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Arbor Day Bird Day Good Roads Day



Colorado 1912

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THE
STATE TEACHERS
COLLEGE OF COLORADO
Greeley, Colo.





"Symbol of Greatness, Mountains Rise,
'Neath Colorado's Sunny Skies.
Both Pure and Royal Is Her Sign,
The White and Purple Columbine."

COLORADO ARBOR DAY 1912

BIRD DAY

GOOD ROADS DAY

1912

6

PREPARED FOR THE PUBLIC SCHOOLS BY

HELEN MARSH WIXSON

SUPERINTENDENT OF PUBLIC INSTRUCTION

April 19, 1912

This Arbor Day Manual is not the private property of anyone—either teacher, member of Board of Education, or patron—and must always be kept as a part of the school library. One of these is sent to every school building in the State.

DENVER, COLORADO

THE SMITH-BROOKS PRINTING CO., STATE PRINTERS
1912

THE
STATE TEACHERS
COLLEGE OF COLORADO
Greeley, Colo.

All other anniversaries refer to the past and its dead. Arbor Day alone deals with the present and the future. It stretches its sheltering shades over the unborn millions of coming generations and in the voices of the leafy woods pronounces benediction upon posterity.—J. STERLING MORTON, *Founder of Arbor Day*.

STATE OF COLORADO
EXECUTIVE CHAMBER
DENVER.

EXECUTIVE ORDER.

ARBOR AND BIRD DAY PROCLAMATION.

To create in the children of our schools an interest in trees, shrubs, flowers and birds, and to cultivate an appreciation of the beauties of nature, Arbor and Bird Day has been established in our State.

The planting of trees awakens in the planter a higher appreciation of things beautiful, and creates a greater regard for the practical things that do not mean immediate profit.

The Federal, State, County and municipal government should observe the day and join with the public schools in tree planting, that the day may be both pleasant and profitable.

To assist in attaining this end, it is recommended that Arbor Day be observed as largely as possible by the planting of trees, flowers, and shrubs at our homes, our school grounds, and our parks, which shall serve to increase their beauty, and foster in the minds of the young a love of nature.

NOW, THEREFORE, I, John F. Shafroth, Governor of the State of Colorado, in conformity with law and custom, do hereby designate Friday, the Nineteenth day of April, 1912, as Arbor Day.

IN TESTIMONY WHEREOF, I have hereunto set my hand, and caused the Great Seal of the State of Colorado to be affixed at Denver, Colorado, this Twelfth day of March, A. D. 1912.

(SEAL)

John F. Shafroth
Governor.

ATTEST:

James H. Thompson
Secretary of State.

To the Teachers of Colorado:

The day set apart by the Governor this year as Arbor and Bird Day is April 19th, and it should be marked in the schools of our State by some distinct work on the part of both pupils and teachers, that its results may reach into the future, for Arbor Day is a day devoted to the future rather than the past. It does not seek to commemorate heroes who have passed away, but it seeks to do something which, in years to come, will be of benefit to the community at large. The returns may not be immediate, but they are unselfish, and the observance of the day should be more than a mere holiday. Its best application, in our schools, should be as a course in nature study, for a day set aside to plant trees is of little value unless we combine with it the love and study of trees. If the children who celebrate the day are not awakened to a love and understanding of trees, flowers and birds the day is in vain.

With this issue of the Arbor and Bird Day Annual will be found the first "Good Roads Day" department, the second Friday in May being set apart as "Good Roads Day," by act of legislature.

There is every reason why the school children should be impressed with the importance of good roads in our State, and be given an understanding of the elementary principles of road administration and construction, for the public roads closely affect not only our commercial conditions, but our social and educational environment. Celebrate "Good Roads Day" by teaching this, and that good roads are a necessity and must be built, as a church or school house must be provided, for the public good, and that even the children may "lend a hand."

Faithfully,

Allen Marsh Wixson

FOREWORD.

Arbor Day was established in order that public sentiment might be roused and our great natural resource, the forests, be preserved. There is a wise old German proverb that says, "What you would have appear in the nation's life you must introduce into the public school," and believing in its wisdom we have set apart the third Friday of April as a school holiday, consecrating it to tree-planting.

Arbor and Bird Day should be a civic holiday, a day when something is done to improve the school grounds and the entire neighborhood. Arbor Day allies itself with the general movement which makes for improvement in civic conditions, and children trained to study trees and flowers and take delight in their cultivation, see that city streets and country roads are made attractive.

Let us begin with this Arbor Day to plan and lay out playgrounds, plant flowers, vines, shrubs, and that most enduring of our treasures—the tree, and while doing so teach the place and purpose of the tree, its dignity and its worth.

Throughout all time man has been the tree's sincere admirer, and the influence of its companionship is deep and lasting.

In youth he walked and played beneath its friendly shade. In age he sat beneath the sympathetic shade, and when the shadows fell and "taps" were sounded, he found rest at its feet.

There was a tree called "the tree of life" and its leaves were for "the healing of the nations." Let us have the trees; as they grow good citizenship will grow with them.

To my Mother Mrs. Emily McFerran.

COLORADO.

Words & Music by
MAUDE McFERRAN PRICE.

Allegretto.

f *rit.*

p

On the plains, long a - go, Roamed red men and buf - fa - lo;
Years have passed and at last Flow - ers bloom in de - sert vast,
Pi - o - neers of earl - y years, Chequ - ered lives of joys and tears,

p

f *rit.*

When pale stran - gers came to stay, Sweep - ing those lost lives a - way,
The old or - der borne a - way. All to change and naught to stay,
Watch their coun - try as it grows, De - sert bloss - 'ming as the rose.

f *rit.*

Copyright 1906 by Maude McFerran Price, Colorado Springs, Colo.
Published 1907.

agitato *agitato*

New - er ceas - ing war-fare wag - ing While the de - sert storms were rag - ing,
 Save the moun - tains grand and high, Reach - ing far in - to the sky,
 Hear them praise, with won - drous pride, This dear coun - try fair and wide,

agitato *cresc.* *f*

p

Light - ning glare filled the air, While Pil - grims knelt in pray'r.
 Sen - try peaks, in si - lence deep, O'er the can - ons guard shall keep.
 Glad to rest in their last sleep Where the peak its watch shall keep.

REFRAIN.. Broadly.

To Col - o - ra - do, my Col - o - ra - do, Where the
 For Col - o - ra - do, my Col - o - ra - do, Land of
 In Col - o - ra - do, our Col - o - ra - do, Soft - ly

soulfully emphatically

skies are ev - er blue, Came the white men, tried and true, To Col - o -
lil - ac, col - um - bine, Bloom - ing in the sum - mer shine, In Col - o -
mem - 'rys grace shall fall, Like moon - beams on the moun - tain wall, O! Col - o -

1st. and 2nd. Verses.

ra - do, their El - do - ra - do, In the moun - tains, rear - ing homes and ci - ties
ra - do, dear Col - o - ra - do, A sov - reign states proud flow'r and re - gal
ra - do, grand Col - o -

3rd. Verse. dramatically

D.C.

new. - ra - do, For in life or death, our dreams shall be of thee.
sign.

D.C.

COLORADO.

A picture of vastness. Great sky-touching mountains, canons with leafy groves and cooling streams, fertile valleys, and over all the ocean-blue of the heavens.

Human progress has plowed and planted; civilization has made grain to grow in the waste places, and has garnered where once was but desert. Cities have sprung up out on the silent plains, and homes now line the old highways over which the slow-moving ox-teams stretched their weary way when the Great American Desert was the land of the unknown; when scattered trees, like grey ghosts, stretched their arms to the glowing horizon, and the wind, which came down the valley, spoke of visible and invisible mystery in a land of vast silence and space, but a land with pictures to delight the eye and charm the senses.

But the mountains of Colorado became land-marks to thousands who voyaged across the great desert. It was the land that beckoned, and today the whistle of the engine is heard from ocean to ocean. When your eye is trained that it may discover the beauty that dwells in Colorado, when your ear is attuned to catch the music of the plains, the anthem the wind sings in the deep canons, when your heart finds rest in the comradeship of the mountains, then you will know and love Colorado, and if you go away you will never forget in after life; you will remember forever and forever. And always will you hear the voice of the mountains, the canon and the plain that lures, calling, calling.

IN APRIL

The soft brown earth betrays
The airy tread of April's tricky feet,
As laughing, crying, through the bush and brake,
She stoops to kiss the violets awake
With woodsy whispers sweet.

The grass spreads green and cool,
Its lowly blessing by the dusty street;
Strives o'er decay its loving robe to fling,
Or guides, with fresher verdure, to the spring
We seek with eager feet.

Now, with a fresh delight
We note the weeds, the humble wayside flowers;
Or where the brave anemone lifts up
On breezy heights, its chastely-tinted cup,
Beguile the mid-day hours.

The butterflies pursue
Their airy phantoms with unconscious zest;
And soon, the orchards, tossing scented plumes,
Will hear the bees hum softly to the blooms
The secret of their quest.

The trees bear swelling buds;
The cottonwood, the graceful elm, the pine,
The maple, dropping blooms in crimson rain,
Feel the swift life-blood tingling through each vein—
And, as by mystic sign,

All nature bursts in leaf;
Till hidden are the nooks whence happy birds
Fly to and fro, on building cares intent,
Or in the finished nest, chirp their content
With wealth of tuneful words.

