FARM AND GARDEN.

MATTERS OF INTEREST TO AGRICULTURISTS.

"Up-to-Date Hints About Cultivation of the Soll and Fields Thereaf-Hortleulture, Vitioulture and Fiuri-



discussed whether the vine could be manured without altering the quality of the wine produced, and wheththe manure should be put diinto the rectly vineyard, or first

OR a long time the

question has been

the compost heap. decayed in has been found, nowever, It that the vines can be safely and profitably manured with fresh animal droppings, which should be dug or plowed in as deeply as possible, as soon as the vintage is over. When the manure is applied in the autumn, or as early as possible after the harvest, it will have time to decay, and all its soluble ingredients will be evenly distributed through the soil by means of the rains, and therefore it will become accessible to all the roots of the vine the following spring. As soon as the soil can be easily turned up after autumn rains will thus be the best time to spread manure, as when covered deeply no ingredients beneficial to the vine can be lost. There is, however, in some instances, an excess of ammonia in the soil and manure present, and this will produce a rank growth of wood or vegetable matter, and also influence the druit, and thus give to the wine bad qualities, affecting its taste and lasting and will give to our youth that charac-

3.75 Hoeing 3 times. Plants and resetting missing hills 8.75 Nipping and pruning 2.50 Mulching and manure..... 25.00 Posts for support, 62..... 4.60 Stakes for support of vines, 300.. 6.00 Wire for support, 300 lbs. No. 12.. 9.00 Labor on support..... 3.75 Laying and covering for winter.. 5.00 Use of tools..... 4.00

Total for two years.....\$150.00 In favored localities, something may be saved on cost of manure, labor, omitting winter protection, etc. But any attempt to reduce amount of labor, fertilizer, mulching, etc., will certainly result in reduction of both quality and quantity of fruit.

M. A. Thayer. Sparta, Wis.

Orchard Grass.

The orchard grass has many good qualities, boath as a grass to cut for hay and as a pasture grass. It is rather coarse, if sown thin. It must be cut early, or you lose a great deal of value. It will usually blossom about the midtime. Some complain that it does not | hold in the soil as well as some other grasses; but this depends upon the quality of the land, and whether it is well adapted to it or not. It has the quality of starting earlier, after being cut or grazed off by cattle, than most of our other grasses. It is apt to grow in clusters; but this can be avoided, to a very great extent, by good cultivation of the land, and by sowing it thickly. It requires to be sown thickly-two or three bushels of seed to the acre, if sown alone; but a liberal mixture of other species will give a better result. -C. L. F.

Letting in the Light.

value of the soil is the need of the hour, surround them.

Where Forests Cease.

The limits of forests upon the earth are determined by climate, and more especially by two principal elements of climate, heat and humidity. The nature of the soil is of only secondary importance. There are trees for all kinds of soil, even for the most ungrateful-some accommodate themselves to pure sand, others to compact clay, others to the steep and rocky sides of mountains, others to the depths of the marshes.

But no tree can pass beyond its conditions of humidity or of heat. It is necessary for this great vegetable to have the heat of a summer of at least three months' duration, to permit it to develop its foliage, to blossom and bear fruit, to push out buds destined to expand the following year, to add a new layer of wood to the thickness of its trunk charged with the support of an ever-increasing summit. And it is necessary for it to have water, a great deal of water, to convey without ceasing the nutritive substances from the roots to the leaves, where the sap is elaborated. When, by reason of too little raindie of June, and ought to be cut at that | fall, the soil dries, the alimentation of the tree ceases, and, as a consequence, its growth.

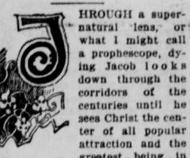
These requirements bring about the results that in the arctic zone, where cold reigns almost continually all the year, where the oblique rays of the sun never succeed in melting more than the mere surface of the soil, of which the depths remain frozen, the conditions necessary for the life of the tree cease, and we find no more forests. If some birches and willows appear in that desolate region, they are unable to develop. They creep on the ground, draw themselves to some protection or are twisted and gnarled. They are hardly able to surpass in height the humble A firmer faith in the capacity and stature of the mosses and lichens that-

That zone, doomed to hoar-frost and

JESUS STILL REIGNS.

