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Correspondence.

For the Colonial Farmer.
RURAL TOPICS.

SCIENTIFIC FARMING.

Farmers are inclined to consider "scientific" agriculture, as something only taught in books, theoretical in a great degree; but this is not so, as science is nothing but knowledge, skilled knowledge. Now, farmers will, perhaps, be a little surprised when I tell them that every one of them, who is skilled in farming—men who keep their farms in good condition, have good fences, plow and plant at the right time, cultivate well, etc., are all scientific farmers. But the men who study scientific agriculture in colleges, and graduate as Professors of this science, without a thorough practice of farming, are not scientific farmers, although they generally claim that title exclusively. No man can say that he knows that the application of certain fertilizers to certain crops is particularly beneficial, unless he has had a positive practical knowledge of the alleged fact. The reading that such application produces good results, even in the writings of a hundred men, is not proof that such is the fact. One may presume that it is proof, and that is as far as he can go; but, for instance, when a man applies potash to a certain crop for years, and sometimes omits to put it on a part of the field to show the result, and he finds that where no potash is applied the crop is much less than where it is applied, he knows that it is beneficial; and, consequently, he is a scientific farmer, so far as the application of potash to one, or more, crops is concerned. So, if he shall become an expert in every branch of farming, by obtaining knowledge from books, papers, or otherwise, or what is supposed to be knowledge, and finds it to be true or false by a practical test, he becomes a scientific farmer in the full sense or meaning of the term. The idea is prevalent that a young man may be sent to an agricultural college, and after studying agricultural chemistry a year or two, and being taken out upon the farm occasionally to see the crops growing, and the application of fertilizers, that he becomes a scientific farmer! That is not so, because he lacks the thorough practical training—work with his own hands—to make a really scientific agriculturist; but what he learns at college in theory is a great advantage to him. My advice to such young men, if they desire to become farmers, is to hire out for a couple of years to a thorough, practical farmer, and work your way to the title, "scientific farmer," which you will never justly have unless you obtain it by practice on a farm.

CLOVER AS A FERTILIZER.

When the world was made, its Maker foresaw certain conditions of things that the human mind could never have penetrated, one of which was that the soil could not forever continue to yield large, paying crop without manure, or a fertilizer of some kind—that animal manure would not be abundant enough to keep lands in a good state of fertility, as the population became dense; and, consequently, clover was given to us as a cheap and valuable fertilizer, "without money and without price," which is literally true, because it pays for the seed sown and labor in the first crop of hay, and the second crop may be plowed under, which will fertilize the land equal to \$15 or \$20 worth of stable dung to the acre. There is no mistake about this alleged fact in the least; and I am inclined to think that if stable dung did not exist, nor any kind of commercial fertilizers, farmers could continue their business profitably by using clover as a green manure. Of course the price of clover would be ruled by the supply; but in the end they would, probably, be as prosperous as they now are. Clover will flourish on poor soil, as it derives a large portion of its nutriment from the atmosphere; and when a farmer obtains a good "catch" he is sure of a good crop, which ought not to be pastured any the first season. The second season it should be cut for hay, that is, the first crop, and the second crop of that season may be turned under in the fall with good results as a fertilizer. For plowing under so the large variety of clover. A bushel or two of plaster to the acre early in the spring will increase the crop considerably.

THE FENCE QUESTION.

Sooner or later the farmers in the United States must adopt hedges for fences, as the cost of all the fences in this country is estimated by good authorities to be about \$1,800,000,000, or \$45 a head for each inhabitant, old or young; and it costs \$100,000,000 annually to keep them in repair. Recently, Major Brisbane, of the United States Army, compiled statistics

in regard to the annual destruction of timber in the nation, from which it appears that the consumption requires about 5,500,000 acres every year. He puts the requirements for fencing purposes at about one half of this vast amount, which we think is too high; but it is nevertheless immense, and not withstanding the gradual increase of tree planting for future use, it is certain that a radical change in our fence system is absolutely necessary, or two generations hence the country will be practically without fences. The kind of hedges most grown are the buckthorn and barberry for the North, and the Osage orange for the South. In regard to the barberry, the Wallingford Circular says: "We have a barberry on our grounds 25 rods long, and nine years old, from the seed. Two rows of plants were set, the rows one foot apart, and the plants one foot apart in the rows; and set alternately, to break joints. This hedge has been clipped a little, two or three times, to keep it even, and is now six or seven feet high, with a firm, compact base, perfectly impervious to the smaller animals, and stout enough to turn ordinary farm stock, except for a short distance at one end where the soil is quite thin." A pound of barberry, or buckthorn seed, costing one dollar, will produce plants enough for 100 rods of fence.

