

Oklahoma  
Arbor and Bird Day



Friday, March Twelfth

1909



*Oklahoma*

Oklahoma

*Oklahoma*

Arbor and Bird Day Annual

*Arbor and Bird Day Annual*

1909

*1909*

*Oklahoma*

PROGRAM, NOTES AND SUGGESTIONS

FOR

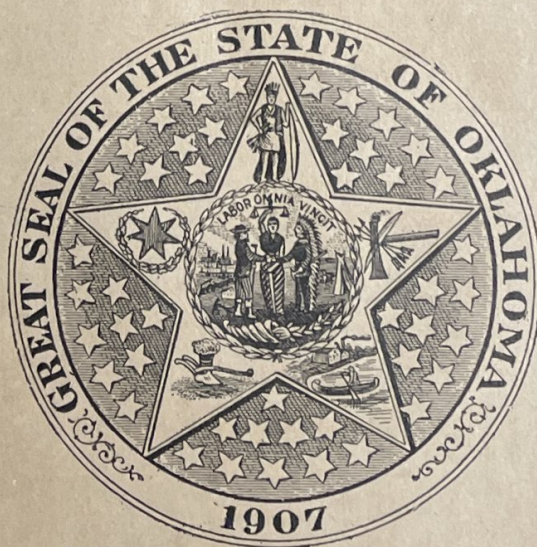
Friday, March Twelfth

ISSUED BY

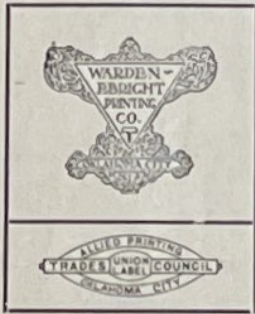
THE STATE BOARD OF EDUCATION

GUTHRIE.

*Myrtle Niemeyer  
Castle  
Oklahoma*



E. D. Cameron, State Superintendent.



33  
4-



School Nursery, Eighteen Months From Seed, Pauls Valley, Okla.  
Courtesy Sturm's Oklahoma Magazine.

## Part One

### ARBOR DAY

The following is a copy of the Oklahoma Law creating Arbor Day:

Section 1. The Friday following the second Monday in March of each year shall be hereafter known throughout Oklahoma as Arbor Day.

Sec. 2. It shall be the duty of the authorities of the public schools in this State to assemble the pupils in their charge on that day in the school buildings, or elsewhere, as may be deemed proper, to provide for and conduct, under the general supervision of the county superintendent or city superintendent or other chief officers having the general oversight of the public schools in each county or city, such exercises as shall tend to encourage the planting, protection and preservation of trees and shrubs, and an acquaintance with the best methods to be adopted to accomplished such results.

**TO THE TEACHERS OF OKLAHOMA:**

Permit me to call your attention to the provision in our statutes which designates the Friday following the second Monday in March as Arbor Day, and to urge you to suspend your regular exercises on that occasion and observe the day with appropriate ceremonies.

This year Arbor Day accordingly will come on Friday, March 12, and I wish to call on you and all progressive citizens everywhere to observe the day by providing for and conducting such exercises as will tend to encourage tree planting and also to provide for the protection, and preservation of trees and shrubs, and to acquaint yourselves with the best methods to be adopted to accomplish such results. Let this be an occasion not only for beautifying and ornamenting the school grounds, but also for beautifying and adorning our roads and highways, and the yards and walks around our own homes.

In view of the fact that no provision has been made in our statutes for Bird Day, I also wish to recommend that a part of Arbor Day be set aside for this purpose. I would suggest that special prominence be given to the subject of bird study and that on this occasion Audubon Societies be organized for protecting and taking care of our birds. Impress upon your pupils the folly of killing birds for past-time and for gratifying the whims of women who desire the plumage of our feathered friends for the adornment of their hats. Caution the boys against wantonly destroying the nests and stealing the eggs of our beautiful birds, and urge them rather to protect these innocent creatures that do so much good by destroying injurious insects and eating the seeds of so many troublesome weeds. Teach them to look upon birds as their friends and that they should love and protect them instead of destroying them.

Show your pupils the beautiful colored plates of the American Bird and Nature Chart and explain to them the names and habits of the different birds shown on these plates. Valuable information and suggestions about birds may be found in Hodge's splendid book on Nature Study, which may be used in connection with the chart mentioned above. Please do all you can to create an interest in birds and urge your patrons to insist that our present Legislature pass some law before adjourning that will protect our birds from wholesale and useless slaughter.

Yours sincerely,

E. D. CAMERON,  
State Superintendent of Public Instruction.

## PROCLAMATION OF THE PRESIDENT.

## To the Children of the United States:

Arbor Day (which means simply "Tree Day") is now observed in every State in our Union, and mainly in the schools. At various times from January to December, but chiefly in the month of April, you give a day or part of a day to special exercises, and perhaps to actual tree planting, in recognition of the importance of trees to us as a nation, and of what they yield in adornment, comfort and useful products to the communities in which they live.

It is well that you should celebrate your Arbor Day thoughtfully, for within your lifetime the nation's need of trees will become serious. We of an older generation can get along with what we have, though with growing hardship; but in your manhood and womanhood you will want what Nature once so bountifully supplied, and man so thoughtlessly destroyed; and because of that want you will reproach us, not for what we have used, but for what we have wasted.

For the nation, as for the man or woman and the boy or girl, the road to success is the right use of what we have and the improvement of present opportunity. If you neglect to prepare yourselves now for the duties and responsibilities which will fall upon you later, if you do not learn the things which you will need to know when your school days are over you will suffer the consequences. So any nation which in its youth lives only for the day, reaps without sowing and consumes without husbanding, must expect the penalty of the prodigal, whose labor could with difficulty find him the bare means of life.

A people without children would face a hopeless future; a country without trees is almost as hopeless; forests which are so used that they cannot renew themselves will soon vanish, and with them all their benefits. A true forest is not merely a storehouse full of wood, but, as it were, a factory of wood, and at the same time a reservoir of water. When you help to preserve our forests or to plant new ones you are acting the part of good citizens. The value of forestry deserves, therefore, to be taught in the schools, which aim to make citizens of you. If your Arbor Day exercises help you to realize what benefits each one of you receives from the forest and how by your assistance these benefits may continue, they will serve a great end.

THEODORE ROOSEVELT.

*To be read  
by myself*

**SUBJECTS FOR ARBOR DAY CONSIDERATION.**

The First Arbor Day.  
 History of Arbor Day.  
 How to make Arbor Day most useful.  
 Improvement of School Grounds.  
 How to plant trees  
 The best trees to plant.  
 The best trees and shrubs for home lawns.  
 The most useful trees.  
 Varieties of trees on Oklahoma farms, and in forests.  
 How to care for trees.  
 The world's greatest forests.  
 Historic trees.  
 The relation of trees to birds.  
 Why we should encourage tree planting.

**SCRIPTURE READING FOR ARBOR DAY.**

TEACHER: I will plant in the wilderness the cedar tree, and the myrtle, and the oil tree; I will set in the desert the fir tree, and the pine and the box tree together.

PUPILS: Blessed is the man whose delight is in the law of the Lord. He shall be like a tree planted by the streams of water that bringeth its fruit in its season, whose leaf also doth not wither, and whatsoever he doeth shall prosper.

TEACHER: I went down into the garden of nuts to see the fruits of the valley, and to see whether the vine flourished, and the pomegranites budded.

PUPILS: And the tree of the field shall yield her fruit, and the earth shall yield her increase, and they shall be safe in their land, and shall know that I am the Lord.

TEACHER: For the Lord thy God bringeth thee into a good land; a land of brooks of water of fountains and depths that spring out of valleys and hills; a land of wheat and barley and vines, and fig trees, and pomegranites; a land of oil, olive and honey; a land wherein thou shalt eat bread without scarceness, thou shalt not lack anything in it; a land whose stones are iron, and out of whose hills thou mayest dig brass.

PUPILS: And Israel said take of the best fruits of the land in your vessels, and carry down the man a present, a little balm, and a little honey, spices and myrrh, nuts and almonds

TEACHER: Wisdom is a tree of life to them that lay hold upon her; and happy is everyone that retaineth her.

PUPILS: The fruit of the righteous is a tree of life.

TEACHER: Even so every good tree bringeth forth good fruit; but a corrupt tree bringeth forth evil fruit.

TEACHER AND PUPILS: To him that overcometh will I give to eat of the tree of life, which is in the midst of the paradise of God.



---

**SUGGESTIVE PROGRAM.**

Music—"The House in the Wood," (No. 35, Modern Music Series, Third Book.)

Reading of Governor's Proclamation.

Reading of State Superintendent's letter to the school children of Oklahoma.

Paper—Origin and History of Arbor Day.

Song—(Appropriate selection.)

Recitation—Arbor Day.