A THRILLING SERMON BY REV. DR. TALMAGE.

Golden Text for Last Sanday: "Unto Him Shall the Gathering of the People Be"-Gen., xlix, 10 -Getting Near the Christian Standard.



sees Christ the center of all popular attraction and the greatest being in everywhere acknowlthe world, so edged. It was not always so. The world tried hard to put him down and to put him out. In the year 1200, while excavating for antiquities fifty-three

miles northeast of Rome, a copperplate tablet was found containing the death-warrant of the Lord Jesus Christ, reading in this wise: "In the year 17 of the empire of Ti-

berius Caesar, and on the 25th of March, I, Pontius Pilate, governor of the Praetore, condemn Jesus of Nazareth to die between two thieves, Quintius Cornelius to lead him forth to the place of execution."

The death-warrant was signed by several names. First, by Daniel, rabbi Pharisee; secondly, by Johannes, rabbi; thirdly, by Raphael; fourthly, by Capet, a private citizen. This capital punishment was executed according to law. The name of the thief crucified on the right-hand side of Christ was Dismas; the name of the thief crucified on the left hand side of Christ was Gestus. Pontius Pilate describing the tragedy says the whole world lighted candles from noon until night. Thirty-three years of maltreatment. They ascribe his birth to bastardy and his death to excruciation. A wall of the city, built about those times and recently exposed by archaeologists, shows a caricature of Jesus Christ, evidencing the centempt in which he was held by many in his day-that caricature on the wall representing a cross and a donkey nailed to it, and under it the inscription: "This is the Christ whom the people worship." But I rejoice that that day is gone by. Our Christ is coming out from under the world's abuse. The most popular name on earth today is the name of Christ. Where he had one friend Christ has a thousand friends. The scoffers have become worshipers. Of the twenty most celebrated infidels in Great Britain in our day, sixteen have come back to Christ, trying to undo the blatant mischief of their . lives-sixteen out of the twenty. Every man who writes a letter or signs a document, wittingly or unwittingly, honors Jesus Christ. We date everything as B. C., or A. D.-B. C., before Christ: A. D., Anno Domini, in the year of our Lord. All the ages of history on the pivot of the upright beam of the Cross of the Son of God, B. C., A. D. I do not care what you call him-whether Conqueror, or King, or Morning Star or sterility, is limited by an undulating Sun of Righteousness, or Balm of Gilead, or Lebanon Cedar, or Brother, or Friend, or take the name used in the verse from which I take my text, and all the northern shore line of Siberia call him Shiloh, which means his Son. as well as that of North America, and or the Tranquilator, or the Peacemaker. descends in Labrador to the 58th degree. Shiloh. I only want to tell you that "unto him shall the gathering of the people be." In the first place, the people are gathering around Christ for pardon. No sensible man or healthfully ambitious man is satisfied with his past lift. A fool may think he is all right. A sensible man knows he is not. I do not care who the thoughtful man is, the review of his lifetime behavior before God and man gives to him no especial satisfaction. "Oh," he says, "there have been so many things I have done I ought not to have done, there have been so many things I have said I ought never to have said, there have been so many things I have written I ought never to have written, there have been so many things I have thought I ought never to have thought, I must somehow get things readjusted, I must somehow have the past reconstructed; there are just how long it will take to fatten days and months and years which cry them up in the quickest time. Also out against me in horrible vociferation." Ah, my brother, Christ adjusts the past by obliterating it. He does not erase the record of our misdoing with a dash of ink from a register's pen, but lifting his right hand, crushed. again, to force them, may result in leg red at the palm, he puts it against his weakness, bowel disease, etc. Do not bleeding brow, and then against his begin to fatten until they are eight pierced side, and with the crimson accumulation of all those wounds he rubs out the accusatory chapter. He blots out our iniquities. Oh! never be anxlous about the future; better he anxious about the past. I put it not at the end of my sermon; I put it at the front: Mercy and pardon through Shiloh, the sin-pardoning Christ. "Unto him shall the gathering of the people be." "Oh!" finds says some man, "I have for forty years been as bad as I could be, and is there any mercy for me?" Mercy for you. "Oh!" says some one here, "I have a grand ancestry, the holiest of fathers and the tenderest of mothers, and for my perfidy there is no excuse. Do you think there is any mercy for me?" Mercy for you. "But," says another man. "I fear I have committed what they call the unpardonable sin, and the the murky and thunderous midnight of Hible says if a man commit that sin abandonment, away from God, and furhe is neither to be forgiven in this ther away, until some time she is tossed world nor the world to come. Do you think there is any mercy for mo?" The grace of God! Let us take the now? Who will gather these distonsurveyor's chain and try to measure ored locks into her iap? Whe will God's mercy through Jesus Christ. Let wash off the blood from the gashed one surveyor take that chain and go forehead? Who will tell her of that to the north, and another surveyor take "Christ who came to save the lost?"

