, and the superiority of throwing them so far under the surface as to require a month for them to creep out, over a mere skimming of the surface with the hoe, or cutting them off above the surface with the scythe, must be also evident. A correspondent of the Genesee Farmer, (vol. 4, p. 324.) killed a patch by hoeing to the surface twice a week; but he worked from spring till nearly the first of eighth month (Aug.) before each successive three days’ crop began to diminish; after which, by closely following their retreat, they rapidly disappeared. But they had a much better chance to breathe in this case, being a part of the time above ground, than when kept wholly under by a deep plowing as soon as they made their appearance above the surface. Such treatment would prevent the necessity of taking up and burning ‘every plant and vestige of the root,’ as Dr. Smith recommends in the article above alluded to, which, in large patches, where the roots often run several feet below the surface, would be wholly impracticable; or of pulling up every shoot as soon as it appears, ‘for seven or eight successive years,’ as Loudon recommended—the phrase “as soon as it appears,” meaning probably, from one week to one month, or more; for it is impossible for any plant to live wholly beneath the surface for half that number of years.”

Deep Plowing. During the past year we have on several occasions drawn attention to the subject of deep plowing; and our observations have been confirmed by conversations with others. The Albany Cultivator has the following.

‘Dr. D. H. Robinson, of Farmington, Ontario co. N. Y., plowed a piece of grass land late in the summer for wheat, to the depth of nine or ten inches. This was thoroughly harrowed, with a light dressing of well-rotted manure, and the seed sown upon the inverted sod. The product was thirty five bushels per acre on land where twenty are usually considered a heavy crop. Another skillful farmer finds so much benefit from the mixture of the subsoil, that he considers a decided advantage would result, so far as fall wheat is concerned, if six inches of the surface of his land were entirely removed and carried off.”

Wild Ducks. The Maine Farmer asks the question why the wild ducks which inhabit our waters cannot be tamed, so as to make valuable improvements on the present breeds; and states that the wood duck has been domesticated.

We have forgotten how many species of duck we observed in the settlement of this country, but think it as many as twenty. Some of them—among which are the wood duck—are both beautiful in plumage and delicious in flavor and would be a valuable addition to our poultry yards, if the domesticking could be successful.

Value of a little Knowledge. A new article has been of late discovered in Maine, called ‘the American Metallic Lustre,” which seems to be unequalled for cleaning and polishing metals. Its discovery, as related by the Maine Farmer, was on this wise. A young man from Boston, who had paid considerable attention to geology and chemistry, was traveling for the purpose of obtaining subscribers to a newspaper, when, passing through the town of Newfield, he noticed some bricks of a very peculiar color. He traced up the bricks to their source to a newspaper, when, passing through the town of Newfield, he noticed some bricks of a very peculiar color. He traced up the bricks to their clay bed, and purchased the farm on which it was situated, for which he paid fifteen hundred dollars, went to Boston, and sold half of it for four thousand dollars. Verily knowledge is better than strength.

A Horse Tax. The State of Maryland, with the view of improving its horses, or with some other view, has, it seems, imposed a tax on stallions. The effect is said to be in the highest degree beneficial. No man cares to pay a tax on a horse which is not worth something; and as a consequence, the scrubbs are disappearing, and their place is in process of being supplied by first rate animals, to the great benefit of the farmers, who now have access to the best blood of the state.

As the brilliancy of the diamond is increased by friction, so is truth by investigation.
Among the triumphs of civilization, there are but few which mechanism has given us more useful than the pump. Unlike many other of our mechanical improvements, this is not a modern invention; it having been in use among the civilized nations of antiquity. Mr. Ewbank regards its use in fact as marking the transition from barbarism to civilization more truly than any other implement. He says that in Germany, France, Holland, Great Britain, and the United States, it is common. In Spain, Portugal, Mexico, and South America, its use is very limited. In Turkey, Greece, and Egypt it is still less so; while in Russia it was formerly very rare, but is now becoming common, as the people advance in knowledge. Nothing, indeed, so truly marks the progress of a people, as the improvement in labor saving machines among them.

There are a great variety of pumps in use, applicable to the different purposes for which they are employed; all, however, being constructed on the same principle, and designed to take advantage of the same fact, viz: that the pressure of the atmosphere on the surface of water, will cause it to rise in a tube, from which the air is extracted, to the height of 32 feet. One of the simplest forms of the pump is that represented in the first figure, which is merely a metallic tube, with two valves—the first attached to the handle, and represented as shut; the second made stationary at O, and represented as open. Supposing the pump empty, and the end of the handle elevated, the tube will of course be full of air. On lowering the handle, the upper valve is raised in the tube, and with it comes all the atmosphere contained in the tube between the two valves. The pressure of the atmosphere on the water in the well forces it up in the tube, to fill the vacuum when the air is displaced. In the beginning of the operation, the upper valve is a mere sucking machine, designed to exhaust the air; but very soon it works in the water, which rushes up and escapes, as shown in the figure.

This pump is a very cheap and neat implement for household use; and even though the well may be very convenient to the house, will save its cost many times over in a year, by dispensing with running to and from the well. The pump may be placed in a sink in the kitchen, wash-room, or where it is most wanted, and the lead pipe connected with its lower extremity, extended to the spring or well, even though it should be one or two hundred feet distant. It must not be more than 32 feet perpendicular from the top of the pump to the bottom of the well; and in practice it is not common to place this pump more than 26 feet from the top of the water. In putting down the pipe also, one or two things must be regarded. If the pipe is carried any distance horizontally, it should be buried in the earth out of the way of frost; and it ought also to be so far inclined toward the lower end, as to allow the water to drain out of it. The water which stands long in lead pipe is neither palatable nor wholesome. Small pumps of this sort, very neat in their construction, are for sale in this city. Those made of iron cost about 5 or $6, and those of copper $8. They are equally proper for use in wells or cisterns.

It is known, however, to those who have used them, that in a neatly constructed article of this sort, that when the pump is filled with water, unless some mode is adopted to empty it, a column of it will stand in the tube and pump for an indefinite time, and in cold weather become frozen, to the damage of the pipe, and delay in procuring water. To remedy this inconvenience, a variety of expedients are devised. The one in the cut is to have a small pipe connecting the lower tube with the tube of the pump between the valves, and furnished with a cock, as shown at C. By turning this cock, the water is emptied from the pump, and also from the pipe below. Others are so constructed as to prevent the valve O from shutting close, by pressing the sucker upon a pin attached to it. This is the mode used in the pumps alluded to for sale here; but it is ineffectual, unless in careful hands; and when a whole family use a pump it will be overlooked. The chief danger is not, after all, from water freezing in the pump above the lower valve, as that can be thawed out very soon; but in
the pipe below, which cannot easily be reached, and which is easily bursted. A good way is to make a small gimlet hole in the pipe below, which may always be left open, and which will not materially injure the working of the implement, but which will empty the pipe always when not in use. The chambers of the pump can be emptied by the ordinary means.

The second cut is a simple representation of the forcing pump. The water is raised in this case in the same manner as before; but when it has reached the chamber, instead of being thrown out at the nose, as in the other case, it passes into an additional pipe, which is supplied with a valve to prevent its return, and which may be continued upward to an indefinite length. This pump must be like the other placed within about 28 feet of the water. It is used frequently to convey water to the upper rooms of a house, to water gardens, and in large buildings as a fire engine, to which use it is peculiarly applicable. A neat article in this line is the stomach pump, which is one of the triumphs of modern medical practice.

**MAKING WHITE LEAD.**

The Albany Gazette states that not less than 55,000,000 pounds of lead have been shipped from that place the past year. This lead is carried South and East; and a part of it, after being manufactured into white lead, is brought back to the West to the place of starting. It is singular that no one, up to the present time, has thought of commencing the manufacture of this article here on the ground, instead of suffering it to be carried fifteen hundred miles back again—thus taxing the consumer a considerable sum for more transportation. Why not save this amount, besides retaining the profits of the labor and capital necessary to carry on the business here among us. The manufacturing process is not a difficult or complicated one, as may be seen by the mode as laid down by a correspondent of the N. Y. Farmer and Mechanic:

"The lead to be converted into White Lead is first run into sheets about the thickness of the foil which lines tea chests. Each of these sheets is then loosely rolled up and put into a glazed earthen pot, holding about two quarts, along with a small quantity of strong vinegar. These pots to the number of many thousands are then built up into a large pile, consisting of alternate layers, first of pots loosely covered with boards, and then a layer of horse marrure, and then pots again—until the pile is carried up to the rude roof which shelters the heap from the weather. The gases which this manure throws off while fermenting, together with the moderate heat and the acid of the vinegar, so act upon the thin sheets of lead, that at the end of three or four weeks, it is taken from the pots completely oxidized—in which state it is known as White Lead. This is subsequently washed to free it from impurities, and, being pulverized by grinding, is ready to put up for market. The two establishments of the Messrs. Conklin & Co. yearly manufacture about sixty thousand kegs of oil ground white lead, each keg containing twenty-five pounds."

**CEMENT ROOFING.**

A correspondent of the Louisville Journal gives the following as his mode of making a roof which he says cost him a third less than one made of shingles—that it will not take fire from sparks or cinders, is entirely water proof, and with an outlay of five dollars once in three or four years will last thirty years. We have doubts whether it would stand the extremes of the climate as far north as this.

"On the rafters I use a sheathing of plank, laid close but not joined; then from one eave to the other, over the ridge, I draw and tack down a strip of strong tow or cloth—cotton canvas. I prefer such as is made by James Anderson & Co. Tack the cloth close to the eaves, and a tack once in three inches, all along the edge over the roof. These strips of cloth I lay down, letting the edges overlap about one inch, until the whole roof is covered. I am not very sparing of tacks, but put them in cross rows at intervals of four or six feet from the eaves to the ridge.

"The cement is prepared as follows: Melt in a kettle 8 lbs. resin and 8 lbs. tallow; then, in a tub standing by, mix it with four gallons North Carolina tar. (Be careful and not get coal tar, as it will rot the canvas.) Then stir in two quarts of strong vinegar. These pots to the number of many thousands are then built up into a large pile, which lines tea chests. Each of these sheets is then first run into sheets about the thickness of the foil, and then pots again—until the pile is carried up to the rude roof which shelters the heap from the weather. The gases which this manure throws off while fermenting, together with the moderate heat and the acid of the vinegar, so act upon the thin sheets of lead, that at the end of three or four weeks, it is taken from the pots completely oxidized—in which state it is known as White Lead. This is subsequently washed to free it from impurities, and, being pulverized by grinding, is ready to put up for market. The two establishments of the Messrs. Conklin & Co. yearly manufacture about sixty thousand kegs of oil ground white lead, each keg containing twenty-five pounds."
AMERICAN RAILROAD IRON. The Sunbury American thus describes the manner in which the iron T rail for railroads is manufactured at the Montour works, Danville, Pennsylvania:

"In order to make the T rail, the iron is first rolled through one set of rollers into heavy flat bars, about three inches in width, and three fourths of an inch in thickness. These bars are then cut into pieces, something less than three feet in length. A number of the pieces, probably 15 or 20, are then placed together, making a square bundle or faggot, weighing 400 pounds. This faggot is then placed into one of the furnaces and brought to a white heat, when it is drawn out on a small iron hand-cart, and conveyed to the rollers. The great weight of these bars, when it is drawn out on a small iron hand-cart, and conveyed to the rollers. The great weight and intense heat of such a heavy mass requires considerable skill as well as strength, in passing it through the rollers. The bar, as it passes through, is caught and supported by iron levers fastened to chains, that are suspended on pulleys from above. The first bar passes through the square grooves of the rollers three or four times, before it is run through the different grooves that gradually bring it to the form of the edge or T rail, as seen upon our railroads. Through the last grooves it passes five or six times before it is completed. It is then placed on a small railway carriage, on a track 18 feet wide, and hauled up about 20 feet, when the rail comes in contact with two circular saws, one of which is placed on each side of the railway. These saws revolve with great rapidity, and the moment the rail, still red hot, reaches them, the red sparkling iron saw dust is scattered in every direction. The rails are thus cut off square at each end, exactly 18 feet long, apparently as easy as if they were made of tough hickory wood. The rail is then dragged to the pole and left to cool, perfectly finished. The rails we saw made were intended for the Harrisburg and Lancaster road, and weighed fifty-one pounds to the yard, or something more than three hundred pounds each. These are said to be the first rails ever made with anthracite iron in this or any other country, and are, we believe, superior to any that have ever been imported.

New Reasons for Taking an Agricultural Paper. Three years since when a farmer was asked to subscribe to an agricultural paper, his reply was generally, that he had no money to pay for it, and that even if the information contained in it should enable him to double the produce of his farm several times over, it would be of no use to him, as he could not sell his produce when it was grown; and that it was useless to raise more than he could consume on his own farm.

It was pretty hard replying to this, inasmuch as the fact is obvious that poor markets make poor farmers, the main inducement to endeavors at improvement being the profit it brings into the pocket.

Now, the state of the case is changed. Crops are abundant all over the West, and their quality is most excellent. Prices for wheat, corn, oats, pork, wool, hemp, and every other thing raised by the farmer have advanced quite unexpectedly, till they have reached rates which pay him for his labor. This being the case, as a matter of course he wishes now to find out the best and easiest ways of getting the best returns on his capital. It is now an object to him to increase the product of his land and stock to the best degree. Many too are enabled by the rise in prices to extend their operations, to put up buildings, plant orchards, and do a thousand things which they would not have thought of doing a while since. They will wish to avail themselves of the best plans and most economical modes of doing all this; and as a natural result, will wish to obtain the information contained in an agricultural paper. We shall therefore expect to see the circulation of these journals largely increased.

HOW PHILOSOPHERS ARE MADE.

"About a hundred years ago there lived in Boston a tallow chandler. He was too ignorant to give and too poor to pay for his children's instruction, but he was a wise and an honest man, and there was only one book upon whose precepts he relied, as being able to instruct his children how to live prosperously in this world, as well as to prepare for another. We are told that he daily repeated to them this proverb: "Seeest thou a man diligent in his business? He shall stand before kings." In the process of time this tallow-chandler died and was forgotten. But the good seed had fallen upon good ground. One of his little boys obeyed his father's instruction; he was diligent in his business, and he did stand before kings, the first representative of his native land! He lived as a philosopher, to snatch the lightning from heaven; as a statesman, to wrest the sceptre from tyrants. And when he died, he confessed that it was the moral teachings of his father, added to the little learning he picked up in a town school at Boston, to which he owed his success, his happiness and his reputation. He did what he could to testify how sensible he was of these obligations. He bequeathed liberally to his native city, the means of inducing the young to improve their advantages, and to enable the industrious to succeed in their callings. And he erected a monument over his father to tell his virtues to another age. But the glory of the father was in the child. His son's character was his noblest monument. The examples that son set, of industry, perseverance and economy, have excited and are exciting many to imitate them. And thousands, yet unborn, may owe their success and happiness to the manner in which a text was enforced, by a tallow chandler, upon Benjamin Franklin."

Frazer says—"I certainly blame no young lady, who has been accustomed to the ordinary elegancies of life, for refusing to marry a poor man; but must beg my sweet friends to recollect, though a man without money is poor, a man with nothing but money is poorer."
EDUCATIONAL DEPARTMENT.

WESTERN EDUCATION—No. II.

Practical Difficulties to be obviated.

BY G. F. MAGOS.

In a previous number I glanced at the difficulties arising to the teacher and the school, from the want of good family government. The importance of this subject would warrant a long series of articles or the publication of a volume. I have time only to note down a hint or two respecting one or two great points.

I. Department. Very few persons seem to be fully aware how much the departure of children at school depends upon good government at home. The child petted and indulged in the family, subjected to no proper and wholesome restraint, but given up to the lawless rule of his passions and his self will, will be at the school room a pupil of whom every good teacher will be glad to be rid. Nothing is more certain than that such a child will be disorderly, disobedient, and, if he have energy enough, a disturber of the peace and a rebel. The fact is, the family is the place where the primary ideas of law and order ought to be inculcated; and if they are not inculcated there, it is not to be expected that the child, when sent to school, will be orderly and law-abiding. "A corrupt tree will not bring forth good fruit." Nay more—"the teacher, as in duty bound, endeavors to introduce ideas of law and order into a mind thus destitute of them, and to enforce obedience to just authority in a person thus utterly undisciplined, he will meet with resistance. "Such things are not insisted on at my father's house," the pupil thinks, "why should they be here?" His reasoning, reversed in form, is sound enough—if they ought to be here, they ought to be at his father's house. It is from such unfaithful and wrong-headed parents that a teacher, if ever, meets with resistance in the exercise of his duty. seditionis causa frequentissima—his boy is right, and the instructor wrong, without enquiry. Does such a parent remember that the violation of a law means the penalty too severe? Does he remember that by placing his son under the instructor, he has expressed his opinion that the instructor is a person of maturer and more correct views and judgment than the boy he has given him to instruct, and correct if need be? If the child is so much wiser and better than his teacher that he is immediately to be sided with, why place him under that teacher at all?

A few years since I had occasion to punish two pupils in the school then under my care, the parent of whom complained bitterly, saying that he was never obliged to do so at home, and did not believe there was need of it at school. I found on inquiry that these were the worst boys in town—profane swearing, lying, and petty thieving being among their cardinal virtues; and that when they were uncommonly ill-behaved, their father was in the habit of taking them apart and giving them a gentle ex-postulation, from which they quickly escaped to engage in new mischief, and laugh at their lax and inefficient parent. The history of how many a parent and child is the counterpart of this!

An experienced teacher can tell by one day's observation how many of his pupils, and who, are poorly governed, or not governed at all at home. How many family secrets are thus laid bare!

There are some parents who have correct views on the subject of family government; but fail to enforce them at home. Can such parents wonder that there is difficulty with their children sometimes at the school house? Are they doing their duty to their offspring, to their teacher, or to society? Need they wonder if the disorderly child takes courage from the parent's laxness? Is it right to compel the teacher to do the parent's duty in producing correct views and habits, and that too against the force of the parent's example?

II. Intellectual Improvement. I hazard nothing in asserting that a lawless, reckless, disobedient pupil cannot secure his highest intellectual improvement. The regulations of a school are made for the purpose of securing the progress and benefit of the pupils. I know of no other object to be gained by making rules. Now the parent who is lax in family government not only fails to secure the highest profit and progress of his children at home, (with which we have nothing now to do,) but he hinders their progress at school. There is no advancement without order; there can be little order at school if there is none at home. What parent will take the responsibility of thus frustrating the efforts of the teacher? Above all how inconsistent to blame the instructor for failing to do that which he hinders or prevents his doing. Let me say in all sincerity and earnestness, if the regulations of the school are not fitted to secure your child's progress, place him elsewhere; but in the name of consistency, in the name of justice, do not withstand by the education your laxity gives him at your hearth, the education which the teacher's authority and precepts would give him at the school room. If the educator is to work, work with him, for economy's sake, if for the sake of nothing else—not against him.

A third head on this topic I must reserve for another number.

Platteville, Wis., January, 1845.

Mr. Alfred Churchill, the School Commissioner of Kane, having made the circuit of that county, reports the following to the Prairie Messenger as among the wants and difficulties in the way of organizing and maintaining schools, viz:

First, a want of knowledge of their duties on the part of officers, and second, a want of disposition to perform them. To remedy the first, I send you for publication a partial exposition of the duties of school officers. The second difficulty must be remedied by the people.

Duties of Trustees—to meet quarterly, and of necessity if necessary, for the transaction of business to form a quorum (44).*

To appoint treasurer (45.)
To examine books, notes and papers (45.)
To lay off townships into districts suited to the convenience and security of the inhabitants of the districts so laid off, &c. (59)
To adopt by-laws directing the mode of conducting schools, &c. (59)

* The figures refer to the school law; and such parts as are not marked by the figures are my individual opinions.
To distribute interest or township funds, and the amount received from the State of the school, college and seminary fund to each district, according to the number of white children under the age of twenty-one years, residing in each district, (71, 72): not according to the number of scholars taught.

To examine teachers "touching their qualifications properly to teach orthography, reading in English, penmanship, arithmetic, English grammar, modern geography, history of the United States," and if the person sustain a good moral character, to give a certificate of qualification, which may be in the following form:

We, the trustees of town No. ——, range No. ——, east of the third principal meridian, certify that A. B. is qualified to teach a common school.

Dated at —— this day of —— 184
C. D. 
E. F. 
G. H. 

The examination must be made in the presence of two or more trustees.

Duties of treasurer in regard to schools—To visit schools from time to time, and to confer with teachers and directors. (46)

Of distribution of funds—School, college, and seminary funds, and the interest on township funds are to be distributed to each district according to the number of white children under the age of twenty-one years, residing in the district.

If the distributive share of any district "is not called for after distribution for the space of forty days, (53) said share must be loaned" for the time being (71, 72) (on demand.) Such distributive shares should never be added to the township funds in less than ten months from the time of distribution. (71)

District funds must be paid to teachers, or their order, not to directors, (74) and should never be paid to teachers unless the schedule is in proper form and correctly certified by the directors, (73) nor unless the teacher has a certificate of qualification signed by at least two of the trustees (44) or county superintendent, which certificate must have been given prior to the commencement of the school. (12)

All moneys in the hands of a treasurer belonging to a district must be paid on the first schedule presented from that district, if correct, provided it does not exceed the sum agreed to be paid to said teacher, by the directors. (73)

Money loaned "for the time being" is in fact in the hands of the treasurer, and must be considered so for the payment of teachers.

Interest which is due should be collected promptly, (31) as the trustees are liable to suits for neglect to pay teachers when called for in a legal way. (74)

Duties of Directors—Directors must be elected on the first Saturday of October. (60)

Vacancies occasioned by death, removal or neglect whereby the district loses its share of the funds: each individual who sends to school is in- liable for the neglect whereby the district loses its share of the funds; each individual who sends to school is in- liable for the neglect whereby the district loses its share of the funds.

Rule 1st. One of the directors shall serve as clerk and keep a record of all the proceedings of the directors, and record the votes of all meetings of the district, whether for electing directors or voting taxes, and shall also give notice ten days previous, of all meetings which are appointed by law, and such other meeting as the directors may appoint.

2d. Each scholar attending the school may furnish — cords of wood, for which he or she shall be credited — dollars per cord.

3d. Any scholar who shall be guilty of using profane or obscene language, or disorderly conduct in the school house, on the school house premises, or while going to or returning from school in company with other scholars, may be expelled from school or fined at the discretion of the directors.

And such other rules as may be deemed necessary as designating what books are to be used, how the school is to be governed, &c. Such rules, when adopted, are of equal force with the statute. The law is imperative that the directors see that the school house is supplied (60, 61) with necessary furniture and fuel, so that if any person should suppose himself injured for the want of its performance, on the part of the directors, of this part of their duty, might bring his action for the same, and must necessarily recover all the damage which he could prove.

And if directors fail to visit the school, or neglect whereby the district loses its share of the funds; each individual who sends to school is in- liable for the amount of his share, and may recover the same of the directors.

Directors, if not present at their election, should be notified on the day of their election in time to elect others if any refuse to serve, as no person can be compelled to serve.

If the person elected is present or notified of his election, and does not refuse to serve, it is a tacit acceptance of the office, and the person becomes liable for his acts, or if he perform a part of the duties and neglect a part, he is liable for the neglect.

Fattening Cattle. It is not often that the "reductio ad absurdum" is used as a mode of demonstration in agriculture. So good an example has occurred to me that I cannot but offer it. I had directed my manager, a young and inexperienced man, to fatten three or four steers, while kept up, instead of permitting them to run at large with the rest, (bad management, too; I hope to adopt shortly the soiling system.) "What are these!" I exclaimed in astonishment, at seeing the lean and ill-favored kine. They had been placed on the north side of a shelter, were fully exposed to wind and rain, and were up to their knees in mud, which the overseer hoped to make dry and comfortable by drawing in leaves, straw, &c. —and hoped to fatten them by furnishing abundance of corn! Enough had been wasted on them to have fattened a herd, and he could not conceive why they remained so poor! "Turn them out," said I, "till we can put up more houses." The situation had been selected for convenience of watering. S. Alb. Cultivator.
Hired Men.

All over our country, on almost every well-conditioned farm, are employed more or less persons under the above title—some for the whole year, some during the summer, and others during a short part of the season when work is most pressing. As a matter of course the subject involves no inconsiderable interests; and though it is one in which third persons have no business to meddle, yet a well-defined and rational mode of management is of no small importance here as elsewhere.

Having had some opportunity of observing several modes of conducting hired labor, we will offer a few ideas on the subject; for which, however, we ask no further consideration than they are entitled to. It is within the observation of every one, that while one man will secure a fourth more work from a number of men than another, he will at the same time secure their good will, which the other will lose; and though much of this difference depends upon individual temperament, a considerable part of it depends on a skill which may be acquired.

We have now in our eye three distinct modes of management, to which we were witnesses some years since, and which were about as follows. The first was that of a real sharper of a fellow, lynx-eyed to what he thought it interesting, but a little too sharp, in the opinion of his neighbors. He was what we should call a pretty good sample of Yankeeism run to seed. He was not a large farmer, but employed, in the busy season, several hands on his farm. While the cutting of hay was in progress—which in New England is a driving time—he would make his appearance in the field about half past ten o'clock—though he always forgot to bring along the lunch for the men, and which consequently they did not get until dinner. His scythe was in first rate order, and he was now ready for getting up a race with some of the mowers, cutting their corners, and starting races between the boys, by telling them that such a one could cut the best swath, or another was the better mower—and various such expedients. His zeal did not slacken with the sound of the dinner horn; but he would lead off with “Let us have one more round before we go, boys.” About three o'clock in the afternoon he was in the field again; and as the sun began to get low, was very zealous to make the most of the time with “Let us see how many times we can go round before sunset;” and when the sun was fairly down he would exultate on the coolness of that part of the day, and insist that it was the pleasantest of all the twenty four hours for work, and would be anxious to see how many times the field could be compassed before dark. He generally changed his hands each season, and sometimes oftener; and many observed that his haying was not done quicker nor better than that of his neighbors.

Another case was that of a pretty large farmer. He did not forget to calculate upon getting as much labor from his men as could well be done, but was careful that his men did not suspect that to be his purpose. He was up betimes in the morning, and the door latches rattled till the boys were up also. When the hands were in the field, he was there, to see that nothing obstructed their work—that all tools were in order, and that each wroug
this course would ultimately have effected a cure. After a few days I gave it a dose of tartar emetic, which seemed to do some good. I then concluded to administer a cathartic. For this purpose I gave it nearly half a teaspoonful of arsenic. This killed the hog and ended the experiment. But though it did kill it, yet from the manner in which it acted on the kidneys, I am fully satisfied that if it had been given in small doses and at proper intervals, it would have effected a cure, or helped to do so. It killed the hog, not from the ordinary effect of poison, as some might suppose, but from its producing excessive urinary secretions.

Hobson, Ia., January, 1845.

**ORCHARD AND GARDEN.**

"The Fruits and Fruit Trees of America—
By A. J. Downing: Wiley & Putnam, New York."

Mr. Downing, the author of the above work, is, as we understand, the proprietor and cultivator of a very beautiful and extensive nursery and fruit garden, at Newburgh, on the banks of the Hudson, in the State of New York, where he was born, and in which he has spent his life. He may therefore be presumed to be qualified for the work undertaken.

But the work itself gives us something better than presumptive evidence on the subject. It consists of about 600 12-mio. pages, giving the history, description, and modes of culture, of all the standard fruits grown in this country—including almonds, apples, apricots, cherries, currants, gooseberries, grapes, melons, peaches, pears, plums, quinces, strawberries, blackberries, raspberries, and many others but partially acclimated, and little cultivated among us—illustrated by a great number of cuts; and treated of, in a very plain and familiar style, so as to be adapted to the comprehension and use of the great body of the people. In fact, as far as we have had time to examine, it is peculiarly such a work as was needed to induce the love of fruit, incite to its culture, and direct in its production all over the country. The first few chapters are taken up with a consideration of "The Production of New Varieties, budding, layers, and suckers, and the position of trees, ties of Fruit, and Propagation;" including grafting, with soil and aspects. Then follow general remarks on insects; after which the different kinds of fruit are taken up in their order and considered.

In his description of fruits Mr. Downing is particularly judicious in avoiding an error into which men less experienced, and possessing a less correct judgment, are apt to fall: he does not select the largest of any variety as specimens, but those of middling size—both as being better examples of the fruit described and more apt to convey correct ideas concerning it, and because the largest specimens of a particular fruit are not the best. Who does not know that a great potato, or beet, or turnip, is far inferior to one of medium size? The same is in a degree true of fruit. An overgrown apple is proportionally coarse in texture and inferior in flavor; and we have often thought that one of the tests of good fruit—not indeed of itself sufficient, but proper to be considered—would be its weight. We have never seen this alluded to as a test, but have often remarked the very great difference in the weight of apples of the same size, and often of the same name, and that superior weight was equivalent to superior quality.

Mr. Downing divides insects, with reference to the feasibility of destroying them, into four classes, as follows:

1st, those which for a time harbor in the ground, and may be attacked in the soil; 2d, winged and other species, which may be attacked among the branches; 3d, aphides, or plant lice which infest the young shoots; 4th, moths, and all night-flying insects.

Insects the larvae or grubs of which harbor in the ground during a certain season, as the curculio or plum weevil, are all more or less affected by the application of common salt as a top dressing. On a larger scale—in farm crops—the ravages of the cut-worm are frequently prevented by sowing three bushels of salt to the acre, and we have seen it applied to all kinds of fruit grounds with equal success. Salt seems to be strongly disagreeable to nearly all this class of insects, and the grubs perish, where even a small quantity has for two or three seasons been applied to the soil. In a neighborhood where the peach worm usually destroys half the peach trees, and where whole crops of the plum are equally a victim to the plum weevil, we have seen the former preserved in the healthiest condition by an annual application of a small handful of coarse salt about the collar of the tree at the surface of the ground; and the latter, made to hold abundant crops, by a top dressing applied every spring of packing salt, at the rate of a quart to the surface occupied by the roots of every full grown tree.

Salt however must be used in small quantities and with caution, or it will kill the trees. An application as a top dressing once in two or three years is often enough; and refuse or coarse salt is as good as any.

"In the winged state, most small insects may either be driven away by powerful odors, or killed by strong decoctions of tobacco, or a wash of diluted whole oil or other strong soap. Attention has but recently been called to the repugnance of all insects to strong odors, and there is but little doubt that before a long time it will lead to the discovery of the means of preventing the attacks of most insects by means of strong smelling liquids or odorous substances. The moths that attack furs, as every one knows, are driven away by pepper-corns or tobacco; and should future experiments prove that at certain seasons, when our trees are most likely to be attacked by insects, we may expel them by hanging
bottles or rags filled with strong smelling liquids in our trees, it will certainly be a very simple and easy way of ridding ourselves of them. The brown bottles or rags filled with strong smelling liquids in the two most efficient remedies for all the small insects injurious to fruits, and it has been found to drive away the wire worm, and other grubs that attack the roots of plants. The vapor of oil of turpentine is fatal to wasps, and that of tobacco smoke or the infested part of each tree. This, or the wash of whale oil soap is made by mixing two pounds of this soap, which is one of the cheapest and strongest kinds, with fifteen gallons of water. This mixture is applied to the leaves and stems of plants with a syringe, or in any other convenient mode, and there are few of the smaller insects that are not destroyed or diven away by it.”

“Moths and other insects which fly at night are destroyed in large numbers by the following mode, first discovered by Victor Adouin, of France. A flat saucer or vessel is set on the ground, in which is placed a light, partially covered with a common bellwhitewash brush; dipping the latter in the liquid and shaking it sharply over the extremities or the infested part of each tree. This, or the whale oil soap-suds, or a mixture of both, will kill every species of plant lice, and nearly all other small insects to which young fruit trees are subject.

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“A simple and most effectual mode of ridding the fruit garden of insects of every description, which we recommend as a general extirpator, suited to all situations, is the following. Take a number of common bottles, the wider mouthed the better, and fill them about half full of a mixture of water, molasses, and vinegar. Suspend these among the branches of trees, and in various parts of the garden. In a fortnight they will be found full of dead insects, of every description not too large to enter the bottles—wasps, flies, beetles, slugs, grubs, and a great variety of others. The bottles must now be emptied, and the liquid renewed. A zealous amateur of our acquaintance caught last season in this way, more than three bushels of insects of various kinds; and what is more satisfactory, preserved his garden almost entirely against their attacks in any shape.

The assistance of birds in destroying insects should be duly estimated by the fruit-grower. The quantity of eggs and insects in various states, devoted annually by birds, when they are encouraged in gardens, is truly surprising. It is true that one or two species of these, as the ring-tail, annoy us by preying upon the earlier cherries; but even taking this into account, we are inclined to believe that we can much better spare a reasonable share of a few fruits, than dispense with the good services of birds in ridding us of an excess of insects.

The most servicable birds are the common sparrow, the wren, the red-breast, and, in short, most of the birds of this class. All these birds should be encouraged to build nests and inhabit the fruit garden; and this may most effectually be done by not allowing a gun to be fired within its boundaries. The introduction of hedges or live fences greatly promotes the domestication of birds, as they afford an admirable shelter for their nests.”

We have room for one extract more, and it shall be a description of the famous pear known as the Bon Chretien, or Bartlett Pear, so named because introduced by Enoch Bartlett Esq. of Dorchester, from England, where it originated in 1776. It stands at the very head of summer pears, and ripens in this country better than in England.

“It has the unusual property of ripening perfectly in the house, even if it is picked before it is full grown. It has no competitor as a summer market fruit. The tree grows upright, with thrifty, yellowish brown shoots, and narrow folded leaves.

Fruit of large size, irregularly pyramidal. Skin very thin and smooth, clear yellow, (with a soft blush on the sunny side of the exposed specimens), rarely marked with faint russet. Stark one to one and a half inches long, stout, inserted in a hollow, flat cavity. Calyx open, set in a very shallow, obscurely plaited basin. Flesh white, and exceedingly fine-grained and buttery; it is full of juice, sweet, with a highly perfumed, viouis flavor. (In
In which I take some interest and on which I am seeking information, your correspondents are extremely diffuse: one recommends pruning in October, another in February, another in the spring, and another to not prune at all. One says, prune that they may bleed freely; another says that to bleed is sure death; and so on, ad infinitum. Now it is possible that none of these may be wrong, but it is not probable that they are all right.

The kinds I have attempted to cultivate are the Isabella and the Catawba. By pruning some so that they have bled freely, they have either died or been so enfeebled as to be worthless. Others by letting them stand during the winter have died. Now if you or any of your correspondents for whose practical experience you can vouch, will give the proper instruction with that explicitness and care which friend Shillaber requires for growing grass, (whose views I endorse, believing that certainty is more likely to result from continual practice than from a single experiment, from accident, or from theory alone,) you will confer a favor upon many of your readers, doubtless, as the information contained in the journals and in the works on horticulture is so vague—particularly with reference to winter and summer pruning—that little reliance can be placed upon them.

Pope Creek, Mercer co. Jan. 1846.

SEX OF THE STRAWBERRY. This has been a subject of much dispute of late years; and some have taken the ground that because the blossom contained, in its natural state, both the male and female organs, no such thing as male and female blossoms could be possible. The fact is, it has been proved conclusively that external condition will change the sex of the blossoms of other plants than the strawberry. For instance, Mr. Knight, in the Horticultural Transactions, details an experiment made by him upon a watermelon plant, which

DISCORDANT VIEWS—GRAPE PRUNING.

BY R. H. SPICER.

MESSRS. EDITORS: Enclosed is a token of remembrance, though small; yet should you receive similar ones from all your subscribers it would not only contribute to the cold comforts of a bachelor's life, but would enable you to meet the expectations of your patrons in a manner satisfactory to yourself and to them were they not too ungrateful.

In your last volume, I doubt not but all have received instruction who have perused it; to me it has been a source of profit. Yet with all the instruction that has been given, there is much yet to learn; and it is not unlikely that at the close of the present year many of your subscribers will look back with grateful hearts to the "Prairie Farmer."

Though I have been instructed on many subjects, on others I have been as much amused at witnessing the conflicting opinions of various writers. Situated as you are, echoing the views of your numerous correspondents, scattered over the length and breadth of the whole Union, it should not be a matter of surprise if their views are somewhat contradictory.

With reference to the culture of grapes, a subject...
he grew in his house—keeping it in a temperature of 110° during the day and 70° at night, plentifully supplying it with water, and giving it imperfect ventilation. The result was this: the blossoms were plenty enough, but all males. This he says did not surprise him, because he had before succeeded in making cucumbers produce female flowers only, by a long continued low temperature. These plants are dioecious, but we do not see that this would alter the principle materially.

**TREES GIRDLED BY MICE OR RABBITS.** These may be saved by taking in the spring of the year a piece of bark off from any limb and putting it on where the bark is gnawed off—using care to fit it nicely at the ends—and then covering it all over with grafting clay. It is not material that the bark so put on should extend entirely around the tree; if a channel is formed for the flow of the sap, the tree will be saved.

**GRAPEs.** The Sangamo Journal has the following in relation to the Isabella Grape. The Isabella is valued as highly at Cincinnati as at the East. Mr. Longworth gives it only a secondary rank, preferring the Catawba very much before it.

"Illinois proves most favorable for the cultivation of the grape. The native Isabella hardly ever fails of producing a good crop—and its production, when properly trained, and a little care is bestowed on it, is enormous. We believe it is now conceded in and about the city of New York, that the Isabella is the most profitable, and best variety of grape, taking all circumstances together, cultivated in that region. Dr. Underhill, of Croton point, expended a large sum of money in attempting to cultivate foreign and other native varieties; but he has abandoned their cultivation for the Isabella. And if our friends could see and eat of his Isabellas, they never would want a better grape. He now supplies a very large amount of grapes, for the New York market, upon which it is said he annually realizes a profit of some 10,000."

**PROPAGATING GOOSEBERRIES.** Gooseberry plants should only be raised from cuttings. New varieties are of course raised from seed, but no one here should only be raised from cuttings. New varieties of gooseberries may be propagated in the spring, to render it firm again, should the cutting have been raised by severe frost. After they have become well rooted—generally in a year's time—they may be transplanted to the borders, where they are finally to remain.

**HOUSEHOLD AFFAIRS.**

**ICE AND ICE HOUSES.**

It has generally been considered, and is so yet among the farming population to a great extent, that ice is a mere luxurious superfluity, to be enjoyed only by the rich, or to be used at public houses where great attention to guests is deemed necessary. Two things are needed to be understood to dissipate this notion. One is, that it is not a mere article of luxury, but one greatly conducive to health and comfort; and as much or more to be considered a matter of necessity as fifty things acknowledged to be so—including tea and coffee and one half the sugar generally made use of. When these things are well understood—and they are learned by a little experience—every farmer who makes a pretence of living comfortably may as easily have his supply of ice as his supply of potatoes.

Our long summers, particularly in many parts of the West, where during three months the thermometer is frequently up to 90° Fahrenheit, are very enervating and debilitating to most constitutions, and their effect is greatly heightened, when there is a lack, as is often the case, of household comforts. The use of salt meats continually, to which many are confined from inability to preserve them fresh for any time, and of half-melted butter, have in some seasons a very deleterious effect upon the health of hundreds. Every one has noticed the utter impossibility of assuaging thirst in hot weather by pouring down any quantity of lukewarm water, while a half tumbler of cool water would effect the thing instantly. Besides, in bilious fevers, to which a western population is liable, in long dry seasons, the use of ice is an absolute necessity; and will often do more to soothe the stomach and restore the deranged functions of the muscular and nervous systems than all the medicines that can be given.

The proper use of ice by persons in health is believed to be no less salutary. It is the testimony of travelers that the use of ice in Italy and the Sicilies tends greatly to preserve health during the long summers experienced there. An ice house not only gives the family the use of cooling drinks, but enables them to preserve their butter, fish, meat, poultry, game, &c.; and in our opinion ought to be considered as much a necessary appendage to a farm establishment as a cellar.
But the expense may be objected. It is our purpose to show not only that this need not be large, but that it is no difficult operation and may be done by any man who can build a respectable pig pen. An ice house a story and a half high has been put up this winter, within our observation, and filled with ice, which would readily be taken for a barn; and this we are told is the general character of those now built at the East in which ice is kept the year round.

It was formerly supposed that a cellar must be dug, and the principal part of the concern must be below ground. This mode is now generally abandoned. The earth communicates its temperature more readily than the atmosphere, with the additional disadvantage of transmitting moisture also, which is much more liable to destroy ice than any other agent to be contended against. In building an ice house, then, place it wholly above ground, and if possible on the north side of a slope where the water drains readily. The first requisite to be seen to, indeed, is that all water which drains from the ice, shall be carried off promptly. If the ground is sandy, no further trouble is necessary; but if it be a tight clay, the earth under the floor of the house should be scooped to a point at the center, from which a ditch may be dug out from the house, and filled with loose sand, or any substance which will exclude air and conduct off the wet.

