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The Vermont Farmer.

AN AGRICULTURAL AND FAMILY NEWSPAPER FOR THE RURALISTS OF THE GREEN MOUNTAIN STATE.

VOL. VI.--NO. 50. ST. JOHNSBURY, FRIDAY, NOVEMBER 17, 1876. WHOLE NO. 310.

Vermont Farmer

PUBLISHED EVERY FRIDAY BY

ROYAL CUMMINGS,

ST. JOHNSBURY, VT.

C. HORACE HUBBARD, Agricultural Ed'r,

P. O. Address, Springfield, Vt.

Terms of Subscription.

One copy one year, paid in advance,............Two Dollars.
One copy six months,............................One Dollar.
One copy three months, on trial, Fifty Cents.

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In Northern Vermont the apple crop is poor and potatoes good. Just the reverse here.

Farmers will do well to lay in a supply of cider, vinegar and apple sauce. The apple crop next year is likely to be light.

Brother Cheever of the New England Farmer does not agree with some writers as to the character of the crow; but regards him like woodchuck and fox, a nuisance.

At the sale of Holstein cattle by the administrator of the late W. W. Cheney, Belmont, Mass., prices on 21 head ranged from $30 to $210; only seven going as high as $100.

Messrs. Charles Holt and W. S. Lovell of Springfield have bought of T. C. Narramore the patent of Davis' Rock Lifter for Windham and Bennington counties and Springfield, Weathersfield, Chester and Cavendish in Windsor county.

The Boomer & Boschert cider press, the most powerful machine for the purpose in use, made at the Centennial, in nine hours and forty-five minutes, one hundred barrels of cider from seven hundred and forty-six bushels of apples, less than seven and a half bushels to the barrel.

In the new scale of points of Guernsey cattle, adopted by the Royal Guernsey Agricultural Society, in which thirty points mark perfection, the head is given seven points while four are made to suffice for the udder, teats and milk veins. It is noticeable that the escutcheon is not taken into account at all.

Our farmer readers will thank us, surely, for printing in full Mr. Hopkins' paper on kindness to animals. There is a deal of truth and not a little poetry in his treatment of the question. Our farmers would do well to consider the appeal to the purse as well as to the higher sentiments, in favor of kindness to the mute, trusting creatures which Providence has placed in our care.

Grass seed may be sown at any time before the ground freezes. Whether clover seed may not be sown with late-sown grass seed, just before the soil is frozen up for winter, and be all ready to germinate in spring giving a surer catch and better stand than if sown on the snow or frozen ground in spring without harrowing or other covering save what it gets in the freezing and thawing and spring rains, is a question we propose to determine by test. In theory it is sound.

The comparative exhaustion of soil by crops which mature their seed and those which do not, is a question farmers cannot afford to neglect. Mr. Jerome Holden of West Westminster related to us recently an incident which appeared to throw light on the point. A piece of land of about two acres on his farm was very heavily manured (plowed in) and planted to corn, giving a good crop. The next year it was sown to wheat and stocked. About six years after it was again manured heavily, about half of it having fifty loads to the acre, and the rest considerably more, the latter half being so heavily dressed that it was with difficulty that it was turned under. It was again planted with corn, but the yield on account of an unfavorable season and other causes was not good. The next year the part most heavily manured was planted with corn and the other half sown with four bushels to the acre of corn, broadcast, for fodder, the yield on both parts being very heavy. The fodder corn made no ears and was cut when fully tasseled. The next season the whole was sown with wheat. The part which had borne fodder corn the year before gave a taller growth and longer heads, very evidently a heavier, better crop, although it was not harvested separately. When it came to bear grass, there was the same difference. The crop on the fodder corn land was much heavier. Mr. Holden accounts for it by the greater exhaustion of the elements of fertility in forming the seed on the field corn, its effects being apparent in all of the succeeding crops in spite of the fact that the soil was the same and had much the heaviest applications of manure. He considers fodder corn the most valuable crop the farmer can raise for winter feed of stock. Thinks an acre of it worth more than an acre of corn.

For the VERMONT FARMER.

Kindness to Domestic Animals.

BY SILAS HOPKINS OF EAST BERKSHIRE.

I am at a loss to know where to attack this subject, it is so wide and long.