another surveyor take that chain and the clean white pillow and watch by go to the east, and another surveyor day and watch by night until the hoarse take that chain and go to the west, and voice of the sufferer becomes the then make a report of the square miles of that vast kingdom of God's mercy. Ah! you will have to wait to all eternity for the report of that measurement. It cannot be measured. Faul tried to climb the height of it, and he went height over height, altitude above altitude, mountain above mountain, then sank down-to discouragement and gave it up, for he saw Sierra Nevadas beyond and Matterhorns beyond, and waving his hands back to us in the plains, he says, "Past finding out; unsearchable, that in all things he might have the pre-eminence." You notice that nearly all the sinners mentioned as pardoned in the Bible were great sinners-David a great sinner. Paul a great sinner, Magdalen a great sinner, the Prodigal Son a great sinner. The world easily understood how Christ could pardon a half-and-balf sinner, but what the world wants to be persuaded of is that Christ will forgive the worst sinner, the hardest sinner, the oldest sinner, the most inexcusable sinner. To the sin-pardoning Shiloh let all the gathering of the people be.

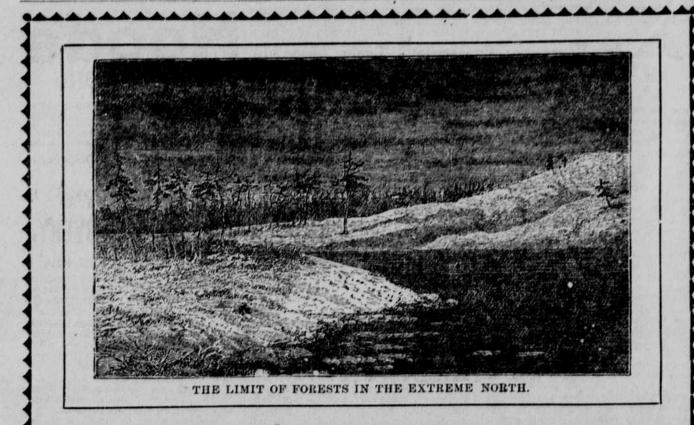
But, I remark again, the people will gather round Christ as a sympathizer. Oh! we all want sympathy. I hear people talk as though they were independent of it. None of us could live without sympathy. When parts of our family are away, how lonely the house seems until they all get home! But alas! for those who never come home. Sometimes it seems as if it must be impossible. What, will their feet never again come over the threshold? Will they never again sit with us at the table? Will they never again kneel with us at family prayer? Shall we never again look into their sunny faces? Shall we never again on earth take counsel with them for our work? Alas! me, who can stand under these griefs? Oh! Christ, thou canst do more for a bereft soul than any one else. It is he who stands heside us to tell of the resurrection. It is he that came to bid peace. It is he that comes to us and breathes into us the spirit of submission until we can look up from the wreck and ruin of our brightest expectations and say: "Father, not my will, but thine be done." Oh, ye who are bereft, ye anguish-bitten, come into this refuge. The roll of those who came for relief to Christ is larger and larger. Unto this Shiloh of omnipotent sympathy the gathering of the people shall be. ' Oh, that Christ would stand by all these empty cradles, and all these desolated homesteads and all these broken hearts. and persuade us it is well.