FAILURE OF GRAPE IN THE WEST.

A well-known horticulturist of Ohio writes: "In many parts of the West and Southwest there have been very discouraging failures of nearly all the desirable kinds of grapes the past two years. Even the Concord, that was thought to be everywhere reliable, has entirely failed in many localities. At a meeting of the Montgomery county, O., Horticultural Society, Mr. N. Ohmer stated that his Concord vineyard had failed entirely, two years in succession, and he did not feel like waiting for a third, but had concluded to grab out the vines, and plant something more profitable in their place. He believed the Concord vines would do well while young, but as they grew old, they fail. At a previous meeting of the society, Mr. Kramer, who is the most extensive grape-grower in that region, states that the grape crop was almost an entire failure. For 12 acres of Catawba vines he did not have a ton of sound grapes. Most of the Concord vines are also ruined by the rot. He cut 2,500 pounds of Ives' Seedling from about 3 acres, Taylor's Bullit had done well growing among Catawbas that rotted. Norton's Virginia was also good—these are both wine grapes. He had tried quite a number of Roger's Hybrids, but found them of no use except when grown against a wall or building. He had seen young vineyards of Concord doing well. I have similar reports respecting the failures of Concord and other grapes, from correspondents in different parts of Central and Southern Ohio and Indiana. In regard to what causes the rot, this question has baffled horticulturists; almost as much as that of the pear blight, and the theories respecting it are nearly as numerous and conflicting.

We need more extended and careful observation of facts on which to base conclusions. It has been noticed for many years that heavy rains in the month of June are quite sure to be followed by a visitation of grape rot in July and August. It is not clear, however, that excess of moisture at the roots is the cause of the disease of the fruit; and if this were the chief cause, it is difficult to see why it is that the disease should be more prevalent in late years than formerly, and worse on old vines than young. Some of our scientists are of the opinion that the rot is caused by a fungus, like the mildew—the spores of which are absorbed by the leaves or the roots of the vine, and carry by the sap into fruit, where they develop their mischief.

FRUIT "BUYER."

The sale of fruit "butter" in all large cities is very large. It is put up in wooden pails, with close-fitting covers, and pails and butter are sold together. The "American Grocer," published in New York, says: "Fruit butter may be made in the country very easily and cheaply. The same purpose that sugar subserves in the manufacture here may be accomplished there by the use of cider. When apples are ripe, make say three barrels of cider. Then pare and core four bushels of apples. Then boil down the three barrels of cider to one and a half, and set it convenient to the copper kettle, in which place the four bushels of apples. Pour on to the apples from the cider enough to answer the purpose, and fire up. As the cider boils away, add more and more, until it is all used up and the contents of the kettle are brought down to a proper consistency, of which one must be judge. A little practice

will make one perfect in this process. This is for apples. It will apply equally well to any other kind of fruit from which it is practicable to obtain the juice as one would from apples."

Miscellaneous.

A man behind the times should be fed on Worcester sauce, because it is a ketchup.

A down east editor asks his subscribers to pay up, that he may come a similar joke on his creditors.

The difference between a fisherman and a lazy schoolboy is, one baits his hook and the other hates his hook.

Nonebant means the peculiarly indifferent look which is put on by men who never pay when dunned for money. It should be written, however, nonshellout.

Serenader: "Home, Sweet Home, dah am no place like home." Colored lady at the window. "Well, you jes better git along home or I'll frow sumfin."

One of our agricultural exchanges heads an article: "What cows should farmers keep?" We would respectfully suggest that they should keep their own, as serious inconvenience sometimes arises from a propensity to keep things belonging to others.

The mayor had the honor to take the hostess to dinner. "I don't know, Mr. Mayor," said the lady, "whether you are all afraid of the measles, but my little children have them, and I myself have had a slight attack." The mayor rose to the occasion. "Madam," he said, "I should be only too delighted to take anything from so charming a source."