The earth's a-thrill with Spring.
Her quickening impulse pricks the sluggish nerve,
Till we too, stirred to action, find employ
For hand and heart and brain, and taste their joy
Who love, and therefore serve.

For idlers clog the world;
There is no place before its wheels for sloth;
And they alone who work with might and will
To roll it Godward—they alone fulfill
The highest law of growth.

—Antoinette Arnold Hawley.

BEAUTIFYING SCHOOL GROUNDS.

BY B. O. LONGYEAR.

The usual school yard of the writer's boyhood days was given practically no attention in the matter of making it attractive. Although in a region where grass, shrubs, and trees grew without irrigation, it was seldom that any attempts were made to employ these natural means of beautifying the grounds. The observance of Arbor Day together with the growing interest in landscape gardening is beginning to show results at least in the towns and cities, while rural school grounds may occasionally be found that show some attempts at improvement.

The average conditions to be met with, even in the most favored regions, however, come far short of what should and might be done.

Very few persons will deny the value of an attractive home yard, with its lawn, a few shrubs, flower beds and the gracious presence of trees, but the school yard in the rural districts is pretty sure to be neglected.

In Colorado, there is another difficulty to be met with in the growing of plants upon the school grounds and that is the matter of irrigation. In most towns and cities and in the more populous country districts this can be supplied.

It is usually the teacher who must be the leader in school ground beautifying except in the larger town or city schools and even there, in many cases, inspiration should come from the principal.

To secure the most effective results, there should be some kind of plan whereby the work may be guided year by year. In the majority of cases it will be out of the question to employ the services of a professional landscape gardener and, here again, the teacher's resourcefulness will be tested. The help of some one or more persons in the district, who show by their home surroundings that they possess good ideas along this line, may be enlisted.

The nearest public library should contain some books or periodicals giving information on the subject and, in addition, it is possible to get free literature from the United States Department of Agriculture that will be of service.

While each locality and each school yard presents a different problem, there are some general principles which need consideration.

First, make a survey of the grounds and draw a map showing the scale in feet and the location of each building; also of each tree and shrub that may be growing on the ground. This should offer an attractive problem for the older pupils of the school and at the same time enlist their sympathies toward carrying out the improvements. Second, study the situation carefully together with the pupils and sketch in a diagramatic way on the map, or an enlarged copy of it on the blackboard, the places where trees, shrubs and flowers should be planted.

In deciding upon the location of these, it is well to consider the following:

Leave ample room for open play grounds where the boys may play ball without destroying the plants. Mass the shrubs and trees so as to screen any objectionable or unsightly objects on the grounds. Avoid setting trees where they will shut off in time the best views of the distance, a fine farm home, a beautiful valley, or a mountain peak. The most pleasing effects are usually secured by planting trees and shrubs, not in formal rows, but in natural groups along the sides and in the corners of the place, leaving the front and central spaces open. A mass of shrubs is more effective than scattered individuals and much less liable to be run over and broken down. They should be set in the corners about the building and against the foundation, using the tall growing kinds as a background for the lower ones.

Do not attempt to have formal flower beds like those seen in public parks and expensive grounds. All annuals and herbaceous flowering plants should be set along a wall or in the front edges of the shrubbery beds where they will be in less danger of trampling and will make the best appearance.

The heaviest planting of trees and shrubs should be along the sides of the grounds from which the prevailing winds blow.

When about to do the actual work of planting, avoid undertaking more than can be well done. The ground should be well prepared by deep spading or plowing and enriched with decomposed manure for shrubs, and small plants and even trees do best with similar treatment.

In the older districts, donations of shrubs and trees from the homes of the neighborhood may sometimes be secured if school funds are not available for purchasing nursery stock. The native species that may be found in the region should also be used.

In setting trees, especially, care should be taken to keep the roots moist from the time they are dug up until set in the ground. Pack the moist soil firmly about the roots; then prune back the top of the tree at least one-half or two-thirds. If the soil is dry, water should be put in the hole when planting. When completed, the soil should be raked and left fine and loose on the surface to prevent rapid evaporation of moisture. Frequent cultivation with hoe and garden rake will lessen the need of irrigation and also secure more vigorous growth.

Trees. The school yard should possess as large a variety of trees as the room will permit and thus furnish material for nature study lessons, together with the attractiveness of their varied foliage effects.

Our native cottonwoods are suitable for the largest areas and may be started from cutting of a non-cotton bearing individual in the neighborhood. Some study of trees growing in the region, if not recently setted, should show what trees are best adapted to the locality. The elm, ash, locust, silver maple, box elder, and black walnut are widely adapted to planting in this State and in time may reach a large size. The Russian olive, wild plum, and our native hawthorns make low trees under most conditions. For evergreens, our native species should be used. Especial care is needed in transplanting most of them to avoid letting the roots get dry.

Shrubs. Lilacs, bush honeysuckle, privet spiraea, barberry, and snowball are the most reliable of the introduced shrubs for this State. Our native kinds should also be made use of, such as flowering or buffalo currant, wild gooseberry, nine bark, wild roses, snowberry, and others that may be secured in the region.

Vines. Of these our native woodbine, clematis, and hop are excellent and will remain for years when established.

Herbaceous Plants. The hardy perennial kinds are easiest to care for and when once planted will often increase in beauty from year to year if given some attention. Among these are paeonies, hardy phlox, golden glow, Oriental poppy, iris, and hollyhocks. Our native plants, such as columbine, anemone, larkspur, golden pea, several kinds of wild aster and golden rods, and for very dry spots, the Spanish bayonet, should find their way into the collection.

School Gardens. Much interest is being manifested at the present time in the matter of school gardens. They are particularly suited to our town and city schools, for the reason that in most country districts the school grounds are apt to be neglected during the summer vacation period. However, in some cases

arrangements could be made whereby certain pupils were to look after the plants once or twice a week until school opened again in autumn. In planning the permanent improvement of the school grounds, it is well to reserve a few square rods of ground in one corner, or other situation where it will be safest from trampling.

In this area, such garden and field crops as may seem desirable may be grown in uniform beds. Here, also, should be started a little tree and shrub nursery from which stock may be obtained to some extent, in later years, for planting the rest of the grounds.

Many trees, such as black and honey locust, box elder, ash, black walnut, yellow and pinon pines, and several other species of trees can be started from seed; while cottonwoods, willows, and poplars may be grown from cuttings.

The following books, and the publications of the United States Department of Agriculture will be of service in connection with the matter of beautifying the school grounds and conducting school gardens. The free literature which is available from the latter source alone makes it possible for the inexperienced teacher to do some work along these lines.

How to Plan the Home Grounds, Parsons, \$1.

The Landscape Gardening Book, Grace Tabor, \$2.

The bulletins in the following list may be obtained by writing to the Secretary of Agriculture or to the Superintendent of Documents, U. S. Department of Agriculture, Washington, D. C.:

No. 218, The School Garden;

No. 408, School Exercise in Plant Production;

No. 423, Forest Nurseries for Schools;

No. 468, Forestry in Nature Study;

No. 96, Arbor Day;

No. 130, Forestry in the Public Schools;

No. 134, Tree Planting on Rural School Grounds;

No. 157, The Propagation of Plants;

No. 185, Beautifying the Home Grounds;

No. 218, The School Garden;

No. 824, Plants as a Factor in Home Adornment.

TWO SCHOOLS.

I put my heart to school
In the world, where men grow wise;
"Go out," I said, "and learn the rule;
Come back when you win the prize."
My heart came back again;
"And where is the prize?" I cried,
"The rule was false, and the prize was pain,
And the teacher's name was Pride."

I put my heart to school
In the woods, where the wild birds sing,
In the fields where flowers spring,
Where brooks run cool and clear
And the blue of heaven bends near.
"Go out," I said, "you are only a fool,
But perhaps they can teach you here."

"And why do you stay so long,
My heart, and where do you roam?"
The answer came with a laugh and a song—
"I find this school is home."

—Henry Van Dyke.

To avert treelessness; to improve the climatic conditions; for the sanitation and embellishment of home environments; for the love of the beautiful and useful combined in the music and majesty of a tree as fancy and truth unite in an epic poem, Arbor Day was created. It has grown with the vigor and beneficence of a grand truth, or a great tree.—J. Sterling Morton.

STATE FLOWER AND TREE.

By act of the Legislature March 22, 1889, the third Friday in April of each year was designated as Arbor Day in Colorado, and the occasion has been faithfully observed by the schools of the State. The naming of a State flower by vote of the children taking part in its first celebration, April, 1890, gave zest to the occasion, and poems and essays on the flowers of the State afforded a pleasing programme for the literary part of the several entertainments in honor of the day. Fifty native flowers were entered in the contest, and the columbine was selected by a large plurality. Number of votes cast, 22,316. Of these the columbine received 14,472, its nearest competitor being the lily

mariposa, with 1,157 votes, the cactus following with 1,027 votes.

In like manner, on Arbor Day, 1892, the blue spruce was chosen as the State tree, pronounced by botanists to be the most beautiful conifer in the world—very rare and found only in the Rocky Mountains.

SPRING WAKING.

A Snowdrop lay in the sweet, dark ground,
"Come out," said the Sun, "Come out!"
But she lay quite still and she heard no sound.
"Asleep," said the Sun, "No doubt!"
The Snowdrop heard, for she raised her head.
"Look spry," said the Sun, "look spry!"
"It's warm," said the Snowdrop, "here in bed."
"Oh fie," said the Sun, "Oh fie!"