Recitation—My Country.

Paper—Our Forest Reserves.

Song—"We Love the Trees."

General Discussion—Tree Planting and its Necessity.

Paper—"Why We Observe Arbor Day."

Historic Trees—(A paper prepared on this subject giving a brief sketch of several historic trees.)

Paper—The Usefulness of Trees.

Address by some invited guest.

Closing Song—"America."

## TREE PLANTING.

### The Choice of Trees.

1. General Considerations—Trees for school grounds and yards, along roadsides and streets, must be such as are least liable to suffer from injuries; they should be compact and symmetrical in shape, free from objectionable habits, such as bad odors, root sprouting, frequent dropping of parts, etc., and from insect pests, and, if planted for shade, should have a broad crown and a dense foliage budding early in the spring and retaining leaves long into the fall.

Trees native to the region in which the planting is done usually have more promise of success and are generally less costly than exotics. Trees from well managed nurseries are preferable to those grown in the forest, because their root system is better prepared for transplanting. Rapidly growing trees, although giving shade soonest, are mostly short-lived and become the soonest unsightly.

2. Size—Although as a rule small plants have a better promise of success, other considerations recommend the choice of larger sizes for roadside and ornamental planting. Trees of any size can be successfully transplanted, but in proportion to the size grows the difficulty, the amount of work and the care necessary. As a rule the largest size should not exceed two to three inches in diameter at the base and 10 to 15 feet in height. Those one-half that size will probably make better growth, because less of their root-system will be curtailed in taking them up for transplanting.

3. Diagnosis of a Tree Suitable for Transplanting: (a) An abundance of fibrous roots.

(b) A normal form and well proportioned development of shaft and crown.

(c) The position from which the tree came has some influence on its further development. Trees from the forest have generally a wide spreading root-system, which is difficult to take up and transplant. Those which have grown in the shade of the forest as a rule do not start easily in the open sunlight; those from cool north sides are apt to sicken when placed on hot exposures, and vice versa. A healthy tree from poor soil transferred into better conditions will show itself grateful by vigorous development.—Circular No. 5, Forestry Division, U. S. Department Agriculture.

**SONG OF DEDICATION—AN ARBOR DAY TREE.**

(Air: "Columbia, the Gem of the Ocean.")

The tree we are planting on this day.  
 Is chosen with tenderest care;  
 May beauty adorn it, hereafter,  
 And clothe it with usefulness rare.  
 May green leaves appearing each springtime  
 Be leaves of a fair book of fame,  
 And spread to the breezes the story  
 Extolling the new-given name.

The tree is an emblem of greatness.  
 As springing from one tiny seed,  
 It mounts ever upward and onward,  
 An emblem of greatness, indeed!  
 The birds sing its praises to others,  
 The winds carry swiftly the tale  
 The tree is the monarch of forest,  
 Of hill, valley, greenwood, and dale.

—Florida Arbor Day Annual.

**THE FIRST ARBOR DAY.**

What is now known almost throughout the civilized world as "Arbor Day" originated in Nebraska. At an annual meeting of the Nebraska State Board of Agriculture, held in the City of Lincoln, Jan. 4, 1872, the Hon. J. Sterling Morton, of Nebraska City, introduced the following resolution, which was unanimously adopted, after some little debate as to the name, some present contending for the word "Sylvan" instead of "Arbor."

"RESOLVED, That Wednesday, the 10th day of April, 1872, be and the same is hereby set apart and consecrated for tree planting in the State of Nebraska, and the State Board of Agriculture hereby name it Arbor Day; and, to urge upon the people of the State the vital importance of tree planting, hereby offer a special premium of one hundred dollars to the agricultural society of that county in Nebraska which shall, upon that day, plant properly the largest number of trees; and a farm library of twenty-five dollars worth of books to that person who on that day shall plant properly in Nebraska the largest number of trees."

Mr. J. T. Allen offered the following resolution, which was also adopted unanimously:

"RESOLVED, That the newspapers of the state be requested by the State Board of Agriculture to keep the resolution in regard to the

anniversary day for tree planting, standing in their columns until April 10, next, and to call especial attention of the people to the importance of the matter from 'time to time.'

The newspapers of the state were generous, and kept Arbor Day well before the people. The result was that over a million trees were planted in Nebraska on the first Arbor Day, April 10, 1872. The day was again observed in 1873 with increased interest and results.

March 31, 1874, the first Arbor Day proclamation was issued by the governor. From "Arbor Day," published by Hon. Robert W. Furnas, 1888.

#### BLESSING FOR THE TREE PLANTER.

O painter of the fruits and flowers!  
 We thank Thee for thy wise design,  
 Whereby these human hands of ours  
 In nature's garden work with Thine.

Give fools their gold and knaves their power;  
 Let fortune's bubbles rise and fall;  
 Who sows a field or trains a flower  
 Or plants a tree is more than all.

For he who blesses most is blest;  
 And God and man shall own his worth  
 Who toils to leave as his bequest  
 And added beauty to the earth.

And, soon or late, to all who sow,  
 The time of harvest shall be given;  
 The flower shall bloom, the fruit shall grow,  
 If not on earth, at last in heaven.

—Whittier.

*Martha B*

**HISTORY OF ARBOR DAY.**

We are taught to value the blessings of life by antithesis. When we are sick we learn to value health; when blind we long to experience the delightful sense of sight; when deaf, we yearn for the music we loved to hear; when in impoverished circumstances physically, we hope for the good things of this world and a comfortable existence. So



Blue Hole, in the Choctaw Nation.

Courtesy Sturm's Oklahoma Magazine.

the utter treelessness of these vast plains three or four score years ago created a longing in the hearts of the pioneers for the grand forests whence they had emerged and taught them, by contrast, the beauty and utility of woodlands. Thus, out from a realizing sense of the total lack of trees came the inspiration for an anniversary devoted to the planting of trees on these monotonous plains, until today Nebraska stands among the foremost in practical forestry of all the states in the Union.

The denudation of the woodlands of the United States was the cause of such concern and discussion among forestry associations and practical foresters for some time prior to the year 1872, but on January

4 of that year the first suggestion was made for the establishment of an Arbor Day anniversary. On that day, Mr. J. Sterling Morton, a member of the Nebraska State Board of Agriculture, introduced in that body the following resolution which was unanimously adopted, after some debate as to the name, some of the members contending for the word "Sylvan" instead of "Arbor":

"Resolved, That Wednesday, the 10th day of April, 1872, be and the same is hereby especially set apart and consecrated for tree planting in the State of Nebraska, and the State Board of Agriculture hereby name it Arbor Day; and to urge upon the people of the state the vital importance of tree-planting, hereby offer a special premium of one hundred dollars to the agricultural society of that county in Nebraska which shall, upon that day, plant properly the largest number of trees; and a farm library of twenty-five dollars worth of books to that person, who, on that day, shall plant properly, in Nebraska, the greatest number of trees."

As a result of this resolution over a million trees were planted in Nebraska on that first Arbor Day. Three years later its celebration had attained such favor that the Governor set apart by proclamation, the third Wednesday in April as Arbor Day. The first proclamation, I believe, was issued by Governor Robert W. Furnas, who now resides at Brownville, Neb. Since then a similar proclamation has been issued annually by the governors of Nebraska, and in 1885 an act was passed by the legislature designating the 22nd of April, Mr. Morton's birthday, as the date for Arbor Day and making it one of the legal holidays of the state.

Since the establishment of Arbor Day, more than thirty years ago, billions of trees have been planted in Nebraska alone. Its observance has extended not only to nearly every state and territory in our Union, but has reached France, Japan and other countries beyond the seas.

The Arbor Day Memorial Association of Nebraska will soon erect a beautiful monument of bronze and granite to the memory of Mr. Morton, but I like to think of him as having for his greatest monument the trees which he loved, and in the light by which he regarded the epitaph on the statue of Sir Christopher Wren. Concerning this epitaph, Mr. Morton, in a discourse on Arbor Day, delivered in the year 1887, said:

"On the 10th day of July, 1886, from the crowded, hurrying streets of London, I loitered into the solemn aisles of St. Paul's Cathedral. Around on every side were the statues of England's heroes. Upon tablets of brass and marble were enscribed their eulogiums. In fierce warfare on wave and field they had exalted English courage and won renown for England's arms. Melson and Wellington, victors by sea and land, were there, and hundreds more whose epitaphs were written in blood which, as it poured from ghastly wounds, had borne other mortals to the unknown world. Few men who won distinction in civil life are entombed in St. Paul's, but among them is the gifted architect, Sir Christopher Wren, in whose brain the concept of St. Paul's Cathedral had a mental existence before it materialized in massive marble. His epitaph is plain, brief, truthful, impressive; it is one

which each honorable man in all the world may humbly strive for and become the better for the striving; it is one which every faithful disciple of horticulture, of forestry, will deserve from his friends, his family and his country: vast orchards which he has planted and the great arms of towering elms, spreading their soothing shade like a benediction over the weary wayfarer who rests at her feet, and all the fluttering foliage whispering to the wanton winds shall tell the story of his benefaction to humanity, arborphoning that epitaph with perennial fidelity—'Si quaeris monumentum, circumspice.—If you seek my monument, look around you.'—John Nordhouse, Nebraska City, Neb.