A "hard case" was interrogated the other Sunday by a friend, who had just seen him at church, but whom he now found swallowing a glass of brandy and water at a public bar-room: "I saw you in church this morning listening to a discourse upon righteousness and temperance; how comes it that I now see you here drinking?" "I always thirst after righteousness," was the answer.

Killed by the Sting of a Bee.

A distressing event occurred at Sydney recently, and was the subject of a coroner's inquiry on the following day, viz., the death of Henry Larkham, Sr., a retired farmer from the sting of a bee. It appeared from the evidence given before Mr. F. Carter, divisional coroner, that about five o'clock Mr. Larkham was in his son's garden, and on passing in front of the beehives, received a sting upon the temple. The old gentleman at once returned to the house, and asked a young man named Loyd to fetch the blue bag, which was done, and the liquid blue was applied. Loyd likewise, at the request of Mr. Larkham, took an egg from his pocket which he gathered from a nest. Upon sitting down in the yard, Mr. Larkham had fainted, and was bathed with vinegar and water. This, however, proved a powerless restorative, death supervening within a quarter of an hour after the sting. Dr. Gimblet was called at the inquiry, and stated that he had been set for, but deceased died before he could reach the house. He had since examined the body, and found a wound upon the right temple inflicted by it. This it was which caused death. Upon this testimony the jury returned their verdict.

Hennery Building.

We advise every man to build a hennery, on the same principle that a farmer would build a barn; first for comfort, second for convenience, and then add as much for elegance and style as he is willing to pay for. But such an expense should not be settled to the business account, to be settled out of the profits of the stock, but rather to the account of ornament, to be paid in the owner's satisfaction at fine appearances.

The plan we would adopt for a poultry house is this: Build on a southernly slope, if you can. Dig out for a back wall, to be cemented up; then lay upon it a shed roof, the roof and sides shingled, with tarred paper between the boards and shingles. It should be ten feet high in the front and five in the rear. On the inside have a walk three feet wide running the whole length, high enough from the ground to let the fowls under, to scratch and go out into the yard. Lay a floor over the rest with the roosts on the back part, with the shelves under them to catch the droppings, so arranged as to be removed and cleaned once a week. The nests for large hens should be a foot high, and small at the entrance, running back two

feet. With such nests as these, hens seldom learn to eat eggs. Fasten the nests on the partition which separates the walk from the coop. A building thirty feet long and fifteen feet wide may be separated into three rooms, large enough for twenty-five fowls to a room. Such a building can be put up for fifty dollars, and is worth as much for all practical purposes as the most elegant building, while everybody that can afford to keep good fowls can afford such a hennery.

A Slight Set-Back.

The meat supply from America to England has met with a sudden check. Several reasons are assigned for this, the principal being the increased cost of the meat on this side, arising out of the demand, and the decrease of returns from England. The sudden advent of hot weather has lessened the demand, and there is also the new element of competition. It is learned that steps have been taken in London to secure a supply of dead meat from other countries than America, and much nearer home. At a recent meeting of the Royal Agricultural Society, held in London, one of the members stated that contracts have been made to ensure the supply during the next six months of the carcasses of 50,000 sheep and 4,000 oxen from the slaughter houses in Vienna, the meat to be delivered in London in from 34 to 60 hours. The shortness of the time required for the transit, it is urged, does away with the costly process of refrigeration necessary in the case of meat brought across the Atlantic. It is also urged that there is nothing to prevent the importation of dead meat from Austria, Hungary, Poland, and certain parts of Russia. In other words, demand will create supply, and the cheapest sources—other conditions being equal—will carry the day. With the return of cooler weather—in four months time—many of the difficulties that now exist will pass away. The facilities for Atlantic transit are now so great that it will be found quite as easy if not more convenient to ship meat from this side of the sea than from Mediterranean or Baltic ports. Just as Canada and the United States have the call in English markets for butter and cheese, so will they eventually obtain it in meat, good quality being kept in view. Though the facts stated as regards supplies from Central Europe have their value, and should create caution, yet it can scarcely be doubted that the intelligence and enterprise of the west will be found well able to cope with any competition that may arise.

