



EFFECTS OF COLD ON FRUIT TREES.

The Hon. Marshal P. Wilder, President of the American Pomological Society, in a late address before that body upon the vicissitudes attending cultivation, alludes in the following terms to the great disparity between the fruit crops of 1861 and 1862—the former having been very meagre, the latter more abundant than ever before known. His deductions may furnish a clue to some of the unexplained freaks of Jack Frost upon the fruit trees of Deseret in time past:

The previous autumn had been marked with an early and very severe frost. On the morning of Oct. 1, 1860, the mercury fell in the vicinity of Boston to twenty-four degrees Fahrenheit, causing the apples and other fruits to freeze on the trees, and in some instances to burst open. This was the most severe of any on record, so early in the autumn. Again, on the morning of Feb. 8, 1861, the mercury fell in several places around Boston to twenty-five degrees below zero, a degree never before recorded at this season. The previous day had been mild and pleasant. Again, early in the month of March, the fluctuations of the mercury were equally astonishing. The third day was warm and agreeable; the thermometer at Dorchester, four miles from this city, stood at seventy-five degrees at two o'clock p.m., and at eight o'clock, at sixty-five degrees; and although no very severe cold succeeded immediately, yet on the morning of the 18th inst., the glass stood at zero. These extremes of temperature were most unusual and unnatural, and not only destroyed the crop of fruit, but injured many trees past recovery, especially peaches, plums and cherries. These vicissitudes serve to illustrate the comparative vigor, hardiness and power of endurance in some varieties of the same species, and develop different degrees of susceptibility in others, and thus furnish most useful information to the cultivator.

From this experience we deduce the fact, that some varieties of the pear are even more hardy than the apple, a fact which a little reflection will sustain. Thus among the few pear trees which here bore abundantly in 1861, were the Vicar of Winkfield, Louise Bonne de Jersey, Urbaniste, and Belle Lucrative, while the apple, and most other varieties of the pear, failed of a crop. With me, during the last thirty years, the apple has many times failed, while these varieties of the pear have produced fruit annually.

Whether the cause of the revulsion just noted was the frost of October, 1860, destroying, as it did, the germ of some of the flower buds of trees and shrubs, or whether the sudden alterations of heat and cold in the winter and spring of 1861 produced this result, or whether, as seems more probable, it is to be ascribed to these two causes combined, we cannot with certainty decide. If there were some localities in which this injury was less, it is not unlikely that circumstances which affected one region might not be so active in another. The effect of a bright sun, or of keen, dry piercing winds, immediately succeeding the frost, would intensify the damage; and, on the contrary, a cloudy sky and humid atmosphere would modify and ameliorate it. But my object is not to discuss at length this subject, but only to record the facts in our national annals, for the information of physiologists in our own and other lands, whose professional business is to observe these freaks of nature, and to give us their philosophy in the case.

Some of our scientific horticulturists may not wholly coincide with the views of Mr. Wilder, but his known experience and long connection with the pomological interests of the country give weight to the arguments adduced, which will ensure for them a careful reading and comparison with the past observation and views of others, from which facts may be elicited both reliable and of practical value in this locality.

The *Country Gentleman*, in its comments on the above extract, recording additional illustrative facts of interest in the same connection says that, "the effect of very severe cold on the trees, when they are not killed, often lasts a long time. In the winter of 1854-5, the thermometer fell 26 degrees below zero (and in some places lower) in Western New York,—nearly twenty degrees lower than usual. Hardy trees were visibly affected for a long time. A weeping ash, for example, was retarded in the opening of its foliage until summer; on one part the leaves expanded early in summer; another portion not till after midsummer. There is no question that while in this doubtful state, another occurrence of unfavorable weather would have had a greater effect on the tree, than on one fresh, vigorous and uninjured. Many years ago, some experiments were made on a half-hardy ex-

otic grape. A part of the vines were laid down and covered with an inch or two of earth; another part was laid down and left uncovered; and the remainder was left on the trellis. All survived the winter. The covered portion opened its foliage early and grew vigorously; the laid but uncovered part came out next in leaf; while the fully exposed vines were long in starting and more feeble in their subsequent growth.