The world cannot offer you any help at such a time. Suppose the world comes and offers you money. You would rather live on a crust in a cellar and have your departed loved ones with you, than live in palatial surroundings and they away. Suppose the world offers you its honors to console you. What is the presidency to Abraham Lincoln when little Willie lies dead in the White House? Perhaps the world comes and says: "Time will cure it all." Ab, there are griefs that have raged on for thirty years and are raging yet. And yet hundreds have been comforted, thousands have been com-

that chain and go to the south, and Who will put that weary head upon whisper, and the whisper becomes only a faint motion of the lips, and the fain: motion of the lips is exchanged for a silent look, and the cut feet are still, and the weary eyes are still, and the frenzied heart is still, and all is still? Who will have compassion on her when no others have compassion? Mother! Mother!

> Oh! there is something beautiful in sympathy--in manly sympathy, wifely sympathy, motherly sympathy; yes, and neighborly sympathy. Why was it that a city was aroused with excitement when a little child was kidnaped from one of the streets? Why were whole columns of the newspapers filled with the story of a little child? It was because we are all one in sympathy, and every parent said: "How if it had been my Lizzie? How if it it had been my Mary? How if it had been my Maud? How if it had been my child? How if there had been one unoccupied pillow in our trundle-bed to-night? How if my little one-bone of my bone and flesh of my flesh-were to-night carried captive into some den of vagabonds, never to come back to me? How if it had been my sorrow looking out of the window, watching and waiting-that sorrow worse than death?" Then when they found her why did we declare the news all through the households, and everybody that knew how to pray said, "Thank God!"? Because we are all one, bound by one golden chain of sympathy. Oh! yes, but I have to tell you that if you will aggregate all neighborly, manly, wifely, motherly sympathy, it will be found only a poor starving thing compared with the sympathy of our great Shiloh, who has held in his lap the sorrows of the ages, and who is ready to nurse on his holy heart the woes of all who will come to him. Oh! what a God, what a Savior we have! . .

There are people who think Christ will come in person and sit on a throns. Ferhaps he may. I should like to see the scarred feet going up the stairs of a palace in which all the glories of the Alhambra, and the Taj Mahal, and the St. Mark's, and the Winter Palace are gathered. I should like to see the world pay Christ in love for what it did to him in maltreatment. I should like to be one of the grooms of the chargers, holding the stirrup as the King mounts. O! what a glorious time it would be on earth if Christ would break through the heavens, and right here where he has suffered and died have this prophecy fulfilled, "Unto him shall the gathering of the people be." But failing in that, I bargain to meet you at the ponderous gate of heaven on the day when our Lord comes back. Garlands of all nations on his brow-of the brouzed nations of the South and the pallid nations of the North-Europe, Asia, Africa, North and South America, and the other continents that may arise meantime from the sea, to take the places of their sunken predecessors; Arch of Trajan, Arch of Titus, Arch of Triumph in the Champs Elysees, all too poor to welcome this King of kings, and Lord of lords, and Conqueror of conquerors in his august arrival. Turn out all heaven to meet him. Hang all along the route flags of earthly dominion, whether decorated with crescent, or star, or eagle, or lion, or coronet, Hang out heaven's brightest banner, with its one star of Bethlehem and bloodstriped of the cross. I hear the procession now. Hark! the tramp of the feet, the rumbling of the wheels, the clattering of the hoofs, and the shouts of the riders. Ten thousand times ten thousand, and thousands of thousands. Put up in heaven's library, right beside the completed volume of the world's ruin, the completed volume of Shiloh's triumph. The old promise struggling through the ages fulfilled at last: "Unto him shall the gathering of the people be." While everlasting ages roll, Eternal love shall feast their soul. And scenes of bliss forever new Rise in succession to their view.



power. The vignerons at Argenteuil, near Paris, have been for years in the habit of manuring their vines with the street scrapings, with excellent results.

Thayer's Berry Bulletin.

The growers of berries for market should realize that ordinary farm methods are not sufficient.

Berries cannot be grown and marketed as easily as wheat, corn and potatoes.

Berry growing, like market gardening, requires the greatest concentration of good soil, labor and thought.