IMPROVING PASTURES.—In the dairying districts more improved land is devoted to pasturage than to all other purposes, and more income is derived from it annually.—Yet there is comparatively little done to improve the branch of husbandry. It is noticeable in passing through the country that pastures as a general rule are growing less productive, and the quality of feed poorer, by reason of foul weeds that are increasing in the soil. Thistles, milkweeds, daisies, and many other unwholesome weeds, occupy the soil instead of nutritious grasses. To eradicate them and get a clean sward of grass that will pay for fertilizing, keep them from seeding for a season, so their seed will be ploughed under, then cultivate and kill the root and re-seed with a variety of grasses adapted to the soil. Mow the first crop of grass, to give the roots a good spread in the soil before tramping it by cattle, and keep cattle off in the spring till the grass gets sufficient growth to strengthen and protect its roots. It will then yield more feed during the season following than if closely grazed in early spring. If cattle are turned into large pastures before there is food enough to get their fill, they rove about and cripple the young grass by their travel, and require thereby a restless habit of roving which lessens their thrift. Where the sward is not much overgrazed with foul weeds, many may be destroyed as follows:—Daisies, Johnswort, and others that are not top rooted, are killed at once by pulling off the top and throwing a handful of salt upon the root bed. The milkweed (so called) is easily kept down by whipping and splitting the leaves late in August; then the thick sap will flow so copiously from the wounded stalk, as to kill the root. No time of the farmer is better employed than in plucking all foul weeds before they get to seed; for if thoroughly done in due time it will enable him to keep master of his soil. No practice will more fully verify the old saying, that one stitch in time saves nine. Dairy farmers especially should war against any plant growth that would injure the quality of milk for butter and cheese, or lessen the growth of others that are more desirable. The quality of milk is varied by the kind of forage

eaten. It therefore behoves the milk producer to keep a clean grass sward for grazing with cows.—*Utica Herald.*

Raise Good Cattle.

There is an important lesson in the following article from the *Drovers' Journal*. More and more in every department of agriculture the stress of urgency comes for the production of the highest quality both of products and animals. Of course the subjoined article treats the matter from the standpoint of the market, but as it is the object of the farmer to turn the yield of his land into money, he should consider well that while there is no risk about A 1 products and animals, those which are inferior may either go a begging or be sold at non-paying prices. It is true not only of cattle, but of every thing the farmer has to sell, that "good to choice" are always in demand, and are sure to bring "strong prices."

It is good to choose cattle that are in strong demand and that are particularly wanted at strong prices. It is true that medium and low grades may for a time work in sympathy as to relative prices to a limited extent with the better qualities, yet we consider it altogether possible that the market for the lower grades of cattle may at any time become depressed or even demoralized by an over supply of such cattle, while the market for really good, ripe cattle may remain firm. It is never good policy, so early in the season, in the first summer month, to take half-fat cattle that will make nothing better than what is called slippery beef from good grazing fields, and send them to market; they are a kind of cattle that are never in favor with any kind of dealers, and in nine cases out of ten such cattle have been sold in the consuming markets for less than they are worth in the fields from which they have been taken in the country. It is our opinion that this kind should be kept in the country until they are made really fat."

A Mechanical Horse.

The Geneva *Continet* says: An ingenious gentleman of Berlin, Herr Frederich Netzsck, has invented a horse. The animal is made of iron, and the motive power, instead of being its own legs, is derived from the legs of the rider. The iron horse, as the Berlin papers call him, showed off his paces the other day in the garden of Hagen's Summer Theatre, in the presence of the leading mechanics and journalists of the German Capital. The concern is described as consisting of a couple of wheels, two meters high; between these "finds itself" the horse, upon which mount the rider. The latter moves his legs, "after the English fashion of riding" (this means we presume, that he rises and falls in his saddle) and the thing goes along as fast as a quick trotting horse. The road makes no difference—it is all the same whether the machine goes gently over the stones or moves swiftly on the hard high road—and the facility with which the strange steed turned round corners excited the admiration of all beholders. Herr Netzsck believes that his invention will be of great use to porters and others for the carrying of light loads, and he has confident hopes that it will be highly appreciated by the numerous classes who are fond of saddle exercises but are destitute of the wherewithal to buy and maintain horses of flesh and blood; he contemplates, too, its application to the drawing of cabs and other carriages. It is even conceivable that in this convention we have the charger of the future. An animal that does not eat and cannot die would be of inestimable value in warfare. There are one or two rather significant omissions in the description from which we quote. We are not told how a man of flesh and blood is expected to support the fatigue of moving, by rising in his stirrups, a creature of iron, or if it be possible to keep it going in any place less flat than Berlin, a city which, as everybody knows, is as level as a billiard board.