One cannot well speak of the virtue of kindness to animals without also speaking of the opposite vice of cruelty to animals. The subject has a wide range. It reaches from the little boy who treads on the kitten's tail and the little sister who grieves for the suffering of her pet, up to the stingy farmer who feeds his cattle only poor hay and straw in limited quantities, and the liberal, generous feeder whose sleek-haired, mild-eyed cows bear witness to their owner's generous kindness.

It pays to treat our animals with kindness. What is kindness to animals?

Firstly, plenty of wholesome food. The very first and strongest instinct of all animal nature is to get something to eat. And the next desire that shows itself is to find a comfortable, quiet place to sleep and eat. When we have well supplied these two demands of our animals we have done about all we can for their comfort.

There is a social nature in animals which may be developed into a strong attachment for those who take care of them. It is necessary to get some profit from our domestic animals; we must work our teams, milk our cows, shear our sheep, pick our geese, butcher our hogs, cheat our hens out of their eggs, and our dogs out of their game—all which they do not not naturally and willingly submit to; but they come to learn to submit to some of these conditions patiently, and some even appear to like them.

Firstly, then, the food our animals eat. They like enough, and giving them less than enough is treating them cruelly. A rich, well-watered pasture with a breezy, shady knoll in it is the paradise of cattle and horses. Cattle are treated kindly when they are furnished such a pasture, provided there are not too many cattle for the acres.

Had I the ability, I would paint a picture of a dozen grade Durham young cattle, fat and sleek, and with them there should be a pair of oxen lying in the shade of a small grove of maples, situated on an airy elevation in the middle of the pasture. Through the rich green pasture at the foot of the hill should flow a clear, gravel-bottomed brook. I would write for a title under it, "Contentment."

For a contrast I would paint another. The pasture should be a level plain, with a frog pond in the middle and not a tree in sight: The general color should be a greenish brown. The cattle in it should be lean and vicious looking; there should be a well-worn path all round the inside of the fence. I would have in the picture a three-year-old, long-horned, snake-headed steer, without any mate; and a spike-horned, yellow-colored, line-backed, bob-tailed two-year-old steer, looking over the fence. Behind them should be some smaller cattle, thin-hammed and sharp-backed, with inquiring faces—anxiously awaiting further developments. In the road running past the pasture at the left fore-ground of the picture I would have a couple of sunburnt boys whose teeth were blackened with choke cherries and fingers browned with butternut juice, getting the range on the hungry cattle with their battery of stones. I would write for a title under this picture, "Going West."

I was once riding in Washington county, Vt., along very much such a valley as Trout River Valley, in the latter part of September, and passing a rich meadow of perhaps forty acres, I noticed that a lot of cattle, I should think thirty in all, of all ages from a mellow-sided pair of seven-year-old oxen, down to a half-dozen yearlings, including cows and two-year-old heifers, had that morning evidently just been turned into "fall-feed" for the first time that season. The feed was "up to their eyes." Leaning on the bars was a man of generous stomach and large proportions. He had stood there apparently ever since the cattle were "turned in," and they were far enough from the bars to have been in half an hour, and he was evidently enjoying it as much as the cattle were. I thought I should like to be acquainted with that man and and eat at his table.

It is no part of my business in this paper to discuss the propriety of fall "feeding" our meadows, but that man and his cattle,—and I never saw him before or since—were living illustrations of the truth of the text, "The liberal soul shall be made fat."

Our teams, so far as feed can go, are kindly treated when they are well fed. If they are fed well and regularly every day the same allowance, they will look better and feel better, behave better and work better. I shall have more to say about teams by and bye.

But we keep one kind of animal that likei above everything to be fed. With a good dry nest of straw, and a rich, full feed three times a day he will grow fat, and will express to you his gratitude by those short, high-keyed, affectionate grunts, which we all like to hear, but cannot well describe or imitate.

Our fowls should be treated kindly. We do not think very much about our fowls, but they show kind treatment and generous feeding as plainly as any of our domestic animals. The well-fed hen is the one that gives forth the welcome early egg and cackle. She is the hen that finds the sunny side of a bank in April, whereon to scratch and sing her morning lay. She is the hen that can flutter her wings and wag her tail as she squalls forth her prophecy of a set—of early spring chickens. It was without doubt the well fed, happy hen that was immortalized by the same hymn that immortalized Old Grimes.

The ill used poorly-fed hen, with scrawny legs and feet, pale, sickly comb and faded plumage, can't sing; she can't lay; so of course she can't "set." She can only scratch and that very feebly.