A house 8 or 9 feet cubic in the clear will contain ice enough for a very large family; though the greater the body of it is, the longer and better it will keep. In erecting the building, lay such a foundation as will exclude all air and water from the bottom; then erect the studs, which may be of plank two inches by eight or twelve, and board them up on both sides, so as to allow a hollow of eight or twelve inches in the wall. This hollow should be filled with tan bark, saw dust, or pulverized charcoal, some one of which can be obtained almost any where; but in the absence of these, straw well packed in will answer. The roof must be made hollow in the same way with the walls, and filled in the same manner. If the house is painted or whitewashed on the outside it will improve its non-conducting properties as well as its appearance. The entrance is the next thing to be attended to. This is best placed up some distance from the ground, to which the ascent is furnished by stairs as shown in the cut. There should be, however, two doors without fail—an outer and inner one—which may be from two to four feet apart, both well fitted, to exclude air; so that when any one enters the house he may first pass the outer door and shut it before he enters the inner—thus preventing the ingress of damp or heated atmosphere from without. There ought also to be small apertures through the walls on opposite sides for ventilation in dry or cool weather and which can be perfectly shut when the air is damp.

The floor is placed about a foot above the earth, and may consist of loose plank or rails. This floor should be covered with straw to the thickness of a foot, on which the ice is laid. The common mode is to cut the ice in square blocks, and pack them closely together, filling up the interspaces, and if the weather is sufficiently cold, water can be poured on from time to time as it is filling, and be allowed to freeze. The more compact the ice is filled in, the better it will keep. When the filling is done, cover the whole with a good thickness of straw, and the only care it will require will be to give it occasional ventilation.

Success in keeping ice, it should be borne in mind, depends more upon draining off promptly all water, and in preventing dampness than any one thing else.

There are a variety of other modes of constructing ice houses recommended; such as driving down stakes and filling in straw between them; but when a good one can be built so cheaply, we do not think it worth while to speak of these.

There is some difference in practice in getting in ice which should be noticed. A mode not uncommon is to put it off till the last of winter, and when a thaw of three or four days gives indication that spring is coming, all hands are called out to procure ice, which is already rendered loose in its texture, and at least half spoiled. The time to get it is, when it is solid and clearer than crystal—during the coldest weather. If put up then, it will last much longer and be found better than if suffered to become spongy. That also made partly of snow is poor; and the pond or river where it is to be cut should if possible be kept clear of snow till the crop is secured.

There will undoubtedly be weather enough yet in which ice can be gathered; and he who secures a good supply for the days when the dog star rages will not regret it.
CATALOGUE OF PLANTS

Growing spontaneously in the State of Illinois, the principal part near Augusta, Hancock county.

BY S. B. MEAD.

5. Hibiscus laevis Cav. (B). rose mallow.
17. Opuntia vulgaris D C. (s P & B). 5 prickly pear.
29. Circa j a lutctiana L. (H T). enchanter’s night shade.
34. Epilobium coloratum M (Bks W P). fireweed.
37. Circa j a lutctiana L. (H T). enchanter’s night shade.
42. Epilobium coloratum M (Bks W P). fireweed.
43. Cuphea viscosissima Jncti (H T Bks). wax bush.
45. Circa j a lutctiana L. (H T). enchanter’s night shade.
53. Circa j a lutctiana L. (H T). enchanter’s night shade.

(The to be continued.)
GALVANISM—GRUBS IN CATTLE.

BY J. J. VAN ANTWERP.

MESSRS. EDITORS: I would address you with much diffidence, were it not for two things. One is, that you know how to dispose of matter that is not appropriate for your useful journal, or that is calculated to do mischief by misleading any one: the other is that you call upon all your readers to write for your, or rather their paper. Without further apology, then, allow me to express my gratification, not with the failure of your experiment, but with the candor and honesty with which you stated the result. It is doubtless a humbug that Galvanism has such wonderful effects on vegetation as has been stated by some. I was much amused with your theory of Galvanism, and must candidly confess I have as much, or even more faith in the marauding of your toads on either side of the field, to excite the "fluid" by the snapping of their bright eyes at each other, than in the zinc and copper plates, wire and all. At any rate the "thunder and lightning machine," you have doubtless heard of, was much better than the splendid Galvanic humbug. That experiment was decisive: for though it did not make the vegetable outstrip Jonah's gourd, it knocked the experimenter down, and with it all chance for humbug and imposition. Permit me now, Messrs. Editors, to bring to your notice an experiment which I have made a great many times, and always with success. You may call it whatever you please, so that you call it not Galvanism. I take steel plates instead of copper and zinc, and instead of 6 ft poles I use 3 or 4 ft poles, to suit convenience. By means of an eye or socket upon the plate, I attach the pole to it, and then to the pole, instead of iron wire, I attach human "bones and sinews." By means of the human "fixins" and the poles, the plates are buried in the ground near the vegetables, and immediately taken up again, and again buried, &c, till the operation is completed. This repeated weekly during the proper season gives such an impulse to vegetable growth as to astonish some of my neighbors. I recommend it to you and to all. I can assure you it is no humbug, and I think it would go as far, at least, ahead of your toads, as they do of Galvanism. My fellow farmers need not fear to trespass, as the "patent right" has not been secured.

What is the name of the grub or worm that is frequently found in the backs of cattle, at this season of the year, or more especially toward spring? How does it get there, and how prevented, and what the best mode of getting rid of it? Please don't answer by referring to a back volume.

Northville, LaSalle Co., III.

The grubs or worms inquired about are the larvae of the oestrus bovis, or gaddly, and are called in England warbles. This fly makes its appearance in the latter part of summer, and generally attacks the young and well-conditioned part of the herd, chiefly perhaps because their hides are thinner and softer, and of course more easily penetrated. The fly is armed with an ovipositor, constructed like a gimlet, with which it bores through the skin, and in the puncture thus made it deposits its egg. The cattle do not take the operation very patiently, but with tails erect make off over the pasture with all their speed, and if possible find their way into water.

The egg hatches a white grub, which lies with its tail to the air,—the respiratory organs being posterior,—and with its mouth in the bottom of the sac in which it is bedded. Here it grows until June or July, when it drops out; a little round puncture having been kept open in the skin of the animal during the whole time of its sojourn beneath it. When it leaves the animal—which is always done in the morning between about six and eight o'clock—if it escapes the birds, which are apt to be on the lookout for its appearance—it seeks the nearest hiding place, and speedily becomes a chrysalis, with a very hard shell enclosing it. In this state it continues about six weeks, when a little valve or lid in its shell flies up, and allows it to come forth a perfect fly. This fly first seeks its mate, and the female then makes for the cattle, to deposit its eggs as its parent had done.

Mr. Yount says that those grubs are productive of no ill to the animals in whose backs they are bedded, but only to the hides. We can bear testimony to the latter part of the assertion, as we have often seen hides perforated with from ten to forty pretty good sized gimlet holes, distributed through the best part of the skin. The first part of his assertion is, however, contrary to our observation. We have always found the poorer animals to be plentifully supplied with them in the spring of the year, while the well conditioned had few or none.

Very few modes of getting rid of the grub seem to have been adopted. They may easily be squeezed out with the thumb—a piece of work at which we were accustomed to amuse ourselves in our boyhood—or a little corrosive liquid may be put upon the orifice beneath which the grub lies.

Mr. Lawrence, in the Farmers' and Graziers' Guide, recommends the following:

Take yellow basilicon ointment 4 ounces.
Spirita turpentine 1 "
Oil of vitrol ¼ drachm.

First mix the ointment and turpentine together, and afterwards add by a little at a time of the oil of vitrol, keeping it constantly stirred until well incorporated.

PRODUCTIONS AND INCREASE OF NORTHERN ILLINOIS.

At the Railroad Convention, held at Rockford on the 17th of January, several of the counties presented interesting statistics of their products during the past year. We copy such of them as we find in the report of that convention, contained in the Chicago Journal. That of Jo DuVies was mislaid by the editor of that paper, and that of Gonk appears not to have been presented. It is probable that these statistics may not be minutely correct; but they will convey a substantially accurate idea of the agricultural wealth of those several counties.

The exports of Chicago during the business season last past is also appended.

<table>
<thead>
<tr>
<th>Product</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>956,860 bushels</td>
</tr>
<tr>
<td>Flour</td>
<td>13,752 bbls</td>
</tr>
<tr>
<td>Beef</td>
<td>6,199 &quot;</td>
</tr>
<tr>
<td>Pork</td>
<td>7,099 &quot;</td>
</tr>
<tr>
<td>Tallow</td>
<td>1,000 lbs</td>
</tr>
</tbody>
</table>

GALVANISM—GRUBS IN CATTLE. Productions and Increase of Northern Illinois.
Lard 66,000 lbs.
Wool 215,000 lbs.
Hides, 12,256 in number.
Tobacco 52,000 lbs.
Potatoes 600 bsh.
Oats 5,800 tons.
Hams 22,926 lbs.
Searine 6,635 tons.
Hay 227 tons.

McHenry County. Population (by census) 10,049, in 1840 1769. Wheat, about 400,000 bu. Pork, 13,000 lbs. Corn, 550,000 Neat cat. 20,000 head. Oats, 250,000 Hogs, 25,000 tons. Cows 8,000 head.

Kane County. Population (by census) 12,718; in 1840 6,725. Wheat, 689,000 bushels. Oats, 662,400 Corn, 549,000 bushels. Barley, 29,800 tons.

DeKalb County. Population (by census) 4013, in 1840 1744. Wheat 200,000 bu. Cattle 3000 head.

Boon County. Population (by census) 5,508, in 1840 1769. Wheat 275,000 bushels.

Ogle county. Population (by census) 6,113, in 1840 6,725. Wheat 325,000 bu. Oats 195,000 bu. Corn 375,000 Stock not given in.

Winnebago County. Population (by census) 7,531, in 1840 4545. Wheat 300,000 bu. Sheep 13,000 head. Corn 383,760 Neat cat. 6,571 Oats 185,700 Hogs 8,279 tons. Merchandize imported, including salt, coal, iron, for Rockford, from Chicago and Galena, 589 tons.

Stephenson County. Population (by census) 6,344, in 1840 2860. Corn 250,000 bu. Butter 75,000 lbs. Wheat 300,000 Wool 30,000 tons. Oats 200,000 Neat stock 8,000 head.

Census of Illinois.


Christian 2,168 1,742 Mason 2,135 Clark 10,496 7,659 Massac 3,196 Clay 3,555 3,285 Menard* 4,807 4,481 Clinton 5,933 2,825 Monroe 4,279 3,292 Coles* 5,875 8,657 Montgomery 5,603 4,436 Cook 21,581 11,955 Monroe 6,083 4,466 Crawford 6,337 4,638 Moutrie 2,492 Cumberland 2,839 Morgan* 15,544 15,444 DeKalb 4,013 1,744 Ogle 6,113 3,447 De Witt 4,302 3,392 Peoria 10,549 7,063 DePage 7,194 3,615 Perry 4,236 3,292 Edgar 9,565 8,307 Pike 1,057 1,049 Edwards 3,413 3,073 Pike 15,974 11,892 Effingham 2,561 1,736 Pope 4,037 3,874 Fayette 5,849 6,223 Pulaski 1,735 Franklin 4,979 3,737 Putnam 3,507 2,691 Fulton 17,161 13,592 Randolph 5,806 8,156 Gallatin 4,752 3,812 Richland 2,007 1,844 Greene 11,510 10,995 Rock Island 6,053 2,560 Grundy 1,304 Sangamon* 18,697 15,222 Hamilton 5,730 4,275 Scott 5,623 3,619 Hancock 22,599 10,025 Schuyler 8,541 7,132 Hardin 1,902 1,398 Shelby* 6,972 6,759 Henderson 3,418 Stark 2,483 1,592 Henry 9,327 9,140 St Clair 17,438 13,340 Iroquois 2,730 1,741 Stephenson 6,344 2,869 Jackson 5,038 3,590 Tazewell* 7,615 3,566 Jasper 2,360 1,415 Union 4,344 2,869 Jefferson 7,611 5,650 Vermilion 10,235 8,399 Jersey 5,659 4,573 Wabash 3,359 4,433 Jo Daviess 12,625 6,494 Warren* 6,101 4,930 Johnson 2,892 7,472 Washington 5,940 4,269 Kankakee 12,718 6,494 Wayne 6,497 5,148 Kendall 1,034 White 8,080 7,996 Knox 9,800 7,175 Whiteside 2,457 Lake 6,936 2,905 Will 10,056 7,921 LaSalle* 10,149 10,015 Williamson 5,700 4,340 Lawrence* 6,008 7,061 Winnebago 7,941 4,545 Lee 5,103 1,251 Woodford 928 Livingston 1,000 750 Total 643,482 472,929

* Portions of these counties have been cut off.
† In these four counties the census for the year has not been received.

Too true. The time was when industry was fashionable, and none were ashamed to practice it. Such times have changed: fashion rules the world, and labor has gone out of fashion with those that can live without it, and those that can't—and until a reform is had, and industry again becomes fashionable, we may bid farewell to many a comfort we might otherwise enjoy.
VETERINARY DEPARTMENT.

Swelled Legs. At the request of a friend, who says he can testify to its correctness from his own experience, we insert the following from Clater's "Diseases of Horses," by Skinner. The difficulty alluded to is a very common one in this country:

"This is a very frequent and most troublesome complaint. The cause is often exceedingly difficult to be detected, and when discovered, is often so complicated, and the disease becomes so intricate, that the practitioner has little prospect of completely eradicating it.

The fore legs occasionally take on a disposition to enlarge; but it is oftener, and running to a greater extent, found in the hind ones. A horse is sometimes left in perfect health at night, and is found, on the next morning, with one or both hind legs enormously enlarged. The skin is tense and glistening; it is hot and exceedingly tender; the evolution is great, if the season will allow it. The habitual use of the bandage is an excellent thing in these cases, and has often gradually strengthened the vessels of the part, and rendered the leg as fine as ever.

Frequently an enlargement of the leg is connected with general debility. The horse has been cruelly over-worked—or he is recovering from serious illness—or he has been half starved, and he is generally weak, and these weaker and injured parts yield. A very mild dose of physic will sometimes be indicated even here, and especially if there be any dullness about the horse. A daily mash should be given; a fair allowance of corn; green meat if it can be procured; gentle and regular exercise should be used; and small doses of cantharides, varying from three to five or six grains, and a few tonic diuretic balls. Every thing should be done to increase the strength of the system generally, and the vessels of the extremities will soon regain their proper tone.

This course of treatment will be particularly proper if the legs swell at the spring and fall of the year. The horse is then shedding his coat, a process which is always attended by some debility. The tonic diuretic balls will here be exceedingly useful.

In every case, however, of swelled legs, a great deal more depends upon management than on medicine; and there is nothing so likely to be injurious as the frequent use of diuretics, of which many grooms are fond. They are fruitful sources of debility (the worst cause of swelled legs); they first weaken the urinary organs, and loss of tone in the system generally too soon succeeds."

SPAYING HEIFERS.

Several subscribers have requested us to give the mode of spaying heifers with a view to facilitate their growth and fattening. As we have never witnessed the operation, and there is very little reference to it either in books or the agricultural journals, we are not able to make out as complete an article as we could wish. We infer from this general silence on the subject, that it is a thing very seldom performed; though we believe it is something practiced in the southern States.

The object is similar to that sought for in the castration of the male, viz: the prevention of any desire for sexual intercourse; and consists in the extraction of the ovaries. Those are small roundish masses connected with the uterus, (womb,) and upon their healthy action, impregnation by connection with the male depends. The operation is performed in very much the same manner with heifers as with sows. The animal is laid upon her right side, and fastened there so as to be kept still. Her legs should be so tied that she cannot kick nor indulge in contortions of the body. The operator stands behind her and makes an incision just below her hip, and between that and the short ribs—cutting through the skin, flesh, and muscles to the membrane which envelopes the bowels. This he carefully cuts so as to admit the hand. He then..."
lays hold of the uterus, which will be now exposed, and lifts it a little carefully, and works his fingers till he feels one of the ovaries, which he cuts off close to the uterus. The other is felt and exterminated in the same manner. The wound is now to be sewed up. For this purpose a long straight needle is used, carrying a strong waxed thread. The wound must be sewed so that its inner part may unite first. The first stitch is made by passing the needle through the skin from the out to the inside, and drawing most of the thread through; and the needle is now entered beneath the outer skin and passed through inwardly as before. From four to six stitches will be sufficient to draw the inner edge of the wound together, and the outer skin may then be closed in the same way; when the ends of the thread may be tied and the wound anointed with some tar salve. The greatest care must be exercised not to wound the uterus or the intestines, either with the knife or needle. The ovaries will be pretty readily distinguished from the horns of the uterus, near which they lie, by their feel—the former being hard, and the latter soft and flabby.

The operation is usually done when the heifer is about a year old; and she must be kept for the thirty-six hours previous to the operation without a particle of food or water, so that the intestines may not be distended; as also to allay all tendency to inflammation. The heifer, it is said, will go to her food, and require no further attention except a spare diet for a short time.

Cows when spayed, it is said, become as large as oxen, and take on fat remarkably; or if spayed when in milk will continue so for a number of years without any diminution. It is not uncommon, where spaying is practiced, to work the animals thus treated, like oxen, to which they are fully equal for strength and activity.

We have seen a great number of spayed swine; but the operation was successful only in a proportion of the cases; many dwindling away, losing the use of their hind legs; and others having an unsightly swelling, or hernia, in the lower part of the belly. In these cases, however, the work was done by hanging up the sow by the hind legs on a pin, and cutting open the belly between the four back teats; and we are suspicious that the whole thing—and the closing the wound particularly—was done in a very unskilful manner. It does not appear to us—though we are not authoritative on the subject—that the hanging up part would do at all for heifers, as it is certainly not the best way for swine. It would seem also that this work should be done by hands made skilful by experience; as any bungling would risk more than could be made by
Gravel in Horses. Messrs. Editors: I would call the attention of your correspondents in your last number cannot be done by you, as interfering there might be something of the kind in your next number, I send you the following for insertion, then or sometime.

The Potato Rot, Curculio, &c. The much vexed question in regard to the origin of this terrible disease among potatoes, and its remedy, seem as far from being satisfactorily settled as ever. It seems to me, however, that your solution of the matter in the December No. is the most probable, viz: that it is an epidemic, and prevails like diseases of that kind among animals, and like them will, after a time, cease. It may be that its great fatality is partially (can it be wholly?) owing to the great improvement which has been made in the size and flavor of this vegetable, and the consequent distance which it has been removed from its original condition, as regards not only size and flavor, but also its original vigor or hardihood. I believe it is an acknowledged fact that the greater the improvement made in any species of plant—the farther it is removed from its natural habits, the more liable it becomes to disease. This theory, it seems to me, derives considerable support from this fact, which I have observed in all my acquaintance with the disease, that our best table varieties are most subject to it than the Neshanock or Mercer. There is another theory that has been formed in regard to the apparent decay of some particular, old varieties of fruit which, if true, would account for the decay of our present old varieties of potatoes—that is, if it would apply to potatoes as well as fruits, and I do not see why it might not, and would also furnish a remedy. The theory is this: that the varieties of fruits have a certain period of duration beyond which they cannot or will not flourish as fruits, and that the only way to keep up the supply of varieties is to sow the seed and obtain new ones to take their places.


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In view of the prospective increase of the disease the coming season, I wish to state a fact. In the season of 1844 my potatoes were late planted, and did not grow much till late in the season, when they grew very fast and large. The seed potatoes were small. In consequence of this late, rapid growth, (as I suppose,) an unusual number of them were hollow, and small badly when cut open, but they are not moist or wet, as the affected ones generally are. We both planted late, but I planted small potatoes, and mine were almost perfectly soft and good. There are perhaps half a dozen Neshanocks in a bushel that seem to be infected with the rot, though the decay progresses very slowly, and from the outside. The inference is to my mind very plain. I shall also plant a part of other kinds than the Neshanock, as I did the past year. The potatoes sold were all Neshanocks. I have not found among my own any disorder similar to that I have seen here.

I notice that very many of my peach limbs, and some plum and apple limbs, are bored by what I suppose to be the curculio. On peach trees the places are readily detected by the gum which has flowed from the wounds—on the others by the rows of punctures, which rows are from 1 inch to 2 inches long, containing from 3 to 30 eggs about half an inch in length, of a yellowish color and very small diameter. They are generally laid on the present year's growth, and horizontally as deep as the heart of the shoot. If they be not destroyed, our smooth-skinned fruits, such as plums and apricots, will come off very slim. Let all the tops and limbs of trees that are cut off be burned early in the spring, and thereby very many of them, and the eggs of other noxious insects will be destroyed.

Delevan, Wisconsin, January, 1845.


Messrs. Editors: I would respectfully solicit your assistance in a matter of great importance, which I must acknowledge is beyond my ken—a mystery of which I have read, but have not seen. That is, how farming as a general thing can be made to yield 60 per cent. or more than the labor of all labor, with a capital or first cost surmounting at 12 per cent; or how a man can do his work well and sow 60 acres of wheat for $2 50; or how he can harvest and market 10 acres of corn for $12 50; or how he can sow 8 acres of barley for 50 cts; or how he can sow oats for 7 cts and drag them in for 25 cts to the acre; or how he can harrass 500 bushels of ruts bages for $2 50; or how he can crossplough for 75 cts per acre; or how he can dig and store potatoes for 1 penny per bushel; or how he can market 200 bushels of onions and get 50 cts per bushel, for one dollar, the average price for wares per day being 175 cents. In short, Messrs. Editors, you must assist me out of this dilemma, or I must conclude Wisconsin goes far ahead of Illinois in farming.

I would not be so selfish as to require so much, did I not suppose many others to be in the same predicament. Come on, ye farmers from the East, and ye capitalists all, and from Europe come on to Wisconsin, for where can you get 60 per cent. per annum, on capital and labor in farming but there?

Now I supposed the reason why so much capital was invested in farming was because it is an honorable and healthy occupation, and although less profitable than some other branches of business, the risk was less also; and many seek a safe investment with less profit, rather than a risky one with greater profit; and since it is not easy to give up old opinions or prejudices, you must help us out of this.

Shall we gain any thing by filling up our country, by such calculations, with wild and visionary people, who come here expecting to find rusted pigs running about the streets with knives and forks sticking in their backs, ready to be eaten, and who are said to be homeless and discontented as soon as they find the region?

The West is a great country and a good country, and one that a great deal of capital may be safely and profitably invested in, and in a great many ways, and there is no necessity for deceiving people. Then let them come, there is plenty of room yet.

Lake co. Ill, January, 1846.
"The Horse—By Youatt." Complaints of Wheat Sellers. The Potato Disease.

Mr. Skinner's edition of Youatt was brought before the public in this country nearly three years since, and by this time is pretty well known by those who take most interest in the rearing and care of horses.

There is however a great class of farmers, comprising perhaps eight tenths of the whole body, who yet know nothing of the work. Probably nine tenths of those either use or are in some way concerned in the care and use of horses; and have more or less to do with feeding, training, working, and curing them of diseases. Very few of this number have much of that accurate knowledge of the anatomy of the animal, or of his physiological structure, which will enable them to understand the principles concerned in skillful breeding; and in curing his various maladies. So far as this latter thing is concerned—although most men are from necessity obliged to have more or less of it to do—with some exceptions, it consists in the use of a few more recipes, which are of course often used without any clear perception of the true nature of the disease they are intended to cure.

There can be no sort of doubt but the wealth saved to the country would be considerable, could all those who have the care of horses be furnished with the more perfect knowledge of the animal which is contained in a very few works now easily accessible to all.

Among these works the one quoted at the head of this article stands foremost. Anatomy, with the diseases to which each part is liable, are here treated of in the fullest and most satisfactory manner, by one capable of handling the subject: to which are added such variations, additions and suggestions as are demanded by difference in climate and feed in this country. The whole, illustrated by plates, constitutes a volume of 450 pages, and is within the means of every man who owns horses, and certainly ought to be in his hands. An essay on the ass and mule is added by the American editor.

It is impossible to give any extracts which will convey an idea of the work; but we shall draw from its pages hereafter, as occasions and circumstances require.

COMPLAINTS OF WHEAT SELLERS.

The complaints of those who sell wheat in our market are so many and are concurred in by such a number of respectable and candid men, that it is impossible to believe them without foundation. The complaints respect the various modes made use of to cheat them out of a part of their loads of wheat, and are laid to the charge, not of one buyer, but of many. One farmer represents to us that he has platform scales at home, which he knows to be correct; that he weighs his load of wheat entire before bringing it to market—that his bags are sound and his wagon box tight; and that his load when sold falls short about four bushels. This four bushels is about the quantity alleged to fall short on a load of 35 or 40, by all who complain.

Another states that he makes an especial bargain that if he is not satisfied with the weight, it is no sale, but he will pay for the weighing—and that his wheat holds out; while his neighbor, who makes no such stipulation, but whose load was weighed on the same scales at home, loses in selling, five bushels. Another still says that on carrying his order, which he had not attentively examined, from the warehouse to the counting-room for payment, he finds that it calls for one cent less on the bushel than the stipulated price; and that afterwards, on charging it upon the perpetrator, he laughed at it as a good joke.

These complaints, it will be seen, charge not merely mistakes upon the dealers, but dishonesty. It is very common for men to grumble—it is a right which they feel bound to exercise; but to suppose that all we hear is more grumbling, is to suppose a more incredible thing than that the agents of many purchasers are either unaccountable blunderers or suppose a per centage of plunder from the farmers not loath to take.

It has been suggested to us by a farmer that the way to obviate the difficulty is to have an inspector appointed by the common council whose business it shall be to see to this matter; and to tax a small per centage on all wheat weighed, for his payment. This tax would be very light indeed. The quantity sold this season will not probably fall short of 2,000,000 of bushels; and when interests of such magnitude are at stake they certainly ought to be looked after.

Lest it should be thought that we are personal, we will state that we have no personal acquaintance with the agents complained of, and have not even heard them named.

THE POTATO DISEASE. This malady is more prevalent in this vicinity than was at first supposed. We hear of it in all directions; but what proportion of the crop has been injured by it is a matter of conjecture, and will not be ascertained with any accuracy until spring, when those stored in pits or in the fields will be opened.

Professor Lindley, editor of the London Gardeners' Chronicle, remarks that the water in which potatoes affected with the disease are boiled, has an offensive odor. This odor is a sure sign of incipient decay, though the disease has not yet made itself visible in the potatoes. When this is the case, such potatoes should be used at once, or they will invariably spoil. Perhaps spreading them out to the air might delay it for a time.

PRODUCTIVE FARM. The farm of James Gowen, Esq., near Philadelphia, consisting of 100 acres, exclusive of woodland, maintains from 40 to 50 head of cows, the necessary number of horses, a large stock of swine for breeding and fattening; and produces for market hundreds of bushels of rye, some wheat, and on an average 400 bushels of potatoes, and 3 to 400 bushels of carrots, besides providing for the family. Mr. G.'s products per acre, are, commonly, 100 bushels of corn, 400 of potatoes, 50 of wheat. [We suspect there was some guessing in stating these quantities as common yields,] 1000 of sugar beet, nearly 700 of carrots, and more than 800 of rutabagas. High manuring, thorough cultivation, the solving system—in short, the thorough adoption of all the improved modes of farming, are the secret of this success. By these means, he makes four or five acres do the work of thirty. — Selected.
Vapor Moth, which spins its web in the forks of sands from April 10 to July, devouring all the green branches of cherry, apple, and several other trees, known by this name; but the one to which it is over with a sort of varnish which protects them is, how best to be rid of them. The mother of this particular applied is that pest of the orchard from the wet—resembling the black bunch shown houses by night. About this time it lays its eggs turning it about till the nest is saturated. Oil will whitewash, or cheap oil, and thrust it into the nest, killing every one it touches, and this latter mode, if followed up with spirit, is very effectual. The way to treat them, as all other insects, is to keep them out entirely. If he suffers them to hatch, they do not come forth at all. The time to make them (empty) at the bottom in the spring. In this way the bees have always been extinct, and all ways work in the same hive; the proprietor has nothing to do with them but to take the surplus honey in the fall and put back the empty sections in the spring. Bees will not (ordinarily) swarm if they have room enough; and if they have room enough for one year they have enough for 50, by giving them the same empty space every spring; for a swarm of bees never increases, under any circumstances, beyond a size fixed by a law of nature; and that is, the whole product of one breeding bee, for one season; for the old stock die annually, and an equal and new stock take their place.

Those who work bees in large rooms and expect a swarm to become a mammoth size, will be disappointed. Bees will work in a large room, if made warm, and lay up annually more honey than they consume and add a series of years have a large quantity of honey; but it is only the accumulated product of a common sized swarm.

I have by no means said all I wish on this subject; but as you do not like long yams,* I will say no more at present.


* Do not be too cautious.—Ed.

Gopher Catching.

BY H. COLE.

MESSRS. EDITORS: In one of the back numbers of your paper I saw an inquiry respecting the way by which the gopher of our prairies can be destroyed. I have seen many ways tried to get rid of these destructive creatures, but I have seen none so good as the common rat trap. As the organ of caution is well developed in their heads, it requires some pains on the part of the trapper to succeed well in trapping them. There are two ways in which the trap can be set.

The first way is to open the mouth of the hole where you see they have just been at work; then set the trap, and place it on a level with the bottom of the hole. Then place a piece of board over the trap sufficient to cover all up perfectly tight, leaving a small crack at the farther end to admit light. This plan some of the old ones are cunning enough to evade by throwing out earth on the trap and covering it up.

The best way is this: open the end of the hole where you see they are at work, with a spade or hoe—open the hole back as far as ten feet, if you can trace it so far; here set the trap, on a level with the bottom of the hole, then with your planks cover up the trap perfectly tight, admitting of no light here, but keep the mouth of the hole open; in this way the most cautious of them can be taken.

There are some singular facts connected with the history of the gopher. I have never seen one in a section of country where the soil is poor—but it is no sign a country is poor because there are no gophers in it. The gopher is found in abundance in a large portion of Iowa and in some parts of Missouri: I believe there has never been one found on the plains of Saskatchewan.
the north west side of the Illinois River, while on south east side they are plenty; and on the east side of the Wabash there are none, but they abound on the west side. Colony, Iowa, Nov. 1845.

Crocker, of Du Page; J. McClelland, of Kendall; and J. A. Gooding, of Will. The other officers of the Society are also ex-officio members of this committee: Lewis Ellsworth, of Du Page, President; E. H. Millford, of Cook; Charles Parmelee, of Du Page; L. B. Judson, of Kendall; Shepherd Johnson, of Kane; Robert Strong, of Will;—Vice Presidents. J. A. Weight, of Cook, Corresponding Secretary; M. L. Dunlap, of Cook, Recording Secretary; Samuel Goodrich, of Will, Treasurer.

The annual meeting of the Society, for the election of officers and the transaction of other business, will be held at the same place, at 2 o'clock P. M. of the same day. A general attendance of members and others interested in the success of the Society is respectfully requested.

M. L. DUNLAP, Recording Secretary.

Cazenovia, Cook co. Jan. 20, 1846.

Is hereby given that the executive committee of Union Agricultural Society will be held at the office of the Prairie Farmer, 171 Lake street, at 10 o'clock A. M. of Wednesday, July 4, 1846. Business of importance is to be acted upon, and in consequence every member will be expected to be present. The executive committee consists of the following gentlemen: Doct. F. T. Miner and O. L. Pierce, of Cook; S. D. Pierce and S. S.

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**METEOROLOGICAL RECORD.**

**Lat. 41° 45' N.; Lon. 87° 35' W.; from Dec. 26 to Jan. 21. By Geo. F. Wilson, Principal of Chicago Academy, for Chicago Mechanics' Institute.**

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Monthly mean of Barometer, 28.71. Monthly mean of Thermometer, 29.26. N. B. The cistern of the Barometer is placed 36 feet above the surface of Lake Michigan. The external Thermometer has no northern exposure, and is out of the reach of the direct rays of the sun. In the column headed "Clearness of the sky," 0 represents entire cloudiness—10 entire clearness. The figures 1 2 3 4 5 6 denote the force of the wind, 2 denoting a gentle breeze, 4 a strong wind, 6 a violent gale, &c.
The Penny Magazine, No. 15, from W. W. Barlow, is received. We do not feel that we recommend this work too highly. It is in fact a poor man's Library, containing articles on mechanical trades, inventions, natural history, biography and various other topics, and is sold without information. We understand that the sales of the republication far exceed those of the original publication in this country.

Sharpers. A certain fellow or followers too enterprising for idleness and too lazy to work, have taken to getting subscribers to papers whereas they pocket the money, and let publishing conspire for subscriber whistle. The Ohio was lately advertised in this way, and we have reason to think that we have, to a small extent. We would warn friends to beware of paying money for papers to strangers who cannot show authority in the premises.

Boyd's Rhetoric. Harper & Brothers, N. York. A work for the use of schools, in the form of question and answer. It is well adapted, as we should suppose, to further the purposes intended.

Dogs and Wolves. A gentleman in Wisconsin informs us that the loss to him by dogs and wolves, among a small flock of sheep, during the past season, has amounted to seventy-five dollars! As to the wolves, strychnine was invented on their account; and when dogs join them in the work of plunder, we do not know why they should not fare with them in the consequences.

Hussey's Reaper. Our readers will notice in another column an advertisement of this reaper. The machine is now extensively used in the South and East, and is declared to be truly a labor-saving implement. It is constructed in two forms: One with four wheels, which is warranted to cut 20 acres per day, and costs from $120 to $170. The other has only two wheels—is warranted to cut 15 acres per day, and costs $125. No sharpening is required during the harvest. Everyone knows, however, that the quantity of grain which any machine will cut depends on its weight per acre. It is absurd to suppose that an acre of wheat yielding 20 bushels can be cut as easily as one yielding 10 bushels.

We may add that from the great number of enquiries made at our office this winter, some machine or machines to cut grain will be in great demand in the Western States during the harvest. Every one knows, however, that the execution of the work before us is one of those publications designed to be placed in the hands of youth. The execution of the work before us is one of those publications designed to be placed in the hands of youth. The execution of the work before us is one of those publications designed to be placed in the hands of youth. The execution of the work before us is one of those publications designed to be placed in the hands of youth. The execution of the work before us is one of those publications designed to be placed in the hands of youth. The execution of the work before us is one of those publications designed to be placed in the hands of youth.

List of the Signers of the Declaration of Independence. By Rev. Charles A. Goodrich. Published by B. G. H. Huntington: Hartford, Conn. This is a cheap and valuable compilation, not only for the mechanic, but for those who wish to know a way of getting it than to buy this little book.

The Wheat Fly. A pamphlet, of which the above named insect is the subject, has been forwarded to us by the author, Dr. Asa Fitch. The article composing the pamphlet was originally published in the Quarterly Journal of Agriculture, but was rightly judged worthy of a more extended circulation than it could thus obtain. It contains a beautifully executed plate, showing all the varieties of this fly—of which there are several—so accurately, that there will be no need of mistake in relation to them. The wheat fly and the Hessian fly, as we have before stated, are not the same insect—the former never having yet made its appearance further west than the Genesee Valley, and even then only of late, while the latter has committed some depredation among us for several years past.

We shall endeavor hereafter to give the substance of this pamphlet, together with the plate, if we think it possible to do it justice.

Papery as it was and as it is. By William Hogan, Esq. Published by S tuxon & Miles, Sixton & Kelt, Boston and New York, Philadelpbia, and others.
The author of this work was formerly a Catholic priest, and of course writes with considerable feeling—not without vigor; and his pamphlet will doubtless be esteemed valuable by those who sympathise in its objects.

The Mechanic's Own Book. By James Pillington. Published by Alexander V. Blake: N. York. This is a cheap and valuable compilation, not only for the mechanic, but for those who wish to know a way of getting it than to buy this little book.

The Knickerbocker is as much of a favorite as ever, which is saying a good deal. It is now upon the twenty-sixth volume, and, as we have before stated, is worth the price of the Magazine. The January No. has better sustained its high character during that whole time than any other literary journal ever published in this country. In the great variety of its literary papers, grave, gay, humorous and pathetic, it has not been equalled by any other periodical.

The Boston Cultivator says that bees and dillians cannot be successfully cultivated together. Who knows any thing about it?

A Request. Will some friend or friends take the trouble to send us small samples of the following sorts of wheat, viz: Hodge row, red chalk' bald, both spring and winter; also China and Casinda flint, or other kinds which are new in their locations.
The Washington County (N. Y.) Agricultural Society, the proceedings of whose show have been sent to us by some friend, appears to have done up the work to good purpose. We are thankful of committees &c. till about three o'clock of the Washington Co. Post.

Table of Measures. A correspondent has sent us a table of measures extracted from the Cultivator. He will find the same thing in a back volume of the P. Farmer.

A Cotton Buck. Some wag, who says he has discovered that cotton and wool mixed make the most durable cloth, desires us to tell him where he can obtain a cotton buck, to cross on his flock of sheep, so as to grow the cotton and wool ready mixed. There is no doubt but that this would be a saving equal to the sowing of Indian need.

Sun Flowers. The St. Louis New Era states that a boat brought to that city from Kockuk, in Iowa, a little since, sixty barbells of sun flower seeds. Was it sold, and where, and for how much?

Great Suffering. Punch says that when the Baron Rothschild read that the income of Louis Phillippe was only fifty dollars per minute, his eyes filled with tears—he had no idea of such destitution.

Hon. Josiah Quincy's Address. A copy of this address, given at the Fair of New York Agricultural Society at Utica, has been sent us. Never have we seen anything got up more magnificently. The silky smoothness of the paper, and the clearness of the type, are such only as men of wealth can afford. The address itself is one which when a man begins to read, he will not quit till he finishes; it is the last word in other addresses. An extract will be found on another page.

Wheat in Rock Island County. The upper Mississippian states that the amount of wheat grown in that county the last season, will not fall short of 100,000 bushels. The quantity grown in a single precinct, giving about 100 votes, is 30,000 bushels, and of corn 60,000 bushels.

Carrots for Swine, are the poorest sort of feed. So says a writer in the N. E. Farmer. They are excellent, however, for cows and horses.

Our Exchanges. The Daily Journal of this city, in a handsome notice of the Prairie Farmer, seems to fall into the error of supposing our published list of literary and scientific magazines to comprise the whole of our exchanges. That list is published with a view of making some return to those valuable and permanent works for affording an exchange to a journal so far below their cost as ours. A large number of other journals still, we should be glad to notice in a becoming way did it lie within our scope, and were it not that if we began we should find a stopping place to them, we should give the list of other addresses. An extract will be found on another page.

We have heard something of Virginia abstractionists and some about this in particular, we give the results of its operations the past season in the fields of Mr. T. T. Thorn, of McHenry county, who is the proprietor of one. Mr. T. States that he cost him about $115, and that he cut upwards of 100 acres with it. His practice was to work it with two men and two horses, and that thus driven, with the same team all day, without any particular effort, it could average 12 acres of wheat, that would yield from 20 to 25 bushels per acre. His best performance was 9 acres in a single day, with Mr. T. T., when six horses were changed at noon, it would cut from 15 to 18 in a day. A team would work it in cutting 12 acres with less effort than an ordinary plough. The gentleman referred to is much pleased with the machine. The vendor of this implement promised us an advertisement of it, and would consult his interest in furnishing it early.

Rock county, Illinois. A paragraph is on travel stating that Rock county, Illinois, has grown the last year 700,000 bushels of wheat. There is no Rock county in Illinois. Probably it is a mistake for Wisconsin.

The Illinois Medical and Surgical Journal for December contains articles of much interest to the profession. This work is principally sustained by the faculty of the Rush Medical College, and it seems to us—that we are no physician—that it certainly contains enough in the course of a year to compensate for the dollar charged for it. The College, as we are informed, is now in a highly prosperous condition—the faculty being full, and the facilities of every sort adequate to confer thorough instruction in every branch of the medical art. Cabinets of materia medica and mineralogy are established, and arrangements for a library, of the most selected, are made.

The present class is the largest yet entered since the foundation of the institution.

Carroll county. A subscriber in this county writes us in praise of this county, and states that in the township including Elkhorn Grove, or a part of it, the school section has sold for within a dollar and a half of $8,000. His invitation to call will be gladly remembered if we visit that section.

Liberality. The editor of the Southern Planter says that he has been complimented of advising the farmers to make good roads to market—because this was a branch of internal improvements, and that is a political question! We have seen and heard much of the need of this. We should suppose that this fellow might be caught and preserved for as good a specimen as we.

"Familiar Lectures on Botany, by Mrs. Almira H. Lincoln, new edition, revised and enlarged, illustrated by many additional engravings. Published by Huntington & Savage, 216 Pearl street, New York.

Mrs. Lincoln's Botany is well known in all our higher schools, where it has pretty much superseded all others as a text book, in the study of that delightful science. The student in this work is conducted along so easily, and the successive steps are so well explained, that nothing is left to be desired; and progress is both facile and pleasant.
No. 8 comes from an office where we have about 50 subscribers, and remarks incidentally among other matters—"I find no one who does not think he gets the worth of his money." That is the way we like it. We will work hard to please such men.