Quarantine in California.

Not a few Canadians have been seduced by reports of the excellence of California climate and soil to emigrate to that country. The following item from a San Francisco paper presents a rather discouraging picture of this year's prospects in that State:—

The recent heated term lasted seven days. The highest reading of the thermometer, we believe, were 113 degrees at a few points in the interior. The damage has been considerable. One fruit grower in Alameda County lost 150 tons of currants, the fruit having been cooked so as to make it wholly unfit for market. Other fruit growers lost proportionate quantities. In short, the currant crop, which is

nearly all produced for market in Alameda County, has been ruined, to the great regret of housekeepers, who have come to regard this as one of the best fruits of the season. As for the cherry crop, while it was not so greatly damaged by the heat, a considerable part of it having been gathered, it was a poor crop from the start, and there is not much of it left after the heated term. We hear of several large cherry orchards where the lessees have heretofore sold from one thousand to three thousand dollars' worth of berries in a single season. This year the entire crop will hardly bring as many hundred dollars. What is worse, the buds for next year are not promising. The heat in many instances has burned the buds past recovery.

The destruction to vegetation was very great. In places where the mercury did not range much above ninety-eight degrees, the heat and the north wind denuded many trees of one-third of their foliage. Gardeners and others in the suburban towns have been busy in raking up leaves, as if they were autumn instead of the fresh and leafy month of June. At no time during the last fifteen years has the crop of roses been so utterly used up as during the last ten days. One may walk through extensive grounds now without finding a perfect rose. Not so many are seen now in the best kept grounds as might be seen in December. The mildew has been very destructive; then came an army of green parasites, then the north wind and the heat put on the finishing touches. Pinks, which are the glory of midsummer, were dried up in bunches with hardly more freshness left than sheafs of barley in the open field. In some places where the mercury went up a hundred degrees, apples and pears were partially cooked on the trees, and to this extent were spoiled as a remarkable crop. The grape crop, so far as we can learn, has suffered no injury. It is a little affected by heat, north wind or drought. The first of the new crop is already in the market and selling at retail for 50 cents a pound. The hot weather has pinched off a great deal of growing grain, which, ten days ago, promised to mature from half to two-thirds of a crop. This will be turned into hay. As usual in a dry season, the hay crop has turned out better than had been predicted, or rather there is a greater bulk of hay, at the expense, of course, of wheat and barley.

A Colorado Potato Beetle.

The following is a paper read before the Toronto Entomological Society by Mr. Richard Baigent:—

The capture in Pickering township of the "Black bellied *Lebia*," opens up for discussion this evening the advent in the adjoining counties of an incoming friend, one of a number of those insects designed by nature to aid in lessening the marvellous increase of the Colorado beetle. Our knowledge and experience of other insect scourges assures us that however disheartening the ravages of the beetle, nature simply requires time to marshal its forces for subjugation. It has been stated—I think too confidently and without knowledge—that because the beetle "has spread so rapidly from the Rocky Mountains to the Atlantic, and over so great a breadth of country, it is evidence of extraordinary endurance and ability to cope with natural enemies;" whereas such a state of things simply proves its entrance into fresh pastures, ahead of its foes who require time to follow it up.

A slight consideration will bring home to the most unreflecting mind, that had the insect an unchecked course in its native place, it would long ago have been starved out. In the early stages of our acquaintance with the insect, it was computed that a pair of them would produce over thirty millions in one season. An advanced knowledge now gives sixty millions as nearer the mark. Allowing the insect in its habitat, but a tenth of that increase unchecked, and the whole world would not supply food enough. The greater the capacity of increase the harder is the struggle for existence, nature ever balancing loss by reproduction. The wandering habit of the beetle is necessary not only in search of food, but as a means of escape from local enemies, who, in their turn, must follow it up or starve.