"You call too soon, Mr. Sun, you do!"
"No, no," said the Sun, "Oh, no!"
"There's something above and I can't see through."
"It's snow," said the Sun, "just snow."
"But I say, Mr. Sun, are the robins here?"
"Maybe," said the Sun, "Maybe."
"There wasn't a bird when you called last year."
"Come out," said the Sun, "and see!"

The Snowdrop sighed, for she liked her nap,
And there wasn't a bird in sight,
But she popped out of bed in her white night-cap;
"That's right," said the Sun, "that's right!"
And as soon as that small night-cap was seen,
A Robin began to sing,
The air grew warm and the grass turned green,
"'Tis Spring," laughed the Sun, "'Tis Spring!"
—Selected.

WE THANK THEE.

For flowers that bloom about our feet;
For tender grass, so fresh, so sweet;
For song of bird and hum of bee;
For all things fair we hear or see,
Father in Heaven, we thank Thee!

For blue of stream and blue of sky;
For pleasant shade of branches high;
For fragrant air and cooling breeze;
For beauty of the blooming trees,
Father in Heaven, we thank Thee.

—Author Unknown.

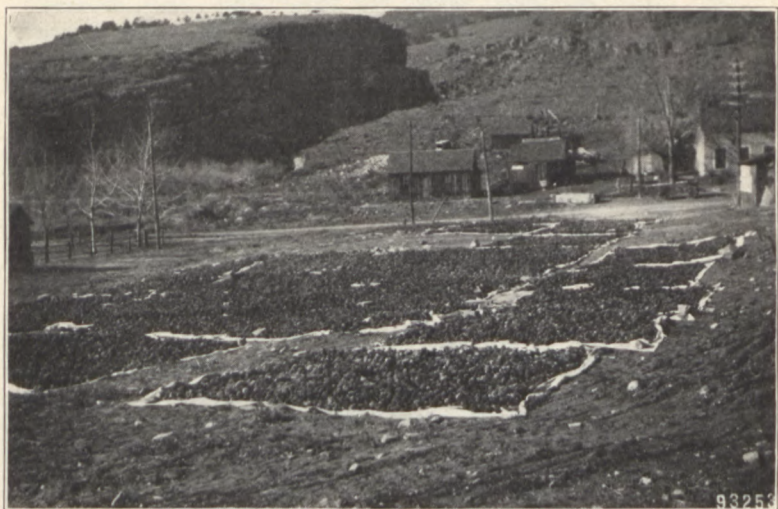
REFORESTATION, OR THE GROWING OF NEW FORESTS.

BY SMITH RILEY, DISTRICT FORESTER.

Next to protecting the Forests from fires, one of the most important problems confronting the United States Forest Service in its administration of the National Forests is the reforestation of the burned-over areas within the Forests. Definite plans have been made for this work, extending over a period of years, and the increased interest in reforestation is shown by comparing the acreage reforested during the past three years. In 1909, there were some 240 acres; in 1910, 2,050 acres; and in 1911, a total of 6,000 acres. Present plans call for the reforesting of 6,000 acres during the coming year, no increase over the year 1911, since the amount that can be reforested depends upon the quantity of tree seed that is available.

The first step is to obtain the tree seed. This work differs with the different species, but the actual collection of the cones containing the seed is accomplished by picking from felled and standing trees, and by collecting the cones from squirrel "caches" on the ground. The cones are then hauled to a central point where the extraction of the seed from the cones can be more economically carried on. The method of extraction varies with the different kinds of seed. Some cones are spread on canvas sheets in the sun until the heat opens them; others require artificial heat and mechanical methods to open the cones. This is especially true of the lodgepole pine, one of the most important species growing in the Forests of Colorado. After the cones have become sufficiently open to allow of the seed dropping out, they are run through a "shaker" which revolves on an axis, and is covered with fine wire mesh. The seed falling through this mesh is gathered up and cleaned by means of fanning mills, revolving brushes, and other methods. Germination tests of the seed are carried out to determine the amount of good seed and the number of pounds necessary to plant per acre.

When we have our seed, the next step is to plant it. The planting may take various forms; broadcast sowing on the snow; in spring when the ground is moist; during summer and



Yellow pine cones spread on sheets for drying, previous to being run through cylindrical shaker to extract seed. Colorado National Forest, 1910.



Setting out young trees on the Pike National Forest. This is on the Bear Creek watershed from which Colorado Springs secures its water supply.

in the fall. The success of broadcast sowing depends upon the quality of the soil, the season, the exposure of the soil, topography of the area, and upon the weather conditions following.

Another method is by "seed spots." Here the bare mineral soil is exposed by means of mattocks, hoes and rakes for a space of about one foot square, the spots being spaced from four to six feet apart. From 15 to 20 fertile seed are sown on these spots and lightly covered with earth. This has proven to be the most successful method of direct sowing, and, while more expensive in first cost, is more economical in the end.

For difficult reforestation the transplanting of seedlings from nurseries is used. This is especially true in the sandhills of Nebraska, and on the watersheds of important streams in Colorado.

Taken as a whole reforestation in the National Forests presents varied problems, many of which still remain to be worked out successfully. From the collection of the seed to the time the seedlings are sufficiently strong to withstand the various diseases incident to tree life, there is a continuous battle for life by the little seedlings against the elements, rodents, and insects.

COLORADO MOUNTAIN PEAKS.

	Feet.		Feet.
Mount Massive	14,424	Mount Maroon	14,003
Mount Elbert	14,421	Mount Capitol	13,997
Sierra Blanca	14,390	Snowmass Mountain ...	13,970
Mount Harvard	14,375	Pigeon Mountain	13,961
La Plata Mountain.....	14,342	Mount Ouray	13,956
Gray's Peak	14,341	Mount Grizzly	13,956
Mount Torrey	14,336	Horseshoe Mountain ...	13,912
Mount Evans	14,330	Mount Blanc	13,905
Mount Lincoln	14,297	Mount Frustum	13,893
Mount Buckskin	14,296	Pyramid Mountain	13,885
Uncompahgre Peak	14,289	Silver Heels Mountain..	13,855
Long's Peak	14,271	Mount Haynes	13,832
Quandary Peak	14,266	Mount Arkansas	13,807
Castle Mountain	14,259	Mount Hamilton	13,800
Mount Wilson	14,250	Mount R. G. Pyramid..	13,773
Mount Antero	14,245	Mount Rowter	13,750
Mount Shavano	14,239	Mount Ptarmigan	13,746
Mount Crestone	14,233	Mount Gibson	13,729
Mount Princeton	14,196	Mount Silesia	13,699

Mount Yale	14,187	Mount Oso	13,640
Mount Bross	14,185	Spanish Peaks	13,620
Baldy Mountain	14,176	Spanish Peaks	12,720
Mt. of Holy Cross.....	14,170	Mount Grayback	13,615
Mount Lizard Head....	14,160	Mount Rosalie	13,575
Mount Sneffles	14,158	Mount Guyot	13,565
Goats Mountain	14,132	Mount King Solomon...	13,550
Pike's Peak	14,109	Trinchera Mountain	13,546
San Luis Mountain....	14,100	Mount Buffalo	13,541
Mount Red Cloud.....	14,092	Mount White Rock.....	13,532
Mount Culebra	14,069	Mount Arapahoe	13,520
The Wetterhorn	14,069	Mount Dunn	13,502
Mount Simpson	14,055	Mount Dolores	13,502
Mount Aeolus	14,054	Mount Kendall	13,480
Needle Mountain	14,051	Sultan Mountain	13,336
Mount Sherman	14,048	James' Peak	13,283
Mount Humboldt	14,041	Mount Homestake	13,227
Mount Stewart	14,032	Mount Hunchback	13,133
Mount Handie	14,008	Mount Sopris	12,823

"He who plants a tree plants a hope."

Boulder was the first Colorado city to secure a foothills park. A bill granting to the city three square miles of adjacent public land was signed by President McKinley. The crags and forest-clad slopes that rise in characteristic beauty just south and west of the city are included in the grant.

Boulder people have proved that they know how to make good use of such a gift. To the top of the nearest of the foothills, Flagstaff, they have built a splendid mountain road, unsurpassed in the vistas it affords of lake-spangled plains. Below Flagstaff, on ground owned by the city, they have established and maintain a Chautauqua.

All this has added to the advantages of the university town.

And when 1,500 students leave for the summer vacation their places are taken by Texans, Kansans and others who have learned Boulder and her climatic and scenic environment.

Denver has twenty-seven parks, with a total acreage of 1,089—one acre of park ground for every 207 people in the city. Of the 1,089, 241 acres are devoted to lakes, which in an inland city one mile above sea level is worth of note. There are 848 acres devoted to landscape and scenic effects, to driveways, recreation, buildings and inclosures.

This information is in the report published by the park commission, which places an approximate value upon the city's

park lands and their improvements, including the Montclair purchase made several years ago and the territory to be taken in by the civic center and playgrounds, at \$7,000,000. The maintenance and improvement of these parks during the last year, according to the report, has cost \$266,056.46.

Denver has fourteen playgrounds, half of which are supervised. The total attendance at these playgrounds last year was 100,971 children, 42,816 being recorded for the month of August alone.

God help the boy who never sees
The butterflies, the birds, the bees,
Nor hears the music of the breeze
 When zephyrs soft are blowing.
Who cannot in sweet comfort lie
Where clover blooms are thick and high,
And hear the gentle murmur nigh
 Of brooklets softly flowing.