In the case we have quoted from President Wilder, there is no question that the severe cold so early in autumn, while the shoots were not yet fully matured and hardened, enfeebled their vigor, and rendered them less able to withstand the intense winter cold which followed. Either attack alone would perhaps have produced slight effects; both together would be apt to produce serious results.

From all facts of this kind, we like to make practicable deductions. Some years ago, after a very severe winter, which destroyed the crop of the Isabella grape, an extensive vineyard owner informed us that if he had expended one week in laying down his vines the previous autumn, it would have saved him two thousand dollars. But he did not adopt the practice afterwards. If such a winter occurred but once in ten years, it would be a profitable expenditure to pay a man ten dollars for the week's labor as an insurance,—the probable and average security amounting in value to two hundred dollars annually. The vines would of course have to be pruned and trained in a manner to admit of this course—not only for the purpose of admitting their bending to the surface of the earth, but to secure a thorough ripening of the wood of the canes, without which covering with moist earth frequently does more damage than benefit.

The protecting influence of evergreen boughs has been long since proved, and in localities where an abundant supply of evergreens may be procured, it would be interesting and probably valuable to carry on a series of experiments for a term of years in the way of protection. The difference between exposure to sharp cutting winds and bright sunshine immediately after hard freezing on the one hand; and shelter from both by even a thin covering of evergreen boughs on the other, may often amount to the difference between a fine crop of fruit and no crop at all; and in some cases to the life or death of the tree. Such a protection is very quickly applied; an active hand would cut a wagon load and encase a large number of fruit trees or grape vines in a single day. But, experiments for a single winter are not enough—they should be continued for at least ten years, through all the varieties of cold and mild, wet and dry, still and windy winters. Who among our readers have enterprise and perseverance enough to devote a day annually to such an experiment, which, connected with close and recorded observation, may lead to valuable developments?

FENCE LAWS OF NEW YORK.

At a late meeting of the American Institute Farmers' Club, Joseph Blunt, Esq., stated, in a few words, the substance of the New York laws in relation to fencing—as follows:

The law does protect a man's property. His real estate and its product are his, and they lie under the protection of the law, whether fenced or unfenced. Any man invading his land, either in person, or with his flocks and herds, is liable for all damage. He has no more legal right to ravage, or to send his cattle to destroy his neighbor's unfenced grain, than he has to cut down his neighbor's unfenced woods. They are all equally under the protection of the law. Men must be made to feel that domestic animals must be domesticated, i. e., kept at home. That if they wish to keep domestic animals, they must take care of them, and be responsible for their conduct. This is a desirable consummation. It is the law of the land, and would probably be universally adopted as a practical law, were it not for a statute passed April 18, 1838, which denies to a person liable to contribute to the maintenance of a division fence all right to damages incurred by reason of his portion of such fence being out of repair. This act, however, is limited to division fences, and does not apply to any other. All road fences and other than division fences kept up by adjoining owners fall under the general law, which does not impose upon the owner the duty of protecting his cultivated lands from stray cattle.

These provisions for the protection of crops against the ravages of unruly beasts, it must be evident, are based in equity; as the passage of an act compelling landowners to fence out the stock owned by others would not only be "unconstitutional," as alleged by the *German-town Telegraph*, but bordering on the ludicrous.

The cotton crop of Illinois this year will amount to 20,000 bales of upland quality.

THE ALANTHUS TREE A NUISANCE.—All the trees of this species—sometimes called the Tree of Paradise—about sixty in all—having become very offensive—have been removed from the capitol garden at Washington.

The sorghum crop in Illinois is estimated to amount to \$4,000,000 in value the present year.

THOUGHTS ON HORSE-SHOEING.