No. 9 is from men who wish to know "if a certain machine can be got in the city—if so, of whom, and at what cost; and if not in the city, where, and at what cost, and how shall we get it, &c. &c." We look on our list to see these names of subscribers, but cannot find them. To answer these questions properly, will take at least half a day running up and down the streets of the city, besides writing the letter. We will attend to it.

No. 10 is from a subscriber, and contains a similar request. We will attend to it with pleasure.

No. 11 comes from an office where we have about 50 subscribers, and remarks incidentally among other matters—"What is it you do not like in the Prairie Farmer?—for Mr. A. B. "Here is rank burglary, look you." Could this postmaster have ever read the new post office law? He will do well to read it soon.

No. 12 is from a subscriber suggesting alterations and improvements in the paper. By referring to date, it was written before the new volume commenced. For answer we refer to that.

We look on our list to see these names of subscribers, but cannot find them. To answer these questions properly, will take at least half a day running up and down the streets of the city, besides writing the letter. We will attend to it.

No. 13 reads as follows: I have not the money in hand to pay for the sixth volume. If I should fail to get it till the end of the year, I do not like to pay two dollars for one, or 100 per cent. I think that rather high interest. On such conditions as the above I want my paper stopped till I send the dollar." Very well, that is fair. But you should not complain of the conditions. We do not want any man to pay two dollars for one; but we want the one dollar without fail before the time runs out, and we annex the other dollar to the conditions if it is not placed in the post-office before all to do so. Of course that man must be foolish indeed who will prefer to pay two dollars instead of one. But it is very probable that this very man would be offended if we refused to send him a number till his dollar was paid. He should be satisfied with something. But our space is full. This will do for a sample.

### LIST OF JOURNALS

<table>
<thead>
<tr>
<th>Name of Journal</th>
<th>Price</th>
<th>Place of publication</th>
<th>How often published</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albion,</td>
<td>$8</td>
<td>New York</td>
<td>Weekly</td>
</tr>
<tr>
<td>American Quarterly Journ. of Agriculture and Science</td>
<td>3</td>
<td>Albany, N. Y.</td>
<td>Quarterly</td>
</tr>
<tr>
<td>American Journal of Science, Art, and (Skillman's)</td>
<td>5</td>
<td>New Haven, Conn.</td>
<td>Monthly</td>
</tr>
<tr>
<td>American Review, (whig)</td>
<td>3</td>
<td>New York</td>
<td>Monthly</td>
</tr>
<tr>
<td>Blackwood's Magazine</td>
<td>6</td>
<td>New York</td>
<td>Monthly</td>
</tr>
<tr>
<td>Democratic Review,</td>
<td>6</td>
<td>New York</td>
<td>Monthly</td>
</tr>
<tr>
<td>Eclectic Magazine</td>
<td>6</td>
<td>New York</td>
<td>Monthly</td>
</tr>
<tr>
<td>Edinburgh Agriculture</td>
<td>5</td>
<td>Boston (in 10 parts)</td>
<td>Irregularly</td>
</tr>
<tr>
<td>Farmer's Monthly Library,</td>
<td>6</td>
<td>New York</td>
<td>Monthly</td>
</tr>
<tr>
<td>Franklin's Merchants' Magazine</td>
<td>6</td>
<td>New York</td>
<td>Monthly</td>
</tr>
<tr>
<td>Knickerbocker</td>
<td>6</td>
<td>Boston</td>
<td>Weekly</td>
</tr>
<tr>
<td>Little's Living Age</td>
<td>6</td>
<td>Boston</td>
<td>Weekly</td>
</tr>
<tr>
<td>London Quarterly Review,</td>
<td>6</td>
<td>Boston</td>
<td>Quarterly</td>
</tr>
<tr>
<td>London Review,</td>
<td>6</td>
<td>Boston</td>
<td>Weekly</td>
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<tr>
<td>North American Review,</td>
<td>6</td>
<td>Boston</td>
<td>Quarterly</td>
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<tr>
<td>Penny Magazine</td>
<td>6</td>
<td>New York</td>
<td>Monthly</td>
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<tr>
<td>Popular Lectures on Science and Art, (Larabeau's)</td>
<td>6</td>
<td>New York</td>
<td>Monthly</td>
</tr>
<tr>
<td>Railroad Journal</td>
<td>5</td>
<td>New York</td>
<td>Weekly</td>
</tr>
<tr>
<td>Spirit of the Times</td>
<td>5</td>
<td>New York</td>
<td>Weekly</td>
</tr>
<tr>
<td>Westminster Review</td>
<td>6</td>
<td>New York</td>
<td>Monthly</td>
</tr>
</tbody>
</table>

* Published in Parts, at 25 cts. each. | Republished.
† In 24 Parts, at 55 cts. each.

These publications are all—each in its particular line—the best of which we have any knowledge, either in the United States or in the old world. Many of them are too well known to require more than the mention of their names. Others, though not as well known, are equally excellent. Samples may be seen at our office; and subscriptions paid will be cheerfully forwarded.
### CHICAGO PRICES.

**Corrected, Jan. 24, 1846.**

#### WHOLESALE.

**PROVISIONS.**

<table>
<thead>
<tr>
<th>Item</th>
<th>Wholesale</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Beef</td>
<td>$100.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>do. Mess</td>
<td>$110.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Potatoes</td>
<td>$100.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>do. Mess</td>
<td>$120.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Lard</td>
<td>$7.00</td>
<td>$8.00</td>
</tr>
<tr>
<td>Butter</td>
<td>$12.00</td>
<td>$14.00</td>
</tr>
<tr>
<td>Cheese</td>
<td>$6.00</td>
<td>$9.00</td>
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#### BREAD STUFFS.

<table>
<thead>
<tr>
<th>Item</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flour, superfine</td>
<td>$1.35</td>
<td></td>
</tr>
<tr>
<td>do. fine</td>
<td>$1.30</td>
<td></td>
</tr>
<tr>
<td>do. backwheat</td>
<td>$1.20</td>
<td></td>
</tr>
<tr>
<td>Corn meal</td>
<td>$0.20</td>
<td></td>
</tr>
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#### GRAIN.

<table>
<thead>
<tr>
<th>Item</th>
<th>Wholesale</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat, winter</td>
<td>$0.75</td>
<td>$0.80</td>
</tr>
<tr>
<td>do. spring</td>
<td>$0.65</td>
<td>$0.70</td>
</tr>
<tr>
<td>Oats</td>
<td>$0.20</td>
<td>$0.23</td>
</tr>
<tr>
<td>Corn, shelled</td>
<td>$0.30</td>
<td>$0.33</td>
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#### SUNDRIES.

<table>
<thead>
<tr>
<th>Item</th>
<th>Wholesale</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hide, dried</td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td>do. green</td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td>Feathers</td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td>Beans</td>
<td>$0.75</td>
<td>$0.87</td>
</tr>
<tr>
<td>Cranberries</td>
<td>$0.20</td>
<td></td>
</tr>
<tr>
<td>Potatoes</td>
<td>$0.25</td>
<td>$0.30</td>
</tr>
<tr>
<td>Onions</td>
<td>$0.44</td>
<td>$0.60</td>
</tr>
<tr>
<td>Wood cord</td>
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<td>$0.50</td>
</tr>
<tr>
<td>Eggs</td>
<td>$0.10</td>
<td>$0.15</td>
</tr>
<tr>
<td>Flax seed</td>
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<td>$0.07</td>
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<tr>
<td>Turkeys</td>
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<tr>
<td>Geese</td>
<td>$0.31</td>
<td>$0.37</td>
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<tr>
<td>Chickens</td>
<td>$0.10</td>
<td>$0.15</td>
</tr>
<tr>
<td>Barrels</td>
<td>$0.62</td>
<td>$0.75</td>
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#### RETAIL.

**GRASS AND FIELD SEEDS.**

<table>
<thead>
<tr>
<th>Item</th>
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</thead>
<tbody>
<tr>
<td>Timothy</td>
<td>$0.25</td>
<td>$0.10</td>
</tr>
<tr>
<td>Blue Grass</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Red Top</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Red Clover</td>
<td>$0.18</td>
<td></td>
</tr>
<tr>
<td>White do.</td>
<td>$0.00</td>
<td>$0.00</td>
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</tbody>
</table>

#### SUNDRIES.

<table>
<thead>
<tr>
<th>Item</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt</td>
<td>$0.02</td>
<td></td>
</tr>
<tr>
<td>White Fish</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Mackinaw Trout</td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td>Dried Apples</td>
<td>$0.17</td>
<td>$0.20</td>
</tr>
<tr>
<td>Lard Oil</td>
<td>$0.17</td>
<td>$0.20</td>
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#### LUMBER.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Boards, 1st quality</td>
<td>$0.14</td>
<td></td>
</tr>
<tr>
<td>do. 2d quality</td>
<td>$0.09</td>
<td></td>
</tr>
<tr>
<td>Scantling and joint</td>
<td>$0.10</td>
<td></td>
</tr>
<tr>
<td>Flooring and siding</td>
<td>$0.10</td>
<td></td>
</tr>
<tr>
<td>Lath</td>
<td>$0.20</td>
<td></td>
</tr>
<tr>
<td>do. board</td>
<td>$0.06</td>
<td>$0.07</td>
</tr>
<tr>
<td>Shingles</td>
<td>$0.25</td>
<td>$0.20</td>
</tr>
<tr>
<td>Sash—by 8</td>
<td>$0.29</td>
<td>$0.30</td>
</tr>
</tbody>
</table>

### THE PRAIRIE FARMER.

**Devoted to Western Agriculture, Mechanic, and Education.** Published monthly at Chicago, Illinois, by John S. Wright, containing 32 very large octavo pages, besides a colored cover with advertisements. Terms, $1 per annum, 6 copies for $9, 13 copies for $10, 20 copies for $20, 70 copies for $50, 103 copies for $70, in advance. All communications must be sent free of postage. John S. Wright and J. Ambrose Wight, Editors. Vol. 6, 1846.

#### REASONS FOR TAKING IT.

1. It is one of the largest and cheapest agricultural papers published in the United States. Specimen Not sent to those requesting them.
2. It is not published for the whole country but for the especial benefit of western farmers.
3. It has an amount of the matter supplied by correspondents, more than three hundred in number, from all parts of the West, as a body unsurpassed in ability and practical knowledge, by those of any other agricultural paper.
4. It is illustrated with an abundance of well executed engravings; is well printed on good paper; and each number accompanied by a cover to keep it clean.
5. It contains Chicago Prices Current, with the latest intelligence of New York and other markets.
6. The information contained either under the head of "Veterinary Department," or "Household Affairs," or "Orchard and Garden," is worth several times the cost of the paper.
7. It contains Chicago Prices Current, with the most intelligent of New York and other markets.
8. Common Schools are too much neglected in the West, and two or three pages are occupied with disseminating the most important information concerning them.
9. The pump, 49
10. It is permanently established, and as a western paper should receive the undivided support of Western farmers, particularly as it contains Chicago Prices Current, with the latest intelligence of New York and other markets.
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DEVOTED TO WESTERN
AGRICULTURE, MECHANICS AND EDUCATION.
EDITED BY
JOHN S. WRIGHT AND J. AMBROSE WIGHT.
Vol. 6. MARCH, 1846. No. 3.
JOHN S. WRIGHT, PUBLISHER,
171 LAKE STREET, CHICAGO.
Subject to single newspaper postage only.

Terms—$1 per annum.
THOROUGH CULTIVATION OF TREES.

BY EDSON HAHNESS.

Messrs. Editors: Having been "called out" by your correspondent, F. K. Phoenix, I avail myself of the first leisure hour to make such answers to his inquiries as the nature of the case seems to require. "How do you manage your nursery and orchard to make the trees grow so very fast?" is a question we are called upon to answer a hundred times, perhaps, in the course of a season. We sit down to answer fully, and "make a clean breast of it," so that hereafter, when annoyed with questions at a time when we are working so hard that no breath can be spared for talking, we can at once refer the inquirer to the Prairie Farmer. We love to talk, and it gives us great pleasure to see our friends in the nursery, and to give them all such little scraps of information as we have picked up, in regard to the culture of fruit trees: but when we are putting in to hard work, and have a good deal to think about, as to the best selection, in making up a package for a customer, we cannot very conveniently give lectures on cultivation.

The first inquiry to be answered is "what is the soil and sub-soil are" upon which the nursery is located. The soil consists of a deposit of black vegetable mold, so universal on the prairies of the West. This mold is more or less mixed with clay, and is 20 inches deep. There are probably 120,000 acres of land in Peoria county as good as that upon which the nursery stands, but none that is essentially better. The sub-soil consists of a layer of very pure yellow clay, of the consistence of putty. This layer is 12 to 20 inches thick, and is found almost everywhere in this region. Under the pure yellow clay is found a stratum of clay mixed with very fine sand, which is sometimes nearly white, but very often of a red cast. This last named layer generally extends down to the bed of lime-stone, which is from 30 to 100 feet below the surface of the high table lands. This bed of lime-stone seems to extend over a great part of the county of Peoria, and furnishes inexhaustible quantities of building material. Below the bed of limestone we come to that immense coal bed which is said by geologists to be better and more extensive than any other on the globe. In Peoria county alone there are more than 100 square miles of this coal bed, and it seems to extend over a great part of the county of Peoria, and furnishes inexhaustible quantities of building material.

The average elevation of the table lands of this region above the Illinois river may be stated at 280 feet—the highest being 340 feet and the lowest about 220. The ground where our nursery stands is on a table of about 270 feet elevation above the river, and 15 miles from it. The descent of the ground is to the north, about one foot in fifty. The tops of the trees in the adjacent groves are very nearly on a level with the prairie land upon which the nursery stands, so that the weeds have just as fair a sweep as upon the wide ocean.

Now for the second inquiry—"How is it possible for trees to grow so very fast, and do not wait until the weeds form a crop before we work it over again; in fact we often work it when there is no appearance of weeds. As soon after a rain as land can be worked without baking, we think it needs the plow; for the rain consolidates the surface, and evaporation is very rapid when the surface of the ground is compact. We are also very careful to destroy all insects which prey upon the leaves; for it is obvious that a tree cannot grow when divested of leaves. We use no manure except a little alkali upon the bark of the tree and about the root.

It is astonishing how land will keep moist and sustain vegetation in dry weather, when worked deep and kept loose on the surface. During the extreme drought of the past season, our deep plowed and carefully cultivated land did not dry down more than two inches; and it kept our young grafts growing all summer—many of which, grafted into roots which were only three inches long, have attained the height of four feet.

How our trees grow so fast and escape injury in winter is something of a mystery; but we attribute it in a great measure to the fact that the growth is stimulated to the utmost extent in the early part of the season, and the land suffered to remain dormant from the middle of August to winter. At our last working in August we rake down the surface smooth, and if weeds come up afterwards we cut them off with the scraping hoe, without disturbing the soil. A few of the latest growing varieties will not stand this highly stimulating treatment, and we are obliged to propagate them exclusively by inoculation upon seedling stocks. Another reason why our trees do not suffer by the first frosts of winter, or rather of autumn, may be on account of their exposed situation. The winds of autumn stop vegetation on the high open prairies sooner than in protected situations among timber. Therefore, when the first hard frost occurs, our trees are better prepared for it than in spots more sheltered, where the cold winds have not been so severely felt. But after all that has been said, I believe the principal reason why our fruit trees are so hardy and at the same time so thrifty, is yet to be stated, to wit: that we are in the midst of one of the best fruit regions to be found in the world. Certain it is, that it has never been my lot to see a country where the apple, pear, peach, plum, cherry, and grape, all seemed so completely at home. There is a wild apple tree within a mile of me which is 16 to 20 inches in diameter, and which bears a conical apple near two inches long—or rather did bear such an apple before the tree began to decay, two or three years ago; it was, however, a regular crab in flavor. The wild apple trees of this region, where they have any chance to grow, present a very thrifty and healthy aspect. And it is remarked by
all travelers that our young orchards are superior
to any thing of the kind they ever saw in any coun-
try. The table lands along each side of the Illinois
and Mississippi, from lat. 40° to 42° ought to raise
apples for all the Southern States, the West Indies,
Texas, and—but it must forbear, my sheet being
full. Fruit Farm, Jan. 1846.

FRUIT CULTURE.

BY T. CHAMBERLAIN.

Messrs. Editors: I have often thought I would
say something on the subject of propagating fruit
and fruit trees. I have had twelve years expe-
rience in the West, and have been an interested
reader of your paper, especially on the subject of
gardening and raising fruit. I have had frequent
views of those who have written upon those sub-
jects. And without referring to the particular num-
er in which they were published, I will make a
few comparisons.

In the first place in respect to raising gooseberries
and currants—I have found that I cannot raise them
in the tree form, as we used to do at the East; nei-
er I can raise them exposed to the sun's heat; I
have had for eight years about four hundred cur-
 rant trees in this situation, and in no one season
have I gathered more than half a bushel of fruit
from them. It has been the same with my goose-
berries—while the bushes from which I procured
my cuttings produced abundantly, being cultivated
thick, and much shaded. The only place that I
know of near me, where fruit was obtained last
summer, the bushes grew entirely in the shade, on
the north side of a large building. I intend to trans-
plant all of mine into shady places the coming
spring.

Next, as to grafting trees in the root—my expe-
rience has been the same as one that has already
written upon the subject: that some kinds of apples
it is not best to graft into the root; some of them
were named by the writer. I have found that the
Rambo, the Baldwin, and some others, are liable
to burst the bark near the ground.

As to pears, I have found no difficulty in raising
the trees; and notwithstanding what some say
about their being so tender that you must not wash
them with lye, I have washed them twice a year
with the strongest I could make; I have two hun-
dred standard trees, of thirty varieties, and have
found it did them good, as well as the apple and all
other fruit trees. I also slit the bark, from the limbs
to the ground, with some two or three cuts; this I
do to all of my trees, and cultivate them as highly
as I can, excepting the cherry and the peach.

Most of my pears are of the modern kinds, and
as yet too young to produce fruit.

Cherries. I have found it much more difficult
to get them along than any other tree; although I
have some handsome trees of the Tartarian, Black
Heart, and Waterloo. As yet I have had
very little fruit except from the Waterloo; a few
fine ones from the other varieties. The cherry trees
are very apt to burst open in the winter and be in-
jured, upon the south side. For three years I have
cut them twice in the season, in order to give the
wood an opportunity to expand; and since I have
adapted this mode they have done better; but still
I have my fears that upon our prairie lands the
choice varieties of cherry will not do well.

Nor yet have I been able to have many plums
come to maturity, on account of the curculio; but
I have had a few fine ones, such as the Queen
Mother, Yellow Gage, Dunns Purple, and Italian
Damask: the Queen Mother was the same size of
the Washington, that you gave an outline of in
your January number; it was by measurement a
little longer.

Grapes I have found no difficulty in raising, to
great perfection.

Peaches. Of these I have from thirty to forty
varieties, equal perhaps to any in the country. The
other day I went out to thin out an old nursery of
peach trees, and to my surprise found them nearly
all killed within five inches of the ground. I also
examined my standard trees, of which I have sev-
eral hundreds, standing in all situations—some on
low ground, some on the north side of a hill, some
on the south; some of my trees are ten years old,
some two years. I can scarcely find one living.

I have my fears that the freeze has extended far;
and wide. I would like to say a few words upon an exper-
iment made in grafting. Two years ago I inserted
some apple grafts by what is called side grafting,
in the month of October, to see if they would not live—as I had conceived the notion from some ex-
periments made during the summer, that I could
graft in some form every month in the year. The
number of grafts inserted was ten, all of different
kinds of early fruit; more than one half lived and
were killed to the ground, some on the north side of
a hill, some on the south; some of my trees are ten years old,
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a hill, some on the south; some of my trees are ten years old,
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that when shutting up the glass in the fall, they
had shut in a small branch of a plum tree, and by
the action of the heat of the hot-house upon it, it
had blossomed handsomely. What do you have
hot-houses for, but to bring forward the grape early,
when the roots are some feet from the building, out
of doors? These things have satisfied me that
warmth applied to the trunk or limbs of a tree will
cause the sap to flow.

These are, my dear sir, some of my observations
and experience; if you think them worth spending
your time upon to look them over, you are welcome
to them. There are many more things I might
say something upon, but I think I have said enough
for the present. I wish you much success in your
paper.


ROOT GRAFTING.

MESSRS. EDITORS: I see in the Farmer for last
month some remarks on root grafting. I will give
you my plan in a very few words. I take my
grafting wax and melt it; then I take old cotton
cloth and dip it in the wax, and as I take it out,
scrapse off as much as I can conveniently. When
cold I taer them into strips about half an inch wide;
then I take those roots that are less than half an
inch in diameter, and prepare them in the form of
what I suppose to be cleft grafting. I like to have
the scion and stalk as near of a size as possible,
though I am not very particular. I bind them to-
gether by winding them with one of the narrow
strips. It is very quickly and easily done, for it
requires no tying, on account of its being sticky.
A person with a little experience may graft a hundred
or more in an evening. J. B.

Bunker Hill, February, 1846.

Our correspondent does not tell us how he makes his
seat. — Ed.

CHERRIES.

BY R. HODGE.

MESSRS. EDITORS: Perhaps a few remarks on
Fruits may prove acceptable to the readers of the
Prairie Farmer. In this number our remarks will
be confined to the cherry—a kind of fruit well wor-
thy a place in every garden and orchard. The
cherry soon comes into bearing; a very vigorous
grower—so fruit more so; a favorite with every
body; productive and profitable. Permit me barely
to refer to one fact. Mr. Cattle, of Cleveland,
Ohio, in 1844 realized near $1000 from the sale of
trees which grew on 104 trees. A full state-
ment of this crop may be found in the Genesee
Farmer of that year.

Black Heart. An old variety, perhaps more
generally known than any other. The tree is very
hardy and productive. Fruit of large size, heart-
shaped. Skin dark purple, and when fully matur-
ed, very black. Flesh very dark, tender, juicy,
and of fine flavor. Ripens the beginning of July.

May Duke. A well known old variety, highly
esteemed; very early and productive. The tree is
but a moderate grower, and never attains a very
large size. The fruit is highly valued for cooking
purposes, and when fully ripe, pleasant and agree-
able. Fruit obuse-heart-shaped, and of a dark
red color. Ripens about the middle of June.

Early Purple Guigno, or Early Purple Griotte.
A new variety, as yet but little cultivated, but bids
fair to be very valuable. Matures its fruit earlier
than any other variety. The tree is rather a mod-
erate grower, but so far has proved very productive.
Fruit of medium size, heart-shaped. Skin very
dark red—at maturity nearly purple. Flesh ten-
der and good. Ripens a week or more before the
May Duke.

Yellow Spanish, Graffon, or Bigarreau. This
fruit is known by some fifteen different names. In
the London Horticultural Society's Catalogue, and
in Downing's Book of Fruits, it is called "Bigar-
reau." But why should it be called Bigarreau,
merrily? There are a large class of the Bigarreau
cherries, and each should have its specific name.
Why not with just as much propriety call some one
of the Heart cherries "Heart," or some one of the
Duke cherries "Duke," as to call this "Bigarreau"?
May be it is the parent of the Bigarreau family.
At all events it is one of the very best of cherries,
producing and superior in all respects.
Fruit of large size, obuse-heart-shaped. Skin pale
white, yellow, with a fine crimson blush on the
side next the sun. Flesh very firm, juicy, and of
a superior rich, sweet, agreeable flavor. The tree
comes early in bearing; and the flesh, firm and
hard, renders it very desirable as a market fruit.
Ripens here about the first of July.

White Bigarreau, or White Ox Heart. A pop-
ar and well-known variety, extensively cultivated
in some parts of the country. Fruit of large size,
heart-shaped, somewhat irregular. Skin pale yel-
owish white, and when fully matured nearly one
half of the surface finely marbled with red. Flesh
half tender, and of an agreeable sweet flavor.
Ripens here about the first of July.

Black Tartarian. In the opinion of many "none
better, if as good." A fruit of exalted merit, and
well worthy of extensive cultivation. The tree is
of vigorous growth—none more so. Its large leaves
and beautiful pyramidal form, render it very strik-
ing in its appearance. Fruit of the largest size,
obuse-heart-shaped. Skin smooth, of a fine pur-
plish black, but not quite as black as the true Black
Heart, and the fruit somewhat longer in proportion
to size than the last named. Flesh half tender,
very juicy, and of a rich, delicious, high flavor.
Ripens here towards the end of June.

Elton. A most superior fruit in all respects—
productive and fine. The tree is of vigorous growth;
the young wood, however, is rather slender, and
often grows rather crooked in the nursery; as the
tree advances in growth, it becomes erect, making
a beautiful head, and soon becomes a large spread-
ing tree. The fruit is of large size, rather long,
heart-shaped. Skin of a fine purplish black, except
on the sunny side, which is finely mottled with red.
Flesh rather firm, and when fully matured, of a
very rich, luscious flavor. Ripens the last of June
or first of July.

Waterloo. A very productive and valuable va-
riety, as yet not extensively known. The original
tree is said to have first produced its fine fruit about
the time of the battle of Waterloo—hence its name.
Fruit of rather large size, obuse-heart-shaped, skin
when fully ripe of a glossy black. Flesh very tender, juicy, rich, high flavor. Ripens early in July.

Napoleon Bigarreau. This fruit we have not yet fully tested, having fruited it last season for the first time. It bides fair, however, to sustain the high reputation given it by others. Fruit very large, rather long, heart-shaped. Skin pale yellowish red, richly marbled. Flesh firm, juicy, and fine. Ripens early in July.

English Gaskin. This variety was brought here from England by an English gentleman some thirty years ago. Probably the name is not the true one. However we are not acquainted with any other variety like it. The tree is of unusually vigorous growth. Very productive, and a good market fruit. The fruit, to be fine, should be left on the tree till fully matured. Fruit of medium size, heart-shaped, rather long. Skin when fully ripe, deep black. Flesh very dark, firm, juicy, sweet, and fine. Ripens about the tenth or fifteenth of July.

American Heart. The growth and habits of this variety somewhat resemble in appearance the Black Tartarian. Fruit of rather large size, heart-shaped, often quite irregular. Skin pale yellowish red, but when fully matured becomes much darker, and is then of a sweet and agreeable flavor. Ripens towards the end of June.

Arch Duke, or Late Duke. One of our most valuable late varieties. The tree is truly ornamental, growing in a beautiful pyramidal form, with wide expanded branches. Fruit quite large, obtuse-heart-shaped. Skin of a dark red, somewhat mottled. Flesh quite tender, very juicy, and of an agreeable sub-acid flavor. This fruit in ordinary seasons does not fully mature before the latter part of July; and often can be retained on the tree till the middle of August.

Belle de Choisy. A popular fruit of very beautiful appearance, belonging to the Duke family. Fruit of over medium size, quite round. Skin pale amber color, most beautifully mottled with yellowish purple; the side exposed to the sun handsomely tinged with red and nearly transparent. Flesh tender and fine, and of a sweet, delicious flavor. Ripens towards the end of June.

Tradesman's Black, or Elkhorn. An excellent variety, well worthy of extensive cultivation. The fruit being very large and solid renders it highly valuable as a market fruit. Fruit very large, heart-shaped. Flesh very firm, and of a rich, sweet, agreeable flavor. Ripens about the tenth of July.

Buffalo Nursery and Hort. Garden, Jan. 1846.

GRAPe PRUNING.

During the last and the present month, it is the custom of many cultivators to prune their Grapes, and though it is maintained by some that it should be done earlier in the season, no good reason can be given why the present month is not as good as any other time, provided it be done before the sap starts. It is matter of dispute, whether bleeding, as it is called—which results from pruning after the sap has started—is injurious; but it is reasonable to suppose that profuse bleeding will weaken the vine, as it exhausts it of the sap destined for its growth and sustenance.

There are two modes of pruning Grapes, each of which may be followed, according to circumstances. This may be understood by explanation of the cut. No. 1 represents the plant of one year’s growth from the cutting, which is to be cut off to one good bud, as at a. The lower bud is not counted. No. 4 represents the plant two years after setting out, with the two year old horizontal shoots as they must be cut into two or three buds. The two buds next the stem are to be allowed to grow as high as they please, to be tied to the trellis. No. 3 represents the vine four years after setting out, with the two centre branches that bore fruit last year as they must be cut down to their origin, the next two cut down to four buds for bearing fruit; the next two to one good bud for producing one good wood shoot each; and the next and last two to three buds for bearing fruit. That is, the two horizontal branches are extended each way four feet—eight feet in all—and furnished with eight stems, one foot apart from each other, of which one half are to bear fruit one year, and the other the next. In our climate and soil eight feet will be found too little, and the distance should be increased as circumstances require.

The other mode of trimming is that shown in the other figures, where one main upright stem is allowed to grow, and the branches on each side are kept alternately long and short, so they may bear accordingly. These modes are adopted to prevent the accumulation of vine and foliage in any given place, and to keep every part open to the sun and air, so as to grow and ripen the fruit.

We trust that the subject will be understood from the explanations, though with more room we should have made this article more minute. Should any of the vines after cutting be inclined to bleed, the end cut off may be sharpened, and a potato stuck upon it. This is pronounced by one who has tried it, efficacious.
MANAGEMENT OF SHEEP—PARTURITION

The usual period of gestation with the ewe is five months, or an average of 152 days.

The proper time for parturition must be determined by circumstances, of which climate and locality are the most prominent, and these the flock-master must steadily keep in view. The month generally selected in the Northern and Middle States is May, the vicissitudes of the climate forbidding an earlier period, unless in instances where buildings are provided for shelter, the expense of which is greater than the majority of farmers are willing to incur.

The ewes during pregnancy should be disturbed as little as possible, and every attention paid to the quantity and quality of their food. Ewes, however, should not be kept fat at this stage; indeed this state is injurious, as it predisposes them sometimes to abortion; but what is usually termed "good store condition" should be maintained through the whole period of gestation. Neither should ewes be exposed to storms and cold during the winter and early spring months, but thoroughly protected from both.

A healthy offspring cannot be expected from any domestic animal, in our rigorous climate, if the dam has been permitted to suffer the hardships of cold and starvation; therefore it will be wise if the sheep husbandman will always hold up to view the apothegm, "so the dam, so the offspring." There must be good condition to sustain the mother in the trying hour of lamb-birth; and like good condition is equally necessary to sustain the lamb subsequently, and impart to it sound constitution, size, and thrift.

The field chosen for the ewes' fold should be dry, free from stumps and open ditches, and possess as level a surface as possible; as in little hollows ewes are liable to be cast, which is caused by lazily stretching themselves in sunny weather, when in a lying posture. In this situation they will often be found flat on their backs, and violently kicking the air, without the power of recovery, until killed; and if unseen by the shepherd, death will follow sometimes in a few hours. But perhaps no field affords that smoothness of surface to prevent these too often fatal occurrences, and therefore, the duty devolves upon the shepherd of passing leisurely over every part of the field several times during the day, to guard against them. But this duty must not be delayed until some of the ewes have dropped their lambs; he must commence his career of watchfulness at least ten days before; for it is very common with ewes that are in over good condition to be found in this perilous situation some days before their time.

Other duties obligatory upon the shepherd are lucilly set forth by Mr. Youatt, as follows:

"The lamb should have with him his lamb-crook; a bottle of milk—ewe's milk if possible, and carried in his bosom or in an inside pocket; that it may be kept warm; some cords to tie the legs of the ewes that he may have occasion to assist or examine; a little pot of grease or oil, to lubricate his hand, if he should have occasion to introduce it into the womb of any of the ewes; a sharp knife, with a round or rather curved extremity, should it be necessary to remove the lamb piece-meal from the mother; a piece of stout polished iron rod, of the size of a goose quill, twelve inches in length, and rounded somewhat like a button hook, in order to remove from the womb a dead or divided fetus; a small quantity of cordial, consisting of equal parts of brandy and sweet spirits of nitre; and a strong infusion of ergot of rye.

"The lamb during having commenced, the attention of the lambter should be increased. He should carefully observe every ewe that appears to be in labor. While she walks about and does not exhibit any extraordinary degree of suffering, he should not interfere; nor should he do so if she raises when he approaches, and walks away, unless her labor be prolonged twenty hours or more.

He should not be in haste to render his assistance, although she should be continually lying down and getting up again, and showing more impatience or irritability than actual pain; but if her strength appears to be declining, his immediate aid is required. If he has to drive her to the fold or pound, it should be as gently as possible, or he may drive some others with her, in order that she may not be frightened by being alone selected. The early interference of the lambter is always prejudicial, and very frequently fatal. Nature, in the course of twenty or twenty four hours, will, in a great majority of cases, accomplish that which cannot be hurried on by art without extreme danger.

"The state of the weather will cause a very considerable difference in the duration of the labor. When the weather is cold and dry, especially if the situation is somewhat exposed, the progress of the labor will be slow—the throes will be comparatively weak and ineffectual, and the ewe may and should be left a considerable time before mechanical assistance is rendered. When, however, the weather is warm, and especially if at the same time it is moist, the throes will be violent, and the strength of the sufferer will be very rapidly wasted; there will be a dangerous tendency to inflammation, and the aid of the lambter is speedily required. Except under these circumstances, no motive of curiosity, no desire to know how the affair is going on, should induce the lambter to interfere while the throes are natural and the strength continues, unless it is evident, without handling the ewe, that a false presentation, or some mechanical cause, prevents the expulsion of the fetus. When the ewe is nearly exhausted, she will often suffer the lambter to kneel beside her and successfully afford the requisite assistance. If there is a violent struggle between the patient and the lambter, the fetus will often be destroyed; but his help, when she quietly submits to him, will rarely fail to preserve the mother and her offspring. Let it be supposed that, from certain circumstances, she is driven to the pound, or that she is lying quietly by the lambter in the field. He should first endeavor to ascertain the nature of the presentation. Is the lamb coming in the right way—with its muzzle first and a fore-foot on each side of it? If the tongue is not protruding from the mouth and becoming almost black, and her strength is not quite wasted, a table spoonful of his cordial, with double this quantity of the infusion, will probably increase or recall the pangs; and the lamb will soon be born. If this is not effected:; a quarter of an hour, a second dose of the infusion should be
Management of Sheep—Parturition or Lambling.

given; and, that being followed by no good result, he should try what mechanical assistance will do. He should draw down first one leg and then the other, endeavoring with his finger to solicit or count the head onward at the same time. If he cannot readily get at the legs, he should push the head of the lamb a little backwards and downwards, when he will probably be able to grasp them. If he does not now succeed, the cause of the obstruction will be sufficiently plain, namely, the too great largeness of the head, which cannot pass the arch of the pubis; and, therefore, either tying the legs of the ewe, or an assistant keeping her down on the right side, the lamb should grasp the two fore-legs in one hand, and with one or two fingers of the other, urge it forward with as much force as is consistent with the safety of the lamb. The young one will rarely fail to be extracted by these means, unless the head very much exceeds the common size."

In addition to the above sound observations, when mechanical aid is employed, it is always accompanied with considerable fright to the ewe, and if she is permitted to escape immediately after the birth of her lamb, will often refuse to own it; therefore, should it be alive, let it be placed at once before her, and by its form and scent she will in most cases recognize it as her offspring. On the whole, the safest way is, to secure the ewe in a small pound and, therefore, either tying the legs of the ewe, or an assistant keeping her down on the right side, the lamb should grasp the two fore-legs in one hand, and with one or two fingers of the other, urge it forward with as much force as is consistent with the safety of the lamb. The young one will rarely fail to be extracted by these means, unless the head very much exceeds the common size."

The lambs of fine-wooled sheep are extremely sensitive to cold and wet when they drop, and to guard against exposure, the sheep-master must endeavor to anticipate storms, and place his flocks beneath shelters. These should be capacious, as the ewe dislikes too much company at the time of parturition, as will be noticed in her retiring often quite distantly, if in a field, from the rest of her companions, when the event is about to transpire. In such instances where no shelter is provided, great labor and diligence must be employed, the presence of the flock-tender being constantly needed, with his bottle of warm milk, and putting the most helpless in a large basket, lined with hay and straw, and bringing them before the fire for an hour or more, until animation is restored. When lambs are separated from their dams under such circumstances, care should be observed not to have them wrapped or touched with any thing that is tensive, as its scent, when very young, is the principal source of recognition by the mother. A clean ancket or woolen cloth will be best, if swaddling is found necessary.

It is proverbial that the Merino and Saxon varieties are not as good nurses as the English breeds, and nature therefore rarely overtasks, by supplying em with twins. When this occurs, however, if the ewe is in her prime, condition good, udder large, and her knees sound, it will be proper to let both the twins run with the mother; but if the reverse of is, let one of them be brought up by hand, or, as the Spanish custom, be destroyed. A different case will probably cause runs of both, and is one of the means by which many flocks, in process of time, are sadly deteriorated.

When the ewe loses her offspring, it is followed by a distension, and frequently an inflammation, of the udder. But such cases will be found by the reader fully treated of in the chapter of diseases, under the head of garget.

During the period of lambling, continuing as it does for a fortnight or more, the pasture for the ewes, if they are in fair flesh, should not be luxuriant; but when it is passed, then they may be removed to better keep; and in all cases the situation should be dry, and free from too great exposure.

If the season has been unpropitious for early grass, and consequently the keep during parturition too low, the flock should have the run of two lots, which should adjoin, and the communication between them be kept open. The adoption of this course prevents the confusion incident to changing the whole flock at once.

The number of ewes herding together at this important period should not exceed one hundred, and a still less number will result advantageously to both the flock and master. He should at all seasons keep before him the fact that a few sheep kept together will do better than many, which will be more particularly enforced hereafter.

The affection of the ewe for her offspring is often exceedingly strong, as the following example will testify, although rather an extraordinary instance, related by the Ettrick Shepherd.

"One of the two years while I remained on the farm at Willenslee a severe blast of snow came on by night, about the latter end of April, which destroyed several scores of our lambs, and as we had not enough of twins and odd lambs for the mothers that had lost theirs, of course we selected the best ewes and put lambs to them. As we were making the distributions I requested of the master to spare me a lamb for a ewe which he knew, and which was standing over a dead lamb, about four miles from the house. He would not let me do it, but bid me to let her stand over her lamb for a day or two, and perhaps a twin would be forthcoming. I did so, and faithfully did she stand to her charge. I visited her every morning and evening for the first eight days, and never found her above two or three yards from the lamb; and often as I went my rounds, she eyed me long ere I came near her, and kept stamping with her foot to frighten away the dog. The weather grew fine and warm, and the dead lamb soon decayed; but still this affectionate and devoted creature kept hanging over the poor remains with an attachment that seemed to be nourished by hopelessness. It often drew tears from my eyes to see her hanging with such fondness over a few bones, mixed with a small portion of wool. For the first fortnight she never quitted the spot; and for another week she visited it every morning and evening, uttering a few kindly and heart-piercing bleats; till at length every remnant of her offspring vanished, nothing with the soil, or wasted away by the winds."

WAR ENGINE. Col. Ketchum's war Hand Grenades are exciting attention at Washington. One thrown into a vessel will blow it up.
It is not perhaps necessary to remind our readers that the spring will now soon be here; and as a consequence of its coming, several duties will of necessity come with it. Among these will be the one of setting out trees. Perhaps not a few of the readers of this paper have not yet begun to make an orchard—not having as yet got their ground ready; or it may be, that a spirit of procrastination, or some absurd prejudice has prevented. Others may so far have been wrong, that all hitherto-done is little better than though not done at all. It is often the case that when spring comes, and the farmer resolves on buying a few trees, that from not having given the subject previous reflection, he is at a loss how to make a selection of fruits; and as the making of an orchard is a work for life, he is left to regret afterwards that he did not give the subject more reflection. It is with a view of calling attention to the matter that we propose to give a list of apples, embracing a sufficient variety and number to answer the wants of most cultivators. It is however to be remarked that no list will suit all tastes, and that all trees will not flourish equally well in different climates and soils. We have not room for extended descriptions, and shall append the names with such brief remarks as may seem necessary.

Among summer apples, may be named Carolina June, or the Red Gum of the nurseries. Ripens two hundred miles south of this from the first to the 30th of July.

Sweet June. Ripens at the same time with the last. Both of these are healthy growers and abundant bearers.

Kirkebridge White. According to the Indiana Farmer and Gardener, this is not found out of the nurseries of Indiana, but we incline to the opinion that some of the nurseries in the centre of this State could produce it. Its fruit ripens from the first of July to the middle of August, occupying about six weeks. Flavor mild, pleasant acid.

Summer Pearmain. A rich flavored fruit; ripens from tenth of August to September.

Early Harvest. This is known by a variety of names, as Prince’s Harvest, July Pippin, Yellow Harvest, Large white Juneating, Tart Bough, and Early French Reineette. It is an American fruit. It is a rich, beautiful, fragrant apple, and is pronounced by Downing the finest early apple known. Ripens in July.