TALKING IN THEIR SLEEP.

"You think I am dead,"
The apple-tree said,
"Because I have never a leaf to show—
Because I stoop
And my branches droop,
And the dull gray mosses over me grow!
But I'm all alive in trunk and shoot;
The buds of next May
I fold away—
But I pity the withered grass at my root."

"You think I am dead,"
The quick grass said,
"Because I have parted with stem and blade!
But under the ground
I am safe and sound
I'm all alive and ready to shoot,
With the snow's thick blanket over me laid,
Should the spring of the year
Come dancing here—
But I pity the flower without branch or root."

"You think I am dead,"
A soft voice said,
"Because not a branch or root I own?
I never have died,
But close I hide
In a plummy seed that the wind has sown.
Patient I wait through the long winter hours;
You will see me again—
I shall laugh at you then,
Out of the eyes of a hundred flowers."

—Edith M. Thomas.

AN 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 or 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.

PROTECTION OF COLORADO'S NATIONAL FORESTS FROM FIRE.

BY SMITH RILEY, DISTRICT FORESTER.

The main duty of the United States Forest Service which cares for the Forests upon federal lands within our State, is the protection of our forests from fire. No other part of the work incident to a National Forest calls for such an expenditure of time and money as the fire plan. Each National Forest is divided into units for better fire protection; these units call for a system of "lookout" points, telephone lines, roads, trails, fire lanes, tool boxes, and food "caches." The plan for each unit is worked into a fire plan for the District, over which a Forest Ranger has charge, and the District plan is co-ordinated into a complete plan for each National Forest. Definite routes of patrol are worked out, means of transporting men and supplies, places where men can be secured, and methods of fighting the fire enter into the plan. All points of combating a forest fire are considered, just as in a city the most efficient methods are employed in anticipating and fighting the flames. Thus the Forest Service plans in advance its campaign against forest fires, just as an army plans its campaign against the enemy.

Until recent years the people of this country gave little thought to the protection of the Forests. Thousands of acres of timber was destroyed and no effort made to check the destruction. Fires like those in the Northwest in 1910 are public calamities, as great or greater than the San Francisco disaster, and cause a loss of untold millions in the wealth of the country. A city may be rebuilt in a few years, but a forest can not be grown within a century. Since the patrol and protection put into effect by the Forest Service the fire loss has steadily decreased, until in 1911 the actual loss in Colorado was less than \$1,500. But however good our record, it can be maintained only through the fullest co-operation with all the citizens of the State. Campers and tourists especially should have a great interest in protecting the "playgrounds of the people" from destruction. When you go on a vacation or camping trip you do not go to a barren, fire-swept region, but to a place where there are trees and plenty of pure mountain water. If every camper will observe two simple rules there need never be a fire charged against them:

1. Never leave a fire unless it is entirely extinguished.
2. Never drop a match or other fire unless you know it is out.



Forest fire burning on the Cochetopa National Forest near Marshall Pass in the vicinity of the Poncono snow shed, October, 1910.

These rules are easily followed by every one, and they may be the means of saving valuable timber from being destroyed, as well as retaining as an asset to Colorado the outdoor beauties which thousands of people come many miles every year to visit.

HISTORIC TREES.

(An exercise for seven pupils.)

CHARTER OAK.

In history we often see
The record of a noted tree.
We'll now some history pages turn
And note what trees we there discern;
And foremost of this famous band
We think the Charter Oak should stand.
We love to read the story o'er,
How Andrus came from England's shore
As governor in this new land,
And ruled it with a tyrant's hand;
How when he came to Hartford town
Demanding with a haughty frown
The charter of the people's rights,
All suddenly out went the lights;
And e'er again they reappeared,
The charter to their hearts endeared
Lay safely in this hollow tree,
Guard of the people's liberty.
All honor, then, to Wadsworth's name,
Who gave the Charter Oak its fame.

LIBERTY ELM.

Another very famous tree
Was called the Elm of Liberty.
Beneath its shade the patriots bold
For tyranny their hatred told.
Upon its branches high and free
Were often hung in effigy
Such persons as the patriots thought
Opposed the freedom which they sought.
In war time, oft, beneath this tree
The people prayed for victory;
And when at last the old tree fell
There sadly rang each Boston bell.

WASHINGTON ELM.

In Cambridge there is standing yet
A tree we never should forget;
For here, equipped with sword and gun,
There stood our honored Washington.
When, of the little patriot band
For freedom's name he took command,
Despite its age—three hundred years—
Its lofty head it still uprears;
Its mighty arms extending wide,
It stands our country's boasted pride.

BURGOYNE'S ELM.

When, in spite of pride, pomp and boast,
Burgoyne surrendered with his host,
And then was brought to Albany
A prisoner of war to be,
In gratitude for his defeat,
That day, upon the city street,
An elm was planted, which they say
Still stands in memory of that day.

THE TREATY ELM.

Within the Quaker City's realm
There stood the famous Treaty Elm.
Here, with its sheltering boughs above,
Good William Penn, in peace and love,
The Indians met, and there agreed
Upon that treaty which we read
Was never broken, though no oath
Was taken—justice guiding both.
A monument now marks the ground
Where once this honored tree was found.

TREE FROM NAPOLEON'S GRAVE.

Within a city of the dead,
Near Bunker Hill, just at the head
Of Cotton Mather's grave, there stands
A weeping willow which fond hands
Brought from Napoleon's grave, they say,
In St. Helena, far away.

THE CARY TREE.

I'll tell you of a sycamore
And how two poets' names it bore;
Upon Ohio's soil it stands,
'Twas placed there by the childish hands
Of sister poets, and is known
As Alice and Phoebe Cary's own.
One day, when little girls, they found
A sapling lying on the ground;
They planted it with tenderest care
Beside this pleasant highway, where
It grew and thrived, and lived to be
To all around the Cary Tree.

THE HAMILTON TREES.

In New York City proudly stand
Thirteen monarchs, lofty, grand,
Their branches tow'ring toward the sun
Are monuments of Hamilton,
Who planted them in pride that we
Had won our cause and liberty—
A tribute, history relates,
To the original thirteen States.

RECITATION BY THE SCHOOL.

We reverence these famous trees.
What better monuments than these?
How fitting on each Arbor Day
That we a grateful tribute pay
To poet, statesman, author, friend,
To one whose deeds our hearts commend
As lovingly we plant a tree
Held sacred to his memory;
A fresh memorial, as each year
New life and buds and leaves appear—
A living monumental tree,
True type of immortality.

—Ada Simpson Sherwood.



A Rocky Mountain Wild Flower Garden.

A short ride takes one into the mountains, where a brilliant array of the daintiest wild-flowers carpets the rugged hillsides: Columbines, anemones, mariposa lilies, gentians, wild roses, Indian's paint-brush, spring beauties and scores of others; an ever-changing sea of color offset by a somber background of dark pines or the dainty foliage of the aspens.

STATE LOYALTY.

State love is something that should never be blotted from our hearts.

"East, West, Home's Best," and it is good for us to take pride in the State in which we live.

No doubt each State has its own peculiar form of vanity, and it is natural that ours should be the belief—nay, certainty—that Colorado is the grandest State in the Union.

"Surely in toil or fray
Under an alien sky,
Comfort it is to say,
'Of no mean city am I.'"

And, when far from home, the Coloradoan proudly proclaims his home. But that is not enough. We should give our State complete love and loyalty. We should acquaint ourselves with its flowers, its trees, its birds, its rivers, mountains, roadways, and broad acres, its present and its future. Ours is the air of the mountain tops. We should rejoice not only in the sunlight, but in the richness that is ours. We should band together and make it our business to watch for everything that helps our State or hinders, and to use our influence to advance the former while checking the latter.

Colorado is your State. It is my State. Its magnificent ranges, its broad acres, waterways, parks, trees and grass, are yours to protect, mine to protect. Speak well of your State! Be loyal to your State! Wherever you go, north, south, east or west, think of the snowy ranges, think of the great State, won by the sweat and toil of brave men and women, and speak of your State—Colorado—with reverential pride in the past, joy in the present, and with boundless faith and hope for the future.

"In Colorado, our Colorado,
Softly memory's grace shall fall,
Like moon-beams on the mountain wall,
O! Colorado, grand Colorado,
For in life or death, our dreams shall be of thee."

HILLS OF MY HOME.

(Tune: "The Old Oaken Bucket.")

How often I think of the sun's ruddy setting
Far o'er my cliffs when I looked on them last;
So often I think how afar unforgetting,
Dream they today of the days that are past.
But Ah! the lost joys and the old sorrows sleeping,
Calling in dreams to me where'er I roam!
Oh, take your remembrance and love to your keeping!
Oh, Colorado! Oh, hills of my home!



Earliest Mountain Flower, The Anemone.

The far windy prairie and soft grasses blowing,
Swept by the south wind and warm with its rain,
The brooks clear and cold from the brown mountains flowing—
What would I give now to walk there again!
Scarred hills of my heart! you have power for beguiling
All the wide world and its splendors above!
Yet stern to the stranger, to me ever smiling,
Oh, Colorado! Oh, hills that I love!

Yet, Ah! not a bird that wakes with its crying
Joys the years reft from us, dreams that are fled!
Yet, Ah! not a wind there but brings in its sighing
Voices and footsteps from days that are dead!
So fast fly the years by; yet lingers unchanging
Still the dear past for me where'er I roam.
And wide though the world be, and far though my ranging,
Back leaps my heart to you, hills of my home!