We find in the *Prairie Farmer* the following communication from the distinguished veterinary surgeon, Dr. G. H. Dadd, who, we believe, now resides at Chicago. The subject of horse-shoeing is not half as well understood by those following it as a business as it ought to be. We think Dr. Dadd assumes a position in regard to the form of the shoe that cannot be gainsaid, and we therefore invite to it the attention of all shoers.

An iron shoe affixed to a horse's foot is one of the unavoidable evils of domestication; yet, when understandingly applied, the addition of an iron protection to the horny substance of the foot is not so great an evil as some persons might suppose.

One of the principal objects in applying a shoe, is to protect the foot; next, we must aim to preserve the natural action and tread of the foot. With this object in view, the shoe should be made concave on the ground service.

An unshod horse, or one in an aboriginal condition, has a concave solar surface to the foot; and wisely is it so ordained; were it otherwise, the animal would be unable to secure foothold when climbing eminences or traveling over level surfaces.

The action of concave feet may be compared to that of the claws of a cat, the nails on the fingers and toes of man; the nails and toes are the fulcrums; they grasp, as it were, the bodies with which they come in contact, and thus they secure a fulcrum of resistance when traveling or grasping.

Now in order to preserve the natural, mechanical actions of the horn and sole, the ground surface of the shoe must correspond exactly with the ground surface of the foot; that is to say, the ground surface of the shoe must be beveled, cup fashion, its outer edge being prominent, corresponds to the lower and outer rim of the hoof; while the shoe being hollow, it resembles the natural concavity of the sole of the foot.

Notwithstanding the various opinions which now prevail, in regard to the general art of shoeing horses, I think all will sooner or later confess that a shoe with concave surface next the ground, is the only proper one to apply.

No matter what may be the form of the foot; whether it be high or low heeled; contracted at the heels; lengthened or shortened at the toe; or, having a concave, or convex sole; it matters not, the ground surface of the shoe must be convex.

In every other part of the shoe alterations and deviations, from any given rule, or form, are often needed, in consequence of the ever varying form of the foot, and the condition of the same, both as regards health and disease; but the sole of the foot being concave presents a pattern for the ground surface of the shoe, which the "smith" with all his skill, cannot improve on, and if all such craftsmen were to follow this pattern more closely than they do, there would be fewer accidents in "falling," and a less number of lame horses.

A PARADISE OF A PLACE.—Batavia the capital city of the Island of Java, according to the description of a newspaper correspondent is a brilliant specimen of oriental splendor. The houses, which are as white as snow, are placed one hundred feet back from the street, the intervening space being filled with trees, literally alive with birds, and every variety of plants and flowers. Every house has a piazza in front, decorated with beautiful pictures, elegant lamps and cages, &c., while rocking chairs, lounges, &c.; of the nicest description furnish luxurious accommodations for the family, who sit here morning and evening. At night the city is one blaze of light from the lamps. The hotels have grounds of eight and ten acres in extent around them, covered with fine shade trees, with fountains, flower gardens, &c. Indeed so numerous are the trees, the city almost resembles a forest. The rooms are very high and spacious, without carpets, and but few curtains. Meals are served up about the same as at first class hotels in the United States, although the habits of living are quite different. At daylight, coffee and tea are taken to the guest's room, and again at eight o'clock light refreshments. At twelve breakfast is served, and at seven dinner. Coffee and tea are always ready, day and night. No business is done in the streets in the middle of the day, on account of the heat. The nights and mornings are cool and delightful; birds are singing all night. The thermometer stands at about 82 degrees throughout the year. The Island of Java contains a population of 10,000,000. The island abounds with tigers, leopards, anacondas, and poisonous insects of all kinds. The finest fruits in all the world are procured in great profusion.

"MORMONISM" IN FRANCE.—An exchange says:

"A prophet from Utah has appeared in Paris. Fearing that the police would not allow the public dissemination of the marvelous doctrines of his sect, he has committed to the press a volume which seems to promise to have an extraordinary circulation, if its contents are correctly stated. M. Bertrand, the missionary in question, is a Frenchman, and Brigham Young has dispatched him from the great Salt Lake to preach the doctrine of the last days of the Saints."