The cat, though I don't like her—should be treated with kindness. She will, if kindly treated and generously fed, come in of a morning after you have made a fire, stretch herself upon your leg with her nose towards the stove and her fore paws on your knee and purr most practically; and to show you her attachment will hook her claws into your pants and with first one foot and then the other gently lift them off your knee. If you have been very good to her she will emphasize her love for you by hooking deeper even than the lining of your pants. If there were no rats or mice cats would still be very pretty pets, and no doubt would be kept for that purpose. We have a cat which keeps all rats at a neighborly distance. I could not afford to take $25 for her, and I don't think anybody could give it. For, although she is a terror to rats, she has also learned that cream is good for some other purposes than to eat on strawberries.

There is occasionally a man who can be cruel to a dog. I hope the man who can treat the most friendly of all animals harshly, may never get any unfair advantage over any of us. To be in a man's house and have him come home while you are there, and as his familiar step is heard on the threshhold, to see the dog leave the mat and creep off and lie down under the table; and as he opens the door to see the cat dart like a flash out between his legs, is all you want to know about him. You had better not cultivate his acquaintance, you won't like him.

A few years ago, a neighbor had a dog, that was not very good to go after the cows with the boys. In answer to the question, what makes him hate to go with you after the cows, one of the boys said, "Ed whistles to him and he don't come and then he stones him some." That is a good way to spoil a dog, if he ever was good for anything. It is often said that if a man owns a dog he has *one* friend, which is a sort of a proverb, grown out of the strong attachment and fidelity of the dog. He has earned and merits our kindest treatment.

That which animals want and appreciate next to something to eat, is a dry, soft bed. To ascertain if they know the difference between a hard floor and a bed of straw, put a young calf into the barn floor and leave a little hay there until you fodder next time. When the next time comes you will probably find the calf lying on the hay. I do not know of an animal that prefers a hard floor to a soft bed of straw to sleep on. Singularly enough treating our animals kindly in this particular also "pays." If we bed our cows and keep them dry and clean, we have better milk and butter, and more of it. We shall have a larger manure heap and consequently richer meadows. Our teams, when well bedded, will do more work because they get more rest on a good bed than they do on a wet floor. The Arab's steed shares his master's tent and delicacies with the children of the family, and gives his master in return rides of fabulous length without weariness. The pig outside of his coat of fat is the poorest clothed of any domestic animal. I do not know that a second attempt was made to shear a hog, but he has been many and many times denied that which is as dear to him as his own wool, namely, a good nest. The pigs look better and thrive better when they have a good nest; and that they feel better no one can doubt. The hens should have a good place to roost; warm and dry, easily accessible and free from disturbance. The cat and dog should have their nest where they can be warm and comfortable, where they can retire to undisturbed repose, when they come in from their late evening sociables.

Perhaps in nothing can we better show our humanity than in the kind treatment and fair usage of our teams. Our horses can never tell us of their aches and weariness, we can only judge by their appearance how they feel. The well fed, evenly worked horse can easily be distinguished from the harshly treated over, worked one. The team that is left to the tender mercy of some irresponsible inhuman tyrant of a driver who does not know as much as the horse he abuses, is to be pitied indeed, and will soon show by its looks what kind of a teamster it has. There are a great many spirited horses on the road, particularly 4th of July, caravan and fair days, but they show by their ears, eyes and tail, those expressive features of the horse, exactly the truth of the case. They are in mortal terror of being yanked or whipped at every step. Those silly people who try to make an old, lazy, over-worked, unsound, spiritless horse appear young and high-lifed by cruel jockey tricks, can not deceive us any more than the drunken man can make us believe he is sober and that all his drunken motions are the result of carelessness or accident. There are no animals to be pitied like the poor old horses, who have served their masters long and well, and are then disposed of to some man whose highest amibition is to own a horse, and whose best satisfaction, after eating, is to "train him," and "swap him." Where so many such horses come from is a mystery, and where they go to is another mystery. We most seriously hope there may be a hereafter of long continued grass and good weather for all the truly good horses.

I have seen a man drive oxen and go eight or ten feet forward of them swinging his whip and saying, "wo hish, come along," and run the stoneboat against a stump and stop the team; he would go wo hishing along until by and by he would miss his team, then he would turn and yell "wo back, you are always running against something." He would then whack them over the heads, gee them off, get started again, and the very next time he came along there with another load of stones, would go through the same motions, run against the same stump, address the in oxen the same disrespectful language, rap them on the head again and go on. It is a great pity that such men are ever allowed to use a team at all.