—C. Fox Smith.

THE TREE'S DREAM.

"Little green tree so slim and small,
Standing under the school house wall,
Planted there upon Arbor Day,
Tell me, what are you doing, say?
So quiet you stand, and so still you keep,
I really believe you have gone to sleep."

"Oh, I'm dreaming now," said the little tree,
"Of the pleasant days that are to be,
Of the robins and bluebirds that every spring
Will come and sit in my boughs and sing.
Oh, plenty of company I shall see
In my gay green tent," said the little tree.

"I'm dreaming of all the little girls,
In gingham aprons and yellow curls,
That under the shade of my leafy boughs
Will make for themselves a wee play-house,
With nice burr-baskets, the dear little souls,
And pepper-pod teapots and sugar bowls.

"I'm dreaming of all the barefoot boys
That will fill my branches with merry noise,
And climb my limbs like an easy stair,
And shake down my nuts till the boughs are bare.
Oh, jolly good comrade I shall be
When I grow up!" said the little tree."

THE PLANTING SONG.

(*Air*: "America.")

"Grow thou and flourish well,
Ever the story tell
Of this glad day.
Long may thy branches raise
To heaven our grateful praise,
Waft them on sunlight rays
To God away.

"Deep in the earth today
Safely thy roots we lay,
Tree of our love;
Grow thou and flourish long;
Ever our grateful song
Shall its glad notes prolong
To God above."

—Selected.

THIS IS ARBOR DAY.

(*Tune*: "Lightly Row.")

Arbor Day, Arbor Day,
See, the fields are fresh and green;
All is bright, cheerful sight,
After winter's night.
Birds are flying in the air,
All we see is fresh and fair;
Bowers green now are seen,
Flowers peep between.

Swaying trees, swaying trees,
Rocking gently in thy breeze,
Dressed so gay, fine array,
For this is Arbor Day.
While we plant our trees so dear,
All the others list to hear
How we sing, in the spring,
And our voices ring.

Here we stand, here we stand,
Round the tree, a royal band.
Music floats, cheering notes,
Sweet, gaily floats.
March along with heads so high
While our tree is standing nigh;
Step away, light and gay,
On this Arbor Day.

—Selected.



Colorado Apples.

ADVANCEMENT OF HORTICULTURE IN COLORADO.

BY A. E. MAUFF.

It was in 1862 that the first fruit tree was planted by William Lee, in the Clear Creek Valley, within a few miles of Denver, in Jefferson County. At about the same time Jessie Frasier planted the first orchard near Florence, and these two gentlemen were the pioneers in fruit tree planting in the State. It was not, however, until 1881, that the first real planting of commercial orchards was started. At that time a number of orchards were planted about Canon City by Colonel B. F. Rockafellow, and others, and since then the industry has advanced with rapid strides until this year, 1911, Colorado marketed more apples than the combined states of Washington, Oregon, Utah, Idaho, New Mexico, and Montana, and the fame of the Colorado apple has spread, not only all over the United States, but in Europe as well.

There was planted in Colorado in 1911 over one and one-half million fruit trees, or about 18,000 acres of orchards. Of this planting about one-fourth was in cherries. Otero county fruit growers planted a large proportion of this amount, and this county is coming rapidly to the front as a large producer of cherries.

At the National Horticultural Congress held at St. Joseph, Missouri, Colorado won first prize for the best display from a western irrigated district, first and second for the best individual display, first prize on fifty boxes of apples, and first and second prize on ten boxes of apples.

Colorado in the past year produced over two and one-half million boxes of apples and over two million boxes of peaches. Delta County alone produced 1,100 cars of peaches, and the quality of the Colorado fruit the past year was the best produced in any State of the Union.

There is another branch of horticulture in Colorado of which very little has ever been said, and this is the branch of floriculture. But few people in this State realize the extent of this industry in Colorado. There is around Denver alone about 1,000,000 square feet of green-houses devoted to the growing of flowers and plants, and about that much more in Colorado Springs, Pueblo, and other points throughout the State.

A large part of the product of these green-houses is shipped throughout the Rocky Mountain States, Texas, Oklahoma, Kansas, Missouri, and the Dakotas. The product produced by the florists of Colorado now amounts to about \$1,000,000 per annum. The florists of the State have made preparations to hold a monster flower show in Denver next November, and \$5,000 has al-

ready been subscribed as a guarantee fund to carry the same to a successful termination, and the public will be given an opportunity at that time to see what a vast industry this has become in the State of Colorado.

This flower show will probably be held in the Auditorium, and will be the finest exhibit of the florists' art ever held west of the Mississippi River. It will be to the West what the National Flower Show is to the East, and growers are already making preparations for large displays.

The National Apple Exposition Association have already determined to hold another apple show next fall, and these two exhibitions will be object lessons as to the greatness of the horticultural industry of Colorado.

The growing of vegetables under glass is also a branch of horticulture that has been coming rapidly to the front, and there are in this State several millions of square feet of glass used for that purpose, the product being shipped throughout the Rocky Mountain region.

The national and State administrations are giving all the aid they can to further the interests of horticulture, and during the past year the State has acquired from the United States government the Fort Lewis Indian School, at Durango, and the Teller Institute, at Grand Junction, both of which will be devoted to horticultural and agricultural uses.

The number of prizes for horticultural products taken by Colorado is proof that this State stands first in horticulture of all the States in the Union.

THREE LITTLE TREES.

(Recitation for a tiny girl. Three other children stand near, representing the trees—laughing, whispering, telling secrets, clapping hands, etc., in pretty pantomime to the speaker's words.)

Way out in the orchard in sunshine and breeze,
A-laughing and whispering, grew three little trees.

And one was a plum tree, and one was a pear,
And one was a rosy-cheeked apple tree rare.

A dear little secret, as sweet as could be,
The breeze told one day to the glad apple tree.

She rustled her little green leaves all about,
And smiled at the plum, and the secret was out.

The plum told in whispers the pear by the gate,
And she told it to me, so you see, it came straight.

The breeze told the apple, the apple the plum,
The plum told the pear, "Robin Redbreast has come!"

And out in the orchard they danced in the breeze,
And clapped their hands softly, these three little trees.
—Selected.

VACATION TIME POSERS.

"Here are some things I'd like to know
That books don't tell and maps don't show,
And I have asked our teacher, too,
But she can't answer them. Can you?

"Is the Spruce-tree always neat and trim?
Does the DOGWOOD ever bark?
Will the PEACH-tree ever tell on him
Who keeps his misdeeds dark?

"Does the LOCUST chirp or does it hum?
Does the WILLOW pay its debts?
Does the PALM possess a wrist or thumb?
Do PEAR-trees come in sets?

"Do BEECHES grow down by the sea?
Is the CHESTNUT a worn out joke?
Must the PLANE-tree's limbs quite level be?
Are charts from the "CHARTER oak"?

"Do HOG-fish eat from the trough of the sea?
Who makes up the river's BED?
Do SEA-DOGS sail over bays in barks?
Are Marooners always red?

"Are thirty-six inches a LUMBER-YARD?
Can a mile "tie" a sailor's KNOT?
Do they measure fish by POLE or PERCH?
Are WEB-feet the spider's lot?

"Is ice weighed on a sliding scale?
Are canes swung by WALKING BEAMS?
Does a postman wear a coat of MAIL?
Are slippers used by SPANKING TEAMS?

"And, last of all, this bothers me:

What kind of blossom, nut or fruit

(Or kind of 'Nursery Blocks,' maybe)

Would grow from planting a SQUARE ROOT?"

SEASONABLE COLORADO FACTS.

Conditions in Colorado are good and prospects bright. Our resources are wonderful. We have over 3,000,000 acres of the richest irrigated lands. We produce 100,000 tons of refined sugar each year. Applying by irrigation moisture under a perpetual sunshine to the soil produces in quantity and quality the finest crops in the world. The \$75,000,000 invested in the livestock business bring a bountiful return.

Colorado each year produces \$10,000,000 in agricultural and horticultural products, \$38,000,000 in gold, silver and other metals and 10,000,000 tons of coal. According to the geological survey at Washington, Colorado has within her borders 371,000,000 tons of coal, sufficient to supply the world at the present rate of consumption for 300 years. Her iron ore is unlimited.

The power which can be generated by falling water in her mountain streams is from 1,000,000 to 2,000,000 horse power. So cheaply can it be generated that one water power plant sold its entire output at one-half a cent a kilowatt hour. Such advantages must make Colorado a great manufacturing state.

According to the United States census even now Denver's manufacturing output is \$52,711,000 a year, or more than \$1,000,000 a week, and its factory pay roll is more than \$1,000,000 a month.

There are solid mountains of the finest white marble in Colorado, which can supply the world's demand for a hundred years. That industry at the town of Marble is shipping its products to cities in every state in the Union. The postoffice building at Denver, now being erected of that material, is pronounced to be the most beautiful public edifice in America.

Her scenery and climate are unsurpassed and are certain to become assets of greater value than those of Switzerland.

Only twelve per cent of the resources of Colorado have been developed. Within the next ten years her progress will be the marvel and wonder of the world.—From Gov. Shafroth.