Too much land is the bane of most fruit growing as well as farming. Success would be more certain if acreage were divided, and fertility, prepara-

tion and cultivation increased. Intensified farming and concentration of energy are the diamond drills that bore out success.

Take counsel from books, papers, and practical growers, but let it be tempered with your own best judgment and experience.

Actual knowledge and practical experience should go hand in hand.

Let the beginner commence moderately, and go slow. Do only what can

whe well done. Nothing but the best product will pay.

Use a limited variety of best plants, producing large, firm, attractive fruit.

Have a note book ready and make a complete record of all facts and dates for future reference.

When one acre has been mastered, producing one or two hundred bushels of best fruit, then acreage may be increased.

Few realize the actual cost of bringing an acre of bush berries to a good bearing age-be careful.

You may safely estimate, that after securing land in a high state of cultivation, every acre, of good small fruits, well set, missing hills filled in and brought to a bearing age, will cost from \$120 to \$150 in well earned dollars or their equivalent in honest work at \$1.25 per day.

The following estimates of on-	a acre
of blackberries is made after	
years experience on "The Thayes	r Fruit
Farms" and indicates methods ad	lopted
Piowing land	.\$ 1.56
Harrowing 4 times	
Marking and laying out	
Plants	
Setting plants	
Cultivating 15 times	. 7.54
Hoeing three times	. 3.71
Manure, 20 loads for mulching.	
Covering plants, for winter	. 2.54
and the second	-

Total expense, first year \$68.25 Cultivating 15 times 7.50

ter which is sure to come by patience and perseverence. We do not hear the discouraging word uttered without recalling an interview with an intelligent man from New York, whose grandfa-

ther conceived the idea of reclaiming a tract of land larger than Green Harbor marsh; going to work with courage, he cleared off the bushes and trees, opened drains at considerable expense, letting in light, receiving much in retur-i, though not enough to pay the expenses. The property passed into the hands of a relative, who, with commendable spirit, prosecuted the work already begun. "Let us have more light," said "Does the property pay now?" we he. asked. "Yes; the net profit is ten thousand dollars every year."-G. J. Peterson.

Pistillate and Staminate Grasses.

The grasses differ in their floral structure. They are not all uniform in their mode of growth. We have a class that may be called dioecious grasses; that is, grasses in which the male and the female, or the staminate and pistillate, organs of the flower are arranged on entirely distinct plants. That is the case with only a very limited number of species. What is called the "buffalo grass," which grows in the South, and in Colorado, and generally on the plains, is one of that kind. I have seen patches of buffalo grass in Colorado, composed entirely of staminate, or male plants; and other patches composed entirely of pistillate, or female plants. Now, the pistillate plants must get their pollen from the staminate plants, which may be at some distance off. It was at first supposed that they were different species, until the fact was discovered that one grass was simply a staminate, or male plant; and the other a pistillate, or female plant, both belonging to the same species. Of course, the seed is produced only on the pistillate plants. Another class of grasses may be

called the monoecious grasses; that is, where the staminate and pistillate flowers are on the same plant, but in distinct positions, separated from each other. The most familiar example of that is our common Indian-corn. Every farmer knows that the staminate flowers of Indian-corn come on the top. called the "tassels;" while the pistillate flowers are arranged on an axis along the main stalk, called the "ear;" and that the pollen from the staminate flowers must find its way through the circle, as success in one branch of busipistils, which are the silks attached to the ears, as everybody knows, before now unproductive, that is made to profertilization can take place .- Flint.

Several patents for roofing glass have the general welfare of the whole, and been taken out in the last few years.

line, which runs over Scandinavia between the 70th and 71st degrees of latitude, cuts at an average of 68 degrees Below that line the forests appear and extend over all the earth southward to the limits of the continents, which do not approach too near the antarctic zone to prevent the growth of trees. However, these forests are broken here and there by mighty plains, such as the steppes of Russia, the prairies of the United States, and the pampas of the Argentine Confederation. There are also the great plains of Australia, the desert of Sahara, the sandy plains of Persia and of Chinese Mongolia, the latter like great leprous patches upon the face of our earth.

Fattening Broilers.