I heard a neighbor once say, "I can work my oxen all day, and not tire them as much as the boys will in an hour." Which was no doubt true, for I have seen him work them all day and not strike them once, or speak to them louder than I now do to you. His boys were very good boys, and no worse than nearly all the others in the same neighborhood, but they lacked good judgment and experience.

Among all the institutions for the instruction of boys, none is needed more than one where boys could go and learn to use and feed a team properly. Such a school would be a good place for some men to go to.

I knew two men who were neighbors. Each did his work with oxen. Mr. A. used to tell how much work his oxen did in a season, how much they could draw and how quick they were. But his oxen were generally thin. Mr. B. did not brag any about his oxen, nor feed them any better than Mr. A. did his, but worked them all the time, and drew tremendous logs when it was necessary. He had but little use for the whip after his oxen got acquainted with their owner and familiar with the work. Yet Mr. B's. oxen did more work in a season than Mr. A's. and *looked* very much better. The difference was all in the way they were handled. Mr. A's oxen were never comfortable when at work. They were continually being nettled by the lash, while Mr. B's oxen were treated kindly, never whipped foolishly or unnecessarily. All their muscle and nerve was saved for work.

I must be pardoned if I make this part of my subject a little longer. I used to work for Mr. B. when I was a boy and help him plant potatoes on new land. He used to harrow the land and we boys plant the potatoes. He held his own harrow by a bow, to keep it from tipping over. He had a way of getting the harrow teeth wonderfully near the stumps. He laid his whip on a stump and drove his own team, and those oxen would gee and haw the stumps as occasion required, as patiently, obediently and seemingly as intelligently as the man held the harrow. I remember as though it were but yesterday, how I wondered and admired that way of doing things. The man, the harrow, chain and oxen seemed like parts of a perfect arrangement for harrowing—a machine to harrow on new land. One of the boys would try it once in a while, but if a boy held the harrow the machine was not perfect without a whip. And then very soon it became necessary to learn the oxen something, and then very soon everything would be wrong. And then the boy would take his pail of potatoes or his hoe, and the man his harrow and oxen, and everything would go right again.

I remember another incident that illustrates how much good care and kind treatment will do for a team. I was engaged to blast and lay some stone for a man. He hired a farmer to come and help draw the larger stone with a pair of five-year-old oxen. It was in June. At the time agreed upon the man and his team came on. I admired his oxen. They were handsome, red, fat and sleek. I asked him how much work his oxen had done that spring. He said nearly all his farm work. I asked how much grain they had a day. Said he, "they have never eaten two quarts of grain since I owned them. I give them as much good hay and water as they want, and that is all." At night, after a hard days' work, rather than leave them in a strange barn, he drove them home two miles and back the next morning for another days' work. He said he guessed they would eat and rest enough better at home to pay them for their two miles' walk. His idea was that when they were at home in their own stable they would be perfectly comfortable, while away from home they might be discontented, homesick and restless, consequently poorly fitted for the next days' work. If I was a lady looking for a husband, I would inquire for such a man as that.

I will say here what I should have said further back. I do not believe in this indiscriminate faultfinding with boys. I know several who are models of kindness to animals. Some of them are better managers and drivers of a team than their fathers. I have known some instances where there was a decided improvement in the appearance of the farmers' team when his boys get old enough to feed, groom and use them. Those are the boys to look for, but not easy to find. If I was a girl, I would marry such a boy as that if he was cross-eyed, white-headed and freckled.

I have said that kindness to domestic animals consists mainly in furnishing them good feed in sufficient quantities, and quiet, comfortable quarters for rest.

I have spoken of the *importance* of kind care and good management of teams, and have endeavored to prove that kindness to domestic animals *pays*. Motives of profit or money ought to be sufficient to secure to our animals the very best care and kindest treatment, but the true consideration and strong reason for their kind care is found in its resemblance to Christianity.

Much could be said to show how well our domestic animals appreciate the kindnesses shown them, and how their social natures can be made to them a source of enjoyment. But this paper is already long and must come to a period.

Cultivation of Orchards.

Mr. John J. Thomas writes to the American Rural Home that the rule that trees extend their roots a distance equal to the height of the tree is now too strongly stated. He cites instances of trees 14 feet high with roots 27 feet long. For this reason cultivation should extend over the whole area of the orchard.

But little benefit is derived from spading circles about fruit trees unless the circles are very large.