Colorado is the leading irrigation state in the Union. The total number of farms that were under irrigation in 1909 was 25,926. The total acreage was 2,792,032. In 1899 the acreage was 1,611,271. This marks in ten years an increase of 8,313, or 47.2 per cent. Within the same period the number of all farms in the state increased 86.9 per cent. The per cent of the whole

number of farms irrigated in 1909 was 56.2. In 1899 the per cent was 71.3, showing a decrease during the ten years of 15.1 per cent.

Colorado farm property increased more than \$330,000,000 from 1900 to 1910, according to a census bulletin. The increase in value of farm land for the period was \$272,000,000. The average value of the land rose from \$9.54 to \$26.81, an increase of 181 per cent.

The government estimated the value of Colorado grains, hay and potatoes for 1911 as \$33,207,830.

Colorado raised \$18,806,200 worth of hay in 1911, according to government estimates.

Colorado marketed \$3,847,536 worth of apples the past season.

Colorado's peach crop for 1911 amounted to nearly \$1,000,000.

Colorado livestock sales in 1911 were \$2,000,000 more than in 1910.

NATIVE TREES OF COLORADO.

PREPARED BY A. E. MAUFF.

Of the thousands of varieties of Colorado's native trees and shrubs, the following are considered the best:

Acer glabra (mountain maple); likes association and moisture, but will grow in the open.

Alnus tennifolia (mountain alder); likes damp places.

Amelanchier alnifolia (juneberry, serviceberry); will grow in exposed positions.

Betula fontinellia (water birch); likes moist places.

Crataegus coloradensis (Rocky Mountain thorn); white flowers, red berries, exposed positions.

Corylus rostrata (Rocky Mountain hazel); open places.

Prunus americana (wild plum); open places.

Prunus virginica (choke cherry); open places.

Prunus demissa (wild cherry); erect and slender.

Populus angustifolia (narrow-leaved cottonwood).

Robinia neo-mexicana (pink-flowering locust).

Shrubs—Tall to Medium.

Cornus stolonifera (dogwood); white fruit; prefers moist places; will grow anywhere.

Cornus canadensis (red fruited dogwood); likes moisture, but will grow anywhere.

Cercocarpus discolor (mountain spirea); white plume-formed flowers; likes exposure.

Jamacia americana; white flowers with orange fragrance; prefers humidity and shade.

Physocarpus Ramaleyi (nine-bark); white flowers; likes partial shade.

Rubus deliciosus (thimbleberry); purple, raspberry-like fruit.

Ribes aurea (yellow currant); grows anywhere.

Ribes cereum (pink currant); red fruit.

Aster adsensus; violet blue; midsummer.

Aster Posterii; small, white; found everywhere.

Campanula rotundifolia (mountain harebell).

Calochortus gunnisonii (Mariposa lily).

Castilleja linariaefolia (tall painter's brush); pale red flowers.

Castilleja integra (dwarf painter's brush); rich orange red; numerous in foothills.

Clematis Fremontii; erect-growing tuft form; thick purple sepals.

Clematis alpina; both trailing and climbing; purplish blue flowers.

Chrysopsis villosa (golden yellow aster).

Coriopsis tinctoria (yellow tick saw).

Delphinium Nelsonii (mountain larkspur); dwarf, dark blue.

Epilobium coloratum (mountain willow herb).

Gaillardia aristata (blanket flower); orange and maroon color.

Geranium Fremontii (cranebill); lavender.

Iris missouriensis (lavender fleur de lis).

Lepachys columnaris (fairy torch); yellow.

Lepachys pulcherrima (fairy torch); bronze, purple ray.

Linum perenne (flax); lavender blue.

Lupinus decumbens (lupine); tall, purple.

Lupinus argentea (lupine); silver foliage, blue flower.

Pulsatilla plattensis (prairie lupine); lavender.

Mentzelia ornata (evening star); white.

Mertensia ciliata (prairie blue bell).

Mertensia lanceolata (mountain blue bell).

Pentstemon barbatus (bear tongue); tall, orange red.

Pentstemon glabra (bear tongue); lavender blue.

Pentstemon caerulea (bear tongue); dwarf, pale blue.

Rosa Woodsii (tall wild rose); grows anywhere.

Rhus glabra (medium-growing sumac); exposed, well-drained positions.

Sambucus canadensis (elder); dark purple fruit, maturing to black.

Sambucus melanocarpa (black-fruited elder).

Shepherdia argentea (buffalo berry); a silver-foliaged spiny shrub, with red fruit.

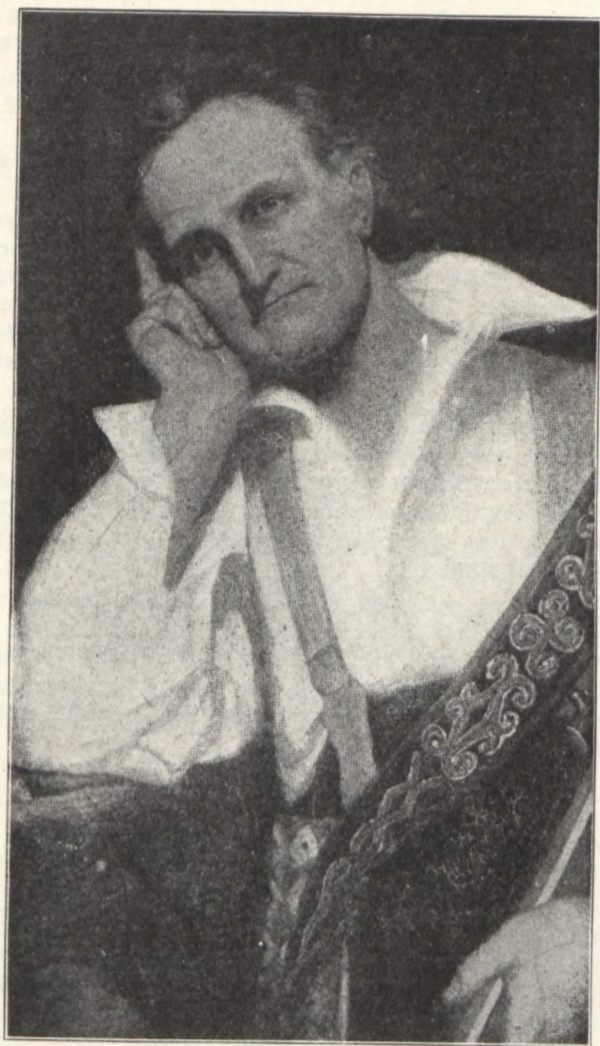
Dwarf Shrubs.

Berberis repens (trailing barberry); exposed positions.

Physocarpus Torreyi (nine bark); partial shade.
Potentilla fraticosa (shrubby cinquefoil, or five finger); yellow flower; moist places.
Ribes saxosum (mountain gooseberry).
Rosa Arkansas (wild rose); red fruit.
Rose blanda; medium growing; red fruit.
Symphoricarpus occidentalis; this is the winter form of the snowberry, but best know out here as wolfberry.
Symphoricarpus panicifolia; another form of the snowberry, commonly called buck rush.

Herbaceous Flowering Plants.

Abronia fragrans; white, fragrant flowers; trailing habits.
Achillea millefolium (white yarrow).
Anemone patens (early pasqueflower); purple.
Anemone cylindrica (wind flower); white.
Anemone Richardsonii (wind flower); light purple.
Aqualegia caerulea (columbine, State flower); lavender and white.
Aqualegia chrysantha (golden-spur columbine).
Aster laevis (Michaelmas daisy, or starworth); lavender blue flowers in fall.
Polemonium confertum (Jacob's ladder); blue flowers.
Rudbeckia kirta (cornflower, or black-eyed Susan).
Solidago spectabilis (tall golden rod).
Solidago himilis (dwarf mountain golden rod).
Thermopsis rhombifolia (buffalo pea); yellow.
Veronica alpina spicata (Speedwell); light blue.



JOHN JAMES AUDUBON.

John James Audubon, the world's most eminent ornithologist, was born near New Orleans, Louisiana, 132 years ago. His great work, "The Birds of America," was completed seventy-three years ago. That work has been an inspiration to those who have seen the birds Audubon knew and loved so well, dis-

appearing, not only as to number, but as to species. It has made the name of its author a rally-cry for bird-lovers under the auspices of a society that has done good work in the past and that promises to do better work in the future for the protection and preservation of native and migratory birds the world over.

Twenty-five years ago the Audubon movement was regarded by the thoughtless as a sentimental fad. The hunter was no less bitter in his opposition to it than the trader in plumage. The sympathies of those who should have been with it were set against it. Public indifference and public contempt were its worst enemies. There was a time, strange to say, when to be a pronounced friend of the bird was to incur the abuse of people who thought such a cause undignified and lacking in manliness and womanliness.

A great awakening came with the rapid disappearance of forest birds, prairie birds, field birds, shore birds, sea birds, birds of plumage, native and foreign, for within the seventy-odd years since Audubon's volumes were given to the world, not only have myriads of birds been ruthlessly destroyed, but countless species have been annihilated.

This is no cause for discouragement, for the question of bird protection has forced its way into the minds of the people as well as the halls of Congress. The country is becoming aroused to a realization of the situation, and doubtless the steps at which the law-making powers have long hesitated will soon be taken.

NATURE'S GREETING TO THE BIRDS.

(Tune: "Auld Lang Syne.")

Nature.

"Come, all ye birds from hill and dale,
We'll have a party gay;
Come, birdies, sing your sweetest songs
On Nature's holiday.

Chorus.