A Pennsylvania subscriber wishes to know how long it takes to fatten broilers, and how to dress them for the Philadelphia market. We give his inquiry below:

I have a lot of young chickens four to six months old, and want to know how to dress for the Philadelphia market.

It is not an easy matter to fatten broilers, as the food rather makes them grow instead of fattening. Then, weeks old, and then allow two weeks for them to fatten. Feed three times a day and scatter a gill of millet seed between meals. Here is an excellent fattening food: Melt one pound of crude tallow in half gallon of boiling water. While boiling thicken with a sufficient quantity of the following to form a stiff dough: One quart of corn meal, one quart of ground oats, one quart middlings, one pint ground meat, half pint linseed meal, one tablespoonful of salt .- Am. Poultry Keeper.

Improve the Farms.

Benefits resulting from experiments apon unproductive tracts of land are very apparent; and any improvement advancing the value of farms is of pecuniary benefit, not only to the actual owner of the soil, but to the community as a whole. No prosperous business can be carried on, which confines the advantages to be derived within a narrow ness assists another. Each acre of land duce any description of crop whatever in paying quantities, adds to much to should thus be recognized.

inf.

forted, millions have been comforted. and Christ had done the work. Oh, what you want is sympathy. The world's heart of sympathy beats very irregularly. Plenty of sympathy when we do not want it, and often when we are in appalling need of it no sympathy. There are multitudes of people dying for sympathy-sympathy in their work, sympathy in their fatigues, sympathy in their bereavements, sympathy in their financial losses, sympathy in their physical ailments, sympathy in the time of declining yearswide, deep, high, everlasting, almighty sympathy. We must have it, and Christ gives it. That is the chord with which he is going to draw all nations to him. At the story of punishment a man's eye flashes and his teeth set and his fist clinches, and he prepares to do battle even though it be against the heavens; yet what heart so hard but it will succumb to the story of compassion! Even a man's sympathy is pleasant and helpful. When we have been in some hour of weakness, to have a brawny man stand beside us and promise to see us through, what courage it gives to our heart and what strength it gives to our arm. Still mightier is a woman's sympathy. Let him tell the story who, when all his fortunes were gone and all the world was against him, came home and found in that home a wife who could write on the top of the empty hour-barrel, "The Lord will provide;" or write on the door of the empty wardrobe. "Consider the lilies of the field; if God so clothed the grass of the field, will be not clothe us and ours?" Or let that young man tell the story who has gone the whole round of dissipation. The shadow of the penitentiary is upon him, and even his father says. "He off : never come home again" The yound man still his mother's arm outstretched for him, and how she will stand at the wicket of the prison to whisper consolution, or get down on her knees before the governor, begging for pardon, hoping on for her wayward boy after all others are hopeless. Or let her tell the story who, under villainous allorement and impatient of parental restraint, has wondered off from a home of which she was the idol into on the beach of that early home a mere splinter of a wreck. Who will pity her

PHILOSOPHY.

The love of money keeps many men from vice.

The locomotive builder is noted for his engine-uity.

The proper thing for a jury is to be firm, but not fixed.

The fetter of propriety should be worn as an ornament, not a chain.

The surest way to become poor in earnest is to try to F ep all you get. The trouble with cheerful people is

that their cheerfulness is too hard to enub.

If you don't want your boy to turn out den't bear down too hard on the grindstone.

There ought to be a law passed that railway restaurant keepers shall date their apple pies.

The more worthless a man is when he leaves a town, the greater probability that he will come back.

We learn that ministers are actiously disturbed over the innovation known as the automatic coupler.

A fish diet is said to be good for the brain. Frobably this is because the flah go so often in schools.

The moment a man finds out he has been making a fool of himself he has learned something valuable.

The stingler a main is about valuable things the more apt he is to give advice. Comparing your sins with those of other people won't make your sinning any safer.

MANNERS OF GREAT MEN.

Fox would never stand covers1 in the presence of ladies.

Calhoun was so absent-minded that

he often forgot he was in company. Bancroft was rather reserved than otherwise with most persons whom he 1544.

Burghar dust acquitted, to his coun-sel)-1 will call shortly and see you at your office, sir. "Very good; but is the daytime, please."