Early Strawberry. A fragrant and fine summer fruit, ripening about the middle of July.

Large Yellow Bough, otherwise early Sweet Bough, Sweet Harvest and Bough. A fine table fruit.

Drop D’Or—otherwise called early Summer Pippin, Bay Apple, Bonne de Mai. It is an early and abundant bearer.

Kennicot’s Codlin. A very juicy, tender fruit, ripening gradually from the middle of August to the end of September. It is a superior cooking apple, and an astonishing bearer. Mr. Hodge states that trees of this sort in his nursery not more than four or five feet high are often loaded with fruit, bending the tops to the ground.

Red Astrachan. A beautiful fruit, ripe the fore part of August; of pleasant flavor, but liable to become instable if kept too long.

Autumn Pearmain. A very large apple, but a high flavored dessert fruit.

Maiden’s Blush.—A tender, juicy, acid fruit, excellent for drying.

Gravenstein. This is a German Apple; but Mr. Downing says that it fully maintains its excellence here, and pronounces it a first rate fruit. Very large. Ripens September and October, but will keep a month longer.

Wine Apple. This, to our taste, is a poor fruit for the table, but is pronounced superior for drying, and will bring this prepared, where it is known, a much higher price than any other fruit.

Holland Pippin. Known as the Reineette d’Hollande, Summer Pippin and Pie Apple. It is a large fruit, ripening in August, but lasts to November. A superior kitchen apple.

Lyman’s Pumpkin Sweet. A very valuable apple for baking.

Porter Apple. This is a decided favorite in the Boston market, and deservedly so. Fruit very fair, and the tree productive. It is a Massachusetts fruit, and may or may not succeed as well here.

Rambo. A medium sized fruit of excellent quality for table or kitchen. Ripens from October to December. The tree grows well on light sandy soils, and bears remarkably young. It is known in New Jersey by other names, as Romanite, Seekno further, and Bread and Cheese Apple. It is not, however, to be confounded with the true Seekno further.

Ross Nonpareil. An Irish fruit, very excellent. There are many other varieties in repute, as Pumpkin Russett, Jersey Sweating, both sweet apples—and Red Ingestro, Lyceum, Golden, Russet, &c.

Winter Apples. It may be needless to remark that more zeal and skill have been expended in perfecting the winter varieties of apples than any others, and consequent-
ly the list to select from is very large indeed. We will put at the head of them the apple which in the Eastern States has long, by common consent, stood there, and in our opinion will not be ousted from its position very soon, unless by its own deterioration.

Rhode Island Greening. Too well known to need any description. We however met with a lot a few days since so fair, though of rather less than medium size, that we had its outline taken, which is given on the preceding page.

We have regretted to observe that in many instances this tree has not grown well in our western prairies, but hope it will yet be found to succeed better.

Baldwin Apple. Mr. Downing places this fruit at the head of New England apples, a place which, in our opinion, it does not deserve. It is, however, a splendid fruit, of a rich high flavor—the tree an abundant bearer.

Belle Fleur. Of this there are two kinds, the yellow and white. The yellow is the largest; but the white is more known at the West, being largely produced in Ohio. They are both excellent apples. Keep from October to March.

Gloria Mundi. Known also as Monstrous Pippin, Baltimore Glasswood Gloria Mundi, New York Gloria Mundi, American Mammoth and Ox apple. It is of an immense size—boars on moderately young trees, excellent for cooking, and fair for eating. It is rather a shy bearer, and on account of its great weight is apt to fall from the tree. It sometimes weighs nearly a pound and a half.

Lady Apple. A small but choice dessert fruit.

Newtown Pippin. There are two varieties of this—the green and the yellow, but Mr. Downing pronounces the yellow superior. The tree is a slow grower, and without skill a shy bearer.

Blue Pearmain. A large and exquisitely beautiful apple, whose beauty is not exceeded by its flavor; but a poor bearer, and consequently not very popular.

Sour. A very fine fruit, but requires a deep, rich, sandy loam to perfect it. The specimens which find their way into our market are inferior.

Ladies' Sweeting. Pronounced by Mr. Downing the finest winter sweet apple for the dessert yet known in this country.

Esopus Spitzenburg. This well known fruit is one of the most beautiful of all apples. The colors differ, however, considerably, from situation. The fruit has few, and in the opinion of some, nosuperiors. Rather a shy bearer.

Browne's Janet or Jeansetting. This should not be left out of any western catalogue. The tree is a determined grower, and when it comes into bearing, it produces abundantly. It blooms about ten days later than other varieties. The fruit keeps as well as the Newtown Pippin, and by many is preferred to it.

We have no room for further enumeration, and will barely mention the Red Sweet Pippin, Pryor's Red, Hubbardton's Nonesuch, Sweet Pearmain, and Golden Pippin.

Coffee. The proper roasting of coffee is a very delicate operation. If roasted too little, its full flavor is not developed; and if roasted too much, the flavor is dissipated, and a bitter, astringent, carbonized article is the result.

The nicest way of roasting it is in a hollow cylinder of sheet iron, made close, which is kept turning over a brisk fire, to heat it evenly. When the coffee has attained a deep cinnamon color and an oily appearance, and the fragrance of roasted coffee is perceived to be sufficiently strong, it should be taken from the fire, well shaken, and suffered to cool. Not over a half pound should be roasted at once.

The coffee rea-ted at once should never fill the cylinder more than one third full, as the bulk is nearly doubled in the operation; and before being put into the cylinder should be dried thoroughly in an open pan over a slow fire, being kept stirred all the while to drive off all moisture. This may be continued till it turns yellow. So says Dr. Webster.

To Cook Eggs. A year since we published the following mode of cooking eggs; and as the egg-eating season is approaching, we are induced to repeat it, particularly as many journals after copying, either seemed to misunderstand, or were disposed to be merry over it.

Pour water, heated to the boiling point, into an iron vessel, and set it upon the stove where the same heat will be maintained, but not where it will boil; then break the eggs into it and let them remain until cooked, which is easily known; then take them out of the water and serve up with salt, butter, and pepper. To our taste, they are far better than those cooked in any other mode. Try it before you spill any wit upon it.

Ants. A writer in the Boston Cultivator says that ants, red or black, may be easily destroyed, and the cup board cleared of them, by putting a dish of sugar and water in their way. In their eagerness to drink they will drown.

Bread has been made of a great variety of substances: Taccia, Bread nut, Lotus, Acorns, Potatoes, Moss, Bark of the pine, Roots of fern, Wood, Starch of horse chestnuts.
RABBITs. DEEP PlOwING.

BY R. C. LYMAN.

MESSRS. EDITORS: I have a remedy for rabbits which I have tried for the last five years with entire success upon my small fruit trees. Kill a rabbit, cut it in two, and rub the trees with it—blood, hair, flesh, intestines and all—from the ground up as high as the rabbits can reach, until the trees are well besmeared. This will do no injury to the trees unless it is done with the sharp bones of the rabbit. I formerly applied rancid grease, so the great injury of my trees; cornstalks, also, but it was too much labor; in short, all the remedies mentioned in Professor Turner's communication except vegetable oils and the hounds, but have found it for my interest to discontinue them all for the rabbit. Rabbit will not eat rabbit. One word more: keep the pigs from your trees after you have applied the rabbit to them, or they may prove worse foes than the rabbits.

If you please, Messrs. Editors, I will give my experience upon deep and shallow plowing. For corn plow beam deep, in the spring; the soil seeds of last year will thus be turned under so deep that if they vegetate at all it will be so late that the corn will get the start of them, and by diligently using the cultivator and plow they may be kept under during the season. Another advantage is, ground thus plowed stands a dry or wet season much better than ground skimmed over with a plow. The result has been, the deep plowed ground has produced from 25 to 40 per cent more than the other.

Sangamos Co., Jan. 1846.

WHEAT.

BY THOMAS H. RICE.

MESSRS. EDITORS: You call for practical matter—therefore I hope you will allow me to give so much of my practice in wheat culture as differs from that of some of your correspondents. My plan is to sow 14 bushels of wheat to the acre. Thick sown wheat has generally yielded heavier crops for me than that sown thin. I have never seen a failure of a wheat crop because it was sown too thick, but have often seen it fail when the only cause was that it was sown too thin, or was not well covered. To be convinced of the correctness of my practice, one has only to cut through a field of wheat that has been sowed unevenly, and notice carefully the difference between the thick and the thin; the former will be found to be much better. Therefore I recommend to sow thick. It ripens earlier, and is consequently less apt to rust. It yields more bushels, weighs more pounds to the bushel, and is worth more a pound.

When I put in a crop of fall wheat I leave the surface of the ground as smooth as I can, and am careful to have it well drained. My reasons for so doing are (and first let me premise that either a very wet or very dry freeze is very apt to kill wheat—the former being more so.) 1st, When soil that contains a large portion of water thaws in the winter, (which it often does,) it slides (if it is not smooth) from the ridges into the furrows; hence the natural position of the wheat is changed, and the roots are stretched. During this preternatural extension, a hard freeze is often fatal to the life of the wheat.

And again, when such a thaw is accompanied with rain the earth is washed from the roots of the wheat, which leaves the neck bare and it is only supported by the very small roots, which a few days of freezing wind will completely dry, and the death of the plant is the inevitable consequence. And further, when a heavy rain falls, the water flows to the furrows and a hard and sudden freeze covers the wheat with ice, which deprives it of the air, and the wheat is killed, but retains its green color until the ice melts and the wheat is again thrown into its natural element—exposed to the air and sun—when it withers and dries: hence the notion that only dry freezes injure wheat.

A further reason: if cattle be permitted to trample wheat (but they should not) where the ground is not smooth, the slipping of their feet bruises the wheat, which either injures its health or causes transmutation or death. But where the surface of the soil is level, the extremes of wet and dry are less, the soil is not moved by wind, rain, or thaw, and at harvest the wheat will stand regular on the ground, ripen more evenly, and be of a uniform height; consequently the cradler can do his work better.

The points on which I have written may be deemed of small importance; but when we consider the vast amount of labor and capital that is annually bestowed on the culture of wheat in this State, we conclude every part of the business deserves attention.

Spring Grove, Henderson co. III.

GUADaluPE MERINO SHEEP.

BY THOMAS SAWYER.

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the fine wool stock, is long. On opening it, the appearance is beautifully white, free from the hard crinkled yolk, but saturated with the volatile oil, which gives it a delightful soft and silky touch. It has a great advantage over the Pauar stock in this respect of gum or yolk, which is so much disliked by the manufacturers; and is free from far for white hair, to which that stock is subject. The fleeces are heavy.

I enclose you a sample of the wool of a buck called King Philip, who is the sire of the principal part of my flock, and cut last season 10 lbs. of wool, washed on his back; and the same quantity the year before. I likewise enclose you the sample of one of his last spring lambs, called Pokanokett, and also samples of some of my ewes of the same stock. This stock crossed on the common sheep of the country makes a good staple, adds greatly to the quality of the wool and the value of the fleece, and will be a great acquisition to the wealth of the farmers of the West. I mean to keep this blood pure and unmixed, so that I can at all times furnish pure stock.

Your section of the Union is destined to be a great wool-growing country; and you have a great object in increasing the quantity and quality of your fleeces. Cincinnati, Ohio, Jan. 1846.

Mr. HARDIE.

CONDENSED CORRESPONDENCE.

Peas—a New Variety. Mr. Hiram Griffiths, of Union, Wisconsin, informs us that he has a sort of pea which is much sought after in that section. The pea is nearly white, with a brown eye, but its name is unknown to him. He promises us some for distribution.

Fatal Disease among Cattle. Mr. S. Jameson, of Hanover, Joch Davis county, writes us as follows: "We have been visited in this place with a very fatal disease among the cattle, a few days since. One man, out of 19 head, lost 11; others have lost as many, but not as many in proportion to the number they had. When we can arrive at any conclusion as to the cause and remedy, I will write to you."

J. E. R. of Philadelphia asks "are there any pure Saxons or high bred Saxon Merinos sheep in your section of country, or west of you in Illinois or Iowa, for sale I and for what could they be bought?"

There are pure Saxons in this section, though they are not plenty, and we are not able to say whether any could be bought. High bred Saxon merinos are not uncommon, and can be had at about eastern prices.

Carroll County. A letter from a gentleman in that county informs us that it is "filling up with industrious and enterprising inhabitants." A fact which we can easily believe from the list of subscribers forwarded in his letter.

Grapes—Canker Worm. Mr. William Walker, of Bloomington, Ill. writes as follows: "I am desirous to be informed more extensively in regard to all kinds of fruit, especially the grape. I have been growing the grape for several years; the vine grows very fine, and the grapes form and grow well till about half grown, and then they blast and fall off. The Isabella is the worst to blast. If any of our friends will give information on the best location, soil, and manner of culti-

Native Wine. Mr. Ditwell Lathrop has forwarded us half a dozen bottles of wine made from native grapes, of which the manufacture is as follows: "That marked No. 2 is grape juice and rain water in equal parts, and 5¿ lbs. brown sugar to the gallon. No. 3 is grape juice and rain water in equal parts, and 2¿ lbs. brown sugar to the gallon. No. 4 is grape juice and rain water in equal parts, and 3 lbs. of sugar. The juice was pressed out, and the water and sugar added, and put immediately into casks and set in the cellar, and nothing has been done to it since. I have experiments with the juice without any water, three more in all, which perhaps you may hear from at some future day."

We do not profess to be any judge of wines, having left them off some fifteen years since, in company with brandy, whiskey, gin, and other mighty drinks—to which our im-

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Inquiries. James McConnell of Springfield writes as follows:—

"Our people do not generally like book farming, and are so well informed now that they need no further knowledge.

"Please call on your correspondents for information in relation to the cultivation of the locust. I feel a strong interest in this matter, and also in hedging with thorn—relation to the cultivation of the locust. I feel a strong

"If it is an object worth having, I would like to give it a trial." If I succeed, of which I have not much doubt, you shall be duly informed.

"A few of us down here would be very glad to hear from Mr. B. Squiers, of Winnebago county—what breed of sheep he has—where he got them—what weight of fleeces he cuts—his mode of keeping, &c.; and in return, we will tell him some long yarns after shearing.

"That mowing machine of Capt. Wilson, of Buffalo, we would be very glad to hear more about, if in your power to inform us—its mode of operation, the amount of help wanted, cost of cutting grass with it, cost of machine, &c. If it is an object worth having, I would like one; at any rate I would like to give it a trial."

Of the mowing machine we know nothing further than what has appeared. Morrell's Shepherd is here, and can be sent by mail; but the postage would exceed the cost of the book. If there is any other opportunity we will send it.


"My experience in farming is limited, and I have profited much by the experience of others, through your paper. Some twenty years since I commenced the seafaring life. The sailors were then considered a hard class of men, and very superstitious; I found them so. But as soon as I considered myself competent I bolted the beaten track and depended mainly on my judgment—believing there are better ways than many old established habits.

"That business has vastly changed; and I find by the agricultural papers that there is as great a change coming over the farmers. But you may take the non-reading farmers of this country, and I will venture to say you cannot find their match in any trade for obstinate adherence to old customs."

"I have been laughed at some, for cutting wheat too early, and wasting salt and lime on seed wheat; also for plowing, making rails, and clearing land, out of season. But I hold that the time to do any thing is, when you can do it to the best advantage; and I care little who laughs if I win—as I did, most particularly, in cutting wheat early. I had my harvest in the barn before my neighbors commenced theirs; and they lost much by shelling and rain.

"I keep notes of some things, and shall end this by saying—one of these days you shall have some of my experience."

Milk Sickness. S. B. Mead Esq., the author of the botanical catalogue now in course of publication by us, writes in relation to the cause of this malady as follows:

"In looking over some back numbers of the Farmer, I observe a writer on milk-sickness (vol. ii. p. 27) notices a non-descript vine, which he believes to be the cause. That vine or shrub, as there figured and described, must be the Rhus venenata, D. C. common in wet grounds in the eastern and southern States. The suspected plant above mentioned grows abundantly where the milk-sickness is unknown; and as no plant peculiar to the infected district has been discovered, it is more likely to proceed from some mineral in solution in the water."

PRODUCE TO BE SHIPPED

At the Ports on Lake Michigan, 1846.

The following list was furnished us by I. B. Burch & Co., brokers in this city, and is as correct as it was possible to make it.

Wheat in store at Chicago, Jan 31, 1846, bush. 610,000
Provisions, including Pork and Beef, bbls. 10,000
Flour, 5,000
Hides, 3,000
Estimated amt. to be shipped next spring, Wheat, 1,000,000
Provisions, 10,000
Flour, 10,000
Hides, 4,000
Total of miscellaneous articles, tons, 600

Wheat in store at Southport, W. T., bushels, 69,000
Flour, 1,387
Estimated amt. to be shipped next spring, Wheat, 139,000
Flour, 3,000

Wheat in store at Little Fort, Ill bushels, 68,000
Estimated amt. to be shipped next spring, 92,000

Wheat and Flour in Michigan City, mostly wheat, 350,000
Corn, bushels, 175,000
Wool, lbs. 20,000
Estimated amt. to be shipped next spring, 130,000

Wheat in store at Milwaukee, bushels, 80,000
Estimated amt. to be shipped next spring, 150,000

FLOWERS FOR FARMERS' WIVES AND DAUGHTERS TO CULTIVATE.

COLUMBINE, Aqualegia Vulgaris. This is one of the earliest among plants, in the garden to show its leaves, though it is in no haste to blossom. It blooms in this latitude in June. It is worthy of a place in every garden for the superb beauty of its leaves, which, regardless of spring frosts, or snows, push forward in thick, luxuriant, beautiful tufts, before almost any thing excepting bulbous plants have ventured out. It is a perennial, and requires no more care than a bunch of clover. The blossoms are of different colors, and consist of a spire-like nectary, terminating downwards, and alternating with the petals. These nectariferous horns become very numerous by cultivation, and are contained one within another. Like every thing else grown for ornament in a garden, its beauty is greatly enhanced by generous cultivation. It bears plenty of seed, and may be propagated to any extent.

Lichinidia. There are several varieties of this, some of which belong to different species; but all, we believe, comprehended in the Phlox genus. This is an extended tribe of plants; and a great number of its varieties are found wild in the western country.

The smooth-stemmed Lichinidia, Phlox paniculata, which is found in every eastern garden, and many western.
ones, grows everywhere in what are called the barrens, in this part of Illinois, and often on the open prairies, in immense profusion, where it continues to bloom for a long time in early and mid-summer. Phlox means a flame, and was applied to this tribe of plants, from the red flaming nature of the blossoms; and never was a name better given. One has only to transfer the wild plant to the garden, and with generous cultivation, he will have a showy and beautiful profusion of flowers, well repay ing the care and trouble. Some of the others of this tribe are Phlox maculata, or spotted lichniana; Phlox pilosa, or creeping lichniana; and Phlox subulata, or mountain pink.

It is very probable that there are others which might be turned to good advantage; and probably some have been, of which we are not competent to speak. A. albus, or white coxcomb.

Amaranth. Of this there are several species, among which are A. tricolor, or three colored coxcomb. These add variety to the garden, and at a distance afford a pleasant appearance. They however take up considerable room, and are somewhat coarse, on inspection.

Mignonette is a well known plant, with fragrant blossoms—very lovely—requiring but one sowing, though an annual. It is sometimes sown for bees, the blossoms being very nectariferous.

Phlox Drummondii. This is a flowering plant, but lately introduced into this section of country; and is yet unknown in common gardens. It is nevertheless a most beautiful plant, producing an untold number of blossoms, which remain for a long time, covering the bed where it grows with as much profusion as is done by violets. The colors are various. The time will not be long before this will be as plenty as any garden flower.

Balcan. Impatiens Balzantina. This plant has been grown time out of mind, in all sorts of gardens, having been the regular and steadfast companion of the bachelor's button, morning glory, and four o'clock, in plots of ground adorned by some others. Its common names are various, but are fast giving way to the one heading it in this article. It commonly attains no excellence, and only seems to be cultivated as a matter of course, and because the seed is easily obtained and easily grown. The blossoms are generally single, and not over plenty; growing among a great profusion of leaves which hide them from view. They are also of a palish pink color, not over beautiful to look at. This is the style in which we had always observed them until last season. What was our astonishment, then, on seeing some—sown reluctantly, to please others,—putting forth an incredible number of the most beautiful blossoms, double and tri-double, of all colors, blue, purple, pink, cherry-red, white, and many others of all these hues mottled in the most delicate and fascinating manner—the blossoms of the size of a dollar, and full as roses; and growing about the stems so as to form columns of flowers of many inches in length.

The balsam has been brought to this perfection by continued and stimulating culture. It is recommended to start them in pots, but this is not necessary. They may be sown the first reliable weather in May, in this latitude, in warm borders made rich to any desirable degree. They will blossom in June, and retain their flowers till late in autumn. To secure these large double blossoms, the seed should be kept from two to five years before it is sown. To all growers of flowers, however mindful your efforts, we would say, never rest till you secure this in its perfection.

Fyssk. The species and varieties of this are so numerous, that we shall not attempt to treat upon them in detail at present. They are all, however, more or less worthy of culture, and may be grown in plats, beds, or borders, to suit fancy.

The Morning Glory. The morning glory is so well known, as to make description presumptuous. There are, however, two or three species, and more varieties. The common mode of growing them is to plant the seed under the window, and train them up the sides of the house. The effect is pleasing, especially when the house happens to be of rough logs, though it is doubted if those yielding fragrancy as well as bloom might not be substituted to advantage near windows. There are, however, various nooks, corners and unsightly places about every dwelling, which may be covered by this strong growing vine.

There is also another mode of growing this, as well as other annual climbers, which might be introduced to great advantage. It is to form a circular bed, and fasten down a barrel or hogshead hoop around its circumference, securing it to the earth by hooked pins driven into the ground. In the centre of the bed fix a stout stake of any desired height; then fasten strings or small wires from this hoop to the top of the stake, forming a cone, as represented in the cut. The vines will cover the whole of this, and present a beautiful figure of mingled green leaves and flowers.

Rabbits. The Gardener's Chronicle, (England,) says that soot mixed with milk and applied to trees with a brush, will prevent the ravages of rabbits. This is easy of application, and will not injure the trees.

Hot Beds. The time for making hot beds has arrived; full directions are contained in our last volume, February and March Nos.
EDUCATIONAL DEPARTMENT.

THE SCHOOL LAW IN CASS COUNTY.

We ask the attention of those who think that nothing can be done in the way of a school system, to the subjoined letter. We are heartily glad to know that some counties are earnestly following up the provisions of the new law. When this is done steadily, light will come out of darkness and order out of chaos.

The author will accept our thanks for the invitation contained in his note, and it will be complied with when practicable.

Messes. Editors: Knowing the deep interest you take in the subject of education, and especially the valuable services of one of the editors in preparing the present school law, I take the liberty of sending an account of our progress under it. We have a common school of grades, in Virginia, commenced in July, conducted by two teachers, in separate departments, with eighty scholars, in which a thorough course of instruction in the English branches of education, in mathematics, in the Latin, Greek, and French languages, and in the ornamental branches, are ably taught. We have a third department in the same building, forty feet by thirty, all secured by a lease for ten years, liberally granted by the County Commissioners' Court for a nominal amount and approved by the people, which will be fitted for use when the number of scholars justifies the employment of additional teachers.

Our text books have been selected as near as practicable in accordance with the recommendations of the Teachers' Convention. This school district and Beardsottown, the county seat of Cass and an important and rapidly increasing commercial point on the Illinois River, voted in May last the highest rate of taxation under the law. Every district in October elected directors, and every township in January elected trustees in accordance with the law. The "Cass County Common School Association" organized temporarily in September, but permanently in December, with its regular quarterly meetings—each of which the subject of common school education is discussed, sometimes by able advocates from abroad when so fortunate as to procure their aid, at other times by the people themselves at home, has already enlisted public attention, and if persevered in must ultimately extend its influence beyond the sphere of its original projectors. I send you the Beardstown Gazette, containing the proceedings of the regular organization of the "Association," which you will please publish entire, or abbreviate at discretion if too lengthy for your limited space.


After reading the above letter, the reader will ask no apology for our insertion of the proceedings of the meeting alluded to. It may be presumed, that in many cases, nothing is done to secure the objects of the law, simply because its friends have no very clear idea of the best modes of setting about it. The resolutions below set forth to some extent the objects sought, and point out the way of reaching them. We ask attention to the resolution relating to a superintendant.

COMMON SCHOOL CONVENTION IN CASS CO.

Pursuant to adjournment, the Common School Convention met at Virginia on the 15th of December at 11 o'clock, A. M. After some time spent in registering the names of members, the following resolutions were several and unanimously submitted:

Resolved, That we deem it expedient that parents cooperate with teachers in their labors.

Resolved, That a committee of four be appointed (the President of this association being chairman) to prepare
an address on the subject of education, to the people of this county, for the purpose of eliciting a deeper interest in this matter, as soon as the necessary statistical and other information can be obtained, from reliable sources—and

Resolved, That every friend of the cause of common school education in this county be respectfully invited to become members of this association.

The committee appointed to prepare the address were H E Dummer, F Arentz, J Eppler, and O B Nance, Esqs. We shall hope to see a copy of it when published, for it may be laid down as a rule that what is wanted in one county is wanted in all.

On motion of M W Delahay Esq the following resolution was adopted:

Resolved, That this association would respectfully recommend that the legislature of this State at its next session would so change the present school law as to make a superintendent for the State, whose duty it shall be to travel and lecture upon the subject of education throughout the State, and report the condition of all the schools within her borders; and we also recommend that he be paid a sufficient salary for his services from the State.

SCHOOL BOOKS.

MESSRS. EDITORS: So little attention is paid to a uniform system of school books among our western schools, that a few remarks on this subject may not be deemed out of place. In some schools scarcely two books can be found alike; the consequence is that the classes are as numerous as the books are various—taking up extra time of the teacher without any corresponding benefit. On the other hand, a few schools are found continually changing their books, at the dictation of every new teacher who may wish to use his particular favorites: some weeks are lost in getting the hang of the new books, and in nine cases out of ten they exchange for the worse. It is of great importance to the rising generation that the books which are put into their hands, and which will have an important bearing on their future usefulness, should be unquestionable in a moral point of view, and that all subjects should be treated with proper dignity, instead of that mawkish nonsense which is too often met with in school books.

All are aware that some teachers succeed better than others, with the same apparent effort, in enlightening the minds of children. So with authors; some will rivet the attention and instruct, while others render the subject dry and uninteresting. It is not a matter of so small importance as it might seem at first sight, what books are used in schools, and whether the books which are put into the hands of the children are lost in getting the hang of them, or whether they are stored with useful knowledge.

Among the great number and variety of our school books I will take the liberty to mention a few which in my opinion are not second to any others: Webster's Pictorial Elementary Spelling Book; Webster's Speller and Definer, intended as a First Class spelling book; Grigg & Elliot's series of Readers is an extensive collection of useful works on morals, correct history, and almost every branch of Natural History, embracing Geology and Mineralogy. These works are by different authors and published by Grigg & Elliot, Philadelphia, 1845. They are intended not only for schools, but for the instruction of older persons; and to the sons of farmers they are invaluable.

Bullion's and Kirkham's Grammars maintain their high reputation, and are perhaps the best in use. Morse's New Geography. Harper & Brothers, New York, 1845, is an excellent work; its neatness of execution, and cheapness, must soon place it in every school and family in the republic. Among the Arithmetics, many rank high, but none more so than Davis's System of Mathematics. These works can all be had of the Messrs. Burley, and probably at the other bookstores in Chicago.

It would be a great relief to the booksellers, could they know what books would be most in requisition for our common schools; they would then be able to lay in a sufficient stock of the right kind, which would enable them to sell at considerably reduced prices; instead of keeping their shelves filled up with all kinds of trash, to catch the popular whim.

Illinois, January, 1846.

MR. HARDUP.

SITUATION OF SCHOOL HOUSES.

Among the many mistakes made in providing for the education of children, there is no one more common than that fallen into at the very threshold of the business, viz: the miserable character and situation of the place where that education is to be carried on. The building called the school house, in which most of our adult population spent their early years, is soon described; for its aspect and character are yet vivid in the recollection of any one whose young ideas did their shooting in it. It was a little wooden, weather-beaten looking waltz, with two or three ominous windows, and plenty of rattling clapboards; and altogether so loosely constructed that most persons would adjudge its walls to have been for the purpose of keeping the cold in, instead of out. At any rate, this was their common office. Taste and comfort feeling themselves equally defiled in its construction, took their leave of it from the very first, and were never known to visit it afterwards.

Its situation was in keeping with its architecture. This was either in the street, or on the corner made by two streets, or on some piece of ground which was selected because it was good for nothing else, and therefore cost nothing. Here, under the full blaze of the sun in summer, and exposed to the full fury of bitter winds in winter, stood the school house where the mind of the nation was formed. Until within a few years, no part of the country furnished anything more than a few exceptions to this general picture. Within that time, however, the discovery has been made, that education does not consist in mere "learning to read, write, parse and cipher," but that it respects the whole individual, and consists in the development of all his faculties. Consequent upon this discovery, were several others—one of which was, that a set of circumstances, connected with education, every one of which should offend taste, and thus link that education with unpleasant associations through life, were not the best calculated to secure its objects, insomuch as a taste formed in childhood has its influence upon the intellectual and moral character for good or for evil through life.

Hence, in some parts of the country, much attention has been bestowed for a few years on the subject of school house architecture, the situation of school houses, and the scenery about them.
A moment's reflection will convince any well-informed mind, that this is beginning at the right place, viz: at the beginning. Instead of thrusting the school house into the street, or into the corners of noisy and dusty thorough-fares, it is now proposed to give it a pleasant situation, with a fair area of ground surrounding, embellished with shade trees, and provided with a pump and necessary out-buildings. The cut accompanying is taken from the "School and School Master," and is substantially that which should be followed in the erection of every school house. The grounds, as here laid down, are 8 rods in front by 10 rods in depth, and are surrounded by rows of trees; of which it is proposed that the front row shall be elm, the right maple, the left bass, and the rear one beech—though the kinds are a matter of taste, to be regulated by situation.

The front is marked in the cut by G, of which H is the wagon gateway; A the schoolhouse; B the wood house; C, a screen in front of rear building; and P the pump.

A consideration, not yet mentioned, but which should never be overlooked in the erection of any building designed for the education of youth, is regard in the above arrangement; and that is, the provision of ample play grounds. Children universally love play; and it is as necessary for them as the food they eat. It is their physical education; and provision for it should no more be neglected than the books in which their studies indoors are to be pursued. A dusty street is no place for children to play. The smaller ones will be continually exposed to danger, and the larger ones tempted to stray off in search of rejoicing, and will in consequence learn bad habits, which in after years they will not unlearn. If their play grounds are made ample, dry and pleasant, all these dangers will be avoided; and the teacher will always know where to find his pupils at the beginning of school, while their sports in the intervals of school will be conducted under his eye.

In our new States and Territories, the erection of school houses is and will be going on for several years to a great extent. Now, while land is plenty and cheap, any desired provision treated of in this article can easily be made. Will not all those interested turn their attention to this matter, and consider whether some such plan as is here laid down is not worth the cost necessary to secure it. Even though the first building erected may be of logs, it is no reason why it should not have a pleasant situation, and ample room surrounding it.

**Educational Progress.** It cannot have escaped the observation of any discerning and interested person, that there is a decided onward movement in the western States, in regard to common schools. The evidences of this are everywhere—in the various associations of teachers, and the friends of schools, in all parts of the country; in Wisconsin, Indiana, Illinois and Iowa; and the greatly increased attention to the cause is the newspapers, or a part of them. These things are so numerous and frequent, that they give unmistakable indication of a general waking up in the matter. We notice also that many persons in our acquaintance, who, two years since regarded the subject with indifference or dislike, are now becoming active friends of progress. The demands of a rising family may have called their attention to it; for nothing sooner enlists one's sympathies than such a condition.

But whatever may be the particular causes at work, the effect is no less gratifying. The western States are now in a condition in relation to schools which they will never again occupy. The great majority of their adult inhabitants are young persons, with young families to be educated. If the opportunity of doing this properly is now neglected, it will never return, and possibility must reap the fruits of that neglect. Let this fact stimulate all to act while the time of acting has not passed forever.

**Spirat of the Agricultural Press.**

**Potato Rot.** From a convention at the State House in Boston, Mass., we gain but a single fact worth remembering in relation to this disease. This is, that the Lady Fingers, and long reds are scarcely subject to the disease at all, while the Neshanocks are invariably rotted. The fact is the same at the West, as far as we have heard.

Who has the potato called the "Irish Grey?" Have they rotted?—we should judge not; and by the way they are a good potato—good yielders—good keepers, weigh well and cook well. On many accounts they are preferable to any of which we know. The only objection we ever heard to them was, that they are yellow instead of white, when cut; and some suppose such a potato cannot be good—a theory which, in this instance at least, does not hold.

**Farming on twenty-five acres.** A correspondent of the New England Farmer states that at the age of 60 years he came into the possession of a farm of 25 acres, which he had no intention of tilling himself, as he had spent 40 years of his life in another calling, but that not being able to rent it for 4 per cent on the cost, in consequence of its having been reduced under the old system of farming, he was induced to undertake it. Having taken the New England Farmer for his chart, he embarked.

*I divided my land, devoted to rotation crops, into six...*
fields, of about 3 1/2 acres each: a new field was taken up every year, and first planted with corn, then with potatoes, and sown with winter rye in the fall after the potato harvest, and seeded down, remaining in grass three years before the rotation comes round. This course gives me one field to corn, one to potatoes, and one to rye, each year, and the other three to grass. I have, in addition, 2 acres of salt marsh, and a small piece of woodland, constitute my farm.

The first lesson I took in my new calling, was to plow more than we could well manure, and to have help enough to do every thing in season. This has not been last sight of. My first crops were pretty fair, and have been gradually increasing from year to year, so that the same land which seven years ago would not rent for 4 per cent, has yielded more than 29, the past season, after paying all the expenses of cultivation. My last crops were estimated at $900, and after deducting the cost of labor, board, manure, seeds, farming tools, taxes, &c, it leaves a balance of more than $550 for rent land. Have sold over $600 worth, and the balance is laid in for my own consumption, which is estimated at the same price as that sold. I could give a copy of the account in detail if required.

It is no exaggeration to say, that I am more than a thousand dollars better off for the information I have derived from agricultural papers during the last seven years, in my small way of farming. From that source I have learned the best methods of composting manures, and the kinds best adapted to distinct soils; the best rotation of crops, and the selection of seeds, and the method of cultivating each kind; also, how to reclaim bogs, of which I had two acres of no value, but which since that time have produced six tons of good hay annually. All this and much more I have gleaned from the experience of others, communicated through the medium of the press. But still, I am not so much of a "book farmer," as to believe one-half of the rubbish that is published is of any benefit to ordinary farmers, like myself. I have tried some experiments recommended in your paper, that proved a real advantage. Yet I am finally of the opinion, that every farmer who can read, ought to take an agricultural paper; for by selecting such articles as will apply to his particular soils and crops, he can treasure up something, in the course of the year, that will be worth more than the cost of the paper.

THE FARMER'S CALLING.

The renders of agricultural papers have, within a few years past, seen much discussion concerning the respectability of the farmer's calling—the dignity of labor—the best mode of winning the young to an agricultural life—and kindred topics. This is proof of the fact that the idea involved in these discussions is an important one. It was a fact, immense gain and regret to every well-wisher to his country, a few years since, that young men of enterprise and ambition were leaving the occupation of their fathers—an occupation, too, in which the best adapted to distinct soils; the best rotation of crops, and the method of cultivating each kind; also, how to reclaim bogs, of which I had two acres of no value, but which since that time have produced six tons of good hay annually. All this and much more I have gleaned from the experience of others, communicated through the medium of the press. But still, I am not so much of a "book farmer," as to believe one-half of the rubbish that is published is of any benefit to ordinary farmers, like myself. I have tried some experiments recommended in your paper, that proved a real advantage. Yet I am finally of the opinion, that every farmer who can read, ought to take an agricultural paper; for by selecting such articles as will apply to his particular soils and crops, he can treasure up something, in the course of the year, that will be worth more than the cost of the paper.

The true answer has been again and again given; and there is no other true answer. The farmer must be educated: that is—he is called must be made not a mere work of the hands, but a work of the head also. Young men of mind and ambition can never be made to esteem that calling honorable in which the intellect has no scope for exercise—but in which the man becomes a mere machine, dragging about from day to day—whether that calling be pursued on the ocean, on the land, or within brick walls. It is as natural for men to think as to act; indeed, all action is the product of ideas: and the only difference is, that in one case it is the product of the man's own ideas, and in the other, of those of somebody else. What is needed is, that a man's action shall in all cases become the product of his own ideas. To effect this, it will not be necessary that each man originate every thought upon which he acts: the thoughts of others are made our own by thoroughly understanding them.

It is not peculiar to the farmer's calling that the sons often choose the pursuits of their parents. Physicians' sons in many instances take to any thing sooner than medicine. The sons of clergymen often become anything but the exceptions of the doctrine of their father. And yet there are instances in which the sons of physicians and clergymen have followed up their parents' calling to the third and fourth generations. The same thing is observed in both sides in the case of farmers. The sons will honor and esteem that calling which the father makes honorable in their eyes. And here lies the truth which ought to be understood and exemplified. The reason why so many sons bred on a farm, run away to the barren wastes of legal life and elsewhere to pursuits as unprofitable, is, because the one in which they were educated possesses no honor in their eyes. Farmers do not make enough of their calling. A pursuit gains importance in the eyes of the young as much—and often more—by its necessities as by its essential merits. If the farmer would attach his children to his farm, let him educate them on it. Let him have books on his shelves which treat of matters pertaining to his profession: and if experiments—philosophical, chemical, or other—can be instituted, so as to illustrate any of the pursuits of agricultural life, the child will gain a higher opinion of it than can ever be given him in any other manner. The fault on this score has been radical. The books of the farmer's library have been of history, travels, biography, and every thing else but those matters relating to his avocations. His conversation—if he is a man at all devoted to literary pursuits—has been of other things. The child imbibes all these things as if through the very pores of his skin, and grows up with a thorough contempt for the simple style of life in which he was bred; and goes abroad to give scope to his ideas in some other pursuit.

The radical remedy for all this lies with each man. Cause the children to feel that agriculture is a worthy pursuit as any other, and there will be no desire to escape from it duties.


DISCOVERY OF VALUABLE MINES.

BY A. HILLIARD.

MESSRS. EDITORS: I commenced farming in this State in 1835, and for several years followed the common practice—building a log stable, and when filled with manure so that the horses could not stand in it, remove it to another place—relying on the common report that our lands did not nor never would need manure. Numerous experiments which I have tried during the last four years, have convinced me that this is a mistaken idea. There is no soil that will better repay the labor and expense of manuring than the rich black clayey soil of our prairies. A good coat of manure will materially benefit crops of all kinds for five years, and I know not how much longer. I think it is owing to the clayey substance that the strength of the manure is all retained until it is taken up by the roots of the plants, instead of leaching away as it does through the gravelly soil of New England.

It is a very common thing in traveling through this State to see large mines of the best manure lying in waste heaps almost every farmer's premises; and not unfrequently a ravine running through the yard to carry it off, where it is lost to every body forever. Could the owners see in one pile the silver and gold that annually runs off in this way, they would willingly forego the inconvenience of a little mud in milking the cows.

My experience and observation have fully convinced me that there is a great oversight in Illinois farmers in trying to cultivate too much land for their force, and that they would force themselves through holes where the smallest shot would not venture, and indeed at this time no post-and-bar fence will stop cattle soon learned to tear off the top boards and come scarce in the fall, my own and neighbors' failure as against sheep. For as soon as the latter answered a good purpose as against cattle, but is a failure as against sheep. For as soon as the latter became a little dissatisfied with their pasture, a lamb or small sheep would find its way under or between the bars, being moved thereto by curiosity or the spirit of discovery; and this would always end after a time in the whole flock finding their way through or under it, and never forgot the habit as they grew older—for I have known them at the age of two years to work themselves under a rail only two feet from the ground, generally breaking or displacing it, and thus preparing the way for the whole herd to follow. To obviate this objection, I next built one mile or so of post-and-bar fence, using four bars in place of three—cost about 23 cts. per rod. I also expected this fence to afford sufficient protection against sheep. It has thus far answered a good purpose as against cattle, but is a failure as against sheep. For as soon as the latter became a little dissatisfied with their pasture, a lamb or small sheep would find its way under or between the bars, being moved thereto by curiosity or the spirit of discovery; and this would always end after a time in the whole flock finding their way through or under it, and never forgot the habit as they grew older—for I have known them at the age of two years to work themselves under a rail only two feet from the ground, generally breaking or displacing it, and thus preparing the way for the whole herd to follow. To obviate this objection, I next built one mile or so of post-and-bar fence, using four bars in place of three—cost about 23 cts. per rod. I also expected this fence to afford sufficient protection against sheep. It has thus far answered a good purpose as against cattle, but is a failure as against sheep.

