

# FARMERS' GAZETTE

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W. T. TRUMAN,  
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### REMARKS ON THE RINGING OF FRUIT TREES.

Ringed trees cut off the part operated upon from the circulation of the sap, and necessitate it to subsist principally on the nourishment which the leaves derive from the air. We will not say in what respects this nourishment differs from that which the tree derives from its roots; but we will remark that nature provides abundance of leaves for these buds which she intends to produce flowers.

Peach and apricot trees will not bear ringing, because they always produce their fruit on the young wood; and the vine still less, because it bears on the growing shoot. Ringing does not advance the fructification of either plum trees or young cherry trees; and it is apt to produce the gum in old trees of the latter species, as the wound is a long time before it heals. Apple trees thrive above the ring; and, if they live, they do not soon bear any fruit. The pear tree thus remains the only species of fruit tree on which the operation of ringing can be practised with advantage.

Ringed trees produce their full effect when undertaken in the spring, at the first appearance of the movement of the sap, and as soon as the bark begins to crack. The wound ought not to be wider than the thickness of the blade of a knife, if it is desired that it should heal before the end of the season. The operation ought to be performed on a side branch which is rather stronger and more elevated than its neighbors; or one which is badly placed, and which, in the end, may be removed without disfiguring the tree. A tree will not bear ringing either round the trunk or round the leading shoot, unless there should by chance be a second leader, and one may be removed without injury.

The tree which has had its trunk operated upon is in danger of either perishing, or remaining a long time in a sickly state; and, after it has recovered its health, its sterility will be more durable than if it had never undergone the operation.

If a branch is ringed too close to its base, or the point where it is inserted into the trunk, it will be in danger of being beaten down by the wind, or broken by the weight of fruit. A good place is at a quarter of the length of the bough, and beyond other side shoots, the eyes of which will also generally produce fruit.

The upper lip of the wound swells considerably, and the more so according as the ring has been broad, or the season far advanced. This tumescence of the bark is partaken of by the wood; and the formation of this tumor proves that it is principally by the descent of the sap, which has been elaborated in the leaves, that the tree increases in girth. It rarely happens that a pear tree, operated upon when it has attained the age for bearing, does not go into flower the same year that the operation is performed. There are, however, cases in which the repugnance of a tree to flower resists the efficacy of this method; these occur with all drooping trees, and whenever the wood is hard and rough; and, when a last trees of this description do show flowers, it is upon another branch rather than on that which has been operated upon.

The eye which is constricted by ringing to form its flowers prematurely, is of the same description as a similar eye springing from the young wood; the flowers, in both cases, are very liable to drop off; and the fruit, when it becomes ripe, is deficient in color.

The fruit of a branch operated upon, if it comes to any thing, owes its strength to the state of suffering of the bough which bore it; is unequal in bulk, very often small, worm-eaten, dry, cracked, gritty, and of an excessive sweetness, which it obtains at the expense of its juice. The fruit should be reduced, by thinning, to a very small number if it is wished that they should attain perfection.

The new property which I have discovered to belong to ringing is that it causes the eyes of branches which have not undergone the operation, to flower also; and that these are almost always immediately opposite to the branches which have been operated upon, or a little above those branches. There is not a single case known where this effect has not been produced, though till no one has remarked this excellent property, which is itself sufficient to prove the advantage, and perpetuate the practice, of ringing; because it not only makes the wounded branches produce fruit, but by throwing those branches into bearing that are not mutilated, it ensures a fertility to the tree which is not likely to be soon interrupted.