### HARDY TREES FOR OKLAHOMA PLANTING.

By Prof. O. M. Morris, Horticulturist and Botanist, at the A. & M. College, Stillwater, Oklahoma:

The varieties of trees that are in greatest demand are those that are desired for general planting. The first purpose of the planter is the formation of a windbreak or shelter belt, and next, the production of shade and other comforts that may be derived from the presence of a grove of trees. The growing of posts and fuel timber is also attracting a great deal of attention and the farmers desire to plant their windbreaks and woodlots of such varieties of trees as will produce all the desirable features of a windbreak and produce timber of suitable size and character for posts and fuel. To be suitable for general planting, the trees should make a rapid growth, be extremely hardy, and of such a character that they will require a minimum amount of care, cultivation, and attention during the formative period of the grove. This confines the list of trees for general planting to a very select number, including black locust, white elm, soft maple, Russian mulberry, catalpa, hackberry, sycamore, honey locust, and Osage orange. There are many other trees that are very hardy and make a rapid growth, but do not possess all of the characteristics desired. The following description of the trees named is here given in order to assist those who desire to make up a very select list of a few trees for general planting. The selection of the variety is very important, as it may mean the difference between profit and loss, or a good grove and no grove.

For planting about school grounds and in public places where a good shade tree is desired, there is nothing better known than the American or white elm. This is a native tree, and when full grown, attains a height of 100 feet and a trunk diameter of 5 or 6 feet. It forms a round, broad, sweeping top. It grows rapidly and adapts itself well to all kinds of soil. The wood is hard, heavy, strong, difficult to split, and durable when placed in contact with the soil. It makes good fuel, but the principal value of the tree lies in its use as a shade tree, and for that purpose it ranks first among all the trees grown in Oklahoma. It does not grow as rapidly for the first few years

of its life as does the soft maple and black locust, but it far surpasses these trees in all purposes where a good shade tree is part of the object for which the tree is planted.

The catalpa is a splendid tree for planting in Oklahoma, but its highest value is realized only in thick plantings made for the purpose of growing post and pole timber. The black locust grows very rapidly, and forms a very pretty tree. It does not make as large a tree, however, as some of the other forms, but for a quick growth it is one of the best that can be planted. Some of the faults urged against this tree are its tendency to sprout from the roots, and to blow over badly where it is exposed to the wind. Another objection to the tree is that it is especially subject to the attacks of an insect known as the black locust borer. This insect is new in Oklahoma, and seems capable of doing a great deal of damage.

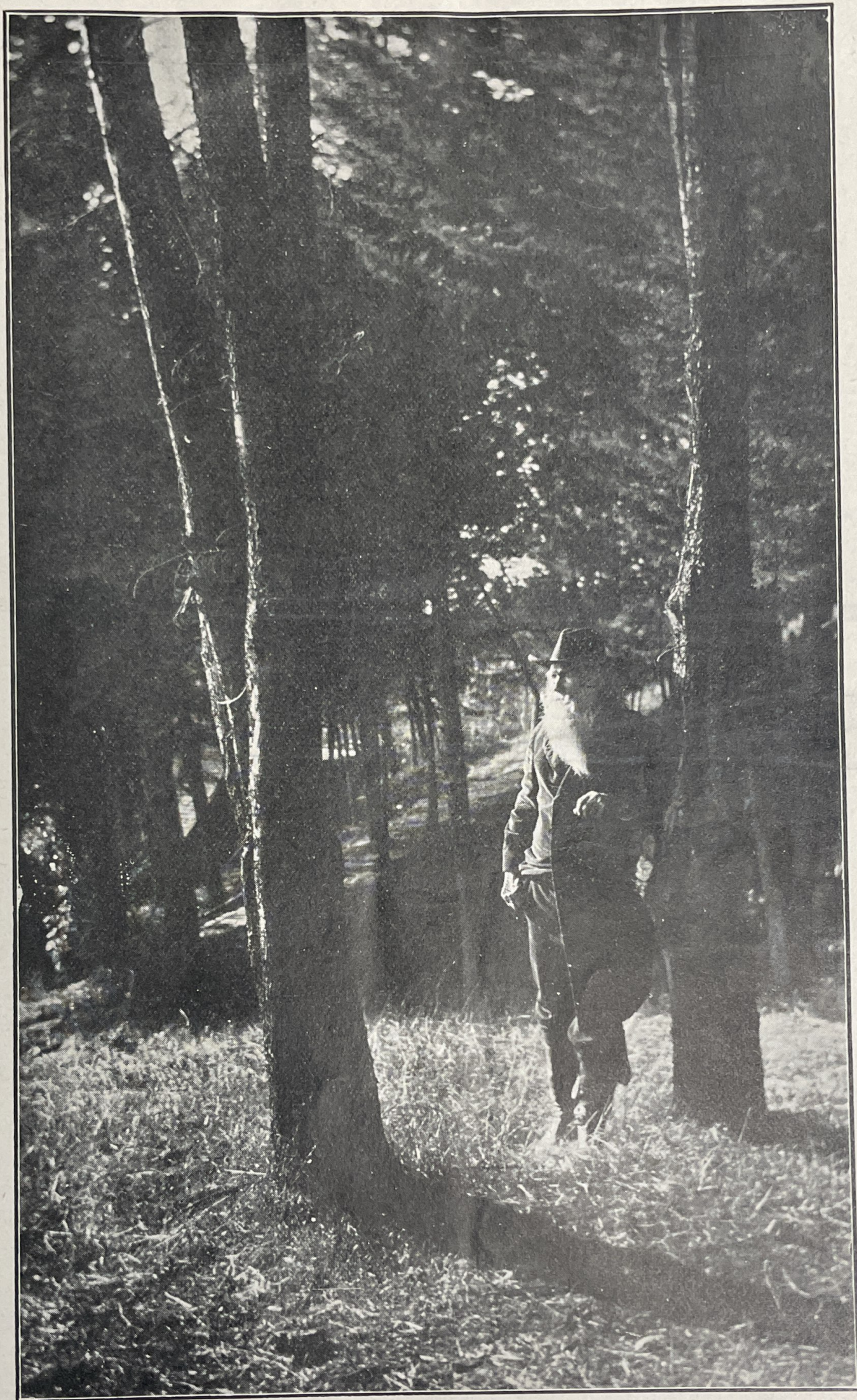
The soft maple is a splendid tree to plant for quick results. This tree in Oklahoma frequently attains a height of 40 feet and a trunk diameter of 3 or 4 feet. It is well adapted to planting on good soil, and responds very quickly to cultivation, but suffers greatly if neglected. It is not adapted to close planting, and the wood is soft and easily broken, while green. It makes a poor fuel, and rots quickly when placed in contact with the soil. It ranks next to the elm for general shade and grove purposes where it is not expected to produce wood of any special value.

The hackberry is a tree somewhat after the type of the elm, though smaller in size, and slower in growth. It is best adapted to planting on second bottom land and growing in groves for the purpose of wind-breaks and shade formation.

The sycamore is a very large native tree that can be grown on any kind of soil. If well cultivated and properly cared for, it makes a rapid growth. It is a very large tree when grown to full size, and is especially adapted to planting in positions where one tree is to occupy a prominent place on the grounds of public parks or school grounds, but it does not make a first class shade.

All trees should be carefully cultivated for three or four years after they have been set. They should have entire use of the land for a large space around the trees and the soil should be well manured and fertilized and the trees protected from animals. A common mistake is made in transplanting trees that have grown in the nursery row to the open ground where a long slender trunk is exposed to the hot sun without any protection. It is a better plan to set smaller trees or to spend considerable effort in protecting the trunk of trees taken from the nursery row.





Joaquin Miller, Among His Friends.  
Courtesy Sturm's Oklahoma Magazine.

## ANTHEM FOR ARBOR DAY.

(Tune: "America.")

Joy for the sturdy trees!  
 Fanned by each fragrant breeze,  
 Lovely they stand!  
 The song birds o'er them trill,  
 They shade each tinkling rill,  
 They crowd each swelling hill,  
 Lowly and grand.

Plant them by stream and way,  
 Plant where the children play  
 And toilers rest,  
 In every verdant vale,  
 On every sunny swale,  
 Whether to grow or fail,—  
 God knoweth best.

Select the strong, the fair,  
 Plant them, with earnest care,—  
 No toil is vain.  
 Plant in a fitter place,  
 Where, like a lovely face,  
 Let in some sweeter grace,  
 Change may prove gain.