I next tried half a mile or so of board fence—built entirely of sawed stuff—posts seven feet long, live to six inches square at bottom and two to five or six at top; bars three to four inches wide, one to one and a quarter thick, sixteen and a half feet long, four bars high; put on with stout tennon nails; lumber brought from mill six miles distant—cost, delivered on the ground. $8 to $10 per M. Fence when built looked pretty; cost 32 cts. per rod; afforded a better protection against small stock than the before-mentioned 4-har fence, from the fact that the bars being put on perfectly even, there was no one space greater than another to encourage them to attempt it. But as feed became scarce in the fall, my own and neighbors' cattle soon learned to tear off the top boards and force an entrance. This fence cost nearly 20 per cent. more than the post-and-bar fence, and was no better. Still I am of opinion that where timber is
scarcely and has to be hauled from a distance—say from 5 to 10 miles, and where lumber can be purchased at the same distance at a cost of $1 per M., and by substituting split posts for sawed ones—the split ones are cheaper and more durable—and by using a stout bar 14 inch thick for the top bar, that this mode of fencing will be found to answer an excellent purpose. I have also, during the past 12 years tried various experiments with ditch and sod fences; but have never succeeded, on dry or slightly ground. Either the sod did not grow, or the sides of the bank and ditch would crumble from frost or drought; or the capping being destroyed by the prairie fires, and in the end the whole would prove worthless. But I have found it to answer a better purpose wherever the ground was moist or needed draining; and it is now a part of my system of fencing, to build sod and ditch fence through all wet ground. The ditch should be dug four feet wide at the surface, one foot wide at bottom, and two and a half feet in depth; sod cut diamond fashion, laid from edge of ditch. The whole should then be finished by laying a rail upon blocks, as for worm fence, staking, and putting on rider; throwing a broken rail or other piece of timber across the ditch everywhere, to keep out cattle. Such a fence is good against anything. I have lately built and have contracted for and am engaged in making, about a mile of this fence, to answer the double purpose of a fence and drain, at a cost of 28 to 30 cents per rod. I pay 18 cts. and board for ditch and embankment, use my poorest rails for capping. Cost as above.

My last experiment in fencing—but not the last I have to speak of—is a piece of about a fourth of a mile of ladder fence. Of this, for ordinary fencing, I have but a poor opinion, as I do not believe it to be durable, and it has cost me a third more than any other that I have tried. I would however remark of this fence, that the barns through which the rounds or pickets were inserted, were all of split timber; they should be of sawed stuff. 14 by 4 inches and of any length, and the lower part of the round or picket inserted, as near square as convenient, to prevent rot. The greater part of this fence was put up worm fashion, but was no better than that which was built on a straight line; it required as much or more bracing, and cost one third more. Its general use for small enclosures, liable to be frequently removed, will be found very convenient, as it is easily taken apart by withdrawing a round, and is light of carriage. I have also, like all who have done much fencing on the prairies, tried divers temporary arrangements to a protection against the encroachments of the large stock—such as rails set upon crotches, with stakes and rider; stakes driven into the ground, fastened together with pins, and two or more rails inserted between the pins. They all answer a good purpose—for wasting time and patience, making unruly cattle, and short crops.

I now come to a description of that kind of fence which, after much experience and observation I am prepared to recommend to the prairie farmer whose relative situation, as regards timber, approximates to my own, as the cheapest, most durable and efficient, when connected with a good sod and ditch fence through wet ground, of any in use upon the prairies. I speak of a regular picket fence; and I speak "by the mark"—for during the past season I have built two to three miles of this fence, and find it a most perfect protection against all kinds of stock, from the smallest to the largest. And a pasture for sheep, of 160 acres, fenced in with 44 feet pickets, has proved a perfect protection against wolves; for in two instances in which these varmints found their way into the enclosure, by passing through a small piece of post-and-bar fence near my house, they were chased down with horses and killed, being unable to make their way through or over the pickets. I would also observe, en passant, that the general use of this kind of fence on our prairies would nearly obviate all difficulty arising from a scarcity of timber; for there would be a saving of about one half, both in timber and carriage. The cost to me thus far has been 27 cents per rod. My pickets were furnished by contract, at a cost of about $4 per M. delivered upon the ground. But I would observe that pickets of the dimensions used, 44 feet long, and of an average width exceeding 3 inches, cannot be afforded on the ground for less than $5 per M. But I am now engaged in getting out timber, to continue the building of this kind of fence, and by a saving in material, using short posts and narrow pickets—2 to 3 inches wide and 4 to 4 feet 3 inches in length, it will not cost me over 27 cents per rod, as above. The items of the expense were about as follows:

- Pickets, 25 to the rod, 10 cts.
- Short stout 6d. nails, bot. by the cwt. 2
- Rails and posts, using small rails, 9
- Cost of fitting and setting posts, 3
- Putting in bars, sharpening and nailing on pickets, 3

Total cost: 27 cents

Should any question these estimates, it must be borne in mind that the farmer does or should get out his timber and upon the ground, in the winter, when it is done easily and cheaply; that the proper time for building this fence is immediately after the frost leaves the ground, or during a part of the month of March and the whole of April and May, when, on dry ground, you can bore two post holes while you can one later in the season; when a good stout hand can be hired for $10 a month, who will set— with post auger—50 posts per day, which with board, costs the farmer about 60 cts per day; that nearly all of our Yankee boys understand the use of rough tools, and that a common hand of the description can be had at this season of the year at $10 per month, who will fit the rails, sharpen the pickets, and nail on 500 per day, or 20 rods; cost as above.

I will now end this tiresome communication, with a description of what I have found to be the best mode of building this fence, combining cheapness with efficiency and durability. Cut your posts, from black walnut, white oak, or swamp oak, 54 feet long, and split them as near as may be, 5 or 6 inches square; hollow out with an axe the top end of the post, to the depth of an inch, for the top rail to rest in; cut with saw and axe a gulley into the side of the post, of an inch or more in depth to help support bottom rails, which should be nailed on about ten inches from the ground—use stout 12d nails to keep your rails to their places; in general
the pickets will hold the top rails to their places. Set your posts in the ground 27 or 28 inches, digging the first 10 or 12 inches with a spade, the balance of the depth with post auger. Lean your posts a very little to the south and west, from which direction come the winds and storms which cast or rack over our fences; also be careful to place one of the broadest sides of your post from the wind, and finish by stamping down the earth firmly around the post with an instrument made for the purpose. It would undoubtedly promote their durability to season or char by burning the bottom of your posts before setting; the charring should extend a little above the surface of the ground, for it is at the surface that the post first decays.

Use rails 10 feet in length and of half the size commonly in use for worm fence; by the way, the best you can use are small straight rails, culled from an old worm fence, where they are of inferior value, and which have already taken their shape, which they will retain. For ordinary fencing, use pickets from 4 to 4 feet 2 inches in length, and from 2 to 3 inches in width; they will answer a good purpose, nailed on 5 or 6 inches apart; when you come to a post, nail on a broken picket, to raise it as high as the rest of the fence. Use short stout split rails; I oil them before using, as recommended in a previous number of the Prairie Farmer.

And now Mr. Editor, I conclude by expressing the hope that you and I will live to see the time that name as 'fly weevil,' 'yellows,' 'yellow mildew,' etc. Its first appearance in the United States seems to have been in western Vermont in 1820; from which point it gradually spread over that State, New Hampshire, Maine, and westward along the Mohawk valley. It is only last season that its first appearance has been observed in the Genesee wheat country. Its history in the different places visited by it is about the same. At first the destruction of it is extremely limited, but increases rapidly until about the third year, when its ravages are at their height; from which time their numbers gradually decline, till it ceases to be formidable.

This insect is one of the smallest of all the living moths of which the naked eye is able to take notice. Its body is less than one tenth of an inch in length, or about .07 of an inch. Its color is a bright orange, both in the fly and larva state. The period of its fly state extends from the fore part of June until the latter part of August, during which time it may be found in a variety of situations, sometimes entering houses, and dancing along the panes of glass, or among the grass of pastures, or along the margin of streams, where it dances with the other species of the * Cecidomyia.* During the day it is inactive, or lurks about in the shade; but at evening, and particularly the evenings succeeding the hot summer days, it becomes very active. At such times, if the wheat field in blossom be visited with a lantern, they will be found in myriads hovering about the grain with their wings extended, and moving up and down the ears, as if to select the most favorable spot to deposit their eggs. When this is found, the fly alights, and pierces with its ovipositor the luscious of the grain, till it reaches the germ, where it deposits from six to ten eggs. Several insects will often select the same kernel, so that thirty or forty eggs will be hatched upon it. The eggs hatch, in about a week, a soft white worm, which soon changes its color to that of a bright orange. Its food is the juice destined for the growing grain; and when many of the larvae feed upon the same kernel, they deprive it of nourishment to such a degree, that it withers, and is rendered worthless.

A portion of the larvae having attained their growth, leave the wheat before harvesting, and descend to the earth, where they bury themselves to the depth of half an inch, while another portion remain in the heads, and are carried into the barn, to take their chances for life and future propagation. It is often found in great numbers in the screenings of the fluming mill, which in such cases should be burned or given to swine. If thrown into the barn yard, they are buried in the chaff and manure, where they complete their transformation, and come forth for future mischief.

Small and comparatively insignificant as this insect is, it has numerous and inveterate enemies, which seem intended by Providence as the antagonist and corrective powers of this destructive enemy.
Growing spontaneously in the State of Illinois, the principal part near Augusta, Hancock county.

Kuhnia euphorbioides L (P T H) also present.

Eupatorium purpureum L (T M) trump weed, purple thorough-wax, 1892.

Convolvulus sepium L (W P T) 1990.

Achillea millefolium L (M) 1993.

Lamium purpureum L (P) 1994.

Tanninum villosum L (M) 1995.

Artemisia camtschatcensis Mx (B) 1996.

Lactuca serriola L (P) 1997.

Gynura parvula Mx (P B) 1998.

Ipomoea lacunosa L (P T H) 1999.

Anemone virginica L (T) 2000.

Lactuca serriola L (P) 2001.

Malva verticillata L (P T H) 2002.

Saponaria officinalis L (P) 2003.

Lupinus polyphyllus L (R M) 2004.

Cyanus cristatus L (W P T) 2005.

Campanula rapunculus L (T) 2006.


Aster cicerariifolius Mx (B) 2008.

Achillea millefolium L (M) 2009.

Lactuca serriola L (P) 2010.

Anemone virginica L (T) 2011.

Lobelia cardinalis L (P T H) 2012.

Hypogeum virginianum L (P B) 2013.

Asclepias syriaca L (P T) 2014.

Polemonium reptans L (T O) 2015.

Acer platanoides L (M) 2016.

Prunus spinosa L (B M) 2017.

Campanula rapunculus L (T) 2018.

Artemisia absinthium L (M) 2019.

Lactuca serriola L (P) 2020.

Gynura parvula Mx (P B) 2021.

Ipomoea lacunosa L (P T H) 2022.

Anemone virginica L (T) 2023.

Lupinus polyphyllus L (R M) 2024.

Cyanus cristatus L (W P T) 2025.

Campanula rapunculus L (T) 2026.

Lithium ruff H. 2027.
REVIEW OF ALBANY CULTIVATOR FOR JANUARY.

BY E. S. L. RICHARDSON.

MESSRS. EDITORS: The Cultivator, Albany, N. Y., monthly, 32 pp., $1 per year—No. 1 of new series, vol. 3d, has been received, and contains the usual variety. Among the contents of this number I find the following articles: "Mr. Donaldson's Prize Cow, with a beautiful steel engraving. This cow, it is said, "has given in June, when kept on grass only, 384 quarts of milk, and that from the milk given by her in two days 63 pounds of butter were made, being at the rate of 223 pounds per week." She is said to be a native cow.

"Agriculture in Switzerland." This is quite interesting. The following extract is in part a tit-bit for the friends of the non-enclosure system. "Fences, except in the neighborhood of the larger towns, rarely occur, and division of land is marked by stakes, or by a mere furrow, and sometimes even by less distinguishable bounds. Perfect agreement appears to exist among neighbors in respect to property, and I have seen in the mountains overhanging Lake Geneva, peasant men and women gathering crops of rye and oats on a dozen different parties from the same field, where there was no apparent line of division, yet putting their rakes back to back without a word of dispute. Nor was the crop, though limited in individual cases to a spot of only a few rods square, without its value; since every blade was collected with the most scrupulous care, and carried off the field in blankets on their backs."

"Importance of Neatness in Farming." Some very good remarks which will answer very well for land, each being one forty of an acre. In the first quarter, 5 lbs. of guano in the raw state, ordered daily by other people."

"Experiments with Guano." "On 3 pieces of land, each being one forty of an acre. In the drills of the first, 5 lbs. of guano in the raw state, was scattered evenly through the drills, and planted with potatoes, which yielded at the rate of 215 bushels per acre. In the drills of the second, 7/4 lbs. of guano in the same manner yielded at the rate of 3074 bushels per acre. In the third piece, 10 lbs. of guano in the same manner yielded at the rate of 212 bushels per acre. Adjoining the above, another one-fourth was measured and divided into three parts, each 1-120th part of an acre. In the first, poudrette was put in the drill as above, at the rate of $20 per acre. (cost $2 per barrel) which yielded at the rate of 1424 bushels per acre. In the second, poudrette at the rate of $40, scattered as above, yielded at the rate of 180 bushels per acre. In the third, poudrette at the rate of $80, scattered as above, yielded at the rate of 155 bushels per acre. Adjoining the above, another one-fourth of an acre was measured, and the drills well filled with a mixture of horse, hog, pen, and cow-yard manure, in about the quantity that farmers generally use (very definite indeed.) The last yielded at the rate of 135 bushels per acre."

"Rural Architecture," with plans of Elmwood Cottage, Rochester. This is a beautiful house, calculated rather for a residence in or near a large city, than for Western farmers; its cost about $3500, being too much for our farmers at present. It is a general fault of the plans of farm buildings which we find in agricultural works, that they are for gentlemen farmers who have a plenty of money to begin with, and not for the million, who have very little money.

The next article is Mr. Quincy's address at the annual exhibition of the N. Y. State Agricultural Society. This address should be read by all farmers, (cannot you find room for some extracts? I suppose you would think it too long to be given entire). Bristol, Kendall co. Ill., Feb. 1846.

HANCOCK CO.—NO CORRESPONDENTS.

BY L. PRENTISS.

MESSRS. EDITORS: Your extract from Coleman's work, and a certain brother's communications on "Fry-Fry-Frying," were worth to me the price of half a year's subscription. Please say to my brother of "Frying" that my boy of six remarked that Mr. — must be mistaken, as another says, "that the Lord sends the cooks as well as food." My own opinion is that the Lord is favorable to an occasional Fry, but a continual, everlasting Fry, FRY, FRY, was a suggestion of the devil.

In looking over your list of correspondents, I am grieved to find that you have not a single correspondent, that I could discover, from Hancock co. I have long been a resident of the county, and am well aware we have many intelligent, industrious, and enterprising persons among us, whose ambition aspires to something better and more comfortable than log-cabins, scrub-cattle, and land-PILE, to say nothing of corn-dodgers. I see no reason why every one of them should not take an agricultural paper, and inform themselves as regards the improvements.
of the day. I believe, however, they all have an apology. You have been informed by our friend Sharp, through the "Warsaw Signal," that this county is infested by a set of beings, whose principal business is to take the property of their neighbors. This is a fact, and may answer as an excuse for our farmers not making greater progress in agriculture. Our farmers find it more profitable to watch their neighbors, to secure what they have already, than to go to any extra expense in making improvements in their breed of horses, cattle, or sheep. I hope you understand my meaning. I expect that spring will come, "grass grow, and water run;" that we shall get rid of our tormentors. The good "old settlers" of our county will awake with more energy, will enlarge their fields, tear down and build up comfortable houses, plant shade trees, enlarge their orchards, subscribe for the Prairie Farmer, and by the latter course learn the improvements in agriculture.

Warsaw, January, 1846.

We hope to hear more from some of these enterprising farmers in Hancock. We have a tolerable list of subscribers there, and they ought surely to be represented in our columns. The irritation alluded to is certainly a clog upon the agricultural prospects of the county, and it is to be hoped that it may be soon allayed.

Messrs. Editors: I am not exactly a rail maker, but I sometimes make sod fence, and I think I would give you a little of my experience in making this kind of fence. I have made it in several different ways. In the first place I made a large fence; but I very soon found that it would never stop hogs, without rails—besides the grass is very apt to dry out in a drouth. So I came to the conclusion that a low fence, with two rails on top, would be more durable, equally as safe, and far less expensive. Consequently, two years ago we put up half a mile of fence after the plan I will now describe. In the first place I lay off the ditch 24 feet in width, cut the sod by a line each side, then through the middle by guess. I take out the sods about a foot in width, and lay them on each side of the ditch. I cut the sod with such a slant that in going down two feet, it will only be the width of the spade in the bottom of the ditch. I then lay off the bank, four feet in width. Commencing one foot from the ditch I set up a row of sods on each side—then fill it with earth—then one row more on the outside, and fill it up, and the bank is done. I then lay a rail on the outer edge of the bank, (but I think it would be better to put a sod or a block of wood on first, to raise the rail a little,) then with a long stake in the ditch, and a short one driven into the bank, and a rail put into them, you have a fence that can be built for 30 cents per rod, and one that will stop all kinds of stock. If any one can tell how to make a better fence, with less expense, I would like to have them describe their plan.

J. B.

Bunker Hill, February, 1846.

Smoked Meat. The great trouble is to preserve smoked meat through the summer from flies. One plan is to make the last fire of red or cayenne peppers. Luke Relyea, Mr. Johnson's farmer, says his plan is, to select bright clean straw, cut up fine, and pack away the hams in dry tight casks with this—an alternate layer of straw and hams, and cover all up. The straw absorbs all the external juice or moisture, and prevents the flies from troubling it.

The Westphalia plan of smoking hams is as follows: A room in the garret; fire in the cellar; smoke gathered in an inverted tunnel and led to the smoke room by a small pipe; by the time it gets there all the heaviest part of the pyroligneous acid

A Grain Rake. Smoked Meat.

MESSRS. EDITORS: Enclosed is a drawing of a wheat rake, for harvesting the small grains. It is most decidedly a labor-saving machine. I raked some thirty acres of wheat and oats the past season with the machine of which this is a drawing, and I am satisfied that one fourth to one third of the expense of raking and binding is saved by the use of this implement—to say nothing of the wear and tear of hands in taking the grain out of the stubble. With this rake the grain is taken up in a cleaner and neater manner than with the common hand rake by ordinary hands.
has condensed, and the smoke become cool. Nothing touches the lungs but a pure, light, cool smoke, which is allowed to pass off by a number of small apertures, about as fast as it is supplied.—New York Farmer and Mechanic.

CATTLE SHOW AND FAIR OF THE UNION AGRICULTURAL SOCIETY,

To be held at Chicago, on the 7th & 8th of October next.

PREMIUMS.

**HORSES.**

First Division—Stallions over 4 years old. 1st premium, cup, worth $6. 2d, Stable Economy. 3d, diploma in mahogany frame.

Second Division—Stallions between 2 and 4 years old. 1st premium, Stable Economy. 2d, 7th vol Prairie Farmer. 3d, diploma in mahogany frame.

Third Division—Breed Mares. 1st premium, cup, $6 2d Stable Economy 3d, diploma in mahogany frame.

Fourth Division—Working Horses 1st premium, Youatt's Horse 2d, diploma in mahogany frame.

**CATTLE.**

First Division—Fine wool Bucks 1st premium, cup, $6 2d, Morrell's Shepherd and Blacklock 3d, diploma in mahogany frame.

Second Division—Middle wool Bucks 1st premium, Morrell's Shepherd and Prairie Farmer 2d, Blacklock 3d, diploma in mahogany frame.

Third Division—Long wool Sheep—1st premium, Morrell's Shepherd 2d, Blacklock 3d, diploma in mahogany frame.

Fourth Division—Pen of 3 Ewes of fine, middle and long Wool—each kind three premiums, the same as the above grades.

**SHEEP.**

First Division—Boars 1st premium, cup, $4 2d, diploma.

Second Division—Breeding Sows 1st premium, cup, $4 2d, diploma.

**SWINE.**

First Division—Breeding Sows 1st premium, cup, $4 2d, diploma.

Third Division—Breeding Boars 1st premium, cup, $4 2d, diploma.

**FOULS.**

Best pair of Turkeys, Bement's Poultierre

**VEGETABLES.**

**FRUIT.**

**MAPLE SUGAR.**

20 lbs 1st premium, Prairie Farmer 2d, diploma.

**FARM IMPLEMENTS.**

Breeding Plow 1st premium, cup, $6 2d, Johnston's Cyclopedia of Agriculture.

Stirring Plow 1st premium, cup, $6 2d, Johnston's Cyclopedia of Agriculture 3d, Prairie Farmer and diploma.

Corn Plow 1st premium, Prairie Farmer and diploma.

**HORSES.**

First Division—Bulls over 4 years old. 1st premium, cup, worth $6. 2d, Youatt's Cattle 3d, diploma in mahogany frame.

Second Division—Bulls under 4 years old. 1st premium, Youatt's Cattle 2d, 7th vol Prairie Farmer 3d, diploma in mahogany frame.

Third Division—Cows over 3 years old. 1st premium, cup, $4 2d, Youatt's Cattle 3d, diploma in mahogany frame.

Fourth Division—2 year old Heifers 1st premium, Prairie Farmer 2d, diploma in mahogany frame.

Fifth Division—Year old Heifers 1st premium, Prairie Farmer 2d, diploma in mahogany frame.

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Second Division—Middle wool Bucks 1st premium, Morrell's Shepherd and Prairie Farmer 2d, Blacklock 3d, diploma in mahogany frame.

Third Division—Long wool Sheep—1st premium, Morrell's Shepherd 2d, Blacklock 3d, diploma in mahogany frame.

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Fourth Division—Pen of 3 Ewes of fine, middle and long Wool—each kind three premiums, the same as the above grades.

**SWINE.**

First Division—Boars 1st premium, cup, $4 2d, diploma.
Cattle Show and Pair of the Union Agricultural Society. Meeting of the U. A. Society.

10 yards Linen 1st premium, Prairie Farmer 2d, diploma
Best 10 yards Linen Diaper, Prairie Farmer
Hearts Hog 1st premium, Prairie Farmer 2d, dipl
Best 10 yds Kersley, Prairie Farmer
Best 15 yds Rug Carpet, Prairie Farmer
Best 10 yds tow cloth, Prairie Farmer
Best 4 1/6 Linen Thread, diploma

Knit Stockings 1st premium, Downing's Fruits 2d, diploma

LEATHER
Best 3 sides Upper Leather, diploma
Best 3 sides Solo Leather, diploma
Best 3 sides Harness Leather, diploma
Best 3 sides Bridle Leather, diploma
Best 4 dozen Calf Skins, diploma

LEATHER GOODS.
Best pair Fine Boots, cup
Best pair Kip Boots, Prairie Farmer and diploma
Best pair Course Boots, Prairie Farmer and diploma
Best pair Ladies' Winter Boots, vol N Y Farmer & Mechanic

Best pair Ladies' Walkling Shoes, diploma
Best draft Double Harness, N Y Farmer & Mechanic and diploma
Best Carriage Double Harness, N Y Farmer & Mechanic and diploma
Best Single Harness, diploma
Best Bridle, diploma
Saddle, diploma

IRON WORK
Best specimen of Castings, without filing, varnish, or paint, not less than 15 lbs, cup, $4
Best 4 doz Pitchforks, diploma
Best 4 doz Dungforks, diploma
Best 4 doz Hoe's, diploma

WAGONS AND CARRIAGES
Best two horse Wagon, with iron axle, without paint, cup
Best two horse Wagon, with wood axle, painted, cup
Best one horse Wagon, N Y Farmer & Mechanic
Best Buggy, cup
Best Sleigh, diploma

CABINET WARE
Best Sofa, diploma
Best Mahogany Bureau and Book Case, cup
Best Cherry or Black Walnut Bureau, N Y Farmer & Mechanic
Best Mahogany Table, diploma
Best Cherry Table, diploma
Best set fine Parlor Chairs, cup
Best set Windsor Chairs, N Y Farmer & Mechanic
Best set Kitchens Chairs, diploma
Best Bedstead, N Y Farmer & Mechanic
Best 300 lights Sash, diploma

MISCELLANEOUS MACHINES
Best Morticing Machine, diploma
Best specimen machine-planed Siding and Flooring, diploma
Best specimen Turning, diploma
Best specimen Stone or Earthen Ware, diploma
Best large spinning Wheel, diploma
Best small do do diploma
Best specimen Ornamental Painting, N Y Farmer & Mechanic

COOPERS' ARTICLES
For the best Fork Barrel, diploma
For the best Beef do diploma
For the best Washbub, diploma
For the best Pail, diploma
For the best Flour Barrel, diploma

ENGRAVING
For the best Wood Engraving, diploma

GUNSMITHS
For the best Shot Gun, diploma
For the best Rifle, diploma

For the best Lock, diploma

For the best Wood Engraving, diploma

For the best Flour Barrel, diploma

For the best Pail, diploma

For the best Pork Barrel, diploma

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For the best Wood Engraving, diploma

GUNSMITHS
For the best Shot Gun, diploma
For the best Rifle, diploma

MEETING OF THE U. A. SOCIETY.

In accordance with previous notice, the Society met at the office of the Prairie Farmer, in Chicago, Feb. 4th, 1846, at 2 o'clock P. M. The meeting was called to order by the President, LEWIS ELLSWORTH, Esq. The Society then proceeded to the election of officers. Upon counting the votes it was found that the following named persons were unanimously elected officers of the Society for the ensuing year:

President,
E. H. MULFORD, Esq., of Cook Co.

Vice Presidents,
J. B. TURNER, of Cook county.
C. R. FARMLEE, of DuPage
P. Y. BLISS, of Kane
L. B. JUDSON, of Kendall
J. A. GOODING, of Will

Treasurer—CHARLES M. GREY, of Cook.

Recording Secretary—M. L. DUNLAP, of Cook.

Corresponding Secretary—J. A. WIGHT, of Cook.

Executive Committee,

JOHN GAGE, of Cook.
F. H. HASTINGS, of Cook.
L. ELLSWORTH, of Du Page
S. JOHNSTON, of Kane.
ROBT. STRONG, of Will.
S. GOODRICH, of

The Treasurer and Secretaries were appointed a committee to make out a list of Premiums to be awarded at the Cattle Show and Fair to be held in Chicago, Oct. 7th and 7th, 1846.

Adjourned without day.

M. L. DUNLAP,
Rec. Secretary U. A. S.
But what is the effect upon the inmates of an
insect on the food consumed constitutes the fuel,
the carbon of the food consumed constitutes the
fuel. The doctrines of Liebig represent the body
of an animal as a kind of air tight, in which the
oxygen of the air respired supports the combus-
tion, and animal heat is thus produced. In sup-
port of this theory, it seems that when the atmos-
phere is cold, it is correspondingly more dense; and
the chest being a constant capacity, more oxygen is in-
haled, the appetite is increased, and the additional
quantum of food taken supplies the carbon neces-
sary to combine with the oxygen to increase the amount
of animal heat which is requisite to place the ani-
mal, in relation to the surrounding temperature. It
becomes persons to beware that the iron air tight
does not interfere with the animal air tight, so as
to deprive it of the amount of oxygen necessary to
sustain the heat of the body in some relation to the
season of the year and the degree of cold to which
we are subject. This theory explains the reason
why persons who have become accustomed to warm
rooms are so poorly able to endure the cold when
they go out. Inhaling in heated rooms a less
amount of oxygen than in cool ones, no increased
demand for food is occasioned, the source of animal
heat is diminished, and when the chest is in a
cold atmosphere the system is not prepared for the
exigency, and they are soon chilled; besides, there
is now in the cold air which is inhaled a surplus of
oxygen, which, there not being a corresponding
amount of carbon in the circulation, with which
to combine, acts chemically upon the structure of the
lungs, inducing colds, inflammations, &c.

When compared with the rationale of the old
fashioned fire place, it seems difficult to account for
the rage for stoves, except that the advantages,
comforts, and economy of the fire place have not
been fully and justly appreciated. One prominent
cause for the prejudice against the modern fire place
is the fact that they are not usually constructed
large enough to admit of a sufficiency of wood to
warm the apartment for which they are intended,
in very cold weather. But, says one, they burn
too much wood already. Is such a person willing
to deny himself the occasional luxury of a roast tur-
key, a beestake, or of animal food altogether,
because he can live on vegetables much cheaper?
Is he willing to deny himself the use of tea, coffee,
sugar, and other luxuries, on the score of economy?
We regard the open fire as one of the greatest lux-
uries of life, and for which we are willing to pay as
we do for others of far less importance. What has
become of the “social hearth,” the “cheerful fire-
side”? It is true friendship still endures, and we
meet as warm a reception from our friends as did
our ancestors—but in apartments warmed by a
cheerless, dark, gloomy hot iron; if it has been
neglected until the room has become cool, we find
little comfort in drawing near to it, and if our friends
have gradually inured themselves to a degree of
heat which would better become a “fire king,” we
have to endure it also, or leave the room.

Let us contrast with this the sociability of the
fire place. If the fire is low, we draw near and
place our feet to it; and with the feet warm and
the head cool we are soon comfortable; and as the
merry embers and the curling flame increase their
potent influence, we take the liberty to admire
the monster, now our servant, at a greater distance.
And with the heated and inspired atmosphere of
the room constantly rushing towards the fire and
passing in front of it up the chimney, while the
heat of the fire is continually radiating back into every part of the room, pure, unchanged, just as it is eliminated by the chemical laws of nature, we feel a lightness of spirit and a vivacity of intellect very conducive to social intercourse; and the person who cannot be sociable in an agreeable company under such external influences must, we think, be deficient in social feelings or possessed of a temperament not very susceptible to external impressions.

With regard to the economy of stoves, we have always been disposed to question it. In the first place, a stove usually costs more than a fire place; they are often broken, and require repairing; but the great offset to the saving in fuel is in physicians' bills and impaired health.


VETERINARY DEPARTMENT.

BOTS AGAIN.

BY DR. M. W. PHILIPS.

MESSRS. EDITORS: Your last number of vol. 5 I have just been reading, and find in the Veterinary Department an article from the Boston Cultivator, with your remarks thereon—the subject, "Bots in Horses." I have been an owner of horses for many years, and have unfortunately never been rich enough to dispense with my personal attention to these animals. I am, "by authority" of the University of Penn., an M. D., and unfortunately never had enough practice to enable me to sit at my table and write prescriptions. Besides all this, I was born of practical parents, and think I am practical, somewhat.

I will not ridicule any man's notions; nor in saying what I think, do I wish to insist that I am right only, and that all others are wrong; but in giving my opinions, I wish to use language that will express them without offence to any, and yet to be firm.

I can see no benefit to accrue to the horse or child by such a parasite as the worm, nor do I conceive that either is ever injured whilst in a state of health. The animal becoming diseased, these insects act as irritants, and produce evils frequently irreparable—and are thus called a disease of bots, or worms, as the case may be. I have not had a case of bots among my stock, save in one mule, for 6 years, and that one is quite subject to it. I have never had a case, except in 3 mules and two or three horses. They were generally advanced in years, and were always greedy feeders.

One of the worst cases I ever saw, where the bots had eaten through the stomach, was in a mule. But let me tell you the case. A pushing planter, not living out of this State, had to buy corn; he had no fodder, either shocks or hay, for his mules. He bought corn from a flat boat—it was badly damaged. Some of this corn was turned into a hollow log in a lot, and some 20 or 30 work mules were turned in, after having ploughed hard all day. The next morning one mule was dead. "He died of the bots," I denied it, and insisted he died of—bad treatment. He was opened; bots had cut through the stomach, and it was pretty well filled with corn, coarsely ground, and nearly as dry as if it had come from the mill. No wonder the bots cut out; they were hurrying off to get a drink, and to search for better quarters.

I have seen many horses "with the bots," and have cured many of the colic, with an ounce of good laudanum. I have seen soap suds, molasses, fish brine, strong brine, and all that, fail; and I have seen laudanum fail, but only in two cases. One case I had, of a fine, high bred mare. I had stopped all night at a half breed Indian's in this State, who keeps a carriage and charges high. He had no fodder. I used every precaution not to let my mare get too much corn, and especially when warm; but next morning, in less than an hour after starting, she was in agonies. I led and drove for 2 or 3 miles to a stage stand, kept by an old acquaintance. I could not command laudanum—the stage drivers knew all about it—fish brine, strong soap suds, soot, &c., was given, but to no good. I got on for a few miles further, and there emptied down her an ounce vial full of laudanum. In one hour she was well, and I rode "on my way rejoicing."

I could repeat other cases, but why do it? Our brethern of the plow handles will not yield up their preconceived opinions.

As to wiping off the egg of the fly, "it is all in my eye and Betty Martin." Can any living man carry with him, into the field, with his carriage, buggy, &c., &c., a pot of hot water and a cloth? No sir, whether it be Clater, or Johnston, or any other big name, it matters not; we must think for ourselves, pay a proper regard to authors' sayings—but not believe that any man is beyond error. Look at the thing fairly, and excepting with horses in a stable, it cannot be done. It is sheer theory to talk of it, and is to be classed with the notions of teachers who teach at their desk. Let them go to the field, to the road, to the chase, they will see how unavailing.

If the experience of myself and my father for now over forty years can bear on the subject, I would say, feed regularly; feed liberally with sound grain and provender; salt freely; water regularly; don't feed when the horse is heated; and don't over-work. You need not have hot water or a towel, nor fish brine, nor chicken fixings; for you will seldom need any thing of the kind—sometimes soot and laudanum, which any old woman knows is good for the colic, will be needed, and if used in time this is all.

I had a few years since "a case of bots," in one of my carriage horses, and a noble fine horse he was. I tried many remedies, aimed at the relief of the cholic, but all were unavailing. He was opened—no bots at all; but near half a gallon of venous blood, very dark, was around the kidneys. I could also bring up other cases where death ensued on the symptoms attending "the bots," and not a bot was seen.

My opinion is that there is no such disease as "the bots." I think horses that eat greedily—not fed regularly—over-worked, &c., &c., are disposed to the colic, some cases of which cause the animal to swell, others do not; and that according to the violence of the attack, or the peculiar symptoms, doctors and other persons give it the name of "the bots."

Sage tea, soot tea, and laudanum, will generall
cure either, if used in time; of the two first there is no danger—of the latter, an ounce every two hours until relieved will not injure. I have given one ounce at once, and in half an hour I have given half an ounce more, which was sufficient.

I wish you to clearly understand that I am not a practicing physician. I have been—and am now as much of an overseer as if I were receiving wages—at least I give all the attention to some 250 acres that is received. I may err, but if I do, it is an error from attention to business, not from my desk.

Log Hall, Mississippi, January, 1846.

We welcome Dr. Phillips to our columns, and hope his articles will be full liberty to cut as he pleases—we have a great fund of good nature, and we shall assuredly give more heed to his suggestions than to men of whom we know less.

To those of our readers who are not acquainted with Dr. P, we would remark, that he is a highly successful planter in Mississippi, and for a long time well known as a correspondent of the Albany Cultivator. He was also, for some years, one of the editors of the South Western Farmer, a journal deserving of a good support, but which the farmers of Mississippi, to their shame, suffered to die.

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**METEOROLOGICAL RECORD.**

*Lat. 41° 45' N.; Lon. 87° 35' W.; from Jan. 22 to Feb. 18.* By G. F. Wilson, Principal of Chicago Academy, for Chicago Mechanics Institute.

<table>
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<th>Day of the month</th>
<th>Height of Barometer in inches and hundredths</th>
<th>External Thermometer</th>
<th>Clearness of the sky</th>
<th>Wind, its force and course from</th>
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<td>3 o'clock</td>
<td>9 o'clock</td>
<td>9 o'clock</td>
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<td>8:30 A.M.</td>
<td>11:30 A.M.</td>
<td>3:00 P.M.</td>
<td>5:30 P.M.</td>
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Means: 28.28 28.30 28.27 28.25 31.32 33 37 37 34.75

Monthly mean of Barometer, 28.27. Monthly mean of Thermometer, 36.02. N. B. The cistern of the Barometer is placed 36 feet above the surface of Lake Michigan. The external Thermometer has a northern exposure, and is out of the reach of the direct rays of the sun. In the column headed "Clearness of the sky," 0 represents entire cloudiness—10 entire clearness. The figures 1 2 3 4 5 6 denote the force of the wind, 2 denoting a gentle breeze, 4 a strong wind, 6 a violent gale, &c.
EDITOR'S TABLE.

Our Lost Month's Mistake. One year since we took occasion to "snigger" somewhat at the miscellaneous condition of pages, exhibited in the March number of our esteemed contemporary, the Albany Cultivator; but we little thought the same calamity was so soon to fall upon us.

We suppose that by this time, however, at least ten thousand persons have stared at so little a government similar, or indeed somewhat worse, exhibition of legibility and leggibility, as made in the February number of the Prairie Farmer.

The mistake alluded to was the result of the change of form. Our former imposing stone being found too small, one half the new form had to be made up at a time; and one of these halves was turned the wrong side to the other, and the whole edition thus worked off, before it was discovered.

We cannot forbear to thank our subscribers most heartily for the philosophic manner in which they have borne themselves in the matter. We expected a great amount of dudgeon to be spilled on our heads; but though doubtless there has been some complaining unknown to us, we have been spared the wrath hitherto. Verify our opinion of the good sense and kindness of our subscribers immediately.

If any hard thoughts should yet dwell in any breast, it is hoped that the reception of this number, which contains some good things at least, will wipe out all but the memory of them.

"Description of Farnum's Patent Hydraulic Apparatus, for Raising Water; also Descriptions of the Engines, Fountains, &c." A goodly pamphlet of 80 pages, containing descriptions of pumps, illustrated by cuts, showing how water may be supplied for all sorts of purposes by horse, water, or wind power. Those who have steep wells, inconvenient springs, or who wish fountains in their gardens, would do well to look into this pamphlet.

That Essay on Grasses. A gentleman in Boone county pledges $5 to be added to the premium for an essay on grasses, proposed by Mr. Shillaber in the December Prairie Farmer. We have now pledged, $10. This sum will hardly command the requisite efforts. If there are other who feel interest sufficient to do any thing in the matter, there is room.

"The American". From E. S. L. Richardson Esq. we have received two numbers of the Salem Observer, containing a Prize Essay on "The Duties of Parents in relation to Schools," by Edwin Jocelyn, Principal of the Saltonstall School, Salem, Mass. We have not found time yet for its perusal, but will attend to it in season.

Penny Magazine, Part 16. From W. W. Barlow, like its predecessors, is full of good things. It is worthy of a place in every library, or on shelves where there is no library.

"The Albion, Or British Colonial and Foreign Weekly Gazette: New York." The motto chosen by this paper we suppose is intended to express its character: "Callum, non omnium, mutabit, qui trans mare currit," or, for the benefit of vernacular ears, Those who cross the seas, change their sky, but not their mind. It is English literature, English taste, and English opinions, transferred by American soil. It is a weekly journal, consisting of 12 immense quarto pages, filled with Tales, Poetry, Foreign News, and Criticism. It is conducted with great dignity, taste, and ability—and to the British emigrant must be a rare treasure. The American, too, though he may not fully sympathise with its foreign tone, will find, as a compensation, a continued exhibition of English feeling and opinion—a choice journal of literature, equally adapted to the tastes of men of all nations.

Several editorial articles—including one on Bomer's manure, prepared by request—noticed of books, &c. are crowded out of this number.
Guadeloupe Merinos. We have received several samples of the wool of these sheep, described in the communication of Mr. Sawyer, in another column—together with certificates to the purity of the breed as there set forth—which can be examined by any interested in the matter. The wool of “King Philip” is very pretty. He shorn last season 10 lbs. washed wool. He weighs 157 lbs.

A Mistake. Some of the notices of the Prairie Farmer, given by the gentlemanly editors of the country press, speak of our work as containing 40 pages. This is eight too many. Eight pages are allowed for the index at the beginning of the volume.

Alpaca. We see it stated that a company has been formed in Kentucky for the importation of Alpacas; also that Mr. Swain, a member of the American Agricultural Association, has sent for some of them. They are said to be plenty in Peru, South America; and no reason is known why they may not be added to the list of our domestic animals. The animals cost in Peru from three to five dollars per head, and can be imported for 15 dollars. Mr. J. B. Turner, of this city, is about importing some also.

B. T. of Elgin. Hodge’s Catalogue is not for sale here. It may be had by writing to Mr. Hodge, without any further cost than paying postage on the letter. By the way, we have not received this catalogue for three years. Will Mr. H. send us his last?