Mr. Thomas proceeds to say:

There are other questions in the management of orchards which must be answered variously, according to the circumstances of the case. One of the questions refers to the depth to which cultivation should be given. Where the subsoil is hard and poor, and nearly all the fertility of the land lies within a few inches of the top, the treatment must be very different from that employed on a deep, rich soil. On such a shallow soil, the trees are much more susceptible of the influence of surface culture or top-dressing with manure. The roots extending very near the surface, it becomes very important to cultivate shallow. It often happens that a top-dressing of manure on such land is the very best thing for the trees. And to allow a dense growth of grass without manure, may be the worst treatment for their growth and success.

I have just examined the roots of large trees in an apple orchard standing on land with a comparatively loose and fertile subsoil. The majority of the roots were two feet below the surface; some of them nearly an inch in diameter were found four feet below, and they appeared to run much deeper, probably seven or eight feet. In this orchard, after the trees were twenty years' old, the plowing of one part and the grass sod in another made but little difference in the growth. The roots were far below the reach of the plow, and the roots of the grass on the surface drew but little nourishment from two feet below. Cultivating the surface, and top-dressing with manure, had comparatively little effect on the trees when old, although making a great and obvious difference while they were young and the roots nearer the surface.

There are many soils, however, where most of the roots are not a foot below the surface, particularly while the trees are young. For these, two modes of treatment are adopted by cultivators. One is to keep the top mellow and clear of grass and weeds by plowing and harrowing. The other is to allow the ground to become covered with a grass sod. Much discussion has arisen on the comparative merits of the two modes. An examination of the condition of the growing tree will point out the course to pursue. If, as often happens on the rich soils of the South and West, the trees have too much rankness and succulence, rendering them liable to injury from changes of the weather, it would obviously be important to seed the land to grass and thus choke the growth. If the trees are feeble, indicated by short and stunted annual shoots, additional vigor must be imparted by cultivation or manuring, or both. The character of the soil and climate will vary the management in different localities and regions, and no rule can be laid down for constant and invariable adoption. Yet, throughout the Northern and Eastern States, and in many portions of the Middle States, very few orchards will possess sufficient vigor unless cultivation or top-dressing is given to the soil. As a general rule for guidance, in determining what treatment to adopt, the annual shoots may be examined; and if in young orchards they are less than two feet in length, or in bearing orchards much less than one foot in length, they should receive additional stimulus by manure or cultivation.

The question often occurs and is frequently discussed, which is the best, to manure a grass surface, or to give clean cultivation without manure. On very shallow soils, manure may be the most effective. But even then, a shallow and thorough cultivation may answer all the desired purpose. The addition of a moderate top-dressing to such a cultivated soil, will accomplish more than heavy manuring on a sod. The question will resolve itself into one of economy. Plowing once and harrowing five times subsequently will not usually cost more than five dollars per acre altogether. An equal effect produced by manure would require at least fifteen two-horse loads. At a dollar per load, and half as much more for drawing and spreading, these would amount to more than four times as much as keeping the ground clean by cultivation. In many instances the cost of manuring would be much greater; in a few possibly less.

In some cases where cultivation is difficult, manuring may be used to advantage; and where valuable crops of several hundred dollars' worth of fruit per acre are obtained, as for example with the best pears, the annual cost of twenty or thirty dollars for manure would be a small portion of the net profit.

On soils of moderate fertility, the practice of allowing grass to grow with young or newly set fruit trees, is one of the most common causes of failure. All plants when crowded are checked in vigor. Weeds and grass lessen all garden crops. Indian corn thickly sown will not bear ears. For the same reason where trees and grass occupy the same ground, the evils of a crowded growth occur, and the trees can not flourish so well as where they have the sole occupancy. The exception (partially) is where the roots of the trees, as they become old, run far below the grass in the deep, rich and porous sub-soil.

I have usually found the shoots of young peach trees which stood in mellow, clean soil or with well cultivated hoed crops, as corn, potatoes or beans, to grow two and a-half to three feet in a single year. When allowed to stand in grass, I have never seen the shoots a foot long while the trees were young, unless within reach of manure or cultivated ground through their long roots.