Another mode of bringing fruit trees into bearing is, to take a ring of bark from some of the principal roots, at a little distance from the trunk. The ring ought to be more or less broad, according to the thickness of the root. The operation may be performed at any season, in April or May, as well as in August or September, without there being any reason to fear the extravasation of sap, which is so prejudicial to the tree when the roots are pruned in the spring. A year, however, is gained when the operation is performed early in the season. There is no occasion to apply any dressing or covering to the wound: in fact, there is no occasion to do anything more than to draw the earth round the tree and to tread it down firmly with the feet. If the roots are not ringed all round the tree, the opposite side to that on which the incision has been made will bear fruit; which coincides with the effect produced by ringing on the branches, and denotes a physiological fact which has not been hitherto noticed. The wound heals so rapidly, that in about a year no traces of it can be discovered, except a few wrinkles in the bark. No excrescence is formed, and no other roots are sent out, either from the lips of the wound, or above or below it; at least, none that can be supposed to have been occasioned by the incision. The root operated upon appears, indeed, less likely to send out suckers than any of its neighbors. The fruit does not, in the slightest degree, participate in the state of disease or suffering in the tree, which has thrown it into bearing.

The wood of the shoot below the incision bursts almost always from the bark, or the lips of the wound: this wood is of the kind called false; and the buds of it ought to be rubbed off as soon as they appear; as preserving this wood can only injure the bark, and retard the healing of the wound.

The principal object of ringing ought to be, not to throw known varieties prematurely into fruit, or to make trees bear on which other resources may be resorted to in order to produce the same effect (such as shortening the largest roots, pruning the trees after the sap has risen, &c.); but to force young seedling plants to show early the bud or good quality of their fruit. It must, however, be used cautiously, as it sometimes does injury instead of good, and when applied to the side branch of an espalier, it produced no other effect than that of rendering wood sterile which was before only backward in bearing.

Ringed trees produce a marked effect on the fertility of a branch more than once; if repeated the following year, it more frequently produces sterility, than a continuation of bearing.

The mode in which ringing affects a tree is precisely similar to the effect produced by many other modes of suffering which are employed to throw trees into bearing: such as bending the tree, breaking or twisting the branches, transplanting, &c., and it should only be employed with one branch at a time; it cannot be applied to several branches at once, without disfiguring, and probably ruining the tree.

### Gardener's Magazine.

#### RAINY DAYS ON A FARM.

Many a people look upon the business of farming, as a very simple affair, adapted to the meaneast capacity, and not requiring much either of reflection or forecast; and in the way it is often conducted, it must be admitted, such a supposition is not very wide of the truth: but a farmer who takes a pride in his occupation, and regards it, as every one should, as an intellectual pursuit, makes it of a very different business.

On every branch of it he makes inquiry and bestows thought.—Not an operation is performed that he does not ask himself the question, why is this done at this time—and in this manner? Not an implement is used in the operation that he does not examine the materials and structures, to see if it not be practicable to attain greater economy, strength, durability or efficiency, in the one or the other.

Suppose his manager to suggest, or that the custom of the neighborhood is, to plough for corn in autumn, he will naturally ask, why is this? which is now, in a more or less degree, covered with some sort of grass or herbage, to be broken up and exposed, to have its body alternately thawed and its soil to be washed into the valleys by melting snows and rains, especially as in other cases it is admitted that few things improve poor land sooner than covering and keeping it warm; by stacking hay on it or otherwise? This single inquiry will lead to multifarious investigations and much reading; and so as to the best form of cattle and other domestic animals, and the best manner and principles of breeding, rearing and fattening them; with questions innumerable, that require him to make a comparison of opinions and practices—of breeds, of climates, of means, of markets &c. So that instead of farming being an intellectual pursuit, there is not one perhaps in the scope of human employments that opens a wider field for diversified reading, careful comparison and scientific research. No situation in life where fondness of books, and a habit of mental exercise, conduce more to intellectual enjoyment, as well as to practical success.—Without these resources, by which alone, we were going, impudently to say, man is elevated above the brute, how is he to dispose of the long nights of winter, and the rainy days of all seasons? In towns he can have recourse to oyster-balls and the gaming-table, in the excitement of liquor and of play, be-

coming careless alike of his family and his own dignity. In the country it is not easy to find such relief or indulgence for ignorance and sensuality. Many there are it must be admitted, and most successful farmers too, whose opportunities have, unfortunately, not been such as to admit of intellectual cultivation. Would the blessing of education, they enjoy not the pleasures, neither do they possess the tastes that education only can generate; but if such men become conspicuous by force of method and industry, what may we not suppose they would achieve for themselves and the community, if to these exemplary qualities and habits, they united the rudiments of various knowledge, and the principles of the sciences applicable to their business, with the power of analysis and investigation which they impart? Suppose you could combine in the same person, the natural energy, sagacity and experience of a Crawford or a Tucker, with the scientific attainments of Sir Humphrey Davy? You would then have men to go ahead in the salutary and honorable race of agricultural competition, as old Billy Johnson does on the turf—with Arthur Taylor at his heels!