Come, robin, bluebird, thrush and all,
Come, sing your merry lay,
For Nature's keeping carnival
On this, our Arbor Day.

Birds (entering and forming in semi-circle back of Nature).

Dear Mother Nature, we now come,
The blackbird and the blue,
With robin, oriole, and wren,
And many others, too.

Chorus.

We now salute you, our best friend,
Salute you once again;
Our praises for your loving care
We'll sing in glad refrain.

Nature.

Your praise is very sweet, dear birds,
And all the summer long
I hope to hear your voices raised
In melody and song.

Chorus.

Birds.

In brightening this dear old world,
We'll strive to do our part;
We'll banish sadness with our song,
And cheer the lonely heart.

Chorus.

We birds are very little folks,
And busy workers, too;
With pleasure we perform the tasks
You've given us to do."

COLORADO'S BIRDS.

BY ROBERT B. ROCKWELL,

DENVER REAL ESTATE EXCHANGE PUBLICITY COMMITTEE.

Very few people, save naturalists or students specializing in biological subjects, fully realize the unusual abundance and variety of bird life to be found within the boundaries of the State of Colorado. The general impression exists that this great state is a combination of vast dry prairies and wild, rugged mountains, with a comparatively limited bird population. Yet the fact remains that Colorado is blessed with a greater variety of birds than any other state in the Union, with the exception of Texas and California, where the many sea birds help to swell the list.

The cause for this is very apparent. Bird life is distributed and governed by two factors; namely, suitable environment and food supply; and the various types of country have been divided by students into what are called "life zones". To illustrate, certain birds, as for example the burrowing owl, live and find their natural food on the dry plains; other birds like the ducks require much water and frequent the wet lowlands; still other species prefer the rough broken ground of the foothills, others the dense pine timber of the mountains, and a few species are

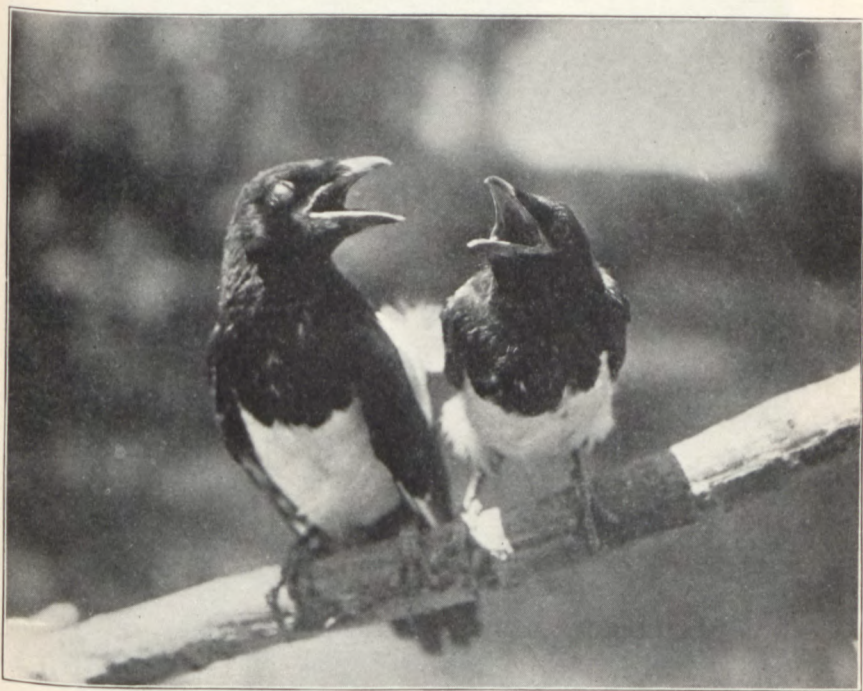


Young Oriole.

found only in the bleak alpine regions above timber line. Each of these various types of country supports its characteristic trees, flowers, insects and animals (the source of the birds' environment and food supply) and thus constitutes a "life zone".

Most states of the Union embrace only one or two of these "life zones" within their boundaries, but Colorado, with her wide stretches of barren prairies, her great expanse of rough foothills and heavily timbered mountains, and her many towering peaks shrouded in perpetual snow, furnishes an ideal home for the birds which are native to all these environments.

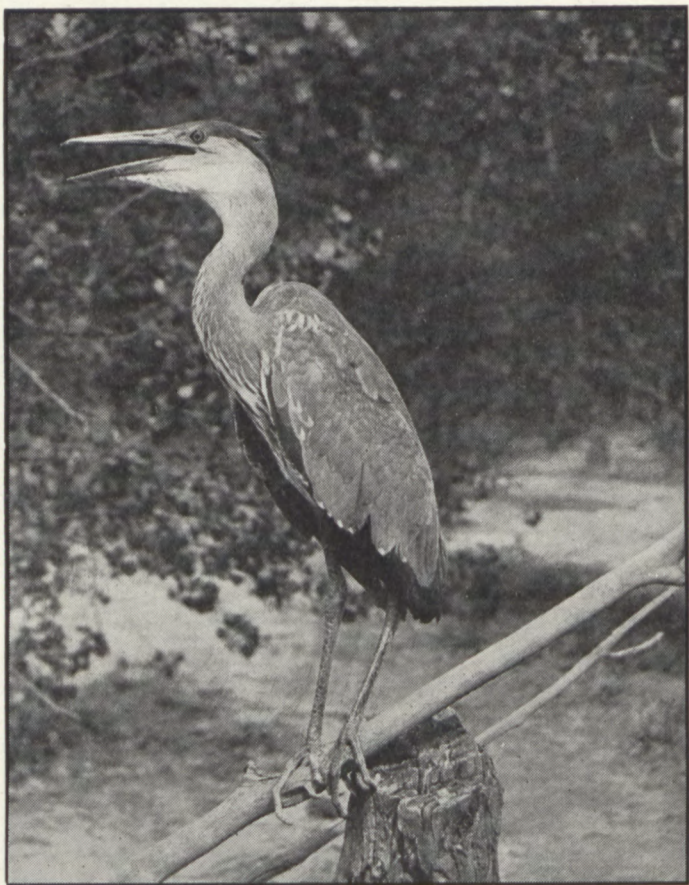
Thus on the plains we find many of the birds typical to Kansas, Nebraska and Texas; in the foothills and mountains we find birds which may be roughly classified as typical of Colorado; and in the alpine regions we find birds that are typical of the territory lying far to the north of us.



Those Mischievous Rascals—Colorado Magpies.

Again, many birds are found east of the mountains which are not found on the western slope of the Continental Divide, and other birds are found on the "Western Slope", whose range does not extend east of the Rocky Mountains.

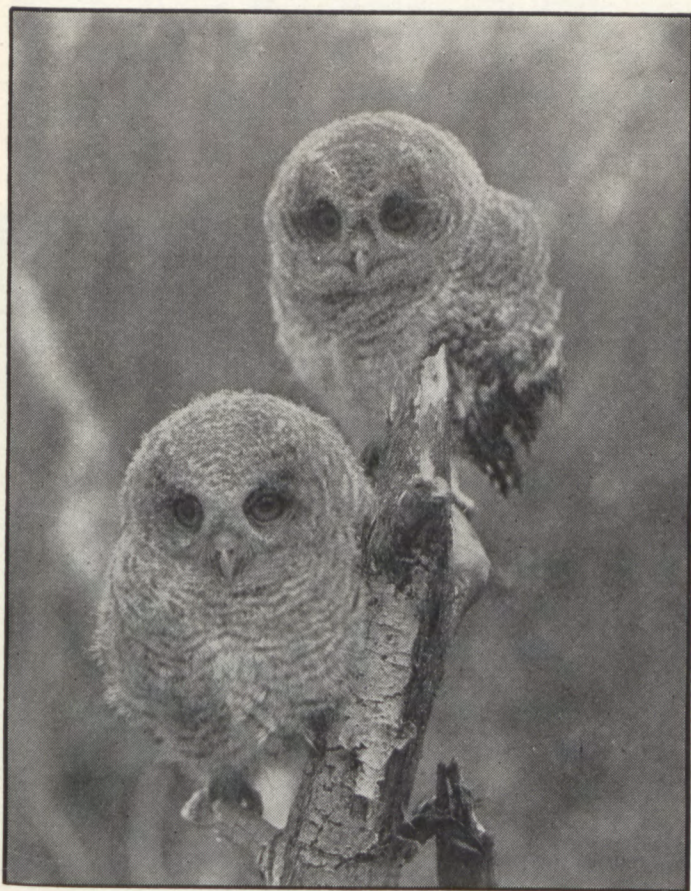
Thirty years ago there extended from the foothills east a vast monotonous stretch of parched brown desert, relieved only by an occasional slender thread of green verdure where the streams emptying into the Platte or Arkansas rivers pursued their precarious courses across the sun-burnt wastes. Through all this wide country the songs of our now familiar song-birds were strangely absent or were confined to the narrow ribbon



Great Blue Heron.

of verdure along the water courses. Even the long wavering lines of wild-fowl passed over unheeding, conscious that there was nothing for them in the form of food in this blighted land.

Then came a few hardy pioneers who constructed ditches from the stream to irrigate the land, and at the magic touch of water the fields sprang at once into living green. And ever keeping pace with the increasing vegetation came the birds; the meadowlark with his silver tones, the robin with his flashing breast, the azure bluebird, the cooing dove, gorgeous red-winged and yellow-headed blackbirds, orioles, sparrows, swallows, wrens and others too numerous to mention; each with its own charm-



Fluffy Little Screech Owls.

ing personality flocked into this new paradise to bring gladness and song to the countryside.