Quackery has been defined as the application of the same remedy to all diseases. It should never be adopted in the cultivation of fruit, but the treatment should vary with the condition of the soil and locality. The planter who succeeds well with his trees in grass, in land of great fertility, or with high manuring, should not prescribe grass for orchards in all other soils and places. The man who has a shallow soil, and who has injured his orchard by severely mutilating the roots with the plow, because they are all near the surface, should not object to the thorough plowing of deep soils. I have seen an orchard which was plowed early in the spring after lying long in grass, and the roots so severely cut that at least one cart-load per acre was picked up and drawn off after the operation. Yet, as this was done in spring before growing had begun, and as there were plenty of roots remaining deeper in the soil, a positive benefit was derived from the plowing, the cultivation over-balancing any injury by the mutilation of the roots, and greatly increasing the quantity as well as improving the quality of the crop. But if this deep and thorough plowing had been performed after the trees were in leaf, or if the soil had been so shallow as to throw most of the roots within six inches of the surface, the result would doubtless have disastrous.

Inspiring Scene in a California Wheat-Field.

The following graphic account of the California wheat harvest, from the columns of Appleton's Journal, makes the Vermont way of cradling, binding by hand and threshing with a one or two-horse power seem slow indeed.

Suppose that upon one of the many days of the harvest season you get out of bed at an unusually early hour, and again climb to the house-top.

Beneath and in front of you will lie, as before, the pale, golden sea of wheat, girdled in the cool distance with the purple mountains. The air will be soft and delightful to breathe; the oaks upon the river-bank will throw shadows across the road-way, and the rays of the sun will spread over the enormous plain—a smile of greeting for the day.

You will sweep the horizon with your glass. Hardly to be seen, even with that, are some curiously shaped dots, moving slowly hither and thither. They seem to crawl like insects, some going north, some south, some east and some west. After a while you will distinguish that nearly every one of these dots is of a deep red color. A little later you recognize the awkward shape of the separators, and the broad-topped funnels of the engines. Throngs of people, most of them in wagons, yet some afoot, follow on behind. After a while all of these now widely-separated groups will come to a standstill. They have taken up their positions for the onslaught upon the grain-fields as deliberately and with as much thought as batteries take up positions for battle.

When one of these corps approaches its station, a header, with its attendant wagons, is sent forward to cut a clear place in the centre of the area to be worked upon that day. The machine is pressed upon the wheat, devouring it as it goes, and then, having accomplished a proper distance, turns and works in a circle, cutting out a bare spot from three to five acres in extent. This is the point from which seventy acres of wheat are to be hewed down, cast into the thresher, and sacked for market before sundown.

Then the separator, and engine and all the teams move forward up the lane, and into the circle. The first comes to a halt in the centre, the second takes up its position in the rear, and the headers at once attack the wheat; the first taking the first swath of the encircling grain, the next the second, a little in the rear, and so on.

The belting between the engine and separator is adjusted, and the engineer starts his fires. The shoots that are to convey the grain from the canvas on the ground upon which it is pitched from the header-wagons are attached, and the bag-fillers bring up their sacks. All the lids that cover the inner works of the great machine are drawn over, and all is made fast. The wheels are locked, as are those of the engine. Great care is taken to keep all things on as perfectly level as may be, to insure the proper economy of force.

The scene even at this time is one of great animation. The men are all fresh, and are working with ardor; the stimulus of the noise, the movement, and the bright sun, is great. It is impossible not to feel the pulse quicken even at this early stage of the play, and one recalls his old-time ideal of a harvest field, with its beribboned reapers, and their long, curved sickles, with a little doubt of its superior grace.

They try the engine. It is all right. The separator clatters in tune, and nothing is amiss. Now, for the grain! In a moment the wagons begin to unload. Huge forkfuls are pitched upon the ground, from which it is borne into the recesses of the separator. Then there ensues a strange combination of a tremendous noise—a sound of grinding, a sound of brushing, a sound of thumping, and a sound of roaring. The entire fabric shivers from top to bottom, and from out every crevice there pours a thin sheet of dust. The upper part belches out the waste, hundreds of pounds and tons of chaff, and a stifling cloud follows it. In a second everything is on springs. The men who fill the bags hang them at the edges of the troughs. The brown flood comes pouring down—a stream of clean kernels of wheat—and the day's work fairly begins. From the largest separator in the field there run out six sacks, or eight hundred pounds of grain, fit for market, each minute. This machine one day in August, 1874, thrashed five thousand seven hundred and seventy-nine bushels. Its owner calls it the Monitor. All the engines have names as well—Gladiator, Phœnix, Mars, and the like. No one would ever be mad enough to call one of these Ceres, for instance. There is no suggestion of gentleness, or grace, or poetry, in the whole field. All is ingenuity, precision, order, force. A cry of admiration rises to one's lips time and again, but the sensation is the same that one feels upon witnessing a string of ten-strikes in a bowling-alley, only a thousand times extended.