It is his duty to think before hand and provide work suitable for all hands for rainy days, so that every mother's son and daughter too shall escape the curse which is denounced against those who "eat the bread of idleness." Instead of having no occasion for forethought in what business or profession is there so much? The doctor has but to keep on hand a good supply of powders and elixirs—to have his horse in the stable, his calver ready, and his lancet bright—and for the rest, to put his trust in Providence for a sickly season.—With the mechanic and his "Trades' Union" and its ten-hour system, all is plain sailing.—The mariner has but to keep one eye on his compass and the other on the heavens, standing ready to shorten or make sail, and fearing no surprise—while the farmer has to be constantly and anxiously looking ahead to see that his work does not drive time, instead of driving his work—His wheat must be sowed—his corn planted—his grain harvested—and his tobacco, as well as his hogs—his bulls—his lambs and his pigs must all be cut at the right time, as must his sheep be yeanned and shorn—his hogs littered, and put up and killed—All should be so contrived, systematically, and for reasons to come about at the right time, neither too soon nor too late. But we are again straying from the point in hand.—This general and constant care and necessity for before-hand cultivation, will be admitted by all, and as a general rule it would perhaps be well for the young farmer, instead of consulting the almanac and the moon for the time of doing this and that, to lay it down as a governing principle to do every thing a little sooner than his neighbors. In that case he will have the pleasure of pushing his work before him, as a good housewife has her negroes clothes spun and wove, and her stockings knit; and her candles dipped, and her lard rendered before Christmas. But what we mean, in the beginning, was to deprecate that short-sighted management under which the force on the farm, is often caught without appropriate and profitable employment for a rainy day. The farmer or manager who is thus caught napping, deserves to be punished as the N-W England puritan was wont to be, under the blue laws, for spitting in church—he should "be made to stand for an hour with his tongue in split stick." It should be his care, let the day of rain come when it may, to have in-doors work prepared, such as is adapted to the age and capacity of every worker on the farm. For some he may have corn to shell—for others wool to be carded and spun—for others tobacco to strip, or sows to sharpen, in an out-house or shed out of the weather, or a stable or poultry-house, (which by-the-by every farmer ought to have), to be sawed, or flax to be broke or swinged, or grain to be thrashed, or seed to be rubbed or beaten out, or meat to be hung up—hogs and axes to be helved and ground, yokes and bows to be made and mended, white-washing in doors of all the negro houses and stables, with various other things, which require that the materials, &c., be prepared and in place, ready for use without loss of an hour; for time is money, and as poor Richard saith, he who is always calling "time enough," always has little enough. The good housewife can suggest something in her department, rather than let any body be idle. Thus, without recourse to ill-humor, to cards, the dice box or the bottle, to keep off the blue devils, the most busy and most profitable days, may be the rainy days on a farm.

**American Farmer.**

From the Cultivator.

**CHEAP STEAMER FOR ROADS.**

The best and cheapest apparatus for steaming roads, &c. we have yet seen, is made, by putting to a box of the required dimensions for cooking or steaming, a bottom of sheet iron, and setting this box on an arch of brick or stone-work allowing about four inches of each side of the box to rest on the brickwork. Let the box be made of inch and a half or two inch plank; the sheet iron with a double row of holes for nails, secured to the bottom of this, will be water tight; and a false bottom made of a board, and perforated with numerous holes, with cleats nailed on to lie on the iron bottom, and prevent the roots burning on it, complete the steamer. We have used one made on this principle, for

several years, and know of no plan which will cook food with equal rapidity and cheapness. Our steamer holds 15 bushels, and the fuel required is but a trifle.