God will his blessing send—  
 All things on him depend.  
 His loving care  
 Clings to each leaf and flower  
 Like ivy to its tower.  
 His presence and his power  
 Are everywhere.

—Samuel F. Smith.

song

**TREE PLANTING ON RURAL SCHOOL GROUNDS.**

The neglected condition of the school ground has not remained without notice or without some effort toward improvement. The sentiment in favor of school ground comfort and adornment has gradually increased for the last thirty years, and has been greatly aided by the establishment of an annual Arbor Day for tree planting. Arbor day was proposed by Hon. J. Sterling Morton, ex-Secretary of Agriculture, and was first observed in Nebraska, where it was officially recognized in 1872. It was first associated with school-ground planting in Cincinnati, in 1882, in connection with a meeting of the American Forestry Association. Since then it has been best known by its observance in the schools. All the States have followed the example of Nebraska in establishing Arbor Day, and the movement has now spread into many foreign countries. Great Britain, France, Spain, Japan, and New Zealand, all celebrate their Arbor Day.

**METHOD OF CELEBRATING ARBOR DAY.**—The governor of each State annually appoints Arbor Day at the proper season for planting. This day is celebrated in the schools by public exercises appropriate to tree planting, with essays, songs, and recitations by the pupils, and addresses by visitors. In connection with the exercises there is ordinarily more or less tree planting. Great care is taken to make the planting ceremonies impressive by letting the children take part, and by planting trees commemorative of noted persons or events. Much more attention is given to these matters than to having the trees in the best condition and to planting them just right.

As might have been expected, the results upon the school grounds have not been marked. Too often the work has been impulsive and the interest transient. Trees planted with ceremonious dignity in April have died of neglect before September, and those that survived have been left to fight unaided their battles for existence. So little attention has been paid to the choice of trees and to the methods of planting that those entirely unfit for the situation have often been used, and have been planted in places where they could not receive protection while young, or serve any useful purpose when grown. Arbor Day has often come on dry, windy days, or clear out of season for planting. Furthermore, the planting has been on too small a scale to be of great benefit. When an acre of trees in a solid block is needed, only half a dozen specimens have been planted. After all that has been done, the school grounds are still largely unimproved.

**NECESSITY FOR BETTER METHODS.**—The needs of the school grounds is for plantations of hardy trees, cared for by such methods as will keep them constantly thrifty. The trees should be selected and planted in the most careful manner. They should be properly placed, and in sufficient number. To plant in this way requires a great deal of attention of details. It may be the work of several days. The perishable nature of trees also makes it extremely important to plant them when the weather conditions are just right. Dry, windy weather

may cause several days' delay in the planting. It is therefore impracticable to depend wholly on a specified day for the work. Let the trees be planted at the right time; then, if public exercises are planned, they may be held on an appointed day after the planting is completed.

Many difficulties at present encountered may be overcome by placing the direction of the planting in the hands of some person who understands fully its purpose. The pupils should assist in the work because it is for their own school ground, but on account of their lack of experience they should work under competent supervision.

There should be both purpose and method in school-ground planting. The trees must be so arranged as best to serve both for protection and for ornament. At the same time, to grow well they must be adapted to the soil. On a small ground but little planting is possible; a group of trees or shrubs placed where they will look well or hide some unsightly feature of the school house or ground, is sufficient. But in the country there is usually an acre or two of grounds. The school house is nearly always in the middle, and the playgrounds are usually about half way between the building and the other boundary. This arrangement leaves open the outer portions of the ground, where the greater part of the planting is needed.

By so planting, the school house will be protected on all sides from the wind, while in summer, shade will be provided near all portions of the open playground; at the same time inclosing the ground with a border of trees will give a pleasing ornamental effect. Instead of being continuous around the ground, the border should be broken in places to preserve attractive views of the exterior landscape.

The front ground in most cases should be solidly planted. If it is necessary to hide objectional buildings and other objects on the front and sides or to prevent the trespassing of stock, either a hedge or an irregular belt of shrubbery may be made to serve the purpose. Two or three groups may be introduced where they will not interfere with the playground or obscure attractive views.

**KIND OF TREES TO PLANT.**—The first rule to lay down is to plant only the kinds that are known to be hardy. A school-ground plantation is no place for experiment. Naturally the trees will have to endure greater hardships than those of a private plantation; they will be likely to have less cultivation and be subject to more abuse. No matter how strict the rules, the soil about them will be more or less tramped, and twigs will sometimes be broken from their tops. Any tree that cannot endure moderate abuse of this kind should not be given a place on the school ground.

On account of difference in the soil, a tree that thrives in one place in a locality may not thrive in another place. Sandy soils and clay soils are often found near together, and trees that grow thrifty in sandy soil may have a hard struggle to exist when placed in clay. For this reason both the soil and the subsoil of the ground should be carefully examined, and a list should be made of trees in the neighborhoods that are thriving on soils of the same character, and no other species should be used. Much better success may be expected with a soil and a

subsoil of a porous character than with one that is tenacious and impenetrable. Yet a careful study will show numerous species adapted to each kind of soil.

Elms, oaks and maples are to be had almost anywhere, and are easily transplanted. They are as beautiful as any trees to be found, and are in every way well adapted for the school ground. They grow on a great variety of soils, and can be easily raised from seed if young trees are not available. Every region will afford other valuable sorts, such



Mistletoe Springs, near Cement, Okla.

Courtesy Sturm's Oklahoma Magazine.

as beeches, chestnuts, walnuts, ashes, pines, or spruces. From these and such other desirable kinds as the locality affords the selection should be made.

The school ground being permanent and the need of trees continuous, for the most part long-lived trees should be used. But where the present need of trees is great, there is another side to the question. A short-lived tree grows quickly, coming into early usefulness and serves its purpose for from twenty-five to fifty years. A long-lived tree usually grows more slowly, but serves its purpose for a century or more. In many cases it is advisable to use the two kinds in

such a way that the long-lived trees will become useful about the time the short-lived trees reach maturity. The latter can then be removed, leaving the ground to the long-lived trees. In all cases an ultimate stand of such trees as elms, oaks, walnuts, or chestnuts should be the aim.

It may seem that the number of kinds that may be used for school ground planting is small, but this is not the case. In almost all sections of the country a long list of species fully adapted to the purpose can be made out. In selecting among these the aim should be to give the plantation as much variety as possible, since among other purposes it is to serve that of instruction.

**OBTAINING THE TREES.**—In many places trees can be obtained from the neighboring forests, from the banks of streams, from plantations, or even from open fields. If they have had normal conditions of growth and are taken at the right time, they are almost as valuable for planting as nursery-grown seedlings. Pines, spruce and cedar are to be collected in unlimited numbers in many forests, and frequently ash, maple and elm are almost as abundant. They may be gathered either in the fall or spring, but unless they are very carefully heeled in and protected over winter the better time is early spring. In collecting forest seedlings only the small trees that have grown in the light should be taken, as these are more likely to be young and vigorous than those grown in the shade. The collector should never pull the trees from the ground, but should dig them carefully with a spade, preserving as much of the root as possible.

**TIME AND MANNER OF PLANTING.**—South of the thirty-seventh parallel, fall planting is safe and often advantageous. North of this, spring planting should be the rule, as fall planted trees can scarcely develop sufficient roots to sustain themselves during the winter. The most successful nurserymen practice early planting for deciduous trees, beginning operations as soon as the ground ceases freezing. Evergreens are not planted until later; some even wait until the young growth is starting. If possible, planting should be done on a cool, cloudy day. Unless the day is very moist, the trees should be carried to the planting site in a barrel half filled with water, or a thin mixture of earth and water, and lifted out only as they are wanted. Even a minute's exposure to dry air will injure the delicate roots—the feeders of the tree.

The roots should be extended in their natural positions and carefully packed in fine loam soil. It is a good practice to work the soil about each root separately and pack it solid with the foot. As the hole is filled the earth should be compacted above the roots and around the stem, in order to hold the tree firmly in the place. The last two inches of soil should be very fine, and should lie perfectly loose. It will serve as a mulch to retain the moisture.

Trees should be planted neither in very wet nor in very dry soil. If the soil is wet, it is better to wait until it is dryer. On the other hand, if good cultivation has been maintained the year previous to the

planting the soil is not likely to be so dry that trees will not start. Besides insuring a supply of moisture, such cultivation puts the ground in good physical condition for planting.

With this treatment watering will scarcely ever be necessary. If it is, the holes may be dug a few days beforehand and filled with water. They should be refilled as the water soaks away until the soil is fully moistened. A thorough irrigation, when that is possible, is still better. As soon as the soil becomes somewhat dry the trees should be planted. While it is a common custom to water trees at the time of planting, people who do no watering are usually the most successful. Even in the semi-arid regions some successful growers apply no water, but keep up an excellent system of cultivation, thereby retaining the soil moisture.