—To keep warm on a cold day, women double the cape, and some men double the horn.

CLIPPINGS FROM EXCHANGES.

—The manufacture of paper from the leaves of Indian corn is becoming extensive in Austria.

—An insurance company against tornadoes has been started in Freeport, Ill.

—The Knights of the Golden Circle recently attempted to lynch Dr. Owens, of Williamson county, Ill., whom they supposed to be the author of a recent expose of their designs.

—One of our New York exchanges pithily says that Greeley's articles in the *Independent* are provocative of intemperance—they are so dry, that the reader desires a drink at the end of every sentence.

—One of the few remnants of ancient legal forms has just disappeared. The Judges of the U. S. Supreme Court have determined to wear no more their black silk robes.

—Six theaters and two circuses are in full blast at Washington.

—When Great Britain fought Napoleon, she made the Bank of England notes legal tender, and the premium on gold rose so high that twenty-one shilling pieces rose to twenty seven.

—The *Baltimore Clipper* says that the person who was engaged to assassinate the President on his way to Washington, through the city last year, is now walking about in their midst without any fear of the halter.

—Seven thousand men are now busy in completing the iron-clads in and around New York city.

—At present U. S. stamps are issued of five classes, namely: Check, express, telegraph, certificate, and insurance stamps.

—Gen. Buell is under arrest for not capturing Bragg, the rebel General in Kentucky, and the Confederates have arrested Bragg because he did not capture Buell in the same State.

—A letter from a naval officer, serving in the African squadron, speaks of slavers being "thick as peas in the soup on pork day."

—The abdication of Queen Victoria is again seriously talked of abroad. The *Paris Patrie* says that the discussion of the measure with her German relatives was the cause of the Queen's visit to Germany.

—The churches of the loyal States have set apart the fourth Sabbath of every month, as a season of prayer for the country in this time of its trial.

MODEL RESOLUTIONS.—At a meeting of the Universal Right-Restoring and Wrong exterminating Association, the following resolutions were presented:

Resolved, That women shall have their rights, whether married, single, widows, or otherwise, and that the laws of Nature, which compel beings to be women against their will, are repugnant to all fundamental ideas of justice, and ought to be abolished.

Resolved, That every body knows as much about their own business as everybody else does.

These and many other resolutions were passed unanimously, and the meeting adjourned, but not *sine die* by a jug full.

CONCLUSION OF A HARD-SHELL SERMON.—"My brethering and sistren! ef a man's full of religion you can't hurt him! There was the three Arapian children; they put 'em in a fiery furnace, hotted seven times hotter than it could be het, and it didn't singe a hair on their heads! And there was John the Evangeler; they put him—and where do you think, brethering and sistren, they put him? Why they put him into a caldronic of bilin ile, and biled him all night, and didn't faze his shell! And there was Daniel; they put him into a lion's den—and what, my fellow travelers and respected auditories, do you thing he was put into a lion's den for? Why, for prayin' three times a day. Don't be alarmed, brethering and sistren; I don't think any of you will ever get into a lion's den!"

A HINT TO ENGLISHERS.—At the hills of Travalgar, two Scotchmen, messmates and bosom cronies, from the same little clachan, happened to be stationed near to each other, when the celebrated intimation was displayed from the admiral's ship. "Look up, and read you, Jock," said the one to the other; "England expects every man to do his duty"—not a word frae purr aulk Scotland on this occasion." Jock cocked his eye at the object for a moment, and, turning to his com'panion, thus addressed him—"Man, Geordie, is that a' your sense?—Scotland kens well enough that her bairns will do their duty—that's just a hint to the Englishers."

—President Lincoln, although specially exempted by law from having his salary taxed under the Revenue Act, has ordered the same deduction to be made as if a tax were imposed. By this voluntary act the President pays a tax of \$1,220 per year out of his salary.