**MR. SILLIMAN'S SPEECH,**  
 Delivered at the First Agricultural Meeting, held in Boston, Jan. 13, 1840.

After Mr. Webster closed, Mr. Silliman began by remarking that he was taken wholly by surprise, nothing having been farther from his thoughts than to say any thing on this occasion. Indeed after the remarks from the honorable gentleman who had just spoken, to which he had, in common with others, the pleasure of listening, there was little that need be said by any one. On an occasion so gratifying as the present, and offering objects of inquiry and discussion so highly important and interesting, he could not, however withhold the expression of his own personal interest in the case and what little aid might be derived from his concurrence.

In the statement relating to British husbandry, made by the honorable gentleman who preceded him and in the impressions which that gentleman had gathered from his observation of rural and agricultural life in England, he expressed his entire assent and sympathy. In a visit many years since made by himself to England, he derived from similar though far less perfect opportunities of observation, great pleasure; and he left the country more than thirty years ago, with a strong admiration for the extraordinary improvements and advances made in this great art, in that active populous and intelligent community.

The British nation had long since arrived at the conviction, which experience and further inquiry had served only to confirm and strengthen, that science in all its influences might, and must substantially aid to agriculture. They therefore have largely availed themselves of its aid in the chemical examination of soils and manures, with a view to ascertain their uses and correctives.

The popular impressions formerly entertained, that little was to be gained in agriculture by the application of science, are in a measure removed. Nothing could have less foundation in reason or fact. The advantages of the judicious application of knowledge to art, are every where obvious. All the arts of life have their foundation in knowledge; and all the improvements of mechanism from a wheelbarrow to a chronometer, are due to science and mechanical philosophy. I will be found true in relation to every thing connected with human improvement and comfort, even in the commonest department of life, the more knowledge the better.

Inquires into the nature of soils, are of great importance; and in respect to many soils not either wholly unproductive or uncongenial to certain crops, science may enable us to apply the necessary alternatives or correctives. Although we cannot fabricate in a laboratory the soils of a country, we can discover their composition and ascertain their deficiencies; the deficient ingredients may be supplied, and although it should be in small quantities, it may be done in a form that may be generally practicable, and may essentially change the character of a soil.

The honorable gentleman has, without doubt truly assigned the causes of the mildness of the climate of western Europe, and especially of Great Britain; and he has indicated with equal clearness and truth the causes of the comparative coldness of the Eastern countries of North America. In this connection it may be remarked that the western countries of this continent enjoy a climate far milder than the eastern.

The climate of these western countries is affected by their position in relation to the vast Pacific ocean, which produces an effect similar to that of the Atlantic ocean upon Europe, but in a far greater degree. Thus the climate corresponds to a considerable degree with that of the western shores of Europe. Its mildness is such that the plough may be driven nearly or quite through the whole year. Its temperature is, perhaps, considerably affected by its geological formation, and by the extensive range of volcanoes, which stretch along its shores, and some of which are still breathing forth their internal heat. Here every thing is on a vast scale; and the agricultural products will at no distant day, become abundant and highly important. We cannot indeed alter the climate of a country; but we may in some measure accommodate our husbandry to its peculiarities and variations.

The larger portion of the soils of New England as stated by the honorable gentleman, is undoubtedly derived from granite and other primary rocks; and many of the red sandstone soils, such as those in the neighborhood of New Haven, are in fact composed of the principles found in granite rocks. Argillaceous soils, or those which are derived chiefly from the decomposition of argillaceous or clay slate, abound likewise in many parts of N-W England and of Massachusetts, and being retentive of water, are found highly productive in grass and grains.

A considerable part of the nutriment of plants is undoubtedly derived from the air and water or its elements, and constitutes a large portion of their food. The composition of water is now well understood, and we may with safety, in the presence of this intelligent assembly, speak in technical terms of the constituent parts of water, hydrogen and oxygen, which enter largely into all vegetables. Carbon, which forms also a large part of all plants, though it exists

in comparatively small proportions in the form of carbonic acid gas in the air, is yet derived from innumerable sources and supplied to the growing vegetables in abundance. The effect of light upon the green leaves of plants is to decompose the carbonic acid and the carbon is absorbed to nourish the plant and the oxygen is evolved into the air; thus it separates from the atmosphere an important element of nutrition, supplying it in the form of food for the plants.