A letter from G. F. Magoun, Esq., of Platteville, Wisconsin, remarks: “Perhaps it may gratify you as a friend of Education, to know that the enterprise here is succeeding beyond the expectations of its warmest friends. The institution is in 3 departments, Classical, High English and Primary—embracing in them all 115 pupils, 18 in the Classical department, 26 in the Primary. There are others not included above, which will be taken in at the close of the term. We have about $550 worth of apparatus and library, and a valuable bell, presented by friends at the east, which are unfortunately wintering in Detroit. A boarding establishment is to be put up when the spring opens. I hope, in my vocation, to do something in the way of lecturing on Popular Education in the Territory. I am persuaded that the great want of Illinois is a State Superintendent, who shall lecture through the whole State. We shall have one in Wisconsin first.”

Sample Wheat. Mr. H. M. Lyman, of Du Page co., has left with us a sample of red chalk braid spring wheat. The yield of it the last season was 37 bushels per acre.

The editor of the Freeman at Prairieville will accept our thanks for his kind words and kind efforts.

Liberal Bequest. Oliver Smith, Esq., a wealthy gentleman lately deceased at Hatfield, Mass., bequeathed $800, 000 to the town of Northampton for the establishment of an Agricultural School, to be available when the account is to be closed. We have made some inquiries, but find no one who speaks favorably of it. Mr. A. will see the cause of our delay.

Mr. Lathrop’s Bee Palace. It is stated that the sections of the hive are covered on the top with slats 11 inches wide and 3 inch apart. Are not these slats to be put upon the bottom of the sections also? else will not the bees fasten their comb to both sides of them, so as to impede the taking of the sections apart?

Barns. A subscriber from Grundy county being with us a few evenings since, gave a somewhat humorous account of the mode of building barns in his neighborhood. One man built a barn 63 by 24 feet, with the floor running through it the shortest way—thus leaving the bays, for mowing, 24 feet square, and requiring two men to do the mowing. Other built 100 feet by 40 with a floor running lengthwise. Will not some one send us a good plan of a barn, with a root cellar attached?

Our Office. Persons from the country sometimes complain that they find it difficult to discover our office. If it will help them any—we may observe that we are on the south side of Lake street, No. 171. They will find all the odd numbers on this side of the street, and will only waste their labor in looking on the other.

A person pointed out a man who had a profusion of rings on his finger, to a cooper. “Ah, master,” said the artizan, “it is a sure sign of weakness when so many hoops are used.”

Oorik, if sunk 200 feet in the ocean, will not rise, on account of the pressure of the water.
NOTICES OF BOOKS.

Northwestern Journal of the Medical and Physical Sciences. The prospectus of a work to be published in this city, with the above title, has been laid on our table. It is to be edited by Dr. H. L. Knapp, who is known to many of the readers of this journal as a very ready and pleasant writer. We have no doubt that he will get up a work which will be worthy of the patronage of the profession.

The North American Review. With the present January number the North American Review commences its sixty-first volume; this being the thirty-first year of its existence. It has consequently long since become identified with the history of the country, having witnessed and survived the rise and fall of a locohomograph of reviews and magazines. During this time it has maintained the even tenor of its way—always able—and has probably done more to give character to American literature abroad than all the other reviews ever published in this country. Indeed we are of opinion that too much is not therein claimed for it. The work is the best indication of its contents that can be given. From the survey we have made of its pages we are of opinion that too much is not therein claimed for it. The compilation and arrangement appears to have fallen into competent and careful hands, and a part of the matter is in American and not to be had in town at present. The Western Farmer and Gardener has now entered upon its 6th volume.

LIST OF JOURNALS.

Literary, Agricultural, and Scientific, with the Prairie Farmer.

**Name of Journal.** | **Price** | **Place of publication.** | **How often published.**
---|---|---|---
Albion, | $0 | New York | Weekly.
American Quarterly Jour. of Agriculture and Science | 3 | Albany, N.Y. | Quarterly.
American Jour. of Science and Art, (Stillman) | 5 | New Haven, Conn. | Monthly.
European Agriculturist | 6 | New York | Monthly.
Linden's Life Age | 6 | New York | Monthly.
London Quarterly Review | 6 | Boston | Quarterly.
Penny Magazine | 6 | New York | Irregularly.
Popular Lectures on Science and Art, (Lardner's) | 6 | New York | Irregularly.
Spirit of the Times, | 6 | New York | Monthly.

**New York Business Directory.** Mr. John Doggett has sent us a prospectus of a work of the above kind, which is to be got up for 1846-1847, and of which 5000 copies are to be printed.

**The Teeth.** We find on our table a little pamphlet on the use of Teeth, best modes of treatment, &c., by J. A. Gibbs of this city. The subject is an important one, and should be understood by those who have any teeth to preserve.

**The School and School Master,** A Manual for the use of Teachers, Employers, Trustees, Inspectors, &c. of Common Schools; In Two Parts. Part I. by Alonso Potter D. D. of New York; Part II. by George Emerson A. M. of Massachusetts. A copy of this celebrated book has been presented us by one of its authors, Mr. Emerson. To say that we are grateful for this work would convey but a faint idea of the pleasure it felt in its reception.

The subjects discussed in the first volume are:

- What is Education: What Education is most needed by the American People; The Importance of Education to the Individual and to Society; School Houses; Manners; Morals; Instruction; Attendance; Female Teachers; Union or High Schools; Organization in Cities; Class Books; Text Books, &c.

The second volume discloses a great variety of topics in connection with practical school teaching. Among them are:

- Qualities of a Teacher, Mental and Moral; Health, Exercise, Sleep, Diet, Studies; Duties of Teacher; The School, its Organization and Instruction; Reading, Spelling, &c; and the School House, its Position, Size, Arrangement, Warming, and Ventilation.

The work is one which not only every teacher but every parent should read.

"A Cyclopedia of 6000 Practical Receipts, and Colloquial Information in the Arts, Manufactures, and Trades, including Medicine, Pharmacy, and Domestic Economy: Designed as a comprehended Book of Reference for the Manufacturer, Tradesman, Amateur, and Heads of Families. By Arnold James Cooley, Practical Chemist. Illustrated with Numerous Engravings. New York: D. Appleton & Company, 200 Broadway." The title of this book is the best indication of its contents that can be given. From the survey we have made of its pages we are of opinion that too much is not therein claimed for it. The compilation and arrangement appears to have fallen into competent and careful hands, and a part of the matter is claimed as original by the editor. To artisans of all sorts it must be a book of great value; while to the diarist and housekeeper it can hardly be less useful.
### Chicago Prices

**Corrected, Feb. 19, 1846.**

#### Wholesale

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#### Retail

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<td>do. board</td>
<td>.07 @ .09</td>
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<tr>
<td>Shingles</td>
<td>.12 @ .20</td>
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<td>Sash—8 by 10</td>
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<tr>
<td>Square timber</td>
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At New York, under date of Feb. 4th, Flour stood at $5.53 a 5.56 for Michigan and Genesee. The exports from 1st to 31st January were 69,613 bbls. Wheat is in moderate demand at $1.12.

Of Pork, mess brought $11.62 for 75, and $9.75 for 933.

At St. Louis under date of Jan. 9, Flour, city mills, was selling at $4.75 a 5. Country, $4.12 to 4.50.

Load in pigs was selling at $3.72 a 3.75, and in boxes at $4.50. Pork, mess, brought $10.00, and prime, $9.00.

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- The 40, 40, copies for $30, 70 copies for $50, 103 copies for $70, in advance. All communications must be sent free of postage. John S. Wright and J. Ambrose Wight, Editors. Vol. 6, 1846.

### REASONS FOR TAKING IT.

1. It is one of the largest and cheapest agricultural papers published in the United States. SpeenemNos. sent to those requesting them.
2. It is not published for the whole country, but for the especial benefit of western farmers.
3. It contains a large amount of the matter is supplied by correspondents, more than three hundred in number, from all parts of the West; as a body unsurpassed in ability and practical knowledge, by those of any other agricultural paper. It is illustrated with an abundance of well executed engravings; is well printed on good paper; and each number accompanied by a cover to keep it clean.
4. A full and complete Index is sent to the end of the year, making volume of about 400 pages, invaluable as a work of reference.
5. The information contained either under the head of "Veterinary Department," or "Household Affairs," or "Orchard and Garden," is worth several times the cost of the paper.
6. It contains Chicago Prices Current, with the latest intelligence of New York and other markets.
7. Common Schools are too much neglected in the West, and two or three pages are occupied with disseminating the most important information concerning them.
8. It is permanently established, and as a western paper should receive the univided support of Western farmers, particularly as it is pronounced by those who have taken it from the commencement, and by the public press generally, the best agricultural paper for western farmers, that is published.

### ADVERTISEMENTS

- For one square or under, first insertion, one dollar and fifty cents; second, one dollar; subsequent ones, seventy five cents.
- For two or three pages are occupied with disseminating the most important information concerning them.
- For four dollars for each additional square. A square contains four-teen lines.

- For six lines or less, inserted for five dollars a year.
Variety of Soils. Under this head Mr. Colman has some remarks which we extract:

"For all practical purposes, soils may be ranked under five different heads—sandy, clayey, calcareous, peaty, and loamy. I purposely avoid all scientific distinctions, and use such terms as even the commonest farmer will understand. A sandy soil is that in which sand abounds; clayey, in which clay; calcareous, in which lime in some form prevails; peaty, in which peat; loamy, in which a rich loam abounds. These soils are sometimes found so combined, that it might be difficult to designate their character by any one of these general terms. In some places they are found in almost a pure state. In general, where there is found in a soil 80 per cent. of sand, it must be pronounced a sandy soil; and so the clay, the peat, or the lim, but it is not always easy to class a soil which is of a mixed character, and say what kind of element predominates. By sight and feeling, however, practical men are able to form an opinion of a soil upon which it may be safe to act. Besides the principal elements, to which I have referred, there is often found some mineral ingredient which may seriously affect the character of the soil, and the degree of the presence of which can only be determined by scientific examination. Iron, copper, or mineral coal, is in general sufficiently indicated to the eye, or shows itself in the water which percolates the soil. The different forms, too, in which lime presents itself in the soil, whether as chalk, or gypsum, or magnesian limestone, are all to be considered in determining the character of a soil."

"Wetness of a Soil. Wet soils, or soils a considerable part of the time under water, produce a coarse herbage of little value to stock—in many cases scarcely sufficient to support life, and rendering scarcely any nourishment. The manure of animals fed upon the produce of such soils is comparatively worthless. It has been found, likewise, by repeated experiments, that water allowed to remain upon land for any length of time is injurious to vegetation, when the rapid transition of water over the land might be highly beneficial."

"Moisture and wetness are to be carefully distinguished. A soil consisting almost wholly of sand possesses no retentive powers; and though of all other soils the most absorbent, yet the water passes through it as through a sieve. Clay, on the other hand, is extremely retentive of water, often to the prejudice of the vegetation which grows upon it.

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Mr. Colman entirely dissents from the opinion that chemistry and electricity are destined to solve all the secrets of vegetable and animal life, the opinion of some to the contrary notwithstanding.

The wonderful invention of Liebig, announced some time since, of manures fitted to all soils and to each crop, is hit off with a little masked vaillany by our author. Liebig's direction is to use stable manure in connection with his mineral ones, because temperature, want of rain, &c. may oppose the bringing of the mineral fertilizers into action. The use of the stable manure is considered by Mr. C. very safe advice. On the whole, this discovery or invention of Liebig is considered no very great affair.
Working Oxen.

BY A. CHURCHILL.

Messrs. Editors: I wish to draw the attention of farmers to the subject of improving working oxen. We certainly raise some fine steer, but can exhibit but few working oxen. The reason I conceive to be this: farmers do not appreciate the difference in their value. It is well known that some oxen will perform nearly as much labor as horses, while others fall far behind them. The difference in amount of labor should form a great item in their value.

If one yoke of oxen can plough but one acre in a day while another can two, it would seem that the oxen which could do double work should be worth double price, and why not? It saves half in men's labor, half in feed, half in tools, besides the extra pleasure of working with a good team, which is no small item.

Let us try the subject by figures. Say we give eighty dollars for a yoke of oxen six years old, which can plough two acres per day, $80.00
And hire a hand six months to drive them, at $11 per month, 66.00
They plough or perform other labor to the amount of 130 days, at $1 per day, 130.00
Deduct for use of tools, 15.00

One yoke at forty, $40.00
Hire of hand, 66.00
Labor performed, 65.00
Tools, 1,000

We have earned with the $80 oxen, $130,000
Deduct extra cost of oxen, $40.00
Hand to drive, 66.00
Tools, 25.00 — 121.00

Leaving in favor of good oxen, $9.06

Then one yoke at $40, which perform labor with hired hand to the amount of $65.00
Deduct hire of hand, $66.00
Tools, 10.00 — 76.00

Leaving the cheap oxen in debt, $11.00

It appears, then, that we gain more than the extra price of the good oxen in one year, and the oxen are good for from four to six years more, saving about fifty dollars each year, or in five years two hundred and fifty, while we lose by the poor oxen eleven dollars, and to perform the same amount of labor with another equally poor yoke, we lose by the amount of keep, hire of hand, board, and tools, say $100.00

Making one hundred and eleven, which for five years would be 555.00
Add the $250 gained by good oxen, 250.00
Making the difference in the value of two such yoke of oxen of EIGHT HUNDRED AND FIFTY DOLLARS.

If farmers would consult their true interest, they would ask and give something like the true value of oxen for their working qualities, and graduate the price down to what they are worth to labor. By taking this course the best steer would be tried for work—if found good, kept—if not sold for beef.

Many of the best steers are spoiled while young, by over-work. This happens frequently by work-
Cisterns. I use rain water altogether, from two circular cisterns, each, I think, 12 feet in diameter and 15 in depth, altogether under ground, and formed of a solid wall of water cement, arched at top with brick, and costing nearly $100 each. These keep me fully supplied—cooking, washing, bathing, garden, stock much of the time, &c.—and my family is not a small one. We find here that three fourths of whatever sickness may exist on a plantation whilst springs or wells are used, disappears when cisterns are formed, and rain water alone used. On one of ours there were nearly as many grown negroes buried in 7 or 8 years as now belong to the place; and not one has died within the last 5 years, during which time rain water alone has been used. There are abundance of as clear and beautiful cold springs on the place as I ever saw in any country. I have suffered my full share of sickness in your Indiana and Illinois prairie country, and feel authorized to state that the formation of large cisterns and the exclusive use of rain water would very greatly lessen the sickness all through that country. Filtration is perfectly unnecessary, if reasonable care is used in filling the cisterns.

Heding. Mr. McDonald is not in error in supposing that the Cherokee or non-dscript rose will stand the winters of Illinois. It might possibly exist in the extreme southern portion—it does but little more in the latitude of Nashville. If tried at all it had best be from seed, of which it produces an abundance, and which can be forwarded to you, or rooted plants either, if you desire it, and will, and I have no doubt has, attained it. I suspect he has done more towards stocking Illinois, Indiana, Missouri, Iowa, and Wisconsin with fine fruit than any other man or half dozen men.

As I was not then so much engaged in agriculture; if tried a longer time to mature than the ordinary variety. Mr. Curtis, of Edgar county, is still pushing his nursery. He deserves success, and will, and I have no doubt has, attained it. I suspect he has done more towards stocking Illinois, Indiana, Missouri, Iowa, and Wisconsin with fine fruit than any other man or half dozen men.

Buckwheat. Fruit.

BY E. H. STARKWEATHER.

MESSRS. EDITORS: Some ten years since there was coming into notice in the north part of the State of Vermont, where I then resided, a very superior kind of buckwheat, there called Indian buckwheat. As I was not then so much engaged in agriculture, as I am now, I did not interest myself sufficiently about it to be able to tell from whence the seed was obtained, or how it derived its name. I think, however, it was procured in Canada. Its superiority to the ordinary kind was manifest in two particulars, to wit: In a more abundant yield, and affording superior flour. It was sown earlier, as it required a longer time to mature than the ordinary kind.

I left that country in 1837, and have seen none of that variety since, although I have made diligent search in this region. We sow considerable buckwheat here, but it is an uncertain crop: the heat of the sun frequently blights a portion of the blossoms, so they do not fill. "In looking over the New Genezee Farmer for 1840, I find there asserted that this Indian buckwheat "is not injured by the heat of summer, like the other kind." If this be so, it is the very thing we much want.

Has this kind found its way into Illinois? and if so, what success has attended its cultivation? and where can the seed be obtained? are questions which I hope you Messrs. Editors or some of your correspondents will be able to answer.

I rejoice to see from every quarter favorable indications relative to fruit culture. We are not entirely inactive in this region, and indeed we should
be unpardonable if we were; for in my opinion, taking all things into account, we have as good a country for fruit, as well as many other things, as lies "beneath the circuit of the sun." Several among us are endeavoring to introduce improved varieties of fruit; at the head of whom is my old friend, Thomas C. Ferris, who is as it were compassing sea and land to effect this desirable object.

Mr. Harkness is requested to explain how he protects grape vines from frost by trees. Does the vine ascend the tree? or is it in some other way? What was the name of the grape forwarded by Mr. Harkness to the editors of the Prairie Farmer which proved so acceptable? I have sought for it in the letter of Mr. H. to the editors, and also in their acknowledgment of the receipt of the fruit, and can find the name in neither.

Cumberland co. Feb. 1846.

MESSRS. EDITORS: In the fall of 1844, in the month of November, I plowed 20 acres of winter wheat stubble. The preceding crop had a good share of chess, and I had in view the destruction of that by late fall plowing; and I succeeded in doing it, with the exception of a little on the ridges, between the dead furrows. On the 27th and 28th of March following, I sowed 28 bushels of spring wheat—perfectly clean seed, soaked in brine and rolled in ashes. I finished dragging about one third of it on the 28th, and the remainder had been dragged but once. At night and a part of the day following we had a heavy rain. When the ground was dry enough, I again commenced cross-dragging; but finding the wheat considerably sprouted, and all covered, I stopped dragging. In the course of the season I saw no difference in the appearance; but the time of harvest told it. There was smut in abundance on all of it, but decidedly the most on that dragged but once and that dragged after sprouting. Will some of your correspondents point out my error in the management?

Elgin, Feb. 1846. YOUNG FARMER.

It strikes us as an error to sow spring wheat on winter wheat stubble. We once did the same thing, and harvested smut in abundance. It is a rule in good husbandry not to follow one wheat crop with another.

LOCUST TIMBER.

BY A. STEVENS.

MESSRS. EDITORS: In a late number of the Prairie Farmer I was pleased with the calculations and remarks of your Tazewell county correspondent on "Growing Locust Timber." As the non-closure project seems to have been abandoned, (and I think with great propriety,) it certainly is important for us to cast about for the best materials necessary to extend our present farms, and to bring into useful requisition the vast and fertile prairies which are destined yet to add immensely to the agricultural wealth of this State. Shall "sod fence" be that material? It may be. It may be that thorn fences are more suitable to our soil and climate. Shall it be "hedge?" Aye; when you have found the thorn adapted to our soil and climate, and have experimented with it and cultivated and nursed it for fifteen or twenty years.

But of the locust enough is already known to prove its cultivation practicable, its growth rapid, and its value certain. Your correspondent shows all this; and the small but beautiful locust grove to be seen in Peoria and Adams counties, reared within the last ten years, present conclusive evidence that the writer's calculations are not mere speculations. All will admit that something ought to be done to increase the amount of fencing timber in Illinois. No forest timber seems so well adapted to our soil and climate as the black locust; and the sooner we begin in earnest to cultivate it, the better.

Allow me, at the hazard of being considered visionary, to present you the plan of a small prairie colony, with an estimate of the value of 280 acres of locust trees in twelve years from planting the seed. And as I think your correspondent has set his trees too far apart to secure for them a long smooth body, I shall assume six feet apart as the most profitable distance for them to stand when young. Should they need thinning out as they increase in size, there will be no waste, as they can be used for fuel. The following cut represents the plan of the settlement, embracing two sections, or 1280 acres. Suppose they are divided by a road 4 rods wide passing through the centre lengthwise, and laid off into ten equal lots of 128 acres each, five lots on each side of the road, with a reservation of ten acres in the centre, for a school house, church.
desert a delightful little colony, with all the social, literary, and religious privileges of a village. There the fancy sketches; but there guess will overbalance the profits. Let us see. If and there are also advantages not specified above, be made to present convincing testimony that the broad prairies of Illinois were not made in vain.

Cultivation for two years $2 per acre, 560
Laying off and planting, • 125
Breaking 280 acres, 1 50 420
Interest on $2,720 for 12 years, 1,958 $4,678 00
Cost of 1280 acres prairie , at 25, $1,600

There may be unforeseen expenses attending it, and where the farmers are more ambitious to have good crops than extensive fields. 28 acres of timber land for each farm will be amply sufficient for its support, and leave a large surplus to enclose the prairie not embraced in the colony settlement. This may be shown by the following estimate of the amount and value of 280 acres of timber in twelve years.

Planted six feet apart each way there would be 1525 trees to the acre, or 34,300 on 28 acres. In twelve years they would be large enough to quarter, and allowing but one cut to a tree we shall have on 28 acres, 137,200 rails. On 280 acres we have the incredible number of 1,372,000. These would be sufficient to fence each of the ten farms of the colony into fields of 32 acres and leave 1,254,240 rails to be sold or left standing for fuel, or to enclose farms on the adjacent prairie. Indeed the surplus would fence more than 160 farms into fields of 32 acres each. But allowing only one tree in ten to attain the proper size to quarter, you still have enough to fence two sections as before, and have more than 19,000 rails left.

Some however may say the expense of this project will overbalance the profits. Let us see. If you have half the estimated number of rails on 280 acres, there will be 668,000; worth say $1.50 per 100 in the tree, $10,290 00
Cost of 1890 acres prairie, at 1 25, $1,600
Breaking 280 acres, 1 50 .420
Locust seed, - - 15
Laying off and planting, - - 195
Cultivation for two years $2 per acre, 560
Interest on $2,720 for 12 years, 1,958 $4,678 00
Clear profit, $5,612 00

This estimate, I candidly believe, may and will be more than realized by those who shall undertake and with patient perseverance pursue this project. There may be unforeseen expenses attending it, and there are also advantages not specified above, to meet such expense. A crop or two of corn can be raised the first two years between the rows of locust trees, to say nothing of the greatly enhanced value of the prairie all around.

These views will doubtless be considered as mere fancy sketches; but there might thus be established a delightful little colony, with all the social, literary, and religious privileges of a village. There the desert might blossom as a rose, and the fruitful soil is that of full-grown cows which have proven worth-

less milkers. Now if you can induce the farmers to spay them, it will add greatly to the quantity and quality of the beef.

I spay all my heifers that do not have the appearance of making good milkers. But I cannot recommend your plan of spaying in the side. I hang mine up and spay in the belly ; and they have all done well. I last fall spayed three or four spring calves, and among the rest one that had been on rich pasture all day, on which the operation was very difficult. I bursted both the ovaries in getting them out, and supposing the case a desperate one, I cut off the whole end of the uterus—horns, ovaries and all; and to my surprise the next evening it was apparently well, and as playful as a kitten.

I have learned to my cost that spaying anything in the side is not the best plan. I last spring had a pen of very handsome steers to spay, and a neighbor of mine persuaded me to let him spay them in the side, it was "so much safer." I consented, and he did the job so neatly that you would have thought him a "regular built" surgeon—but the pigs all died; and I had the satisfaction to know that he afterwards spayed his own in the belly, and they all lived.

The great error in spaying generally is that the wound is sewed up a little too closely. Leave room for the blood and matter to escape, (which it will do much more readily through the belly than through the side,) and there is little danger, if the operator has sufficient skill to cut up a hog or a beef decently.

Monmouth, Feb. 1846.

CORN STALK SUGAR.
BY JOHN BEAL.

Messrs. Editors: The interest you have sometimes expressed in my experiments in making sugar from the juice of corn stalks has induced me to send you a sample of the sugar made the past season. You will probably have perceived in the December number of the Albany Cultivator that 688 lbs. of crystallizable syrup was made from an acre of ground. You will also perceive by a communication from me in the January number of the same paper that I regard the growth and manufacture of this article as simple, easy, and attainable by any farmer. And I believe it is quite as profitable as any thing else cultivated, as I have endeavored to show in a communication to the Commissioner of Patents, which will appear in the appendix to his next Report. I am also enabled through the kindness of Mr. Josiah Warner of this place, to furnish you with a plate for printing, representing a drawing of the mill made use of by me for pressing the stalks. It is after the manner of a method invented by me for stereotyping or taking facsimiles of original drawings, engravings, &c. It at once affords an illustration of the machine and a specimen of the art. This mill is amply described at page 148 of the Report of the Commissioner of Patents for 1843. For any description you may wish to give of it, or the processes, I must refer you to that Report. The full size and shape of the cogs, as they stand out from the roller, is given in the drawing. A is the distance between there is the same as the thickness thereof. The mortise holes in the side rollers have perpendicular sides. The
I suppose in your rich prairie soil the subject of manures has as yet received but little attention; indeed in the whole of the great West there seems to be a general apathy on the subject, and every one seems to think that the virgin fertility of the soil will continue forever, until the diminution of his crops convinces him to the contrary: at least, such is the case here, with but few exceptions. And I suppose there are exceptions everywhere. For the benefit of those who form those exceptions, I will communicate a discovery that I deem of some importance in this matter; and to all who are desirous that their out-houses, stables, &c. should be divested of unpleasant odors, it is of matter of importance. I have found that by mixing night soil with one half or two thirds of spent tan bark, in three or four weeks it loses its unpleasant odor and the bark is brought somewhat into the condition of rotten wood—when, I should suppose, the whole of the ammonia and other salts absorbed, to be given out for the future use of plants.

Now let everyone apply it as he thinks proper. Keep a pile of tan bark near your necessary, and throw in a shovel full pretty frequently, and you will find your visits less unpleasant than usual; and if you should at any time find it necessary or useful to clean it out, you will find that operation much less offensive.

Cover all your stable and hog-pen floors two or three inches thick; and if they are earth floors you will find they will not tramp into mud holes. Throw the whole out occasionally and renew it, and you will find them less disagreeable, your dung pile increased, and what is of more value, all the ammonia preserved as future food for plants.


The use of charcoal for the purpose above indicated we can recommend from trial. There is no reason why an out-house should be any more offensive to the olfactory than a parlor.—Ed.

TAN BARK A DISINFECTING AGENT.

BY JOHN BEAL.

MESSRS. EDITORS: I suppose in your rich prairie soil the subject of manures has as yet received but little attention; indeed in the whole of the great West there seems to be a general apathy on this subject, and every one seems to think that the virgin fertility of the soil will continue forever, until the diminution of his crops convinces him to the contrary: at least, such is the case here, with but few exceptions. And I suppose there are exceptions everywhere. For the benefit of those who form those exceptions, I will communicate a discovery that I deem of some importance in this matter; and to all who are desirous that their out-houses, stables, &c. should be divested of unpleasant odors, it is a matter of importance. I have found that by mixing night soil with one half or two thirds of spent tan bark, in three or four weeks it loses its unpleasant odor and the bark is brought somewhat into the condition of rotten wood—when, I should suppose, the whole of the ammonia and other salts absorbed, to be given out for the future use of plants.

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OHIO AND ILLINOIS.

BY C. D. FOX.

MESSRS. EDITORS: Ohio seems hardly to be within hailing distance of Illinois; yet I trust that the necessity of the case will be considered a sufficient apology for thus troubling you with an introduction to the farming community of your State. Two years ago I resolved to make that my future residence; and concluding that although a man may be somewhat acquainted with the common method of farming in northern Ohio, and yet wholly ignorant of the proper course to be pursued in prairie farming; and furthermore, as I was unwilling and unable to throw away my first two or three years' labor in experiments, when practical knowledge, based upon the experience of practical men, could be obtained at a trifling expense, I resolved forthwith to devote a portion of my leisure hours to that object, and accordingly became a subscriber to your paper—the value of which, permit me to say, exceeds my most sanguine expectations. By the way, it seems to me that the most effectual means
The Color of Horses.

BY H. COLE.

MESSRS. EDITORS: There is no one fact that mankind are more ignorant of than this—that the color of a horse is a sure indication of his character.

In this article I shall attempt to give a few rules by which a man of common observation can tell the disposition of a horse as soon as he sees him. The first thing to be observed is, the color of the animal; the second is the phrenological developments. If his color is a light sorrel, or a chestnut sorrel, his feet, legs, and face white, these are marks of kindliness. Then if he is broad and flat between the eyes, I will warrant him to be a horse of good sense and easily trained to any thing. Such horses will have good treatment; the kinder you treat them the better they will treat you in return. A horse of the above description will never stand the whip if he is well fed.

One thing to be always observed in buying a horse, if you want a gentle one, is, to get one with more or less white about him—the more the better. A spotted one is preferable. We see many horses of this color employed in circuses. Some have supposed that this color was sought for by the owners of these establishments because of its oddity; this is not so; it is because horses of this description are the easiest trained to perform the difficult feats that we see them go through at such places.

Again, if you want a safe horse, avoid one that is dis stanct—he may be gentle—that is, he may not scare—but he will have too much of the go-ahead in him to be safe for everybody.

If you want a perfect fool, but a horse of great brawn, get a deep bay, with not a white hair about him; if his face is a little dished, so much the worse. Boys, nor men that have not got good use of themselves, should never have any thing to do with a horse of this kind; they are always tricky and unsaft.

I have been deprived of the use of my limbs for 27 years; in this time I have traveled over a large portion of the western country by land, in my one horse buggy. In using the kind of horses that I have first described, I have never met with an accident of any kind; I have invariably found them kind and gentle to manage. But in using the deep bays, I have suffered enough by their treachery to kill forty men.

I have written this, Messrs. Editors, for the benefit of those that may be in the same situation with myself, and dependent on the horse for conveyance. A kind and gentle horse, to any such person, is, I might say, every thing.

Millville, Iowa, Feb. 1846.

DISEASE AMONG SHEEP.

BY J. ROBY.

MESSRS. EDITORS: I am trying the experiment of keeping sheep in Boone county. My flock consists of about 500; 400 of which are wethers of all ages, and 100 ewes—the most of which are very valuable Merinos, selected from a very large number, as the foundation of my future flock. After a journey of twenty days of careful driving, and being well fed on the route, they reached here the 29th of November, showing no other evidence of their journey than being dusty. They were turned into a field where was a piece of early sown rye, and some wheat. Here they remained ten or twelve days. They were then taken up and confined to their fold, a piece of between one and two acres of clean dry land, descending to the edge of a swale and a corner of the fence run off so as to take in a little stream formed from a spring a few rods off. Here at first they were not so well sheltered as I could have wished. Stacks, fences, and sheds furnished protection from the winds, though not from very severe rain storms; these, however, were warm while they continued, and cleared off mild. They were well fed with hay and straw, and half a gill of corn each, per day, with salt, sulphur, and ashes always by them; and were soon supplied with ample and warm sheds. Soon after this, say about the last of December, one, two, three, one after another (all ewes) were taken sick and died. One we examined after death, but could not discover the cause. Soon four more ewes were taken in the same manner, and died. To-day I was called to see another. I found a fine, large, yearling ewe, standing and chewing her cud in a perfectly chie-
Disease in Sheep. The Garden.

THE GARDEN.

"And thou hast long, long sunny days; Smiles sweeter than thy frowns are stern."

So sung the first of American poets, of this beautiful March weather, the time when birds begin to sing, and buds to swell, and grass to grow green.

One of the first uses which every householder will be called on to make of it, will be, to put his garden in shape for production; and after the frost is fairly out of the earth and the ground reasonably dry, he can hardly be too soon in beginning. If however his soil be clay or a stiff loam, let him be careful of putting in the plow too soon, otherwise he may find his garden turned into brick, which he will in vain endeavor to pulverize during the season.

The mention of the plow however brings us to the consideration of the subject of plowing a garden; and this brings us to another with which it stands intimately connected, viz: the shape and style in which a garden is to be laid out. Our present mode of gardening, so far as it is reduced to system, has been derived from our English neighbors, with whom the very mention of a plow in a garden is the rankest heresy. The only implement used by them for deep stirring is the spade. Consequent on this practice, wherever it prevails, and where it does not but where the idea of it governs, gardens are laid out into squares and other figures, with whose outlines the plow would play rank Vandalism. Shall we continue this mode merely because we have begun it, or because in a country where labor is cheap and land dear, it is practical? We do not hesitate to say No. The great majority of farmers have neither time nor inclination to spare up a large garden; nor is there in our opinion any sense in it whatever.

The who follow gardening for a business, or as amateurs, can use the spade to their hearts' content. The farmer must adopt a more summary mode of despatching his work. Still it must not be supposed that plowing as ordinarily done will answer the purpose of the spade. The advantages of the latter implement are, 1st, that it can be used without injury to such plants and shrubs as must not be disturbed; 2d, that it pulverizes the earth deeply; and 3d, that it accomplishes this thoroughly. To secure the first of these objects the ground must be properly laid out; and to secure the two latter, the plowing must be repeated, and the implement put down to its fullest depth. A great many people plow as if they were afraid of breaking through the earth and disturbing the Chinese. This kind of carelessness will not do in a garden. The earth can be pulverized with a plow to one foot in depth, and nothing less should be accepted. There is not perhaps a vegetable grown in a garden but that requires deep pulverization. Many people have never taken the trouble to think but that the ball called a turnip or an onion is the whole root of the plant; and suppose the same thing true of what is called a beet, carrot, or parsnip. This is no where near the truth. The turnip, for instance, is only a ball or reservoir of feculent matter, laid up for future use, and is itself fed by little fibrous roots running from its top root in all directions. These roots stray off to great distances, hunting about through the soil for their food. The

ORCHARD AND GARDEN.

The "American Shepherd" by Morrell, describes one with some corresponding symptoms, but suggests no remedy except the very moral one of getting them on to some one else's hands. But as this is not always convenient, and might perplex a conscientious man, I now prefer to know what that man ought to do after he had got a parcel of sick sheep on his hands.

Can the disease be accounted for on the supposition that the ewes have received some injury in their delicate situation? Can it be caused by the operation of sulphur while in that peculiar situation? I am entirely at a loss, for most of the lambs which have been dropped are strong and hearty, as well as their respective mamas.

The two continue about the same; occasionally they will eat and move—then they become stupid. There is this difference in the two cases: one never seems to lie down; the other does—flat on her belly, her head and neck stretched out and resting on the upper jaw.

The only apparent symptom is stupor.

I have since writing the above learned that a sheep may be bled, as is sometimes a horse, by running a slender knife blade through the upper part of the nostrils.

If any one is in doubt as to sheep requiring water, let him look at mine, and see with what avidity those rush to it when let out, who have it not constantly by them.

Boon county, Feb. 1846.
same is true of a beet, or carrot, or any similar plant, as will readily be seen from the cut. In pulling up the root, these little fibres are broken off, and hence the mistake. If the soil is pulverized deeply, the air penetrates deeply, gases are evolved, and food in abundance is supplied: but if a shallow culture only is made use of, these little roots are confined near the surface and little food is supplied to them, and they are continually liable to be dried up by the sun.

The laying out of a garden which is to be plowed is a very simple process, and by no means involves any considerable sacrifice of taste. We will suppose it to be something after the following form. The length is here twice the breadth. There may be left a border on each side, next the fence, for asparagus, pie-plant, or other roots of the like useful sort, which will not bear disturbing, as at a a. Permanent alleys also, as at b b, may be left, with their appropriate borders; and as many walks yearly constructed from one to the other as are needed. This arrangement will allow the borders to be untouched by the plow, and if trees or shrubs are desired they may be so placed as to secure the same impunity. Should it be desirable to introduce the cultivator in weeding, the gardener has only to sow his lettuce, beets, tomatoes, onions, and every thing else, in rows, instead of putting them into beds, and there is a fair field for the work; and it yet remains to be shown that a beet will not grow as well in a long row as a short one. We believe a little revolution of people's ideas in this matter would save a great deal of trouble, and induce hundreds to cultivate good gardens, who now deem it so intricate and vexatious a business, that they will not meddle with it.

The first business in the garden is to gather off all old vines, sticks, cabbage stumps, and every thing else that may harbor insects, and burn them. These substances of some of them may serve the purposes of manure; but are not fit for the garden unless thrown into a pile and fermented. The manure for the garden should be well decayed, so as to be easily incorporated with the earth. Green manure has no business here; it contains numberless seeds—often insects, and is wholly unfit for the use of the garden. Manure, to be of much use to a plant, requires to be thoroughly incorporated with the earth, so as easily to be solved by the water to be taken up by the fibrous roots. Thrown in shovelsful together about plants it is of very little use to them. We have tried this to our satisfaction. It ferments often, is easily dried, and but a small portion of it is found by the roots.

It is not worth while to be sparing of manure in a garden. The best of our soils will bear it abundantly; but some discretion may be used in applying it. For instance, those parts of the garden where tomatoes are grown, require little or none. Warm sandy or gravelly soils without any dressing are the best places for this vegetable. We have often failed either to get tomatoes at all, or got them very late, by enriching the land. The vines grow rapidly, but continue to grow too much, so that a single plant will cover ten feet of earth.

Peas may be planted as soon as the frost is out of the ground. The same is true of tomatoes, onions, and lettuce. A few days later, parsnips and early cabbages may be sown; in warm borders. These seeds all vegetate at a low temperature, and will, with the exception of tomatoes, bear a considerable degree of cold. Peas will vegetate at a temperature of 51°, tomatoes 52°, onions 62°, parsnips 52°, cabbages 54°; and when once up, will bear the weather well enough. Last season we had cabbages buried several days in the snow, while the weather was extremely cold, but they suffered no inconvenience from it.

Great advantage results from soaking garden seeds. Beets will come up in less than half their time, often, from soaking. Two things are here to be guarded against, nevertheless. One of them is, not to soak seeds which are to be put into dry earth; otherwise the moisture is withdrawn from the seed by the dry soil, and the former left in a worse condition for germinating than before. The other precaution is, soak in water varying not far in temperature from that of the earth in which the seeds are to be planted.

FRUIT-DWARFING—ITS ADVANTAGES.

BY G. O. GRIST.

MESSRS. EDITORS: Why don't the people of Illinois use the means to have fruit sooner after being located in the West? If fruit is an object any where, surely it is in the West, or in any
I mode of training. The first is, the tree bears fruit—food it can consume—then director control its vigor part of its nourishment. Let a tree have all the but I think this is had policy, as it robs the tree of trunk, induces fruitfulness. It has been recom- prevents its forming new wood, or returning to the tree should send up any shoots too high, they should be pinched and left an inch long. In after years, if a shoot bursts and grows on any of the limbs, they should be nipped and left an inch long. The first year after the trees are set out they will not grow much. The second year, about the middle of July, or while the tree is yet in a vigorously growing state, bend all the limbs below a horizontal position and secure them in that position (with wrapping yarn) to the trunk, thus:

A string being tied to the end of every limb and twig, and tied to the main stem, the tree thus tortured sends up sap as usual—but it will not go down to the ends of the limbs to form more wood, but will be concentrated in the limbs and twigs and form fruit buds for the next year. If the buds should burst and grow on any of the limbs, they should be nipped and left an inch long. In after years, if the tree should send up any shoots too high, they should be restrained by bending down as at the first—as they would attract too much of the sap if let alone.

Whatever retards the circulation of the juice, or prevents its forming new wood, or returning to the trunk, induces fruitfulness. The application in the limbs and twigs and form fruit buds for the next year. If the buds should burst and grow on any of the limbs, they should be nipped and left an inch long. In after years, if the tree should send up any shoots too high, they should be restrained by bending down as at the first—as they would attract too much of the sap if let alone.

I will mention some of the advantages of this mode of training. The first is, the tree bears fruit earlier and more abundantly. It is admirably calculated for our open prairies, as the tree is so low to be in no danger of being blown down or broken by high winds; and if large fruit is raised it is not so liable to be blown off—and if it is, it is not injured by the fall. It is much easier to gather the fruit. It is recommended to plant trees as young as possible if they are to be treated in the above manner.

INFALLIBLE RECIPE
For getting rid of those troublesome things called Fruit Trees.

BY F. K. PHINIX.
First in regard to getting them: (strange that folks will take pains to get such things—why, I’ve known them to pay half a dollar apiece for the nuisances!) Don’t be anywise particular to get thrifty trees: you will find that those which are 8 or 10 years old, and have been raised among grass and weeds, with plenty of large wounds and scars on, are decidedly the easiest to get rid of—and it may be (though you never thought of it, I presume) they are a cent or two the cheapest. When you come to set them out, put them in possible into some old timothy patch; because you know it is very trouble-some to plow and work among young trees: but if you shouldn’t happen to have such a patch and must plow your ground first, don’t plow deeper than three inches; if you do, the roots will all go down out of sight into the cold poor earth, and your fruit (when you get it) will certainly be spoiled thereby.