It is great to see the headers keep their circles of destruction, hewing down the fair expanse of bowing golden heads as a ship hews down the crested waves, and to hear the smooth, unending click-clack of their glistening sickles. Even the movements of the ungainly red wagons that wait upon them have an unfailing order that has a strange power to please.

Most of the men are dressed in brown canvas jumpers and overalls, and wear broad brimmed hats of straw or felt. Not one of them is idle, nor seems to wish to be. Most of them are driving. Some are pitching, a few are feeding the separator, a few more are filling, sewing and carrying away the bags, and some are brushing away the heaps of chaff. Early in the day there is plenty of talk and laughter, but later on, as the work tells, and the sun grows hot, the tongues become silent, and the hubbub of the machines alone fills the air.

At noon a huge van is driven upon the field, laden down with a dinner of meat, vegetables, and pies, all well cooked, and very palatable. Farm hands, like fishermen, now-a-days are epicures. This van is so constructed that its sides form broad tables. The cooks who serve stand in the body of the wagon, and the diners range themselves around the outside. All are sheltered by a screen of wood or canvas overhead.

New Facts About Butter.

The London Agricultural Gazette publishes the following lately acertained chemical facts, condensed by that paper from the report made to the Board of Inland Revenue by the principal of the Chemical Laboratory, Somerset House, on experiments conducted by him for the analysis of butter:

One hundred and seventeen samples were tested, the result being that while a few samples were found to be very poor in quality, and a few others exceptionally rich, the great bulk examined were found to possess considerable uniformity of composition, the principal variations being apparently due to a difference in the method of manufacture, the different seasons of the year when made, and the various modes of feeding. As might be expected, some of the poorest butters were produced by, and obtained from small farmers in Ireland, at a time when there was very little grass, and food was scarce. It was also noticed that the butter was relatively poorer in its essential constituents when the food was chiefly cotton and oil-cake, than was the case when roots and grass formed the staple food. A noticeable feature in the results recorded is the great variation in the quantity of water in the different butters, the lowest being 4.15 per cent and the highest 20.75 per cent. The Devon and Dorset butters, which usually stand so high in the market, were found to contain in nearly all cases a high percentage of water, and one sample which was procured from the dairy of a private gentleman, contained as much as 16.99 per cent; and a second sample, recently obtained from the same source, contained 15.70 per cent. Another point of interest was in some measure elucidated, and which has reference to the deterioration which certain butters undergo when kept in small quantities in glass or earthenware vessels. It was found that while some of the finest and best prepared butters undergo little or no change, there is in others a gradual disappearance of the characteristic principles of butter, and a consequent assimilation to the constitution of an ordinary animal fat. This change, which appears to be due to an incipient fermentation, and is generally accompanied by the development of fungi, is probably caused either by the use of sour cream or by insufficient care in making butter.

At Toulouse, France, a curious lawsuit is going on. An oyster opening a few bivalves for a purchaser, found in one of the oysters a valuable pearl. This he at once pocketed; but the buyer of the oysters insisted that it was his. He claimed that no bought shells, juice, oysters and everything, while the oyster opener alleged that he had bought only the oysters. The question of the ownership of the pearl is yet undecided.

FACT AND FANCY.

A genuine roar-back—an echo.

Sad spectacle—broken eyeglasses.

Ministers of war—fighting parsons.

Preferred creditors—those who don't dun.

The October election cost Indiana in the vicinity of $200,000.

Hold the forte—the piano war has begun again.

The balance of pow-wow is held by the indians.

General Result seems to be the leading general in the country just now.

In what place is two heads better than one? In a barrel.

When a man is about to make a personal appeal he commences by pealing off his coat.

When a woman blushes and weeps, can she be said to raise a hue and cry?

Ben Johnson is living in Chatham, N. C., at the age of 115. He must be rare Ben second.

The only way no distinguish a mushroom from a toadstool is by eating the specimen. If you live, it is a mushroom; if you die it is a toadstool.

An unusually intelligent justice of the peace in Baltimore swore a Chinaman on a tea chest the other day in default of the writings of Confucius.

Alluding to the release of Stokes from prison, the Christan Register drily remarks that "Fisk was a nuisance, but he was not lawfully abated."

Some sharper advertised to furnish for $1 infallible instructions "for securing the warm attention of a pretty woman." The answer to applicants for the secret was: "Step on her train."