Mr. Silliman further alluded to the curious fact in the constitution of nature, that notwithstanding the superior density or specific gravity of carbonic acid gas, it being much greater than that of the elements of which the atmosphere is composed, it is nevertheless found in abundance in the elevated regions of the earth and even on high and barren mountains contributes in an important degree to the support of plants and of trees. If the air and water afford the most important elements of plants, it may be asked, what then is the use of the soil? Its first use is to furnish a point of support in which the plant can fix itself; but it doubtless contains many things which water serves to dissolve, and hold in solution, that they may be taken up by the plants. He expressed his belief that in most of the soils in New England and in Massachusetts, the principal element wanting is lime. This abounds in the western district of New York, and renders those lands, as in Genessee for example, on the magnificent farm of Mr. Wadsworth, extraordinarily productive in wheat.

The addition of lime to our own soils, he considered of great importance. Our shores abound in shells, whose base is lime, and which are capable, by being burnt, of being converted into the best of lime. New Haven, the town of his own residence, abounds in oysters, both natives and those that in great numbers are colonized there from Virginia. The shells are burnt for manure and applied to the land. The soil of New Haven and its vicinity is derived from a species of red sandstone; but this was composed of the elements of granite, quartz, mica and feldspar, the ruins of granite and other primary rocks.

An interest in agriculture is now awakened in Connecticut, which promises the most valuable results; and improvement in cultivation are rapidly advancing. He agreed in the estimation of the Commissioner of Internal Revenue, that one hundred bushels had been repeatedly produced in New Haven upon an acre. A caple show and agricultural and horticultural fair have been held in New Haven annually for several years—the last autumn in particular, with a spirit which evinced the lively interest taken in the subject; and he had the pleasure on that occasion of seeing one hundred yoke of very fine oxen from East Haven, attached to a plough, and the plough held by a venerable man of ninety-six years of age, who laid a furrow along the public square.

In his own opinion, there was no occasion, in an agricultural point of view, to despair of Massachusetts or any part of New England. There were no evils or disadvantages connected with the climate or soil, which could not be met and overcome. It was a great and lamentable error that so many of our young men deserted the pursuits of agriculture to crowd into the trades of cities.

He reverted again to the value and importance of chemical knowledge to agriculture. The analysis of manures was a subject of great and indispensable importance. The knowledge obtained from geological and agricultural surveys and chemical investigations, could not be too highly estimated; and the State could expend no money to more advantage than in procuring them. This patronage should not be withdrawn or withheld; and the withholding of it could arise only from a want of a just appreciation of the value of these branches of science. He alluded with much respect to the late eminent Judge Buel, whose skill in the science and application of manures was a just subject of eulogy, and whose success in converting a portion of the barren and unproductive soil in the vicinity of Albany into fertile and unproductive fields, was well known and honored.

He pressed the importance of a Board of Agriculture, and congratulated Massachusetts upon the spirit and liberality with which she had regarded the improvement of her husbandry. The subject could not receive too much of her concern. It stood second to no interest but those of a moral and religious character, and indeed it might be said to be nearly allied to them also, since habit of rural industry are the most favorable to good morals. The value of science, in this case, could not be too highly estimated. Here science might be regarded as the eye, and practical skill the hand, by which this great art was to be carried forward to perfection.

From the Carolina Planter.  
 To the Editor of the Carolina Planter:

**SIR:**

While I acknowledge the true and proper intention of an agricultural Journal to be the excitement of zeal in husbandry, and the diffusion of knowledge on the subject, by the publication of individual experience, and the suggestions of science, I think, nevertheless, that great good may be done by one who aims to restrain the first sought effect, or at all events to divert its pursuit into a prudent and humane channel.

No apprehension need be entertained of the over success of philanthropists, who aim to inculcate moral truths—to promote

the practice of forbearing and self-denying charities, although their reward is represented to be Paradise itself: but at all times in the history of the world, (and not the less so in this 19th century,) it has been, and is lamentably the fact, that all means for the advancement of pecuniary interest have been employed to excess; and that general benevolence and future good have been too often sacrificed to present profit.