The spacing of the trees is not so important in school ground planting as in forest plantations, yet it is worth consideration. The trees should not stand so near together as to produce, long slender poles; on the contrary, short, thick trunks are desirable, to support large tops and withstand heavy winds. From 8 to 12 feet apart will be suitable spacing distance. Where large blocks are to be planted the trees may be closer, but it is scarcely ever desirable to plant them closer than 6 by 6 feet.

WHY TREES DIE IN TRANSPLANTING.—To many persons it is a mystery why trees die after being transplanted. They do not die without cause, however, and when one begins to wither something is wrong. Oftentimes the result is not to be noticed until weeks after the injury; in other cases it is apparent in a few days. After the injury has been done it can be overcome only by the subsequent growth of the tree. All the assistance that can be given is to make the surroundings of the tree favorable for growth. The following are some of the causes of death among transplanted trees:

The loss of the principal part of the root system when the tree is being taken up is a great shock to its vitality, and frequently causes its death. A very large part of the root must be cut off, for usually the space surrounding the tree is filled with fibrous rootlets, myriads of which can scarcely be detected with the naked eye. Almost all of these are lost, as well as many of the larger roots. Mr. D. C. Burson, of Topeka, Kan., last year dug up and measured as much as he could of the root system of a vigorous hardy catalpa seedling that had grown from May till November. This six-months-old seedling showed over 250 feet of root growth. By the methods in common use only a fifth, or perhaps as little as a tenth, of the root is taken up with tree in transplanting. Such loss throws the root out of balance with the top. If the top is not shortened, or in some way protected, the leaves may evaporate more moisture than the roots can provide, resulting in the death of the tree.

With proper subsequent treatment a tree can endure the loss of many roots, but instead of the needed protection it often gets much unnecessary exposure to sun and dry air. This may be in digging, packing, shipping, unpacking or any other of the various handlings which it undergoes between its removal from the ground and subsequent planting. On a warm day in March the writer saw a bundle of trees in

shipment across the plains of Texas without the slightest covering. Before the destination was reached the roots became withered and almost dry, having suffered a hundred times more exposure than the ordinary tree can stand without injury. Not many persons would be guilty of such gross neglect, but the fact remains that exposure causes the death of more trees in transplanting than any other single cause. Exposure can usually be easily prevented, and no one who persists in neglectful practices can hope to be successful.

The failure to pack the soil tightly about the roots is a common error in planting. It causes injury in two ways: It leaves the tree unstable, to be rocked to and fro or even blown down by the wind; it also prevents the first growth of rootlets from absorbing food. This they cannot do unless good, fine soil is firmly packed around them. Clods will not pack snugly. Likewise manure or litter of any kind mixed with the soil may prevent firm packing. Anything that prevents the soil particles from coming into close contact with the roots is sure to be injurious. Another error is in shallow planting. This allows wind and water to lay bare the roots, and in a short time the tree dies. Crowding the roots into too small a hole is a similar difficulty. Such errors are more often due to lack of experience and skill than to haste. The unskillful planter will hardly plant well, however, slowly he may go.

Trees are often injured by being planted in wet soil. Whether the excessive moisture is a permanent or a temporary condition is likely to make little difference in the results. If it is permanent the water prevents the air from reaching the roots, while if it is only temporary the trampling of the soil over them causes it to stick together so that on drying it becomes baked, leaving them impact in a hard lump of earth which excludes the air. Excessive air currents in the soil are injurious by drying the roots, but a constant permeation of the soil by the air is necessary to supply oxygen. This process is precluded by either the saturation or the baking of the soil. Undrained pockets occur here and there even in well drained fields, and are always difficult to deal with in tree growing.

Another cause of death is the drying out of the soil. Summer droughts are not unknown in any part of the country, and are very frequent in parts of the Mississippi Valley on the Plains. Occasionally they are so intense and long continued that it is difficult to make recently planted trees survive, even when carefully planted and cultivated. In such a time, those which are poorly planted and cultivated are almost sure to die. Frequently, too, weeds and grass grow up in the plantation and draw off the moisture, thereby greatly diminishing the supply for the young trees.

On a school ground there is likelihood of the trees being injured by the trampling of the soil. The pupils will naturally wish to play among them, and unless they are restrained the soil will soon become compacted. It then dries out very quickly, and in time of drought the trees are sure to suffer, and may be killed.

CARE OF TREES AFTER PLANTING.—Important as the process of planting is, one can never be certain that a tree planted with the



greatest care will live and reach maturity. Much depends upon the after treatment. In many parts of the country cultivation is absolutely essential, and nearly everywhere a tree will thrive better and grow faster during its early years with cultivation than without. The purposes of cultivation are mainly to protect young trees from the encroachment of weeds and grass, to keep the soil in good physical condition, and to retain the moisture. Good cultivation is that which serves these purposes without injuring the trees. It does not necessarily include deep tillage. In fact, deep tillage may be positively injurious by breaking off the feeding roots, and is usually not necessary to loosen the soil. Very few soils are too hard for tree roots to penetrate if moisture is plentiful. The best way to retain moisture is by frequently stirring the soil to a depth of two or three inches. The longer cultivation is continued, the better will be the effect upon the trees. It should not cease in any case until they are well established and prepared to thrive without further attention.

Scattering or isolated trees cannot usually be cultivated except by occasionally spading up the earth within a circle of a few feet around them. This is necessary in order to keep the grass and weeds from crowding them and retarding their growth.

The difficulty in tilling a school-ground plantation will come during the vacation period. That is the busy time of the year, when crops must be tilled and harvest reaped. Unless the person in charge is very watchful the plantation is sure to suffer.

Although artificial watering is not recommended, it is necessary to keep the soil of the plantation moderately moist. Sometimes a great deal of moisture can be added by conducting to the plantation the water that drains from adjacent slopes. A small trench made to correspond with the contour lines of a hill or slope will often gather almost all the surface drainage water. In the Northwest, trees planted as snowbreaks a few rods from the north and west sides of the plantation will cause the drifts of snow to form just outside the plantation. The trees will thus be saved from breakage, and a helpful supply of moisture will be added at the edge of the plantation.

The responsibility will devolve upon the teacher to inculcate a spirit of respect on the part of the pupils for the plantation. The best way to do this is to make them feel a responsibility for its success. If they feel a personal pride in it, there is little danger of their giving the trees rough usage by bending or breaking them.—Farmers' Bulletin No. 134, U. S. Department of Agriculture.



Turner Falls, in the Arbuckle Mountains.  
Courtesy Sturm's Oklahoma Magazine.

*Jewell*  
**LIST OF HISTORICAL TREES.**

The Elm Tree at Philadelphia under which William Penn made his famous treaty with nineteen tribes of barbarians.

The Charter Oak at Hartford which preserved the written guarantee of the liberties of the Colony of Connecticut.

The Wide-spreading Oak Tree of Flushing, Long Island, under which George Fox, the founder of the Society of Friends, preached.

The Lofty Cypress tree in the Dismal Swamp under which Washington reposed one night in his young manhood.

The huge French Apple tree near Ft. Wayne, Ind., where Little Turtle, the great Miami chief, gathered his warriors.

The Elm tree at Cambridge in the shade of which Washington first took command of the Continental army, on a hot summer's day.

The Tulip tree on King's Mountain battlefield in South Carolina on which ten blood-thirsty Tories were hanged at one time.

The tall Pine tree at Ft. Edward, N. Y., under which the beautiful Jane McCrea was slain.

The magnificent Black Walnut tree near Haverstraw on the Hudson at which General Wayne mustered his forces at midnight, preparatory to his gallant and successful attack on Stony Point.

The grand Magnolia tree near Charleston, S. C., under which General Lincoln held a council of war previous to surrendering the city.

The great Pecan tree at Viller's plantation, below New Orleans, under which a portion of the remains of General Peckenham was buried.

The pear trees planted, respectively, by Governor Endicott, of Massachusetts, and Governor Stuyvesant, of New York, more than two hundred years ago.

The Freedman's Oak, or Emancipation Oak, Hampton Institute, Hampton, Virginia, under which the slaves of this region first heard read President Lincoln's Emancipation proclamation.

The Eliot Oak of Newton, Mass., under which the apostle, John Eliot, taught the Indians Christianity.

The old Liberty Elm of Boston planted and dedicated by a schoolmaster to the independence of the colonies, and the rallying point for patriots before, during and after the Revolutionary war.

The Burgoyne Elm at Albany, N. Y., planted the day Burgoyne was brought there a prisoner.

The Ash and Tulip trees planted at Mount Vernon by Washington.

The Elm tree planted by General Grant on the Capitol Grounds at Washington.

Sequoia—Palo Alto, California.