It is pleasing to hear from different parts of the Dominion of "black bugs," or "great blue flies," as our country friends call them, appearing in the potato patches making havoc among the larvae, etc. A gentleman living near Newmarket told me that he had observed the beetle egg withering up; "something or other the matter with them." On searching I found a similar state of things in Toronto, and I observed the larvae of a *Lance-fly* bit into three eggs. We have efficient

aids in the larvae of the Lady-birds, several species of which are common enough. In some localities they are getting numerous. They are invaluable friends to man, devouring, whenever they have the opportunity, all kinds of plant lice. The application of Paris green effectually kills off these useful creatures. The copper-spotted Carib and its congener, as also others of the beetle tribe, do useful work. The rapacious Soldier-bug, *Regivus raptatorius*, is numerous this year, and as the increase of these insects is dependent upon the supply of food we may feel confident of increased number of these, even providing that we do not for the sake of slight temporary advantage nullify that certainty.

The coming amongst us of *Lebia atriventricis* will be an additional aid in checkmating the Colorado beetles, but it behoves us to be careful and discriminating, and to do our part according to right reason and sound judgment. To defeat an enemy it is necessary to account him at his full value, with all that tell for or against him. We have now the second brood of beetles, who will be the progenitors of the brood which will hibernates and appear next spring, and herein we find a method wherein the increase of the beetle can be most effectually dealt with. From the laying of the eggs to the appearing of the beetle in the winged state about six weeks is required. It takes some little time for the wing cases to harden, but we can estimate that three weeks after their appearance the females are depositing eggs. The growth of the eggs and consequent laying are operations carried on independently of the will of the beetle, who, in the latter days of summer, finding no potato stalks in the early dug potato patch, will prefer deposit her eggs on grass, dried potato haulm, or anything else. Now, if in one year all were to plant early, so as to get the crops all off the ground as early in August as possible, according to locality, about Toronto, say the first week, the beetle would be nonplussed for a suitable place for its eggs; and if in the following year everybody were to plant late, the interval between the two plantings would be too long for the beetle, and it would be starved out. It might be said that native plants would afford it food; but these are insufficient, and would soon be eaten up. According to our present happy way of cultivating everybody does as he likes. The early potato planter, however ambitious he may be, is a laggard compared to the beetle, who laments the hardship in having to wait for tender tops of potatoes. The easy going planter provides plenty of summer food, while the planter of the later potatoes considerably carries the beetle on to the time of hibernating; and the beetle, if he had the gift of looking into futurity, might go to his winter sleep with the confident hope of plenty of potato food in the forthcoming year.

Neglect of Pastures.

This is the only country in the world, the *Chicago Times* says, where any pretensions are made to good farming that no attention is given to improving pastures. In taking up a new farm, the poorest portion is invariably set apart for the pasture. After the best portions are planted and sown to annual crops, so long as they will pay the cost of cultivation, the land is seeded down to grass. This is cut and cured for hay, till the farmer is ashamed of himself of the small amount he gets from an acre, when he concludes that he will convert the field into a pasture. He seldom seems to think that his pasture is his great source of wealth; that his cows get from it the materials which furnish milk; that the grass it produces makes most of the wool, beef, and mutton he has to sell; and that all his young cattle obtain their living from the pasture about seven months in every year. He seems to forget that he and his team work all summer chiefly to obtain food which the stock consumes during the winter, while his pastures furnish a supply for a longer period, without any labor being expended upon them.

Land once turned out to pasture is doomed to neglect so long as it is devoted to that purpose. Weeds and bushes are permitted to spring up and spread at will. As the grass in places becomes killed out, the spots are allowed to remain barren. A large proportion of the stock kept in the pasture are yarded at night, and most of their droppings are left, when they are taken to cultivate fields. Even those that fall on the pastures are not broken up and scattered, as they should be. The rank grasses which spring up, but which are not eaten by the stock, are allowed to go to seed, and in this way gradually extend over a large portion of the ground. No

Western farmer thinks to apply farm-yard mineral, or commercial fertilizers to his pasture. If a portion of it happens to become rich by the cattle, sheep, or colts remaining on it during the night, the chances are that he will plow it up and put it in cultivated crops; and turn out another piece of land that is in too poor condition to produce corn, grain, or hay.