We of the present day are not only utilitarians in the extreme sense of the term, but all our operations are required to give immediate results—it being regarded too exclusively disinterested and patriotic, so to improve the homes of our fathers and selves, that they may be the same to our children; or to advocate such a system of husbandry as will prevent our State from becoming a cleared and barren desert.—Some of your correspondents urge against my view, that children rarely reside where their fathers did before them—and that in seeking the more fertile regions of the West, they leave the expensively improved family estates to indifferent strangers. But I maintain that the improvident management of their plantations by fathers, is one—the chief reason why their children do migrate, and sacrifice all those comforts and refinements—the appointments and effect of a stationary society, for the semi-civilization of a new country, and a heterogeneous collection—not a society, of men drafted from various sections of the country, and graduates of rank.

Who would not prefer that his son should reside where his ancestors had resided—amongst the friends of his father and grand father—become kindred by long friendship—and the companions of his school days, with whom he had oft "paid" the barn, from morning sun till dine; "with all the appliances of genteel comfort, and incentives to refinement, than to have him plunge into the rude wilderness, to contend with and become assimilated to mere adventurers of fortune? Better that he remain in the one condition, with competence and a well preserved plantation, than subject himself to the other, with the additional amount of wealth—which was at once the cause and effect of the ruin of his nativity.

What is the true value of property? Is it to simulate the pecuniary appetite which it ought to appease! To destroy the contentment which it ought not to perfect? To lead one from the refinement and civilization—from the courtesies and charities of life, which it ought to create and foster? If we were destitute and rude, we perhaps would covet wealth for the purpose of securing to ourselves and children the very mental and moral perfection, and bodily comforts, which many who are possessed of that wealth, consider it expedient to barter for the indefinite and useless enhancement of that wealth.

Sam Slick says, "zealous and undivided attention, bestowed upon one pursuit, will in ninety nine times in a hundred, ensure success." And I say that faithful and economical husbandry will bestow upon its author, a fair competence, and retain his paternal estate unimpaired for his children, upon almost any soil comprised within the limits of our State.

And by long dwelling upon any spot, a people may become attached to it above all fairy pictured lands, and really enjoy a happiness in their long cultivated social intercourse, worth far more than all that debt, speculation, and Bowie-knives, can impart.

Is there in the whole world a scene more dull—monotonous—uninteresting—than the flat and piney regions of the southern seaboard? I have read of the trackless deserts of the eastern world. I have heard of the rolling, sea-like prairies of our own extensive West—and I have travelled over many a weary mile of varied country, from Mount Washington—bleak New Hampshire's pride, to the flowery savannahs of voluptuous Carolina and Georgia—and yet, I confess I have never conceived a scene which I thought so little exciting and striking.—I speak not its fertility, for it lacks not that, so much as beauty of landscape to arrest the eye and attach the hear.

On the other hand I have read of Sparta's martial bands; of Roman pride and love of country; of the hardy cantons Swiss, whose love of their sturdy rugged home is a by word, and a theme inspiring to the great Scott himself; of Poland, who, for the patriotism and valor of her sons, has become a military watchword on the eve of battle; but I have never known a land more loved—more valued.—than a spot in that region that I was of, by those who claim it as their present home their father's birth-place. And why is this? Born to competence which their ancestors, by undivided, single minded industry, had obtained from the moderate soil—inheriting as a part of their patrimony, feelings of locality and aristocracy, and restrained by the dalliance of ease and luxury, from exploring other sections of the country, and therefore preserving the characteristics of their social and hospitable Hugenot race, they sank voluptuously into a state of contentment. While they heard with feelings of surprise and admiration of the teeming fertility of other sections of our wide domain, not a spark of jealousy mingled therewith, nor was there the least disposition to exchange for such generous soils, their own swampy or pine-ridge estates.

What frugality, industry, the thorough cultivation, manuring, and rearing of their soil, could not make up of that wealth of which they heard, they knew to be empty