Albert Rhodes thinks that men make the best cooks. Then Albert Rhodes never saw a man howling and dancing like a maniac in front of a kitchen stove, shielding his blustering face with one hand, and with the other making frantic dabs with a steak fork at a blazing sausage, that's all.—Hawkeye.

One of the British scientists has been at work on dog's brains. He finds that the brain of man's faithful friend is smaller than that of the wolf, and that the brain of the Newfoundland dog is very little larger than a terrier's.

The Detroit Free Press reports that a careful estimate by competent old ladies shows that the number of Detroit girls who daily go after autumn leaves is 460. The number who get any leaves is 19; the number who find beaux and forget all about autumn, 441.

An American lady, Miss Susan Fletcher Smith, has just made a will, assigning her body, after death, to the Royal College of Surgeons on the ground that it is the duty of every member of the human family to devote their bodies after death to scientific examination, until the principles of physiological science are thoroughly established.

We've suspected for some time past that measures would be taken to check the alarming growth of the Smith family. And here, now, sure enough, a Pennsylvania man exhibited at the centennial a "Smith crusher and roller."

She wouldn't stand it to have a tooth pulled for one million two hundred thousand dollars, she said, and yet she walked the street in tiny gaitors two sizes too small for her, and thought nothing of it; but then nobody saw that tooth, and several saw the gaiter.

Says a New England paper: This is the grandest, mightiest, most glorious republic that ever blessed the world, and yet, with all its power and greatness and learning, it can't make an infuriated woman stop in the middle of a sentence and listen to an explanation.

Mr. Buckle says that history repeats itself. We presume he refers to the fact that the Jews were directed to make glad the waist places, and that the same pleasing custom of doing it with the left arm on the front stoop after the old gentleman has gone to the lodge is the fashion now.

"Is there an opening here for an intellectual writer?" said a very red-faced youth, with the cork of a bottle sticking out of his breast pocket. The editor, with much dignity, took the man's intellect in, and said, "An opening? Yes, sir; a kind and considerate carpenter, foreseeing your visit, left an opening for you. Turn the knob to the right.

AMHERST STUDENT—Wise caution. Two seniors, diligently ponying "Plato's Apology," met the sentence—"To fear death is nothing else than to seem to be wise when you are not." First senior, thoughtfully—"Well, I don't see; but we had better not fool with it, for it may lead to Pantheism for all we know. Let's go on."

On a cruise the sailors saw a comet, and were somewhat surprised and alarmed at its appearance. The hands met and appointed a committee to wait an the commander and ask his opinion of it. They approached him and said, "We want to ask your opinon, your honor." Well boys, what is it all about?" "We want to know about that thing up there." "Now before I answer you, first let me know what you think it is." "Well, your honor, we have talked it over, and we think it is a star sprung a leak."

A bashful appearing man stepped into the Cincinnati Enquirer editorial room, the other evening, and, edging up to the tabli of the managing editor, hat in hand, said, in a hesitating way, "You like little items for your paper, I suppose?" "Certainly," replied Mr. Cockerill; "a newspaper, like life, is made up of little items. What have you to offer?" "Well," said the bashful man, playing with his hat-band, "my name is Smith, John Smith, and I've just got home." "Glad to see you back again, Mr. Smith," said Cockerill; "been gone long?" "I've been," said Mr. Smith, with a tremor of pride in his voice, "to the Centennial, and, if you want to make a little notice—" "What!" cried Cockerill, springing to his feet, "you've been to the Centennial? And you've got back? Give us your hand; I'm delighted to see you. Spear, let me introduce you to John Smith. John has been to the Centennial." Spear shook hands very warmly with Mr. Smith, and then ran to the aperture communicating with the reporters' room, and shouted; "O'Shaunnessey, come in here, quick, here's a man that's been to the Centennial!" Then O'Shaunnessey bounced in, followed by his assistants, all of whom embraced the bewildered Smith warmly, and expressed the gratification it afforded them to meet who had been to the Great National Exhibition. Word got down-stairs, somehow, and Joe McDowell, Bill Small, and Uncle Joe Shadenger came up-stairs at a tearing rate to gaze on the individual who had been to the exposition. It was too much for the modest man to bear, and, murmuring something about making an item of his return if they wanted to, he hurried out just in time to meet on the stairs the foreman and 32 compositors, all eager to get a glimpse of the man who had "been to the Centennial."