In England pastures receive constant attention and increase its productive year by year. They are generally in so high a state of fertility that a good crop of hay may be harvested from them, if the stock is taken off, as done occasionally. They are manured like lands that produce annual crops, the fertilizer being applied late in the fall or very early in the spring. They are ordinarily mown at least once every season, so as to keep down the weeds and coarse grasses. By cutting them off, short grasses spring up, while the weeds and rank grasses that are cut down help to enrich the soil. The turf, once well established, may not be turned once during a century; but it is occasionally scarified by a utensil made especially for the purpose, so as to lay bare some fresh soil, on which the seed of more valuable grasses may be sown. A great variety of grasses is produced on English pastures and attention is given to seeding peculiar soils and localities with grasses that are adapted to them. In this country little or no attention is given to this matter, but the grasses are left to establish themselves as best they will. In some localities white clover, redtop, and blue grass, all good pasture grasses, will, by a process of self-seeding or extension of their roots, establish themselves over a considerable amount of ground. Under unfavorable circumstances, however, sorrel, burdock, thistles, and coarse grasses will take possession of the land.—*N. Y. Independent.*

FROM A PHYSICIAN.

Great Bend, Pa., Nov. 22, 1875.
Messrs. Seth W. Fowler & Co., Boston.

Gentlemen—For nearly two years my wife was troubled with a lung difficulty. After enduring the trial of many medicines, she was persuaded to use Dr. J. C. FARRAR'S WILD CHERRY. After using two bottles she experienced great relief, and after she had taken six bottles she was freed from her cough. I wish to express my thanks to Dr. FARRAR'S BALSAM OF WILD CHERRY.

J. T. PAYNE, M. D.
50 cents a bottle. Sold by all druggists.

HARPER'S MAGAZINE for September is distinguished, not only by the beauty of its illustrations—which there are nearly one hundred—and the interest which attaches to every article in its contents, but only by its remarkable variety—touching upon every field with which it is possible for a magazine to concern itself.

For lovers of natural scenery there are the admirably well illustrated papers on Prince Edward Island and Mount Shasta—the latter being a description by John Muir of a snow-storm of the top of the mountain, especially interesting to scientific readers, while it is full of striking incidents and effective pictures covering every phase of Mount Shasta scenery.

The scientific reader has also Dr. John W. Draper's exceedingly interesting paper on thermometers, with nineteen illustrations.

For those interested in art, there is Mrs. Helen S. Conant's well-considered and entertaining paper on the "Domestic and Artistic Life of Titian," with seventeen effective engravings.

Especially timely are the three papers devoted to commercial and industrial interests. The first of these, entitled "The Landing of a Ship," is a beautifully illustrated article, not only explaining every process suggested by the title, but also investing the subject with the poetic associations inseparably connected with the greatest commercial mart on this continent. Edward Howland's thoughtful paper, entitled "A Railroad Study," will command the attention of every reader, prominently in view the often-forgotten interests of the stockholders and agricultural producers in connection with the railroads. In a brief paper, entitled "America," the Rev. Leonard W. Bacon presents some facts as surprising as they are gratifying.

All readers who are interested in our educational progress will find two very suggestive and instructive papers in this Number. One, contributed by Horace E. Scudder, is entitled "A Group of Classical Schools," and is illustrated. It examines in detail the work which has been, and is being, done at Phillips Academy, Andover, Massachusetts; Phillips Exeter Academy, in New Hampshire; and the Adams Academy, at Quincy, Massachusetts. A second paper, in the October Number, will in the same way treat the Boston Public Latin School; Williston Seminary, at Easthampton, Massachusetts; and St. Paul's School, at Concord, New Hampshire. Another educational paper, by Miss Anna C. Brackett, discusses the comparative efficiency of large and small schools.

The historical paper of the Number is devoted to "General Shack and the Battle of Bennington," and is effectively illustrated.

Two articles of especial interest are contributed: "Tom Moore in America," by Benson J. Lossing; and "Waifs from Motley's Pen," by Park Benjamin, Jr. The latter contains a hitherto unpublished letter, of a very remarkable character, written by Motley just after Polk's election to the Presidency.

For readers of fiction there are four fresh chapters of Blackmore's powerful novel, "Erebus," a humorous illustrated story, entitled "Shadows," by Mrs. E. T. Corbett "Maussell," by E. A. Mooney; and "A Visit to a County-House," and what comes of it," by Annie T. Howells.

Two beautifully illustrated poems are contributed: "Ali," by Mrs. Harriet Prescott Spofford, illustrated by Fredericks; and "The Pastor's Reverie," by Rev. W. Washington Gladden, illustrated by Abby. There is also a beautiful anonymous sonnet, "A Late Wild Rose."

The five Editorial Departments make up, as usual, the most interesting portion of the Number.