When you set them out don’t waste any time about it; if possible set some hired man at it—a Weggan or Dutchman will do—your time is altogether too precious in such a hurrying season for a job like that. However, set them as near as you can like a post—that is, deep and strong—the wind will not loosen them so easily. If you shouldn’t happen to get your holes quite large enough for the roots, double them up—they’ve no business to be so long.

When you fill up the holes, use your bottom soil altogether—it is dandy and packs closer around the roots and leaves, and will keep them steady.

After you have got through setting, if your orchard ground were a timothy patch, well and good; if not, you may sow oats or wheat on, and then be sure and seed it down, it saves so much trouble afterward besides, if your trees ever happen to have leaves on them they will make excellent food for the grasshoppers after the grass is cut. Don’t worry yourself any more about them, especially during the first season after setting. If they ever leave out, and you should happen that way, you might very likely find some ugly worms devouring the foliage, which would certainly be a very disgusting sight, and as for killing them—ugh! horrible! —don’t think of it. In the fall, when the prairie grass gets poor, turn your calves and sheep into your orchard; they will get an “excellent bite” there—and if your trees get some good bits, no matter, it will restrain their too rampant growth, and save prunings. For extras, when your friends come to see you, turn their horses in, or a new milk cow; and if they break down half a dozen and run over the rest—why, lay it to the country!

This course infallibly succeeds the second season, if not the first after setting. If, under these circumstances, you are not pleased with your excellent success, I will mention three things as peculiarly well calculated to convince you.

First, Darn the unlucky nurseryman you happened to buy of, with all vehemence, every time you happen to look at the trees. Secondly, Express it as your opinion as when as possible, or (what is still better,) say that you know this aint again to be no fruit country, for you’ve tried it! And thirdly, If any of your neighbors happen to have any fruit, either wild or cultivated, get as much of it as possible; don’t be at all
particular how you do it—only be sure and get it. But
says somebody—"Hold on! hold on, Mister! you
do n’t mean it, I hope."
Well I do, if that’s
you—now don’t dodge, friend, if you do I’ll shoot
again I’ll allow at least "three rows of apple trees"
for you.
Delavan, Wisconsin, Feb. 1846.

TREES—CULTURE—GRAFTING.
BY L. ROBBINS, JR.
Messrs. Editors: The time will shortly be at
hand when those farmers that have been dilatory
in setting fruit trees, may make a beginning; and
it is to be hoped that such will not let the coming
spring pass without performing that kindly act they
dote to themselves and posterity. "Tis true that
many have no knowledge of the cultivation of fruit
trees from their own experience; but by re-perusing
the Farmer they will find sufficient instruction for
the most ignorant to succeed with perfect certainty.
I am no advocate for the cultivation of inferior fruit,
nor so great a stickler as some for grafted (tees to
in setting fruit trees, may make a beginning; and
you—now don’t dodge, friend, if you do I’ll shoot
again I’ll allow at least "three rows of apple trees"
for you.
Delavan, Wisconsin, Feb. 1846.

GET GOOD FRUIT.
BY F. H. HASTINGS.
Messrs. Editors: The advantages of obtaining
good varieties of fruit for an orchard instead of
being content with natural fruit, or trees not grafted,
have often been urged in agricultural papers; but
cannot too often be insisted upon, as many even
now-a-days, from mistaken notions of economy, arc
satisfied with fruit trees of unknown or inferior kinds.
The same care and attention are requisite, in order
to have thry trees, whether the fruit be of the best
or the poorest kind; hence it is often remarked "It
is as cheap to raise good fruit as poor."
The difference in the first cost should not be considered, as no
one will think a few shillings expended in purchasing
fruit trees, thrown away, when they begin to
graft the fruit, if it be of good quality.

It is gratifying to all lovers of good fruit to witness
the increasing interest in the eastern States, to
raise good fruit. Farmers especially are waking
up on this subject, and are not only grafting their
old trees, which heretofore have borne fruit good for
their only—but arc setting out new orchards of the
most approved kinds of fruit. They are finding
out that no other branch of business pays so well,
with so little labor. Great quantities of apples are
sent from central and western New York, to the
New York and Boston markets, and the demand
for them is increasing each year. There were
 shipped the last fall, from the two forwarding houses
in this village, 8,700 barrels of apples, at an average
price of 7 shillings per barrel, exclusive of the
charge for shipping. Besides this amount, there were a great
number of barrels shipped from the canal bank,
within the town, making in all probably near 7,000
barrels from this town alone. This is no consider-
able item in the profits of the farming community.
If I mistake not, good winter fruit brought $3 per
barrel in Chicago last fall; and there is every prospect that Chicago will be a good market for fruit,
for years to come.

From the above facts, and from multitudes of a
similar character daily presented to the public, any
one can see the wisdom and advantage of western
farmers turning their attention immediately to raising
good fruit.

There are so many books now published, containing
lists of valuable fruits and all necessary direc-
tions for their cultivation, that it would seem un-
necessary to say anything upon this point, did we
not too often see orchards neglected and almost ruin-
ed, for want of a little care. It is certainly a mis-
taken idea that trees must take care of themselves,
after being set out. But your former volumes con-
tain so many excellent remarks on the cultivation
of fruit trees, that I will not now pursue the sub-
ject, believing that those who are raising fruit will take interest enough in the matter to search out and read what is published by those who have experience in the business.

Clinton, New York, Feb. 1846.

Transplanting of Strawberries. It has been usual to recommend this to be done in August, with a view of bringing forward the vines so as to produce some fruit the following season. In the moist climate of England—where we suppose this to have originated—and in the eastern States, where long, dry autumns are not so severe as here, this may do well enough. But in a dry climate like ours, we are satisfied from experience that August is not the time. We have succeeded in getting more fruit the first season from those transplanted in April than in the preceding autumn. Strawberries abhor drouth, particularly the more highly cultivated sorts. It is desirable that they should grow at once, from the time of setting out; it being as true of them as of animals, that early stunting affects their after growth unfavorably. Strawberries may be transplanted at any time in the season; but we believe the autumn months the worst of any.

The beds where they are set should be pulverized deeply. Their fibrous roots frequently run several feet; though in taking them up, these are broken off so as to leave the impression that a strawberry has very little root. A good mode of setting them is in rows—the plants about one foot and the rows three feet apart.

Several Mistakes to be Avoided. It has been recommended heretofore to sow radishes in sand—with the averment that they would grow larger, more crisp, and better in flavor, than any others. This need not be tried, for the averment is not true. Radishes love a sandy soil; and a good one may be made by mixing a rich mold—so matter how rich—with sand in equal parts. The manure applied to this mold should be thoroughly rotted—green manure should never be used for radishes—and should be thoroughly mixed.

It has been also recommended to plant cucumbers in ashes; or to put a great quantity of ashes in the hills. This need not be tried, for the averment is not true. Radishes love a sandy soil; and a good one may be made by mixing a rich mold—so matter how rich—with sand in equal parts. The manure applied to this mold should be thoroughly rotted—green manure should never be used for radishes—and should be thoroughly mixed.

Some people are in haste to plant some vegetables—Lima beans, for instance—long before they can vegetate. This is useless. Lima beans will not grow, with a temperature of 60°, in less than three and often five weeks. In a temperature of 75° they will if soaked vegetate in about seven days. It is then useless to plant them before the earth gets thoroughly warm, which in this latitude will hardly be till sometime in May.

It will be useless to procure a choice kind of squash seed, and plant it near any other vine—such as pumpkin, cucumber, melon, or any other kind of squash. If this be done, the product will be any thing but the choice vegetable expected.

A CLOTHES DRYER.

In a New York paper we noticed a paragraph a little time since, stating that some Yankee had invented an apparatus for drying clothes, which was made by erecting a stout post, and running out from it four arms at right angles to each other, and then boring holes through these arms about eighteen inches apart, through which a rope was to be passed something in the manner of a spider's web.

This idea we have represented in the cut, where we have set up a post intended to be about nine feet high, and at the height of six feet from the ground, have placed the arms spoken of, which may be nine feet each way from the standard. If a rope passes from the top of the post to the end of each arm, it will strengthen the apparatus. The better way would perhaps be, to have these arms revolve after the fashion of a wind mill. The housewife would then only be obliged to set down her basket of clothes, and turn the machine to her liking. If the arms are 9 feet in length, and the ropes are passed through at intervals of 18 inches, it would give one hundred and thirty feet of rope, which is as much as most families would need. It appears to us that such a concern would possess the advantage of occupying but little room, would give great length of line in a small space—and render the hanging out of linen a comparatively easy process, besides lessening the liability to tearing them in the wind.

Since getting up this article, we have been told that somebody is selling in this city either the machine or the right to make it. If so, it is probably clogged with a patent, as every thing now-a-days is patented, from a wooden jew's-harp to a tin cider peg.

"Rye and Indian" Bread. We have received two recipes on this head, both of which are given:

MESSRS. EDITORS: B.'s communication in Jan. No. of Prairie Farmer on 'Rye and Indian Bread' reminds us of good old New England, which has sent out thousands of her hardy sons to possess this goodly land. Inured to hardships in the cultivation of its sterile soil, they have acquired habits of industry and unbending integrity. May we not expect that...
such men will help give character and permanency to our western institutions?

I too, like B., prefer the brown loaf to the best wheat bread that can be made, and feeling anxious he should enjoy rye and Indian bread in the land of his adoption, I herewith subjoin the Vermont receipt. Take six qts. of sifted Indian meal—scald it up with boiling water—when sufficiently cold, say the temperature of new milk, mix two qts of rye meal, one gig of yeast—stir the whole well together—put it in a warm place to rise. When it is rise, take it out with a spoon into small pans for baking. Be sure the oven wood is ready, so that it may be baked before it is sour.

R. CHENET.

Janesville, Wis., February, 1846.

ANOTHER. Messrs. Editors: In the December number of the Prairie Farmer I noticed a communication from one of your correspondents soliciting a recipe for rye and Indian bread. Now I have never written for a public journal, but being a genuine Yankee from the old Bay State, and of course a lover of the bread alluded to, and believing also that it is more healthy than any other, I cheerfully send you my own simple method of making it, which you can publish if you think advisable. I would first observe that, as rye is not much cultivated in the "far West," I find shorts to be a very good substitute, which almost every family has at their command.

To two parts Indian meal, take one part rye meal, or shorts, pour a little boiling water to the Indian meal, enough to moisten it, and directly add the shorts, together with sour milk, (no matter though the milk be very sour,) and saleratus, a table-spoonful of the latter to a gallon of the former—knead it until thoroughly mixed, and as soft as can be possibly taken in the hand to put in pans. The pans should be deep, that the bread be not dried up in baking. Then bake it three hours in a brick oven. For such as have no oven alluded to, a bake-kettle will answer very well, or a stove will do, if the fire is kept up with boiling water—when sufficient to a gallon of the former—knead it with boiling water—when sufficient cold, say the temperature of new milk, mix two qts of rye meal, one gill of yeast—stir the whole well together. The firmkins should be made of white oak, or white ash, free from sap—or which is still better, the wild mulberry. They should be made with two heads, perfectly tight, and smooth inside to hold about seventy-five or eighty pounds, or about ten gallons; and when made of oak or ash should be soaked, say twenty-four hours, with warm water impregnated a little with salt, to take out the acid that is required. The oak or ash should be soaked none in the mulberry; and as soon as the bread is ready, pack it immediately in the firmkins, and fill it as soon as possible to within about an inch and a half of the head; and head it up and fill up the space under the head with brine, through the head—then stop the hole tight with wood of the same kind, and the making is completed. The next thing is to preserve it through the warm weather. I find the best way for preserving it to take an empty salt barrel, and put three or four inches deep of salt in the bottom—then set the firmkins in the barrel on the salt—pack salt in the barrel around the firmkins till the barrel is full—then put it away in a cool dry cellar and let it remain there till cold weather, when it will be good and fresh, and fit for any market.

People who have no cellars will find it to their advantage to pack it in salt in this way, as the salt will keep the heat and air in a great measure from the firmkins; and it is but little trouble and no expense. If you take a clean barrel, the firmkins should of course be clean and new.

Cook co. Illinois, February, 1846.

SPIRIT OF THE AGRICULTURAL PRESS.

Mustard. Wo find a letter in the True American [Cassius M. Clay's paper] from Messrs. Thornton & Gunsted, mustard manufacturers at Louisville, Kentucky, giving the following directions for the cultivation of this crop. Plant the seed in clean hemp or wheat land, early in the spring, in hills three feet apart each way; three stalks in a hill are sufficient, as it then has plenty of room to head. Keep it clean with a cultivator. It will ripen about the middle of June, and should be cut before it is ripe enough to shatter out, and be placed on a tight floor or sheets, in the sun, to dry. Thus treated it will yield 20 bushels per acre. Four ounces of seed will plant an acre. It should be added that there is much difference in different kinds of mustard; and those who plant it ought to look well to the sort they cultivate.

A bushel of mustard seed weighs about 50 lbs. and the price paid by the above firm in Louisville, after harvest, is about 7 cents the lb. or $3 50 per bushel. They were obliged to import seed to carry on the manufacture the past season. Will not some of our friends in the south of Illinois look to it?
Cutting Timber. Several correspondents of the New England Farmer have got into something of a dispute on the subject of cutting timber; one set of them maintaining that the summer is the best time, and the other set contending sharply for the winter season. The first adduce in support of their doctrine, some bits of experience gathered here and there—and the latter cite Loudon and other great authorities.

It appears to us that both are partly right and partly wrong; and that summer and winter both may be the best seasons for cutting timber. The writers all seem to overlook one thing which undoubtedly has more to do with it than any thing else—and that is, the facility for seasoning rapidly and perfectly. Timber will undoubtedly last the best which seasons the most perfectly, at whatever season cut; and that seasoning is likely to be best which is done the most rapidly. The great enemy of thorough seasoning is the seetous fermentation of the sap, which is liable to take place if seasoning be delayed. If this fermentation is allowed, thorough seasoning is next to impossible; and such timber will decay, infallibly. Timber in the summer contains more sap, it is true, than in the winter; and if cut then and placed in unfavorable circumstances is more liable to fermentation; and on the other hand, the facilities for preventing fermentation and securing the seasoning are better than in winter. Let timber, at whatever time cut, be thoroughly dried, and it will last so as to prove either side of this dispute. It may be injured more, for some purposes, in seasoning, at one time, than another; as is shown by the editor of the N. E. Farmer, who cut some bass wood for carriage stuff, when full of sap, and spoiled it in it drying.

Farmers' Library. A friend has called our attention to an article in the Genesee Farmer, of which the following is an extract.


Loudon's is an expensive work, although one of startling value. There are some errors in the Tables of the Analysis of Wheat in Johnston's Chemistry, as copied from Dr. Stroeger, which have misled the editors of the American Quarterly Journal of Agriculture, and some others. These errors we shall take an early opportunity to point out. Notwithstanding a few signal defects, the Lectures of Professor Johnston can be studied with great benefit by every practical tiller of the earth."

We would add that we are glad to see some partiality works, such as Morrell's Shepherd, Downing's Fruits, &c. have made their appearance and are largely called for. This is cheering.

Grapes in Chickens. A friend informs us that this disease is so common in southern Ohio, that half the chickens洽谈ed die of it. We are not aware that it prevails anywhere in our State, but are not certain. A writer in the Southern Planter recommends mixing the dough with urine and baking it. In its first stage a teaspoonful of urine will cure it.

VETERINARY DEPARTMENT.

DEATH OF HORSES.

BY E. CHESEY.

MESSRS. EDITORS: Mr. Fletcher, a neighbor of mine, lost a fine young horse last fall, after trying every remedy within the reach of the best judges. Thinking the case rather singular they opened the horse, and found the stoppage occasioned by the collection of dry prairie roots, which it had gathered while feeding on sod wheat. The collection of roots, when I saw it, was some 5 inches in diameter, all interwoven, so as to preclude all possibility of saving the animal.

The prairie roots are washed bare by the rains, and when picked up with the wheat by the horse, his digestive powers have no action upon them. Since learning the above fact, I am informed that six other horses have died under similar circumstances. Four were found dead on and around one large wheat field. We have no doubt but their death was occasioned by prairie roots, as above described. Will those interested in the Prairie Farmer speak out on this subject, if they are acquainted with facts for or against.

Janesville, Wisconsin, Feb. 1846.

DEATH OF HORSES.

BY A. BEACH.

MESSRS. EDITORS: There have been some cases of disease among horses of a mysterious character this winter in this settlement. I had an excellent mare in good health, and in bearing, taken very violently ill, and increasing. After a few minutes of observation, I came to the conclusion it was the bots. I tried faithfully all the medicines usually given to detect them, but to no purpose. The pain constantly increased in violence for about 18 hours, when she died. On examination it was found that the bots had collected in squads of about 20 to the square inch, on the inside of the first stomach, near the connection with the wind pipe, and many of the sharpers had nearly worked through. Whether the bots in this state would have killed the mare, I cannot with certainty say; but there is another mystery connected with the affair. It was found that the canal connecting the first and second stomach, about a yard from the first, had passed through a rupture in the diaphragm, to the vitals, about two yards, so that nothing could pass through that. The part passed through into the vitals was mortified.

Now what caused this rupture? Could it have been made when she tumbled and rolled about, or was it produced by some other cause?

Tyler, Winnebago co. III., Feb. 1846.
CATALOGUE OF PLANTS

Growing spontaneously in the State of Illinois, the principal part near Augusta, Hancock county.

CATALOGUE OF PLANTS

LEONARDO CARDINALIS L (R M mother-wort
SIEGEL SYRIRHUMA N (Rtss

HYSSOPA PH (Nt

CARDINALIS L (B)

MARRUBRUM VOLARUM L (C M E horehound

TROCHISIUM CANNABINUM L (Rtss wood sage, germander

SCHIZON CHLORIS L (C M E leafy grass, weedy night shade

SILYRUM P L (P M densely nightshade

COREOPSIS L (Rtss horse nettle

PHYSILLIA VAGUM L (F P yellow horehound, green chervil

GALTONIA TRUMPET FLOWERING (P

NEMASTOMA PHYSALIS PEAS deadly nightshade?

DATURA STRIATAUM L (R M P green thorn apple

TULIPA L (R P F purple thorn apple

VERBASUM THAPSUS L (R T M mullein

HYPERICUM HASTATUM T G (S B 13 P 13

ERIOGON CANADENSIS L (T M Wt. colts tail, fine henean, pile weed

DIPOLOPSIS LINARIIFOLIA B (P)

BOLTONIA GLOBSIFLOSA LIVHER (W P F false chamomile

COLLOCO L (C M E horehound, leafy golden rod

SPEOCA P N T

RIGHTS L (P F tall leaf golden rod

NEOGENS T C G

ARGITA B. B. sharp pointed golden rod

TAMINO B. B. fine golden rod

MESSOURICA N (P

CANDIANAE L (B)

SAGPAE L (PPT giant golden rod

HANCOCKIA L (P)

TEMELFILA PH (P F pigmy golden rod

CHENOARIS MURIAE L (P)

VILLOSUS N M P 45 O

FLEISCH B. L. (R M omepracum

PYRACANTUS LIVHER (W P F white leaf cup

SYLPHIUM B; L. (P)

PERLICANTUS L (P)

PARRENTHUM INTERJUM L (P)

AMBRIAS TRIBLES L (P Wt. great biter weed

PERLICANTUS L (P)

ACANTHOS L (P Wt.

COMOLOPIA M (P) STAGGER L (P)

DOKAI L (P)

XANTHIM STRIAMMUM M (P Wt. cloth, barn, sea burdock

HELIOGUS LIVHER (P T O E eye

HELICANTUS PAPPUS P M (P)

ANGIO DIFILA L (P)

RANSICKIA HIRTAN L (P)

TRIBULUS T C BIS

BONTONOSA PH (P F

ECHINACEA GLABRA L (R M P

HERBINHUS RIGIDUS B (P)

OCULARIS B. B. B (P S B 1

NOSSA LIVHER (P T O

GROSS DENTATUM MORTENS (P)

STRUMOSUS L (P)

TRACHLASTIODOS T W T H (T

ACANTHENS M (T)

INNOMEROSA M (R O

RHYNODON CANTHI D (N O)

CORPUS CORPUS M (S C

TRECIA L (P B F thistleflower sandflower

PALM H (P)

LEUCANTHEMUM L (P)

FITABERIA N (O)

RHYNODON CANADENSIS L (P)

BATES FROMOSA L (P Wt. burl margrable, cockleb

COUSMUS M (W P

CHYRISANTHUM L (W P DULY BAGGAR TUCKS

XIMENIOCE XENDIALEO CLAY

DODON DACHYRONANTHEMUM LAXAGA

HYRONOPPOC CHRYSTEMON L (HEY

HANCOCKIA CANTHIATUM L (P M)

MORUS L LCM C (O)

VARIEGATA ANAGAS L (BIS brook plantain, long-leaved brook

PERICANTUS P (R F Purpurea speedwell (time)}
Scirpus lineatus Mx (w p 4
Eriophorum polycentrum L (w p 14 cotton grass
Ephedra virginiana L (w p 14
Isophloios subquaroosus Schul (pds 5
" carpillariae Rom & Schult (s p
Trychostylis mucronulata T (w p 14
Scleria triangulata Mx (p 14
Carex scaparia Schkh (pds bks
" muskingumensis Schkh (eda bks
" lagopodioides Schkh (pds bks
" straminea Schkh (pds bks
" tenera Dew (p 14
" festucacea Schkh (w p 14
" minabila Dew (t
" crispatata Schkh (pds bks cockcomb
" stipta Dew (pds 14
" hystric Gray (pds 14
" cephalophora Mx (t
" mühlenbergii Schkh (w p 14
" rosen Schkh (T
" sparganioides M (bts p 14
" multiflora M (w p 14
" buxbaumii Wahl (bts w p 14
" caespitosa Auctm (bts w p 14
" stricta Lam w p 14
" crinum Lam r stris pallaec (bts 14
" longistria T (bks t
" intumescens Budge (pds 14
" lupulina L (bts p 14
" scabra Willd (w p 14
" miscanthus Schkh (alsa
" lanuginosa Mx (w p 14
" pennsylvanica Lam (t
" varia M (p
" richardii R Br (p
" pubescens M (p
" shorti T (bts 14
" virens Mx (t h green sedge
" torreyana Dew (p bks
" laxiflora M (t
" blanda Dew (T
" granularis M (w t 14
" undulata Kunze (w p 14
" medi dew (p
" tetanica T Schkh (t bts
" ances M (t

GRAMINEÆ.
§ Agrostis vulgaris 6m (cold)
" michauxii Trin (p ftd
" scabra Willd (w p t ftd
" mexicana L (t ftd
" sobolifera W (p ftd
" torniflora Willd (t ftd
" syriaca T (t h b
Mühlenbergia erecta Schkh (t false drop seed
Villa vaginiflora T & G (p t
" heterostachis Gray (p ft h hy
Cinna arundinacea L (w p t 14
§ Alopeurus geniculatus L (f t floating foxtail
§ Phleum pratense L (cltd
" timothy, herdsgrass, cat's tail
Thalaris arundinacea L (bts pds [grass.
Trisetum dactyloides L (t bts ftd sesame grass
Stipa invena Ph (p
Panicum virgatum L (w p ft
" proliferum Lam (p
" capillare L (p
" barbulatum Mx (s h p 5
Setaria glauca F de B (p 14
" ōtalicum F de B (cltd
§ Digitaria sanguinalis Scop (w d finger grass, crab grass
" glabra R & S (p w d
" filiformis M (p
Cenchrus tribuloides L (a p b 4 5 w d
Aristida dichotoma Mx (p r beard grass, poverty grass
" pallens T L (s p 5
" tuberculosa N (p
Calamagrostis coarctata T & G (w p ftd
Arundo phragmites L (w r pds d reed grass
Dactylis glomerata F de B (t h wild oats
Festuca tenella W (R t h
" prattensis Huds (t w p ftd
" nutans W (t
Diarrhena americana Ph (bts
Glycyrrhiza inflata Br (pds ft d water fescue
§ Poa pratensis L (f t by meadow grass, spear grass
" parviflora T Ph (w p
" fcompressa L (cltd ft d blue grass
" serotina Br (t ftd
" membraniflora L (t ftd
" capillaris M (w p
" hispida M (p
" iridoides Mx (p
" pectinacea Mx (p
" reptans Mx (p
" eragrostis T L (p 1
Uania latifolia Mx (t bts
Weldina speciosa M (t h melica gras
Triuncia seslerioides T (a s bts ft d by red top
Koeleria obtusata Gray (t
" truncated Torr
" nifida Nutt
" cristata Smith
Bromus secalinus L (t 1 w d
" hybrida (wheat fields 1 w d
" ciliatus L (t
" purga Mx (t p bks
" pubescens M (t h broom grass
Atheropogon spluroides Mx (s h p 4 5 hair beard
" papillosus Engelm (s h 4 5
§ Pleuris indica Lam (F d
Hordeum jubatum L (p squirrel tail grass, wall barley
" pusillum N (r 10
§ Secale cereale L (cltd
" rye
Elymus virgineus Lx (bks wild rye
" canadensis L (p bks
" villosus M (t lime grass
" hystric L (p t hedge hog grass
Triticum aestivum L (cltd
" summer wheat
" Spartina cynosuroides W (w p
Andropogon scoparius Mx (p broom grass
" furcatus M (p ftd ft d beaked spike
" nutans L (t p d by beard grass
Lepturus paniculatus N (salt licks
" reesia virginica W (bts pds ft d white grass, rice grass
" oryzoides Swartz (bks pds cut grass
Zizania aquatica L (pds [water oats, wild rice

CLASS IV.—ACROGENÆ.
Equisetum arvense L (f cltd
" levigatum Braun (bks ft d
" hyemalis L (s p b ft d scouring rush
Aspidium acrochoides W (t h
" fragile W (h t
" asplenoides W (bks
Dickinsonia pilosula Wx (bks [hine horned fern
Culcheriopsis vestita W (13 lip fern
Asplenium rhizophyllum Lx (h t walking leaf
" thalmyroides Mx (bts pds silver spleenwort
Pteris aquilina L (t m common brake
Adiantum petiolatum L (t m maiden hair
"BOMMER’S MANURES.""

Several of our subscribers have requested that we will give whatever of the method of making manure indicated by the above title, that has been communicated to the public. We are glad to observe an indication, in this request, that the subject of saving and providing manure is attaining its deserved importance. The vulgar idea, so common in the first settlement of the country, that western lands require no manure, explodes whenever the cultivation of grass is undertaken; and is already, among reading farmers, to a good degree dissipated.

Still there are a great variety of substances on every farm, which are now wasted; but which by the process below given might undoubtedly be converted into fertilizers. Among these are the immense piles of straw, which, in the majority of instances, instead of being returned to the land, are merely slopped and have shallow trenches dug on its surface to conduct the drainings back into the vat; or it may have a flooring of timber, brick, or stone, as may be preferred, which may be so-trenched as to conduct the whole towards a central drain. When our platform or flooring is of clay, we cover the trenches and whole surface of the vat with bruised wood or rafts, so as to form a temporary grating that will support the weight of the heap, and thus insure a drainage, and the admission of air to the heap from below.

The materials to be converted into manure we pile upon this prepared platform immediately as it is delivered by the carts; and this we sometimes continue to do until the heap has attained the whole height to be given to it, when we raise the lye from the vat and pour it on to the heap, continuing to do so until the whole mass is saturated; we in general, however, raise the heap to a height of two, three, or four feet, more or less, and then pour on a portion of lye, repeating this as the height of the pile is increased. This procedure obviates the necessity of lifting the whole of the lye to the full height of the vat.

The materials which we employ in making the lye may be limited to the following, namely: cow, horse, or hog’s dung, or night soil, the vitre or drainings from stables, and quick lime. The ingredients should be intimately mixed with a sufficient quantity of saturated water.

At the end of 48 hours from the completion of the heap, a fermentation of from 15 to 20 degrees of heat by Reaumur’s scale has been found to have taken place, and on the following day it has generally attained from 30 to 40 degrees of Reaumur. On the third day the top of the heap is to be opened to 6 inches deep, with a fork, and the sediment thrown on the top is to be turned over, and another good drenching with the lessive is to be applied to the heap, which is again to be immediately covered up.

About the seventh day, holes about six inches distant from each other are to be made with a fork to the depth of three feet, and another drenching is to be applied, the heap being afterwards covered up again. About the ninth day another drenching is to be applied, through new and somewhat deeper holes, and the heap is to be covered up again. After the lapse of from 12 to 15 days from the making of the heap, the manure will be fit to spread.

20 degrees of Reaumur are equal to about 77 of Fahrenheit. A manure heap of this construction, inspected by a committee in the State of New York, exhibited, on the 15th of September, 76° Fahrenheit; on the 20th, 102°; on the 25th, 137°; on the 26th, 158°; and on the 28th, 122°. A heap of green stuff raised from 80° to 201°.

For the conversion of from one to two thousand pounds of vegetable matter into manure, he takes about:

- 200 lbs. of night soil,
- 200 " quicklime,
- 1 " common salt,
- 1 " rough salt petre,
- 150 " lye or ferment drainings from a Jauffret manure heap.

These ingredients are in many cases to be replaced by others; this lye to be prepared 10 or 15 days before the material is used. The quantity of materials above named, for the conversion of from 1 to 2000 lbs. of straw or other dry vegetable stalks, will answer for about double that quantity of green vegetable matter.

In case this is the first attempt, for the lye or drainings from a Jauffret manure heap, may be substituted filth water from the sink mixed with urinary drainings from the stable, the more putrid and disagreeable the better.

The remaining part of the process is as follows:

"We give to the ground, where the heap or pile is to be made, an inclination towards the vat; if the ground is a firm clay, it may be merely sloped and have shallow trenches dug on its surface to conduct the drainings back into the vat; or it may have a flooring of timber, brick, or stone, as may be preferred, which may be so-trenched as to conduct the whole towards a central drain. When our platform or flooring is of clay, we cover the trenches and whole surface of the vat with bruised wood or rafts, so as to form a temporary grating that will support the weight of the heap, and thus insure a drainage, and the admission of air to the heap from below.

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EDUCATIONAL DEPARTMENT.

WESTERN EDUCATION—NO III.

Great Practical Difficulties to be obviated.

BY G. F. MAGOUN.

III. Laxity of Family Government prevents the securing of one of the great ends of education—discipline of character. No man is educated, whose moral powers are uncontrolled and undisciplined. The highest intellectual culture, unaccompanied by discipline of the heart and the will, leaves him unfit for the duties and responsibilities of domestic, social, civil and moral life. It may make him a shrewd and sagacious man, but it cannot make him a good citizen and a good man. The disturbers of the world's peace in great or small circles have simply wanted this one element of character—discipline of the moral powers. A man of great talents alone can be a great villain: a man of small talents can be a small villain; but it is only the man whose heart will have been brought into subjection to law and right, who can be a good man.

Now any parent who is permitting his child to grow up without being directed, restrained, in a word governed, in his daily moral conduct, is simply leaving him to enter into life without discipline of character. How can he know that in the various circumstances in which he may be thrown, he will respect the law of man, or the law of God? Left to the promptings of self will in his youth, will he be sure to die with the will to the rules which society and the Divine will enjoin upon him when he arrives to responsible maturity? Has he formed such habits of deference and obedience to rightful authority that the community, as he comes upon the stage of active life, can feel entire confidence in the uprightness of his intentions, the firmness of his principles, and the unfailing rectitude of his habits? Can they feel sure that in his personal righteous law will never find a disobedient subject or an open rebel? As a youth of disciplined character, trained to habits of obedience, pass over from the parental authority, to be amenable henceforth only to that of civil law—all good men feel that there is the highest probability that his early acquired principles and habits will ensure his living the life of a good citizen; and can it be so in respect to him upon whom no authority has been brought to bear at home?

George Washington is the acknowledged model of American youth. When he passed the threshold of early manhood, the confidence of the entire community greeted without hesitation one who had learned so well the lesson of obedience under his father's roof. "He will be a good citizen," all men said, "who has proved himself so good a son. He is worthy to command who has learned so well to obey." All men felt that in whatever circumstances he might be placed, harrassed by whatever difficulties, and appealed to by whatever personal motives of an unworthy kind—his self-control, his regard to right and truth, his deference to just authority, in time would make his whole discipline of character would sustain him. What a contrast to such a person is the young man of whom men think, if they do not say, "he will do what is right, if you keep on the right side of him,—if he has no personal prejudice against those who are in authority, if his passions are not excited"!

Now what I wish to urge is this: that it is a sacred duty which parents owe to their children and to society, to sustain family government. It is too much the fashion among us, to allow the young to have their own way, to do what is right if they choose, and do to what is not right if they choose, to follow, in short, any given course of conduct because it pleases them; not because the parents' judgment decides it is right and best, or because he commands it. The fact is that a great principle of moral government is here trampled upon—which holds alike under the government of the parent, of the civil ruler, and of God—which is this: a subject of moral government who pursues a certain line of conduct, simply because it is his own pleasure, and not because just authority enjoins it, disregards that authority, and would pursue the opposite course, if he pleased. What can a parent be thinking of who leaves his child to trample upon all authority thus; or to grow up as unfitted for life as ignorance of that principle renders him? Not to say that he cannot become a good citizen, save by accident, he cannot even become a gentleman.

Platleville Academy, March, 1846.

ILLINOIS EDUCATIONAL CONVENTION.

It will be borne in mind by the friends of education that, at the Jacksonville convention last summer, it was resolved a State convention of teachers and delegates, and friends of common schools, should be held at Chicago the coming fall, immediately to succeed the show of the Union Agricultural Society. The time of the show is fixed on the 7th and 8th of October next, and the Educational Convention will immediately follow it.

From this convention much may be expected. The present school law, so far as we are aware, will be hotly discussed. The impression prevailed very generally at Jacksonville, that with some slight modifications to remedy incongruities, this law had best be retained till the legislative session of '48-'9, and meanwhile those who are acquainted with the subject, and are willing to labor for its furtherance, should come together and devise plans which are best suited to our peculiar necessities, and unite all the friends of education throughout the State, in favor of the system which may be agreed upon. In no other way than by thus meeting together, and freely and cordially discussing measures to be adopted, can the various and conflicting views be harmonized. Could we all come together, determined to yield our own preferences, if in the opinion of a majority other plans were more desirable, and pledge to each other our united, hearty support of measures that should be agreed upon, what could we not accomplish?

It was because so large a number from a large part of our State flock to Chicago in the fall, that it was deemed advisable to hold a convention at that place. There will be a vast multitude who expect to go there to market, who can make it convenient to go at the time of this convention; and then there will be very many others who would like to attend, who can take a load of produce to that man
Education embraces more than the mere acquisition of knowledge: it is the disciplining of the whole man, in his faculties, tastes, and opinions.

EDUCATIONAL ASSOCIATION.

MESSRS. EDITORS: We have lately been much interested in the perusal of a little work entitled "The duty of American women to their country." It seems to have been written by Miss Beecher, though her name is not given as its author—its object is to shew the great necessity which exists that every child in the country should receive an education.

One might think this subject had been exhausted, and that there was no child to be found in our land, who could not, if he would, learn at least to read and write. But such is not the case. Notwithstanding the large appropriations made by the different States for educational purposes, "more than half the children of this nation are yet without schools."

This work makes us aware of the existence of an association formed in Cincinnati for the purpose of finding a field for the labors of such benevolent women as may wish to occupy themselves as teachers, but who, from the want of "a suitable escort, a proper home, and the advice, sympathy and aid that would be needed by a stranger in a strange land," are deterred from making the attempt.

Beside this association, many other ways are here mentioned in which a woman who is so disposed may give an impulse to the great cause of education. Take for instance the following: "••• Some who have but little time at command can render an essential service by an occasional visit to the schools in their vicinity, especially at seasons of examination, thus encouraging both teachers and pupils by the conviction that their labors are known and appreciated, and that the community around are interested in their success. If the influential ladies in any place would go but once a year to the schools in their vicinity, to enquire for their comfort and prosperity, it would give a wonderful impulse to the cause of education."

The torpid indifference of the influential classes to the education of the young, except where their own families are concerned, is the grand cause of all the dangers that threaten us."

The above come to us without signature, but we have somehow the impression, that its author is a lady. The book alluded to has not yet reached us, though we were aware of the association, and have been led to entertain high hopes of it.—ED.

COMMON SCHOOL TEACHERS.

BY I. JULIAN.

MESSRS. EDITORS: Much has been said and written about "professional" teachers; and much obloquy has been cast upon a class of teachers who are not professional, but who merely expect to make it a temporary employment. Belonging to this irregular class myself, I say that this reproach is unjust.

As far as my information extends, a majority of the teachers of our common schools are men who do not expect to make it a life-business—among whom are many of our most efficient teachers. They are generally young men, and, notwithstanding all that has been said to the contrary, will very favorably compare, in mind, manners, and morals, with old professional teachers. That they cannot
all be permanently retained as teachers, is to be re-
gretted; but the fault lies not in them, but in the
defective systems of education. They are wronged,
if any one is, by being forced to seek some other
means of living. It surely cannot be expected that
they should surrender all their hopes of superior
usefulness and character in the world, to toil and
well nigh starve as "professional teachers." Let
them be sufficiently remunerated, and they will
adhere to the business, and it will take a higher
stand in community. But as to making teaching
or any thing else "a profession," in the technical
sense of the term, I very much doubt its utility.
The names of Jefferson and Rush will not sanctif
quacks and pettifoggers; neither can every farmer
and printer solely rely on the reputation of Wash-
ington and Franklin. Let men be judged by their
individual merits, and not by their profession.
Centreville, Ia., February, 1846.

CISTERNS.
"Of the stilly night,
When slumber's chains hath bound me," I've been aroused by the elbow of my "better
half" coming in contact with my ribs, two or three
times, in quick succession, and the words "come,
my dear, it rains, and the rain-water barrel has
dried up so in the sun that the head has dropped
out, and the boards that were under the eaves are
down, and all this water is wasting. You know
how much we need it. Do get up and fix things
so we shall catch some," &c. &c. So after much
solicitation and some little labor in pulling open my
eyes, up I get, like a dutiful spouse, find my way
into a pair of shoes and an old coat, get a lantern ,
and proceed to "fix things." After being out for
half an hour in the rain, getting well wetted, and
very uncomfortable, the job is done, the shower is
over, and you catch nothing for your pains except
a cold. Brother farmer, was this ever your experi-
ture. The day previous to planting, I take the
quantity of seed I wish to plant, put it in a suitable
vessel, pour upon it a sufficient quantity of boiling
water to cover the seed after it has swelled—the
next morning drain off the water, stir in it a little
dry earth or ashes, to prevent the seed adhering
there to. Then prune as above the seed will vegetate
as readily as good seed corn, and if planted about
the time of planting corn, will make a growth of
from four to six feet the first season, with the same
culture as a field of corn. Care should be taken to
cover the seed shallow, for if covered too deep
there will be a certain failure. Some plant as late
as June, but I prefer early planting, as there is less
danger from drought—the trees make a far better
growth, and are not liable to winter kill, as I have
seen instances with late planting. I have both
planted where they are to remain, and trans-
planted from a nursery, and can see no perceptible
difference in the vigor and growth of the trees; but
I prefer to plant where they are to remain if it can
be done without danger of being destroyed by the
prairie hen, as it saves a deal of labor. As to dis-
ance, I prefer to plant a grove in hills from four to
five feet each way, with three or four seeds in a hill.
After the seed has all vegetated, the weakest plants
may be withdrawn, leaving one in a hill, or they
may be left until the following spring, and then
transplanted, or may not be removed at all. The
object of close planting is to save cultivation,
and cause the trees to grow tall and straight. Early
the second season they should have a thoroi oi,
plowing, after which the foliage will be so dense
and the ground so completely shaded, further culti-
vation will be found unnecessary. True it is im-
possible for trees planted so thick to all live and at-
tain to forest size. It is the weaker plants
yearly, as they are overtopped and left in the shade
by their more thrifty neighbor, dwindle, and in time
die root and branch; and I believe they will be ob-
tained to do until they have thinned them by a meth-
a number that they may grow to handsome forest trees—whereas, if in the first place only the requisite number of trees were planted on a given piece of land, the bodies would be short, with large spreading tops, or the whole tree would be a perfect snag, of not half the value for any future use as a timber tree.

I consider the planting of timber of the utmost importance, and the man who lives on the prairie year after year without making the least attempt to add to the value, or beautify his farm, by so doing, to be entirely destitute of any taste for rural scenes.

Henderson, Ill., February, 1846.

USE OF AGRICULTURAL PAPERS.

BY JOHN BOOKINGS.