The Cary Tree planted by Alice and Phoebe Cary in 1832, a large and beautiful Sycamore, seen from the Hamilton turnpike, between College Hill and Mt. Pleasant, Hamilton County, Ohio.

### WHY WE SHOULD ENCOURAGE TREE PLANTING.

“The civilized nations of the world strike three million matches every minute of the twenty-four hours. Nearly one-half of these are ignited in this country. Americans use up the enormous total of seven hundred billion a year, and have a larger match bill than any other nation in the world.

Hundreds of factories over the country are engaged in this industry, about which the general public knows but little. Some of the plants are very large; one on the Pacific Coast covers 240 acres, and has thirty-two miles of railroad to supply the match machines with 200,000 feet of sugar pine and yellow pine logs a day.

The rejected timber from the match factories is good enough to be made into many articles of a larger size; and the by product end of the match business becomes the largest end, so far as bulk is concerned. Among the by-products turned out by a large Pacific Coast factory are 1,000 doors and 800 sashes daily.

As a matter of fact, it would be impossible to carry on the match business at all, at present prices, if the rejected lumber were not worked into something else. The room where matches are made is frequently the smallest department of a match factory. The larger portions contain the sawmills and planing mills where doors, sash, shingles, lath, siding, posts, cordwood, and many other salable commodities are made ready for market.

Wood for matches is a much more serious problem in some of the European countries than it is as yet in the United States. The most suitable match timbers, are, pine, linden, aspen, white cedar, poplar, birch and willow. Others, however, are occasionally used. Germany imports willow and aspen from Russia. Some time ago the Germany match manufacturers petitioned the minister of agriculture to cause the foresters to plant aspen in the state forests to supply wood for matches without importing.”—Forestry and Irrigation.

“In the United States, as well as in Canada, a diligent search for choice forests is maintained, and very large tracts have been bought by companies in the match business, not only to meet present demands, but to provide for years to come. In a single year one match company cut 225 million board feet of pine in the Lake region. The cut in that instance was exceptionally large, however, in order to save timber which was threatened by the ravages of a bark beetle. There are more than 150 match manufacturers in the United States, and about half that number in Canada.

In common with other industries of the United States which depend upon existing forests, the match-makers are within sight of a shortage in the wood supply. When present timber holdings have been depleted, they cannot be duplicated. If forced to economize, the people of this country might get along with fewer than twenty-five or thirty matches a day per capita as at present; but they will probably insist on having them, and will demand, as in Germany and France, that foresters plant and grow timber especially for matches. This could readily be done if forests were placed under competent management and not left to run wild, producing cordwood and brush when they ought to grow merchantable timber.”—Forestry and Irrigation.

### THE WOODS.

The woods at first convey the impression of profound repose, and yet, if you watch their ways with open ear, you find the life which is in them is restless and nervous as that of a woman; the little twigs are crossing and twining and separating like slender fingers that cannot be still, the stray leaf is to be flattened into its place like a truant curl; the limbs sway and twist, impatient of their constrained attitude; and the rounded masses of foliage swell upward and subside from time to time with long soft sighs, and, it may be, the falling of a few rain-drops which had lain hidden among the deeper shadows.—Oliver Wendell Holmes.

### THE SPRING TIME.

I love to trace the break of Spring step by step. I love even those long rain-storms, that sap the icy fortunes of the lingering winter,—that melt the snows upon the hills, and swell the mountain brooks.

I love the gentle thaws that you can trace, day by day, by the strained snow-banks, shrinking from the grass; and by the quiet drip of the cottage eaves. I love to search out the sunny slopes under some northern shelter when the reflected sun does double duty to the earth, and when the first Hepaticas, or the faint blush of the Arbutus, in the midst of the bleak March atmosphere, will teach your heart, like a hope of Heaven in a field of graves. Later come those soft, smoky days, when the patches of winter grain show green under the shelter of leafless woods, and the last snow drifts reduced to shrunken skeletons of ice, lie upon the slope of northern hills, leaking away their life. Then the grass at your door grows into the color of the sprouting grain, and the buds upon the lilacs swell and burst. The old elms throw down their thin dingy flowers, and color their spray with green; and the brooks when you throw your worm or the minnow float down whole fleets of the crimsoning blossoms of the maple. Finally the oaks step into the opening quadrille of spring, with grayish tufts of a modest verdure, which by and by will be long and glossy leaves.—Ike Marvel.

### THE OAK.

A gentleman once stood before an oak tree pondering deeply. Nine miles from the coast of Cornwall lay some dangerous rocks on which many a brave ship had been wrecked. Twice a lighthouse had been erected upon them, and twice destroyed. On what plan could he build a new one, which should stand firm through storm and tempest? The oak tree stands for hundreds of years; branch after branch may be broken off, but never the oak. Mr. Smeaton wondered if it was not the peculiar shape, the broad base and curving waist, that made this tree so strong. He went away, and in 1759 the new Eddystone Lighthouse was built, broad at the base and sloping upwards like the trunk of the oak tree; and it stands firm to this day.—Mrs. Dyson.

### THE PINE TREE.

The tremendous unity of the pine absorbs and moulds the life of a race. The pine shadows rest upon a nation. The northern peoples, century after century, lived under one or other of the two great powers of the pine and the sea, both infinite. They dwelt amidst the forests as they wandered on the waves, and saw no end nor any other horizon. Still the dark, green trees, or dark, green waters, jugged the dawn with their fringe, or their foam. And whatever elements of imagination, or of warrior strength, or of domestic justice, were brought down by the Norwegian or the Goth, against the dissoluteness of degradation of the south of Europe, were taught them under the green roofs and wild penetralia of the pine.—John Ruskin.

### STATE FLOWERS.

Alabama .....	Golden-Rod
Arkansas .....	Apple Blossom
Colorado .....	Columbine
California .....	Erchacholgia
Delaware .....	Peach Blossom
Illinois .....	Rose
Indiana .....	Corn
Idaho .....	Syringa
Iowa .....	Rose
Kansas .....	Sunflower
Kentucky .....	Golden-Rod
Louisiana .....	Magnolia
Maryland .....	Golden-Rod
Maine .....	Pine Cone and Tassel
Minnesota .....	Moccasin Flower
Mississippi .....	Magnolia
Montana .....	Bitter Root
Missouri .....	Golden-Rod
Michigan .....	Apple Blossom
Nebraska .....	Golden-Rod
New York .....	Rose
North Dakota .....	Wild Rose
Oregon .....	Oregon Grape, or Barberis Nervosa, Barberis Aquifolium
Ohio .....	Scarlet Carnation
Oklahoma .....	Mistletoe
Pennsylvania .....	Golden-Rod
Rhode Island .....	Violet
South Dakota .....	Pasque
Texas .....	Blue Bonnet
Utah .....	Sego or Mariposa Lily
Vermont .....	Red Clover
Washington .....	Rhododendron
West Virginia .....	Rhododendron Maximum

“Nature is mythical and mystical always, and works with a license and extravagance of genius. She has her luxurious and florid style as well as art. Having a Pilgrim’s Cup to make, she gives to the whole—stem, bowl, handle, and nose—some fantastic shape, as if it were to be the car of some fabulous marine Deity, a Nereous or Triton.”

—HENRY DAVID THOREAU.

### THE GLADNESS OF NATURE.

Is this a time to be cloudy and sad,  
 When our mother Nature laughs around;  
 When even the deep blue heavens look glad,  
 And gladness breathes from the blossoming ground?

There are notes of joy from the hang-bird and wren,  
 And the gossip of swallows through all the sky;  
 The ground-squirrel gayly chirps by his den,  
 And the wilding bee hums merrily by.

The clouds are at play in the azure space,  
 And their shadows at play on the bright green vale,  
 And there they stretch to the frolic chase,  
 And there they roll on the easy gale.

There’s a dance of leaves in that aspen bower,  
 There’s a titter of winds in that beechen tree,  
 There’s a smile on the fruit, and a smile on the flower,  
 And a laugh from the brook that runs to the sea

And look at the broad-faced sun, how he smiles  
 On the dewey earth that smiles in his ray  
 On the leaping waters and gay young isles;  
 Ay, look, and he’ll smile thy gloom away.

—William Cullen Bryant.

### GARDENS FOR SCHOOL CHILDREN.

Much has been said and written during the past five or six years on the subject of school gardens, and many efforts have been made by teachers and pupils to carry out the suggestions of these speakers and writers. In the majority of cases these efforts have not been crowned with the success that the enthusiastic teacher and her equally enthusiastic pupils had reason to expect. Why is this?

In the first place, few teachers and pupils should attempt to grow anything to maturity in school gardens. The reason for this is plain. The country schools close during the latter part of May and early June; the teacher goes to her home, and the little garden in which all have taken such pleasure and pride, lies neglected and forgotten, during the very weeks in which it needs most attention and care. In a few days, at this rapidly growing season of the year, the weeds have overrun the garden and a little later have completely starved out the plants. The garden, once a pleasant spot to look upon, becomes an offense to the eye and an object of derision to the passerby, perhaps to the children themselves. What, then, is the use of a school garden?

The school garden's sole and only use is that of an experimental plot with which to teach the conditions influencing the growth of plants and in which to interest children in the study of plant life. Here the soil may be properly fertilized, carefully prepared, thoroughly pulverized, and the seed-bed made by the children themselves under the guidance of the teacher. In this plot the seeds may be placed at the proper distance apart, covered to the right depth, and their germination and growth watched and carefully studied from day to day.

Each pupil may keep a note book in which he records the date of planting, the date when the first plants appear, the progress of their growth, and the time of the successive cultivations. He may also keep a record of weather conditions from the date of planting, noting the morning, noon, and evening temperature, if a thermometer is at hand, and whether the day is clear, cloudy, or rainy. In this note book he may keep a record of all of his work in this garden.

To each pupil may be assigned a particular portion and several pupils may be encouraged to cultivate the same kind of plants and vie with each other in trying to force them to make the most rapid growth. The teacher may encourage this competition and assist the less successful to find the cause of their failures.

This garden should not be large, its size depending upon the number of pupils in the school. In no case should any pupil have more space allotted to him than he can easily care for in the best possible manner.

When school is about to close, all plants should be pulled up and the plot sown to clover and oats or some other quick-growing crop, to keep it free from weeds and that it may be in good condition for the next year's garden. In no case should it be left to grow up to weeds and become an eyesore and a discouragement to the pupils who planted it. Better not plant a garden at all.

In conjunction with this school garden, and of far greater importance, the pupil may be encouraged to grow plants to complete maturity



in the garden at home. Here too, he may have a small plot, all his own, on which to exercise the same industry and care he has been taught to use at school. In this home garden he may profit by his school experience and by better planting, more thorough cultivation, careful thinning and the like, bring his plants to complete and more nearly perfect maturity.

Each county superintendent should see that there are prizes offered by the county fair authorities for grains, vegetables, and fruits grown by school children in their home gardens. When this is done and rightly done, parents will not complain that their children take no interest in gardening and teachers will not give voice to that wail now too often heard, "O, what can I do to interest my pupils in the study of agriculture?"—K. L. Hatch.

Other countries, and many of the states of our own country, are making a success of school gardens. Why not Oklahoma?

We must induct into our schools something that will have a tendency to interest our boys and girls in that great and good occupation which is the foundation of all industry,—farming.

There is generally a lack of interest, on the part of our boys and girls, in the things of the farm, and there is a reason for it. It is too often the case on the farm, that the parent orders the boy or girl to plant certain things under certain conditions without explaining the whys and wherefores. The child simply goes about the task in a mechanical way without concern as to the manner in which he performs it. If the parent would take the time to explain why it should be done thus and so, and at that particular time, the child would become interested and take pains to do the work in the best manner possible, looking forward to results instead of trying to get the piece of work done as soon as possible.

The school garden is the first principle of the great study of agriculture, and there should be a garden in connection with every school in the state. There is no reason why we should not have them if we will put into practice what knowledge we are now in possession of along this line. One writer has aptly said, "Enough spasmodic theorization on teaching practical agriculture and aesthetic Nature Study has been expended to pay off the national debt. Let us pass into the next stage of the argument and get down to ways and means."

The importance of the school garden is just beginning to be appreciated in this State, but I am sorry to see that many of our teachers still regard it as an experiment of doubtful propriety. The State normal schools and the Logan County High School have had school gardens for the past two years, and the results have been gratifying in the extreme. However, it still remains for an organized movement to be undertaken along this line by all of our public schools. A recent writer struck the keynote when he said, "Something more than mere talk is needed if our school grounds are to be made beautiful, and if our children are to have elementary instruction in agriculture. Unless something is done, the grounds will continue to be desolate. The study of agriculture in the country schools must lead the children to investigate for themselves with reference to soil and plant life. Hence the beginnings of the school

garden movement in the country school, though crude and unscientific to the expert, are to be commended, for they are a long advance over the do-nothing policy which has prevailed long enough. Let us have the courage to be pioneers in a movement that is right in itself, though we may not be able to see very far ahead. Manual training was held up to derision and laughed to scorn by those who were supposed, by themselves at least, to know all worth knowing in the theory and practice of education. Manual training flourished, however, and the school garden has at least a fighting chance. To contemplate the difficulties in country-school gardening is to do nothing, and while the average country school teacher is not as well trained, perhaps, as she should be, still this does not prevent her from learning something about school gardening and beginning to work in a limited way."

#### THE TRAILING ARBUTUS.

I wandered lonely where the pine-trees made  
 Against the bitter east their barricade,  
     And, guided by its sweet  
 Perfume, I found, within a narrow dell,  
 The trailing spring flower tinted like a shell  
     Amid dry leaves and moss at my feet.

From under dead boughs, for whose loss the pines  
 Moaned ceaseless overhead, the blossoming vines  
     Lifted their glad surprise,  
 While yet the bluebird smoothed in leafless trees  
 His feathers ruffled by the chill sea-breeze,  
     And snow-drifts lingering under April skies.

As, pausing o'er the lonely flower I bent,  
 I thought of lives thus lowly, clogged and pent,  
     Which yet find room,  
 Through care and cumber, coldness and decay,  
 To lend a sweetness to the ungenial day,  
     And make the sad earth happier for their bloom.

—John Greenlief Whittier.

**THE FARMER.**

If the farmer fails  
And can not buy,  
Then the merchant's goods  
Upon the shelf must lie.

If the farmer fails  
And has nothing to sell,  
Then the banker's account  
Does not swell.

If the farmer fails  
And has nothing to ship,  
The railroad train  
Makes an empty trip.

If the farmer fails  
And hasn't the money aught  
Then the lawyer's fee  
Drops down to naught.

If the farmer fails  
And hasn't the bills,  
Then the doctor  
Ceases to roll his pills.

If the farmer fails  
And can not pay,  
The school-teacher's account  
Waits for another day.

If the farmer fails,  
As sometimes fail he must,  
The world's business lags  
And the wheels of commerce rust.

But if the farmer succeeds,  
As succeed he should,  
We all look happy  
And we all feel good.

For upon our broad shoulders  
All the rest do lie,  
And sometimes the pile  
Gets very, very high.

—JAMES B. HUNNICUTT, in Agriculture for the Common Schools.

**School Teachers:**

“Have you ever talked with your pupils about keeping the schoolroom neat and clean and the grounds attractive? Are there any pictures on the walls of your schoolroom? Does the floor need scrubbing? Are there any piles of rubbish in the yard?”



University Boulevard, Norman.  
Courtesy Sturm's Oklahoma Magazine.

**FORESTRY BULLETINS.**

The publications listed below are of special value to the people interested in forestry. Copies may be obtained free of charge by addressing THE FORESTER, United States Department of Agriculture, Washington, D. C.

Circular 35: Forest Preservation and National Prosperity.

Circular 36: (Fourth Edition) The Forest Service: What it is and how it deals with Forest Problems.

Circular 96: Arbor Day.

Circular 140: What Forestry has done. (Status of Forestry in various foreign countries.)

Circulars 54-77, 82-95, and 106. Forest Planting leaflets.

Farmers' Bulletin 173: A primer of Forestry. A Reprint of Bulletin 24, Part 1.

Circular 97: The Timber Supply of the United States.

Circular 130: Forestry in the public Schools. Forest Service



Quick Growing Trees Alternating with Elms and Hackberries. Planted March, 1907. Background Shows Method of Obscuring Closets. Courtesy Sturm's Oklahoma Magazine.

## Part Two

### BIRD DAY

#### HISTORY OF BIRD DAY.

“Native labor is of little value to us because nearly every other day is public or religious holiday.” Thus spoke a prominent contractor of the present conditions in South America Too many holidays! The same complaint has been urged against the schools. Too many holidays! Celebrations of birthdays, anniversaries, special days, etc., are said to be taking up too much of the time of school children. Then it must indeed be for a very good reason that a new holiday is proposed.

\* Superintendent C. A. Babcock, of Oil City, Pa., thought he had a good reason for a new holiday and so proposed the observance of Bird Day. As far as is known he was the first to publicly propose the setting aside of one day in the year for the study of birds. In 1894 he wrote the Secretary of Agriculture at Washington, urging the establishment of such a day, and in reply, Mr. J. Sterling Morton, at that time the Secretary, said the suggestion had his “cordial approval.” Then we may say that May 4, 1894, was the first Bird Day. Exercises were held in Oil City, Pa., and consisted of compositions, poems, talks and discussions about birds. The interest was good and the idea seemed to be one which would be very generally accepted.