The following communication belongs to a class which we have thought best to exclude for the most part this year—being devoted to setting forth the benefits of our journal. But the facts stated are so much to the point, and are told in so straight forward a manner, that we have concluded to let the author tell his story. His suggestion of a chapter on the work for the month has been thought of, and where papers have a limited circulation is doubtless a great variety of practice prevail, and the man who lives on the prairie 20 months ago, knew no more about farming than a cow knows about a rifle. It is true, I don't know much now, but what little I do know I got the major part from the Prairie Farmer. Some make one objection to it, which is, that they want to see in it a column devoted to the work of the month, and the work to be done in one month put in the preceding number. In the old country there are several little works published on agriculture and kitchen gardening. In these works it is stated in the January number the work to be done in February, and in February what is the work for March, and in the March number what is to be done in April, and what quantity of seed to put to the acre, and what time to put the different sorts of kernels or stones in the ground to raise fruit trees. I do think if you, or some of your numerous correspondents would publish this valuable information, it would increase the usefulness of your publication. I have lost nearly a hundred fruit trees by not knowing the right time to shift them.

Being a teetotaler, an idea has struck me, that if pork is thought so valuable by some, and whiskey is so injurious, to all, let one count the cost of two hundred glasses of whiskey at three cents per glass, and he will find that he will have the price of the Prairie Farmer and enough to pay the postage. Then let the whiskey drinker pause and remember, when he swallows three glasses of whiskey, that he has swallowed the price of one of the monthly numbers of your useful publication.

Burlington, Wisconsin, March, 1846.

THE BRUCHUS PISII.

During the season of green peas, any one who will take the trouble to make examination, will find, upon many of them—and often upon every pea in the pod—a small dis- colored spot, and a puncture through the pod corresponding to it. If he examines this spot after a few days, he will find a small white worm embedded in the pea. This worm continues to feed and grow till by the time the pea becomes dry, it has attained its growth. During the autumn it becomes a pupa, but before spring it again casts its skin, and becomes a beetle, known as the pea bug. If the new peas are well formed in the pod, they are ready to commence the work of puncturing and laying their eggs again. At this time of the year, in almost any part of the country 20 months ago, I knew no more about farming than a cow knows about a rifle. It is true, I don't know much now, but what little I do know I got the major part from the Prairie Farmer. Some make one objection to it, which is, that they want to see in it a column devoted to the work of the month, and the work to be done in one month put in the preceding number. In the old country there are several little works published on agriculture and kitchen gardening. In these works it is stated in the January number the work to be done in February, and in February what is the work for March, and in the March number what is to be done in April, and what quantity of seed to put to the acre, and what time to put the different sorts of kernels or stones in the ground to raise fruit trees. I do think if you, or some of your numerous correspondents would publish this valuable information, it would increase the usefulness of your publication. I have lost nearly a hundred fruit trees by not knowing the right time to shift them.

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—a thing which the eater of green peas must infallibly do. But when peas are grown, to be eaten dry either by the family or by stock, the damage done is very great. The weevil devours about one half of every pea in which it borrows; and if dry peas are cooked, the full grown beetles are to be eaten also—a delicacy not especially to be coveted.

The germinating powers of the pea are not commonly injured by the weevil; but it is not to be doubted that its efficacy for vigorous growth is greatly weakened; and that it is not best to sow those infected by this insect.

The insect may be easily destroyed, if, after gathering the seed it is plunged into boiling water and quickly taken out and dried, so as not to injure its germinating faculties. This would not secure the crop raised from such seed against the insect, as enough will be hatched from other peas to puncture all in the neighborhood. The accompanying cut is from life, and is twice the length and breadth of the living specimen.

WHEAT IN SOUTHERN ILLINOIS. CATERPILLARS.

MESSRS. EDITORS: Let me inquire whether it is a fact, as I have often heard it observed, that wheat is a very uncertain crop in Southern Illinois? For one I am not prepared to give full credit to the assertion. Why should not wheat, properly put in the ground, do as well here as in other States as far south as this? I think if wheat has failed here, it should be charged to bad management rather than to the climate. I know of individuals who have succeeded every year in raising a good crop of wheat for the last six years. — Cause why? They ploughed their ground thoroughly, sowed their seed in season, and left the ground smooth, so that the water would drain off. The truth is there is much bad farming in Southern Illinois. But that wheat cannot be successfully grown here when properly put in, I have yet to learn. In proof of this will you publish the following from the Alton Telegraph:

"About three years ago, Mr. J. G. Crandell, of Monroe county, New York, removed to this State, and purchased a quarter section [160 acres] of prairie land near Brighton, ten or twelve miles from this city; and, with the assistance of two sons, proceeded to plow the ground and raise grass. The ground was covered with prairie grass which has grown on it for forty years. The ground was plowed or brushed after sowing, as it gains on other grasses every year. I have had experience fifteen years in grass culture in this county. I have sowed in the spring and in the fall. The grass should grow. When sown in the fall it takes root before cold weather, is not affected during the winter cold, and makes a full crop the first season. I have sowed on oats and wheat in the spring; but several reasons exist which I think are against sowing then. When sown in the spring no crop is harvested the first season, and frequently hot dry weather whilst it is very young and tender kills it, and other growth of weeds &c. grow where grass should grow. When sown in the fall it takes root before cold weather, is not affected during the winter cold, and makes a full crop the first season. I have sown on oats and wheat in the spring; but it is liable to be killed as before when the crop is taken off, if not previously smothered by falling of the grain. If timothy alone is sown, not less than six or eight quarts per acre of seed—if timothy and clover, four of the former and two of the latter. The best crops of grass I have ever had was composed of timothy and red top, and red and white clover, cutting three tons per acre of good hay when well cured. It is not necessary to sow much red top seed, as it gains on other grasses every year. I have sown on broken sod, but have not found it profitable. Ground should be in complete order, plowed deep, well harrowed and rolled, and slightly harrowed or brushed after sowing. I recommend that seed be sown half one way and half the other, in
order to be more even, for if grass is not even or
thick enough from the first sowing, it is some years
before it becomes so in every place. It is a great
benefit to pasture it in the fall, and the larger the
quantity of stock that runs on it in the winter the
better (the Berkshire breed of hogs excepted). If
the ground is soft, and tramping makes it uneven
and cuts the roots, harrow and roll in the spring,
and it is all the better. The grass will grow thick-
ner and faster, and be a heavier crop than if not pas-
tured after mowing. What I have said on
grasses is the result of observation on my own
farm and others, and are facts here. I can
raise as much timothy with clover as without
them, and no difference how rich the soil, ma-
ture increases the crop very much. If any one
doubts the propriety of mixing grasses, let them try
the experiment in the same field, sown the same
way.

Chinch Bugs.—Have you any of the winter art-
cles? A neighbor of mine has them by millions,
predying on the wheat fields. Any time during
winter, when frost has not prevented, the surface
has been alive with miriads of all sizes and different
colors and ages. They commenced by his last
summer’s corn-field, and take all as they go.

Horse Nettles.—I don’t know the botanical name
of this plant, and many in the West do not know
the plant. All should. I wage a war of extermi-
nation against it. Carolinians and Virginians know
it, and in my native State (N. Carolina) it was the
greatest pest that the soil produced. The appear-
ance of the top is not unlike the potato, and bears
little balls somewhat similar. The stalk and leaves
are covered with long sharp briers that penetrate on
the slightest touch. They are nearly the color of
the skin, and are hard to get out, soon fester, and
are very painful. In wheat, oats, corn, all crops
where they get hold, they are harder to kill than
any thing I have seen; one straight root runs down
many feet in the ground. Cut it out, and in a few
days it is growing as before.

Vines.—A Mr. Christopher Megley, a German,
in this county, a few miles from the Illinois river, has
a vineyard of about sixty square rods, planted out
seven years this spring, from which he has had an
abundance of good grapes for several years past.
Last season he made four barrels of wine, the clear
juice, besides selling thirty dollars worth of grapes.
He sold from one vine five dollars worth, besides
using it for family use—has three varieties.
Each does well. Mr. Megley understands the
business, and thinks grapes will do as well as in
Germany.

SUGAR GROVE FARMING AGAIN.

Messrs. Editors: You will oblige me by giv-
ing this to your readers. The reasons for my re-
queating this favors is, that wrong and injurious im-
pressions may be removed, which have been caused
by the publications of an article in the January No.
The article alluded to is “Sugar Grove Farming.”
That injurious impressions have arisen from those
reports there can be no doubt. I have been thrown
into company where the subject has been brought
up (keeping dark as to my connection with the In-
stitute,) and have heard the opinions and expres-
sions of many upon it, and can readily see that our
Institute has fallen into disrepute. Erroneous
statements have prejudiced the public mind against
us. Now what I aim at in this, is to show that as
a body we do not sanction those reports. I wish to
state things as they probably are, and then leave
the public to judge for themselves.

Wheat field, by W. B. Gillett—a premium
awarded on an amount that is less than the average
crop through the whole town. I consider this re-
port, as a whole, a burlesque upon the Institute, and
a disgrace to them, inasmuch as it bears upon its
face inconsistencies and improbabilities. There can
be no man found in our section of country so out of
reason as to believe, and much more to think, that
he can make others believe that at the time of seed-
ning last year he could hire a man who would find
himself and team to plow two acres for one
dollar per day—the actual value of a day’s work at
that time being nearly or quite double that amount.
From all calculations which I have ever seen made
upon the cost of raising wheat per bushel, none have
ever fallen short of twenty-five cents, and many ex-
cceed thirty, especially in an ordinary crop, as the
one spoken of, and I am inclined to think that if
neighbor Gillett had calculated the whole cost,
his would have been more than twenty-five cents.

Account of 12 acres of winter wheat:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sowing one day</td>
<td>$0.75</td>
</tr>
<tr>
<td>Plowing 4 days, man and horse</td>
<td>$6.00</td>
</tr>
<tr>
<td>20 bushels seed, at 50c</td>
<td>$11.60</td>
</tr>
<tr>
<td>Harvesing 12 days</td>
<td>$18.00</td>
</tr>
<tr>
<td>Stacking, 2 days, 2 men and team</td>
<td>$7.00</td>
</tr>
<tr>
<td>Threshing 270 bushels, at 12 cents</td>
<td>$33.75</td>
</tr>
</tbody>
</table>

Cost of raising per bushel, $77.10
Cr. by 270 bushels at 50 c, 136.60

Nett gain, $59.50

12 acres leased, $94 bushels at 50 c, $54.52

Advantage of tillng your land, on 12 acres, $4.98

Account of 18 acres:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plowing 18 acres, 9 days</td>
<td>$18.00</td>
</tr>
<tr>
<td>Marking and planting, 12 days</td>
<td>$12.25</td>
</tr>
<tr>
<td>Plowing out, 18 days, man and team</td>
<td>$24.00</td>
</tr>
<tr>
<td>Hoeing, 8 days</td>
<td>$6.00</td>
</tr>
<tr>
<td>Husking 720 bushels</td>
<td>$21.75</td>
</tr>
</tbody>
</table>

Cr. by 720 bushels, at 20 cents, $144.00

Nett gain, $61.05

Cost per bush. at 40 bush. per acre, $1.14
A true statement of things can do no harm, and when we are reckoning the cost of cropping in this country, let us give a righteous account, and then it leaves us a liberal rent for our land. Your readers can make the comparison between the two, and then judge for themselves whether friend Gillett's report or mine is nearer to the true cost of cropping in that section of country from which the reports hail. A MEMBER OF THE INSTITUTE.

Sugar Grove, February, 1846.

SPRING WHEAT & SMUT. EXPERIENCE.

Messrs. Editors: The new insect noticed in your Sept. No., page 210, I have seen for several years, but have not known it to prey upon wheat so extensively as last season. I have noticed it more particularly in spring wheat than winter, for I raise more of it, and think it better for family use. The past season my spring wheat gave 33½ bushels to each acre, which I sold for two cents less than my winter sold for. My spring wheat is more of it, and think it better for family use. The past season my spring wheat gave 33½ bushels to each acre, which I sold for two cents less than my winter sold for. My spring wheat is one quart of smut that was dragged after it commenced raining was very smutty; and that which was finished after the rain was so smutty that it was not worth harvesting. I then heard of putting brine and lime on seed wheat, which I have followed ever since; and the consequence is, that I have not raised one quart of smut with my wheat managed thus in the whole twenty-five years. My manner of preparing it is this: I take a cask sufficiently large to hold what I intend to sow in one day, (as I do not farm it largely,) and fill it partly full of strong brine, turn in my wheat half a bushel at a time, stir and skim it till I get it clean of oats and poor wheat, or any thing that the brine will raise, taking care to keep brine above the wheat, so that it can be skimmed off clean. After it has stood through the day, at evening I drain off the brine, and mix new slackd lime with it till I am quite sure that lime has reached every kernel, and let it lie over night. Once, about twelve years ago, it chanced to rain before morning, while my wheat was in the lime. My ground being a wet piece, as it kept raining, I was resolved to give it a fair trial—so I spread my wheat and stirred it often for about three weeks, till it looked rather hard, and my neighbors said it would not grow at all. I sowed it, however, on the 19th day of May, and on the 21st day of August I cut and put it up, the best I ever raised in the East.

Delevan, Wis., February, 1846.

CONDENSED CORRESPONDENCE.

The Chinch Bug. Mr. L. Robbins informs us that in Henderson county, where this little marauder made his debut last season, every warm spell awakens him to life; so that little hope remains that the winter will prove his quietus. Mr. R. states that a piece of wheat on new-broken land was but slightly damaged, while an adjoining one was three fourths destroyed.

A letter from Dr. Thaddeus W. Harris, received by us last month, states that this insect is probably the Physocara/is insularis of his work; but as his book has not yet come to hand, we are unable to make the comparison.

We have forwarded specimens to Dr. H.

The Fly Weevil. The letter of Dr. H. also contains the following extract:

"For some time past I have been trying to get specimens of the fly weevil, or Augounoi's moth, from the South and West, and have written numerous letters requesting statistics respecting it, and specimens of the insect and of damaged wheat containing living larvae. To most of my letters no answer was ever received. I then wrote through the kindness of a gentleman of Virginia, received some of the moths in pretty good condition; and have got a sample of the corn, full of the insects, from which I have obtained several fine specimens of the moth, and have now made drawings of the insect in all its stages. You will oblige me much if you will give me any statistics as to the amount of damage done by it in your region and elsewhere—with any other particulars relative to its history that you may please to add."

Will our correspondents in regions where this insect's work is carried on, enable us to answer the above inquiries?

Cherokee Rose. Col. Alexander McDonald informs us that the garden of Mr. Camak of Athens, in Georgia, Editor of the Southern Cultivator, is surrounded with this briar, and that his fruits are as safe as if under lock and
key—not either white nor black men, swine nor cattle, being able to reach them. Col. Mc. D. also sends us the following from his note book, showing how gardening is done in Alabama:

"On the 13th January, 1846, sowed the following seeds: The early English pea; (last year we had them on our table here on the 20th March.) the common cabbage, and the onion. Planted Irish potatoes the same day; sowed the drum-head cabbage and the cauliflower. I find on the 20th inst. the following entry: the English peas, lettuce, and cabbage, sow'd on the 19th December now up."

Cherokee Rose. W. H. Wilson of Adams county states his experience with the Cherokee rose thus:

"Some years since a friend of mine brought some cuttings of this rose from Georgia, and planted them in the south of Kentucky—lat. 39° 30'. They grew well, but would not stand the winters. In no instance did they survive the second winter. This rose is an evergreen in the South, but dropped its leaves in Kentucky."

Swine running at large. Mr. D. C. Drain of Warren county writes as follows in relation to this subject:

"I had a mind to say something about petitioning the next General Assembly for the purpose of having a law passed to keep up all logs and small animals, as timber is not too plentiful in this State for fencing the prairies; I think such a law would be productive of great good to this commonwealth, as the vacant lands would be settled much faster; and there would be much better logs and less trouble to take care of them; and better feeling between neighbors."

Wintering Sheep. So far as we can learn from extended inquiry, the keeping of sheep has been highly successful during the past winter. A letter from D. Sanborn of Peoria county remarks as follows: "I have lost but 7 so far, out of 475, and do not believe I shall lose many more before they go to grass." This is as great a loss as we have been able to hear of. The contrast between the past season and the one preceding is probably due to several causes. In the first place far less of the flocks were last fall new comers, and those which upon such had been driven early; and as the last summer was a good one for driving, they had suffered very little—so that flocks generally went into winter quarters in good condition. In the next place, the winter has been a better one, having been less open and wet than the preceding. And lastly, the food prepared for winter use was universally better. The immense rains of the summer of 1844, flooding all meadow grounds, where their waters often stagnated and corrupted, had a tendency to produce a washy and diseased herbage, such as could not be safely eaten by sheep; and it was due to this as much as to any cause that so many sheep died during the winter of 1844-5.

The Fair at Chicago. A letter from J. B. Richardson of Clark co. concludes thus:

"I feel quite anxious that the agricultural meeting or fair contemplated may "come off" at Chicago next fall. I wish to exhibit some of my horses, and show some folks that thorough bred horses are not always the spirited shanked animals they suppose, but are better calculated for the horse of all work than any other breed whatever."

Chesnuts. Russell Cheney Esq. of Janesville, Wisconsin, writes thus:

"I have received one barrel of Chesnuts from western New York, packed in earth when gathered, and now froze, which I intend planting in the spring. Has any one tried to raise a Chesnut grove? Any information upon the subject would be gratefully received through the P. Farmer."

Chesnuts growing has proved, as far as we are aware, a poor speculation. We know of some few or five years old and not yet two feet high. It is hoped that Mr. C. may succeed better. We should recommend a manure of leaves for them.

Back Volumes of the Prairie Farmer. A subscriber writes as follows:

"Mr. G. wants your back volumes. He came to this conclusion in the following manner. He called upon me yesterday to see if the Prairie Farmer said any thing of "Grubs in the heads of sheep," as he had lost a good many by this disease. We found directions on the subject in the first volume; and Mr. G. concluded that if our volumes contained an article so much to his purpose, the others might contain others. Mr. G. sold last season about one hundred hogs, 18 or 20 stall-fed cattle, one ton of honey, besides other matters in proportion."

The above gives us an opportunity to answer a certain class of inquiries. One wishes to know why we do not publish an article on this, and another asks if we will not give information on that subject—when the truth is, we have published fully on both in some of our past volumes; and our subscribers who have stood with us from the beginning would be justly offended if we were continually printing the same matter over and over again. On matters of which we have already published fully, we intend to give whatever may be discovered that is new and useful; and for the rest we can refer to past volumes, which are none the less valuable because old.

To G. P., Hampshire, Kane co. The buckthorn seed may be procured, undoubtedly, at New York, and probably at St. Louis, Cleveland, or Buffalo. The buckthorn in our opinion, will make a hedge at all. Wherever the buckthorn is found, the seeds may be gathered plentifully, as it is a great bearer.

Sunflower Seed. Mr. J. N. Hough of Clinton county, Iowa, answers our inquiry on this head.

"In your February number you ask for information relative to some sunflower seed taken to St. Louis last fall; if you get no better answer you can take mine. The seed met a ready sale, for the purpose of being manufactured into oil; and sold within one or two cents of the price of flax seed. I did not see it sold, but was informed of the fact by a commission merchant, who also told me that good sunflower seed would always command a ready market at St. Louis, just as flax seed does, the oil being equally as valuable as the flax seed oil. If such be the fact, would it not be a profitable crop for the farmer?"

I also wish to inquire if you know any thing of a movable horse-power saw mill, which was advertised in Baltimore some three years ago; if it answered expectations, and from whom I can obtain any information upon the subject. Also—Has the raising of capons ever been attempted in the West? In New Jersey they are a source of much profit to the growers of poultry. I myself have sold them for never less than 64 cents per lb. Its introduction here I believe dates some five years back. There they are as easily raised, fat, culler, grow larger, and pay better than other chickens of the same class."

Of this machine we heard something about two years since in Jacksonville in this State, but did not see it; and no account of it has since met us. Probably some citizen of that town could announce its fate.

To justify capon growing, a steady and well-paying mar-
Our April number on transplanting fruit trees, is informed our readers can. It is desirable to find a preventive.  

Here; and as it grows better here than any other grass, it does not have that effect in the eastern States, but it does trees and all. The apples appear to be killed, and some of the trees. It is something new with us.

This latter inquiry we cannot answer; perhaps some of our readers can.

S. A., Salem, Wisconsin, who asks us for an article in our April number on transplanting fruit trees, is informed that our last volume is full of just that matter. As we have no article of the kind on hand for this number, we have forwarded a back number in which he will find a sample. We append his recipe for

Removing a kernel of corn or any like substance from the nostril of a child, with great pleasure, as we have known the most distressing results from children crowding such things into their noses.

"Take a common weaver’s quill, insert one end of it in the opposite nostril, place the other end between the lips of the operator, who is to perform it by blowing—at the same time taking care that the mouth of the patient be closed to prevent any escape of wind from that organ—and the business is done. The operation is attended with no pain, and success is certain."  

Reapers and Harvesters. James E. Starr Esq. of Edwardsville writes us that he has an agency for one which will be little difference of opinion about taxation. Nor should we agree with our correspondent that because he has no children of his own, good schools will not benefit him. Intelligence benefits every man is a community. Property is worth a round per centage more where good schools are maintained, as a little observation will convince any one.  

Questions from Missouri.

Mr. J. D. Wood of Montgomery county also writes on the same subject as follows:  

"I see by the Prairie Farmer, you have a notion "up north," that stirring or plowing will protect growing crops from injury by frost. Whether this notion is founded on facts or theory I know not, but this I do know—the method of plowing here in the centre of a 40 acre field, plowed just before the frost—it was all cut to the ground; while corn that had not been plowed, in the same field, on the same level, sustained little injury. A neighbor had corn and cassar beans in the same field; the corn, fresh plowed, cut off the

Slavering of Horses.  

From what we can learn, it is probable that this destruction is very extensive in the south of this State.  

Trees killed by the Winter.  

"The fruit trees in this vicinity have suffered extensively from the cold weather this winter. Peaches are killed, trees and all. The apples appear to be killed, and some of the trees. It is something new with us."  

Taxation for Schools. Mr. W. D. Barrett of Me Donough county, writes that it is proposed to raise a tax to assist the school fund in his township; and that while he hears many speak in favor of taxation, no one speaks against it. He remarks "I suppose I must vote for taxation for the benefit of the community generally, though it will be of no immediate good to me. The wheat crop here were injured by a sort of bug." We believe that when men begin to think in earnest about schools, there will be little difference of opinion about taxation. Nor should we agree with our correspondent that because he has no children of his own, good schools will not benefit him. Intelligence benefits every man is a community. Property is worth a round per centage more where good schools are maintained, as a little observation will convince any one.

Mr. C. A. Watkins writes from Bay co. Missouri:  

"Tobacco and hogs are all the rage here at this time. There will be but little hemp raised in this section of the State this year."  

Spring Plowing against Frosts. Mr. L. H. Ide of Sangamon county remarks in relation to an article in our February number:  

"The philosophy of the Michigan Farmer upon plowing in the spring to prevent the effects of the frost seems very good; but the universal experience here is against the theory as far as corn is concerned. I could state facts if desirable."  

Mr. J. D. Wood of Montgomery county also writes on the same subject as follows:  

"I see by the Prairie Farmer, you have a notion "up north," that stirring or plowing will protect growing crops from injury by frost. Whether this notion is founded on facts or theory I know not, but this I do know—the method of plowing here in the centre of a 40 acre field, plowed just before the frost—it was all cut to the ground; while corn that had not been plowed, in the same field, on the same level, sustained little injury. A neighbor had corn and cassar beans in the same field; the corn, fresh plowed, cut off the
ground; beans, not plowed, slightly injured. I have been at some trouble to inquire, and find the same fact on every farm in this region. I leave the theory to those who like it.

Ditching Machine. Will you tell us how we are to get a ditching machine in these parts? Some persons think we have not energy enough to use one. Will you induce some one to try us?"

"The Perfect Ditcher," so called, is extensively used in this State; but we are not aware who has the right for Montgomery county; if we can ascertain we will write. We also saw an advertisement of a ditching machine in a Peoria paper, but are not informed of its operation.

The mode of preventing the destruction of trees by rabbits recommended by Mr. C. B. Watkins, has been before published by us; but nurserymen object to its great expense of time and trouble. It is undoubtedly effectual.

A HORSE STOLEN.

The following is a description of the horse: color bay, with black mane and tail, and black legs to the knee and gambrel joints, three years old last spring, taken about the 1st of August. Any person who will give information where said horse can be found shall be rewarded. Direct to W. M. C. Pearsall.

Elk Grove, Cook co., Illinois.

Green Ointment or Oil for Cuts, Wounds, Bruises, Burns, &c.

Take one handful of the following herbs: Red Sage, Camomiles, Rosemary, Rue, Thyme, and Lavender—boil them (a brass kettle is best) in a pound of lard—let it simmer for some little time, strain and squeeze out the herbs, and when cool, the ointment is fit for use. For cattle, linseed oil is as good as lard. w. B.

METEOROLOGICAL RECORD.

Lat. 41° 45' N.; Lon. 87° 35' W.; from Feb. 19 to March 15. By Geo. F. Wilson, Principal of Chicago Academy, for Chicago Mechanics' Institute.

<table>
<thead>
<tr>
<th>Day of the month</th>
<th>Height of Barometer in inches and hundredths</th>
<th>External Thermometer.</th>
<th>Clearness of the sky daily mean</th>
<th>Wind, its force and course from</th>
<th>Rain—Quantity in inches.</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>Feb. 19</td>
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<td>NE3 NE4 NE4 NE4</td>
<td>0</td>
<td>Clearness of the sky</td>
</tr>
</tbody>
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Monthly mean of Barometer, 28.27. Monthly mean of Thermometer, 36.02. N. B. The cistern of the Barometer is placed 36 feet above the surface of Lake Michigan. The external Thermometer has a northern exposure, and is out of the reach of the direct rays of the sun. In the column headed "Clearness of the sky," 0 represents entire cloudiness—10 entire clearness. The figures 1 2 3 4 5 6 denote the force of the wind, 2 denoting a gentle breeze, 4 a strong wind, 6 a violent gale, &c.
Editor's Table.


These four reprints, whose advertisement was contained in our last paper, have made their appearance on our table for some months past.

It is not too much to say that the publishers are doing the American public an inestimable service in bringing forward these works at rates which put them within the reach of everyone. These works embrace the very best literature in the world; being sustained by the pens of the very first writers in Great Britain. The work of reviewing there is not left to second rate men, or mere literary adventurers, but is taken up by the best minds. Who has not heard of the articles of T. B. Macaulay in the Edinburgh, for of Prof. Wilson, the glorious old "Kit North" of Blackwood. The articles of these men alone are worth the prices of their respective works.

Other writers, second only to these, in great numbers contribute to these pages, of whom are the late Sidney Smith, Lord Brougham, &c.

It is not to be doubted that these reprints will find extensive sale in this country, when once they are brought to the people at the rates at which they are published, which should not be an obstacle to their purchase.

It is not necessary to point out the locations and address of the establishments that Willrey has been enquired for consideration. The Eclectic is a great favorite with us, and loses none of its interest of late. The strong articles—such as have made the Eclectic hitherto worth binding and keeping. New York: $5 in advance.

Put out Trees The spring time offers another opportunity to attend to this business, and it should not be suffered to go by unimproved. There is scarcely any one who does not want an addition to his fruit; or who cannot find a place for a shade or ornamental tree.

Trees are now plenty, and can be had anywhere. Nurseries are multiplying on all hands, and every thing choice, and can send easily to any point on the lakes. Prince, of Flushing, L. Island, everywhere known, has perhaps the most extensive assortment in the United States. Let no one overlook the Edgar county Nursery, owned by Joseph Curtis—which is perhaps the oldest in the State of Illinois. Mr. C. we have found a fair dealer. Nor would we forget our old friend E. Harkness, of Trivoli, Peoria county, who has often advertised with us, and whose writings are spread through all the Prairie Farmer. He has brought forward a nursery. Others have advertised that our Wisconsin correspondent, F. K. Phoenix, of Delavan, is getting forward a nursery. Others have advertised with us before now, say E. B. Colman, of Peoria, Valk & Co., Flushing, Long Island. Others, still, are subscribers, but who have not got forward their establishments so as to make much noise about them. Of these are C. & J. Overman of Fulton co., M. Moyer, Nicoma, Indiana, L. Montague, Wadam's Grove, Stephenson co. 111., and John Bell & Co., Gardner's Prairie, Walworth co. Wis.

Let each man attend to setting trees.

"The Catalogue of Fruit and Ornamental Trees cultivated and for sale at the Wisconsin Garden and Nursery, By John Bell & Co., at Gardner's Prairie, Walworth co., Wisconsin, is received. This is said to be the most extensive nursery west of the Lakes; and from the size of the catalogue we presume it is true. In addition to a full list of apples, pears, cherries, peaches, plums, &c, the list of garden fruits and ornamental shrubs and plants is very large.

The school "marm" abroad. A friend in a neighboring State sends us a sample of work, as peddled out by a school mistress in his neighborhood. The chirography and orthography are twain. She keeps "cheap": "Miss H.—please to send by the barer my Gloves tye handkerchief & skirt & linnen charol and you will obligre your friend."

Foul Meadow. Mr. Townsend, of Au Sable, has left us a sample of "Foul Meadow Grass," called in some places Lord's grass, growing on his farm, which he prunes highly for wet lands. This grass is well known to eastern men. We have cut it often higher than our head. It possesses a soft stalk, and is very well relished by cattle. A gentleman from Walworth county, Wisconsin, informs us that it is extensively sown there.

Mr. T. also showed us a sample of what is called in Vermont "wire grass," which he insists is the true blue grass—it is blue enough, that is certain,) and that the grass sold here as blue grass is the true eastern "speargrass," which accords with the scientific description of it. There is considerable confusion in the names of these grasses, but we believe they are themselves well known enough. Eaton & Wright, in the North American Botany, call the poa pratensis speargrass, and P. com -pressus blue grass. This wire grass is, if we mistake not, the eleusine indica.

"We regret to learn from Solon Robinson that he has been confined to his house by ill health all the winter, and is still very feeble. There is now some in the city who can believe that a physician will poison his own patients. There is now some in the city."

A friend in a neighboring State sends us a sample of work, as peddled out by a school mistress in his neighborhood. The chirography and orthography are twain. She keeps "cheap": "Miss H.—please to send by the barer my Gloves tye handkerchief & skirt & linnen charol and you will obligre your friend."

Orchard Grass Seed has been enquired for considerably. There is now some in the city.
The National Magazine and Industrial Record, is the title of a new journal of which several numbers have reached us. It is edited by Redwood Fisher, and published at 161 Fulton street, New York, at $5 per annum, free of postage. The object of the work is to set forth the progress of the nation in all its great industrial pursuits, Agriculture, Manufacturers and Commerce. We have not had time to examine the work very critically, but so far as we can judge, it promises to be one of great excellence.

Corn Sugar. We are under obligations to John Beal, Esq., of New Harmony, Ind., for his attempt to send us a sample of his corn sugar. We know of no mode of sending, but will keep a look out.

The Western Medical Truth Teller, W. T. Laws, Editor, is the title of a publication to be issued simultaneously at Greenville and Hillsboro, Ill., of which a prospectus has reached us. It is to be devoted to the science of Medicine as taught by the botanic system, of which Thompson was the founder.

Albany Cultivator and other papers. Our brother of the Western Farmer and Gardener thus remarks, in answer to a correspondent's good wishes,

"We thank him for his kind wishes; but we despair of making the Farmer and Gardener as good a paper as the Cultivator, which is, we think, incontestably the best agricultural paper in America. And if it were adapted as well to western farming as it is to eastern, we should prefer securing its circulation in Indiana, rather than to establish another one. But it is impossible to make the most of our paper from so far abroad, and equally impossible for a distant paper to give that special and minute attention to the details of western husbandry, which its true interest requires. Therefore, we labor to establish a western journal."

Now did it never occur to our Farmer and Gardener friend that it was this very freedom from "that special and minute attention to the details" of local agriculture that outruns it and its rivals as a Cultivator to receive its local papers with the compliments due to a great name and a good book. By the way, we do not despair of it. It is our impression that its national character, which enables it to cut loose from all that local matter uninterserting to distant readers, and to select the pure furiae of information, equally of interest to all, places it in just the position it occupies. Were it to become a local paper, it would undoubtedly be an excellent one, but it would not be the paper it is at present by any manner of means. Judging it by its own standard, we think as high of it as its best friends desire; but does our Indiana friend think it superior to the farmers of Indiana to the W. Farmer and Gardener? We do not: and were it to become so, it could never receive the praise he gives it. That is our idea.

Buffalo Horticultural Society. A pamphlet containing the proceedings of the Buffalo Horticultural Society, together with the Address of George W. Clinton, at its Exhibition in September, has been received. This society was organized in 1845, but appears to have ceased on its work with great spirit. Lewis F. Allen, Esq., is President, C. F. S. Thomas, Corresponding Secretary, and B. Hodge Corresponding Secretary. Its meetings are held monthly, and it will undoubtedly make itself felt in that city and vicinity. The address we have not had time to examine thoroughly, but it appears to be an eloquent and clausite production.

Fine Hogs. Mr. S. G. Powell, of Sugar Grove, brought into market a lot of ten hogs, on the 25th of February, which weighed together 3000 lbs.

Female Correspondents. An old friend in Pike county asks, "Are all your female correspondents?" There are several female hands in this number, and there is room for more.

Foreign Grapes. Mr. Longworth, of Cincinnati, in a letter to the W. Farmer and Gardener, says: "Keep clear of Foreign Grapes." He says he has spent thousands of dollars and twenty years time; and failed at last with them. The Catawba he thinks is a product of the Fox Grape.
NOTICES OF BOOKS.

"McClure's Universal Gazetteer: A Dictionary, Geographical, Statistical, and Historical, of the various countries, places, and principal natural objects in the world; by J. R. McClure Esq. In which the articles relating to the United States have been greatly multiplied and extended, and adapted to the present condition of the country and to the wants of the citizens; by Daniel Haskell A. M., late President of the University of Vermont. In two volumes. New York: Harper & Brothers, 62 Cliff street. 1845."

Two huge octaves of eleven hundred pages and upwards, each, bearing the above title, are held upon our table by the publishers. We have delayed noticing them until we could find time to look through them somewhat carefully, before we believe we may be satisfied of their true worth.

Perhaps no two volumes are more or less, in existence, which embody a greater amount of information concerning the physical, political, and social condition of the whole world, than is crowded into these teeming pages. There is scarcely a place in existence, of any importance, to which civilized man has ever penetrated or of which he has heard, which does not here find its description. As a matter of course, many places which are yearly springing into existence in the Western States are not found; to keep up with these would require a yearly edition—and then the thing would be hardly possible.

So far as we can judge, the description of places, however insignificant, when it is undertaken, is surprisingly correct; the author having relied, as he informs us in his preface, only on data strictly reliable.

The work is a valuable one, taken up with a more enumeration of towns and obscure places. Its articles upon the principal countries, both in the old and new world, are spread out into extended treatises upon their physical condition, their Natural History, their political, social, and religious history and condition—in which an incredible array of facts are given, hardly to be met with elsewhere. It is indeed for these extended articles upon social, and religious history and condition—in which an incredible array of facts are given, hardly to be met with elsewhere. It is indeed for these extended articles upon the whole world, than is crowded into those teeming pages.

A great advantage in a work of this sort is here secured which ought not to be overlooked. This is the dictionary or alphabetical arrangement, which supersedes the necessity of an index, and enables the reader to turn, without a moment's delay, to the article he wishes to find.

The book, in truth, is a book of which it is full from beginning to end; and to the scholar, the professional man, or to any other individual whose ideas go forth out of his daily employments, and who can afford the purchase, it is a rare treasure.

"CHEMISTRY, as exemplifying the wisdom and beneficence of God; by George Fowkes, Ph. D. New York: Wiley & Putnum. 1844."

The occasion of the above named work was as follows:

In the year 1838 Hannah Acton caused an investment of one thousand pounds to be made, the interest of which was to constitute a fund out of which one hundred guineas was to be paid once in seven years as a prize to the person or persons, being the author of the best essay upon some Natural Science, illustrating the wisdom and beneficence of God. The author, Mr. Fowkes, chose that of Chemistry, and this book is the result.

The subject is discussed under the following heads:

The Chemical History of the Earth and the Atmosphere;
The Peculiarities which characterize Organic Substances generally;
The Composition and Sustenance of Plants;
The Relation existing between Plants and Animals.

These topics are treated of in a very copious and beautiful manner, and independent of the argument sustained, convey a great amount of information, valuable no less to the scientific farmer and mechanic than to the scholar.

We select the extracts, pretty much at random.

"STARCH. There is scarcely a plant or part of a plant, which, when closely examined, does not yield more or less of this substance; not unfrequently the quantity is so great as to produce in the plant the appearance of deformity by enormous distention of the cellular tissue in which the starch is contained. We have examples of this in the common potato, a bulky, underground stem, bearing leaves only on its surface, but swelling out of shape and figure by an accumulation of starch mingled with water within each individual cell; in the roots of certain orchideous plants, and in very many others, where a soft and succulent character is observed; the plant which furnishes arrowroot, a more variety of starch, is a case of the kind; the interior of the stems of many palms is often filled with loose cellular substance, rich in starch; and, lastly, it constitutes a very important and often abundant, ingredient in woods of all kinds."

LIST OF JOURNALS.

Literary, Agricultural, and Scientific, exchanging with the Prairie Farmer.

Name of Journal. Price Place of publication. How often published.


* Published in Parts, at 23 cts. each. + Republished. In 21 Parts, at 23 cts. each.

These publications are all—each in its particular line—the best of which we have any knowledge, either in the United States or in the old world. Many of them are too well known to require more than the mention of their names. Others, though not as well known, are equally excellent. Samples may be seen at our office; and subscriptions will be cheerfully forwarded.
CHICAGO PRICES.

Corrected, March 23, 1846.

WHOLESALE.

PROVISIONS. | $ cts. | $ cts.
---|---|---
Boo| 2 50 | 3 50
do. Mess | 6 00 | 7 00
Pork | 5 50 |
do. Mess | 11 00 | 12 00
Lard | 6 | 7
Butter | 6 | 9
Cheese | 6 | 9

BREAD STUFFS.

Flour, superfine | 0 00 | 0 25
do. fine | 3 50 |
Corn meal | 28 | 32

GRAIN.

Winter wheat | 75 | 76
do. spring | 65 | 67
Oats | 20 | 25
Corn, shelled | 27 | 30

SUNDRIES.

Hides, dried | 7
do. green | 3
Feathers | 29 | 33
Beans | 75 | 07
Potatoes | 18 |
Onions | 44 | 50
Wood | 2 25 | 3 50
Eggs | 3 |
Flax seed | 6 50

RETAIL.

GRASS AND FIELD SEEDS.

Timothy | 0 10 |
Blue Grass | 2 00 |
Orchard do | 37 | 00
Red Top | 0 60 |
Red Clover | 0 90 |
White do | 1 00 |

SUNDRIES.

Salt | 1 75 |
White Fish | 6 50 |
Mackinaw Trout | 0 60 |
Mackerel | 0 30 |
Dried Apples | 1 75 |
Lard Oil | 9 00 |

LUMBER.

Boards, 1st quality | 1 14 |
2d quality | 9 |
Scantling and joist | 9 |
Flooring and siding | 10 |
Lath | 6 |
Sash—4 by 10 | 2 00 |
Square timber | 6 |

MEETING OF EXECUTIVE COMMITTEE OF UNION AGRICULTURAL SOCIETY. This takes place on the first Tuesday in May, which will be the fifth. As it is necessary to transact some business in connection with the next Fair, it is hoped there will be a full attendance.

[ARMS]

A correspondent in Knox co. says:

"If any of your subscribers have any experience in making piano and putting up pian houses, I should like to hear from them, for I think of trying one this summer, and would like to hear from some one that had tried it on the prairie."

IRRREGULARITY OF THE MAILS. We have never taken as much pains before as we have this year in directing packages, and have never heard half the complaints of their non-reception. There is either great carelessness on the part of Post Office agents, or the numerous changes of them do not allow them to become acquainted with their duties.

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ADVERTISEMENTS inserted on the following terms: for one square or under, first insertion, one dollar and fifty cents; for each additional square, one dollar and twenty-five cents. A. square contains fourteen lines.-Circles of six lines or less, inserted for ten dollars a year.

It is permanently established, and as a western paper should receive the undivided support of Western farmers, and by the public press generally, the best agricultural paper for western farmers, that is published.

REASONS FOR TAKING IT.

1. It is one of the largest and cheapest agricultural papers published in the United States. Specimen Nos. sent to those requesting them.

2. It is not published for the whole country, but for the especial benefit of western farmers.

3. A large amount of very important information concerning them. The information contained either under the head of "Veterinary Department," or "Household Affairs," or "Orchard and Garden," is worth several times the cost of the paper.

4. It is delivered at the head of "Agricultural Department," and is a valuable source of information concerning them. It contains Chicago Prices Current, with the latest intelligence of New York and other markets.

5. It contains Chicago Prices Current, with the latest intelligence of New York and other markets.

6. It is published for the special benefit of western farmers, and is a valuable source of information concerning them.

7. It contains Chicago Prices Current, with the latest intelligence of New York and other markets.

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