The following year the Oil City schools had another Bird Day, and it has since become a regular event in the schools of that city. Of course the papers discussed the new holiday, some calling it a fad, others commending the idea.

The discussion spread to the west, and in 1896 we find Ft. Madison, Iowa, celebrating Bird Day. Superintendent Morrill, in describing the first Bird Day in Iowa, said, “I never saw children so enthusiastic in

preparation. The children brought their pet birds and the building rang with bird music all day long."

The same year our own Prof. Bruner of the University of Nebraska urged the idea of Bird Day in the schools. He said, "We should have a Bird Day, just as we have a Flag Day or an Arbor Day, when suitable exercises should be held." About this time the Department of Agriculture issued a circular on Bird Day in the schools, warmly urging the idea on the teachers and superintendents throughout the country.

From far away New Mexico, from California, Florida and Pennsylvania, and even from Boston came reports of successful Bird Day celebrations.

In our own state the day has been observed in a quiet way in several places. A number of cities and villages and more country schools have had successful Bird Days and are planning others.

A special program is the usual method of bringing the birds before the pupils. These programs consist of lists of birds seen in the vicinity, observations on their habits, pictures of their nests and eggs, notes on their value and abundance and talks about their protection with a few choice poems or bits of literature given as recitations. In some schools a quarter holiday is given when the pupils are expected to give their time to walks in the woods and fields, watching the actions and learning of the lives of these feathered friends.

The Nebraska Ornithologists' Union was organized in 1900 for the purpose of encouraging the study of the birds in the schools and heartily approves of the idea of Bird Day.

The observance of the day is becoming more general every year and during the coming year a number of schools are expecting to have their first Bird Day. The movement is encouraged by the Audubon Societies and Clubs for the protection of our native birds because they realize the need of just such work as is accomplished by Bird Day. It is hard to see why the time should be far distant when Bird Day will be as well known and as generally observed as any other special day."—Wilson Tout, Dunbar, Neb.

The purpose of the Audubon Society is too well understood to need reiteration. This article is to set forth some of its methods, especially such as apply to schools. It is particularly important that the work of the Audubon Society be brought before the pupils of the schools, because not only is that the time of life when impressions are strongest and when tendencies develop, but also every boy may, through a lack of proper training, be a very destructive enemy of bird life. We hope to see the time when parents will consider a spyglass a better present for their son than an air gun.

Largely through the efforts of the Audubon Society, there is hardly a state in the Union but has some stringent laws for the protection of birds. But it is not enough to stop the destruction of birds. Let us also work for the encouragement of bird life. The destruction of forests has taken away the natural building places of many species. Almost every householder insists upon keeping one or more semi-domesticated,



Farm Scene.

Courtesy Sturm's Oklahoma Magazine.

totally worthless cats, every one of which destroys a number of birds each year. If we enjoy having the song birds in our vicinity, some of us have a very queer way of showing our appreciation.

In spite of the fact that country children are in close touch with nature, they study it least. The farmer too is the one most benefited by the birds; yet he is not unlikely to be their enemy. We are therefore especially anxious that our magazine, and the work of the Audubon Society in general, should reach the rural schools."—Thos. R. Moyle, Appleton, Wis.

### THE ROBIN AND THE FLOWER.

A robin once sat in the bright winter's sun,  
A foolish red robin was he,  
For he sang a sweet song that spring time had come  
When the day was as cold as could be.

So gay was his song of the warmth of the hour,  
So merrily babbled the sound,  
That it stole through the dream of a dear little flower  
Who was slumbering under the ground.

The sleeper awakened, soft lifted the sod  
And harkened the robin's sweet song,  
Full glad was her heart and thankful to God  
That winter so quickly had gone.

The robin still sang and the dear little flower  
Unfolded her petals of pink:—  
"I'll hold up my chalice," said she, "for a shower  
That from me my robin may drink."

The singer flew quickly to welcome his love,—  
His love that was faltering low:—  
Oh, where was the warmth from the heaven above?  
Instead of a shower there was snow.

The robin quick covered her o'er with his wing,  
"Don't leave me, I love you," he cried:  
And he kissed her so tenderly, poor little thing,  
But the blossom, his loved one, had died.

Red robin still sits in the bright winter's sun,  
But a sorrowing robin is he;  
No longer he sings that the springtime has come  
When the day is as cold as can be.

—CHAS. A. MYALL.



### USEFULNESS OF BIRDS.

Birds can be useful to us in many ways. They can carry the seeds of different plants from place to place so as to help start new groves, in which we may find shelter from the cold in winter and the heat in summer. They plant shrubs by the wayside that spring up and later bear good fruit. They also carry the eggs of fishes and small crustaceans among their feathers into new waters, and feed upon the countless millions of weed seeds that are scattered over our fields. Some kinds live almost entirely on insects; while others hunt out and destroy such small animals as mice, ground squirrels, and gophers. Still other birds, like some of the useful insects, act as scavengers by helping to remove decaying things that would make us sick if not cleared away.

In addition to these direct benefits which are the gifts of birds, we are further indebted to them for the cheer which their gay music, bright plumage, and pleasant manners bring to us. The birds form a carefully planned army of police, which is engaged in keeping things balanced in nature.

But we can go even further when summing up the benefits that human beings may derive from birds. A great many kinds are excellent food, while others furnish soft feathers for pillows and warm coverlets on beds.—Bessey-Bruner-Swezey.

### BIRDS AS ENEMIES.

Everybody knows that birds sometimes do harm as well as good. So we must try to learn just what this harm is and whether or not it is as great as some people would try to make us believe. Quite a number of different birds are continually doing things that we call wrong. If we only knew of these wrong things and nothing of the good they do, it might go pretty hard with the doers.

Some of the wrong things that birds do are cherry and berry stealing, grain eating, grape puncturing, apple pecking, corn pulling, the carrying of some kinds of bark lice on their feet from one place to another, the spreading of hog colera by crows and turkey buzzards, the robbing of the poultry yard, and lastly the disturbing of our slumbers in the morning by their songs.

Some of these so-called crimes are genuine and are to be regretted. Others are more imaginary than real. A few of them could be prevented in part or altogether, while others might be made less severe if we were inclined to take the trouble to do it. After all that can be said in favor of and against the usefulness of birds in general, there can be no doubt left, in the minds of thinking people at least, as to the value of these creatures. Only ignorant and thoughtless persons will continue to destroy our birds after learning facts like these about them.—Bessey-Bruner-Swezey.

## A STORY.

Louise had persuaded her brother to take her out hunting with him. It was a beautiful spring day and they had had a fine time in spite of the fact that the ducks were all gone and snipe and curlew were too wary to stay within reach of a gun.

The meadows and marshes were full of blackbirds and bobolinks. The rich, joyful chee-e-e-e from the glossy blackbirds poised on the top of a dead weed or slender willow, where they spread their wings so as to show to the best advantage their brilliant patches of red and yellow, mingled with the clearer, sweeter call of Bob-o-link, Bob-o-link from the bright bits of color swaying and fluttering at the very tip of the canebrakes.

"See that bobolink that just lit on that sunflower stalk! Believe I'll see if I can hit him. Too bad to take nothing home," said Hal.

"Oh, but it's too pretty—don't kill it," objected Louise.

"That's always the way with girls," grumbled Hal. "Don't want a fellow to kill anything. Guess I'll leave you at home next time I go hunting."

"Well, if you want to, I s'pose you can," yielded Lou.

The bobolink tossed and swayed and called until it seemed as if its little heart must burst from excesses of joy.

The boy's gun was aimed.

"Too far away. Can't hit it if I try," said he as he lowered the gun.

Still the bird swayed and fluttered its wings and called.

"Seems 'most as if he was daring us to try to shoot him," said Lou.

"I can't hit him from here, anyway," said Hal, carelessly aiming and pulling the trigger.

Through the puff of white smoke the children saw the bird pause a moment in its fluttering, then fly swiftly.

"You didn't hit it," said Lou in a relieved voice.

"'Fraid I did," answered Hal, regretfully, and as he said it, the bird now flying close to the ground dropped into the grass.

The children picked the dead bird up. The shot had left no mark and not a glossy feather was disturbed, only those at the throat still ruffled as if the interrupted notes of its last call might yet be finished.

"What did you do it for?" asked Louise.

"Why did you let me do it?" returned Hal.

"What are you going to do with it?" questioned the girl.

"Don't know," replied her brother.

"Wish we hadn't done it," said Louise.

"Let's go home. I'm tired," said Hal.

Louise discovered that she, too, was tired. The bright sky seemed suddenly to have become clouded over and a raw chilly wind which they had not noticed before was now blowing. Somehow all the birds seemed to have stopped singing and gone away; at least to Hal and Louise there was but one bird left in the meadow now and that was the poor little bobolink in the pocket of Hal's hunting jacket.—Caroline E Stringer, Lincoln, Neb.