So this process has gone on year after year—an artificial process, to be sure—but one of the most wonderful developments in bird distribution ever known. Thus it will be readily seen that Colorado's claim to this marvelous variety of bird life is based upon well established biological principles and a very unusual combination of natural and artificial contributory causes.

Many of the birds which occur in Colorado in greatest abundance are altogether unknown to our eastern friends, or are so radically different from the eastern forms as to be classed as separate sub-species. Probably the most characteristic bird of the region is the magpie; a handsome fellow, with a brilliant dress of pure white and iridescent black, and a long, graceful tail which lends an air of far greater dignity than this mischievous rascal really possesses. In fact, his plundering and



Red-Shafted Flicker.

thieving propensities have won for him the cordial animosity of both man and bird. His enormous nest made of heavy sticks is the crowning achievement of bird architecture and is a peculiarly typical landmark in mountains and on the plains.

An examination of some likely looking deserted woodpecker's hole in a dead tree will undoubtedly bring to view a fluffy, scrappy, little screech owl, but a very different bird from the one our eastern cousins know. The yellow-hammer of the east is represented by a first cousin, the under side of whose wings are a gorgeous red instead of the golden-yellow. In the high mountains will be found many species of birds which have no counterpart in the east, such as the taciturn nutcracker in his coat of Quaker gray, black and white; and the beautiful ptarmigan, whose plumage changes from the brown of the rocks to the crystal white of the snow as the long alpine winter approaches.



The Killdeer Plover.

On the other hand many species of our common birds are precisely the same as those found throughout the east. The majestic great blue heron is found from the Atlantic to the Pacific; the noisy little sparrow hawk is the same saucy little fellow in New York State as in Colorado, and a crow is a crow no matter where he caws.

But what of this wonderful bird population? Of what use is it and what benefit do we derive from it? In dollars and cents the net results are almost beyond belief. Hundreds of thousands of dollars annually are saved to our farmers through the destruction by the birds of noxious weed seeds, injurious insects and small mammals. Many of our most prosperous agricultural districts would lose their entire crops if they were deprived for one year of the assistance from their bird friends. In addition to this, our bird life is a wide-spread attraction to tourists, one of the most important factors to our ultimate prosperity. And last, but not least, what would our beloved mountains



The Sparrow Hawk.

and plains offer to us if the birds were gone? What lure would there be in bright spring mornings or joyous trips into the mountains if the birds' songs were silenced?

Little do we realize the essential, though inconspicuous part, that the birds play in our economic relations, and even less do we realize the pressing necessity of extending every possible protection to this invaluable public asset. A closer study of the economic value of our birds should be agitated in all our educational institutions, the rising generation should be thoroughly impressed with the importance of the subject, public opinion should be crystallized in favor of rigid bird protection, and wise laws to this end should be enacted and enforced by competent, trained officials. And with the teachers of the rising generation must rest a goodly share of the responsibility in this important matter.

THE ACCESSORY.

She went to church in holy zeal,
 With a dead bird on her hat.
She paused, while on the steps to kneel,
 With a dead bird on her hat.
The parson preached, "Thou shalt not kill,"
And God she thanked, with conscious thrill,
That she, good soul, had done no ill—
 With a dead bird on her hat.

She loved to hear the birdling sing,
 With a dead bird on her hat.
She loved to watch them free a-wing,
 With a dead bird on her hat.
She thought how sad the world would be
If ne'er their plumage we might see
Or hear their warblings in the tree—
 With a dead bird on her hat.

She held her home the dearest, best,
 With a dead bird on her hat.
She called her little home her "nest,"
 With a dead bird on her hat.
Her brood she circled with her arm
To keep each happy child from harm,
To still her own strange, vague alarm—
 With a dead bird on her hat.

She could not bear death's form to see,
 With a dead bird on her hat.
She could not look on cruelty,
 With a dead bird on her hat.
She wept at others' sufferings,
She gave her life to holy things,
And wore the "loveliest of wings"—
 A dead bird on her hat.

—Douglas Mallock.

THE FIRST BLUEBIRD.

Jest rain and snow! and rain again!
 And dribble! drip and blow!
Then snow! and thaw! and slush! and then—
 Some more rain and snow!

This morning I was 'most afeared
 To wake up—when, I jing!
I seen the sun shine out and heerd
 The first bluebird of spring!

Mother she'd raised the winder some—
And in acrost the orchard come,
 Soft as an angel's wing,
A breezy, treesy, beesy hum,
 Too sweet for anything!

The winter's shroud was rent apart—
 The sun burst forth in glee,
And when that bluebird sung, my heart
 Hopped out o' bed with me!

—James Whitcomb Riley.

MASTER ROBIN.

Of all the chaps who come with spring,
 I love dear Robin best.
He is the first to sing his song,
 The first to build his nest.
He greets you, too, as you pass by
 With such a note of joy,
I do believe he has a heart
 Exactly like a boy!

He's not a coward, no, not he,
He never takes a dare.
But if there's any fun around
He's sure to take his share.
Besides, he is a gentleman
Who's always nicely dressed
In quite a stylish swallowtail
And very handsome vest.

He steps quite like a dandy when
He's out on dress parade,
And though Jack Frost is watching him,
He's not a bit afraid.
But, independent as you please,
He heeds nobody's call,
And sings just when he has a mind,
In spring-time or in fall.

He's good friends, too, with all the flowers,
And wakes them from their sleep;
'Tis at the sound of his dear voice
That they begin to peep.
I love him and his song, and when
I hear it, sweet and clear,
I shout "Now hurry up, Miss Spring,
For Master Robin's here!"

—Youth's Companion.

THE BLUE JAY.

O Blue Jay up in the maple tree,
Shaking your throat with such bursts of glee,
How did you happen to be so blue?
Did you steal a bit of the lake for your crest,
And fasten blue violets into your vest?
Tell me, I pray you, tell me true!

Did you dip your wings in azure dye,
When April began to paint the sky,
That was pale with the winter's stay?
Or were you hatched from a bluebell bright,
'Neath the warm, gold breast of a sunbeam light,
By the river one blue spring day?

O Blue Jay up in the maple tree,
A-tossing your saucy head at me,
 With ne'er a word for my questioning,
Pray cease for a moment your "ting-a-link,"
And hear when I tell you what I think,
 You bonniest bit of the spring.

I think when the fairies made the flowers,
To grow in these mossy fields of ours,
 Periwinkles and violets rare,
There was left of the spring's own color, blue,
Plenty to fashion a flower whose hue
 Would be richer than all and as fair.

So, putting their wits together, they
Made one great blossom so bright and gay,
 The lily beside it seemed blurred;
And then they said, "We will toss it in air;
So many blue blossoms grow everywhere,
 Let this pretty one be a bird!"

—Susan Hartley Swett.

THE CHICKADEE.

"Were it not for me,"
Said a chickadee,
"Not a single flower on earth would be;
For under the ground they soundly sleep,
And never venture an upward peep,
 Till they hear from me,
Chickadee-dee-dee!"

"I tell Jack Frost when 'tis time to go
And carry away the ice and snow;
And then I hint to the jolly old sun,
'A little spring work, sir, should be done.'
 And he smiles around
On the frozen ground,
And I keep up my cheery, cheery sound,
Till echo declares, in glee, in glee:
' 'Tis he! 'tis he!
The Chickadee-dee!'

"And I awaken the birds of Spring—
'Ho, ho! 'Tis time to be on the wing.'
They trill and twitter and soar aloft,
And I send the winds to whisper soft,
Down by the little flower beds,
Saying, 'Come, show your pretty heads!
The spring is coming, you see, you see!
For so sings he,
The Chickadee-dee!'"

REMEMBER THE BIRDS.

Boulder Miner.

Infinitely pathetic and at the same time suggestive is a little picture in the upper corner of the first page of the Denver Post. It is only a little bird perched on a frozen twig surrounded by icicles and accompanied by the one word "Help." What a tragedy it portrays, this cold, hungry, lonely little creature in the day of its desolation and abandonment.

And the suggestion it carries with it! The mute appeal for help from the weak to the strong; for succor in time of need; who is there among us who can be heedless of the appeal? and who that cannot spare the few crumbs which we perchance consign to the fire or the sink, which were we so minded could be so placed that hundreds of these beautiful little creatures would be saved from a miserable death.

Think of it, ye boys and girls, and when the meal is ended in your comfortable homes, remember that the crumbs on the plates around the table may be made the means of saving the lives of the dear little feathered creatures.

And you, ye parents, will ye not instill into the minds of your children the lesson we should all learn—that the quality of mercy is the attribute of God and that "to the merciful He will show Himself merciful." Make it one of the daily duties to brush away the snow from a patch of ground at your door and scatter thereon the leavings of the meal, and our word for it the kindly act will bring you much satisfaction and happiness.

This is the song the brown thrush flings
Out of his thicket of roses;
Hark how it warbles and rings,
Mark how it closes:
Luck, luck,
What luck?
Good enough for me!
I'm alive you see.

Sun shining,
No repining;
Never borrow
Idle sorrow;
Drop it!
Cover it up!
Hold your cup!
Joy will fill it,
Don't spill it,
Steady, be ready,
Good luck!

—Van Dyke.

BIRD'S SONG IN APRIL.

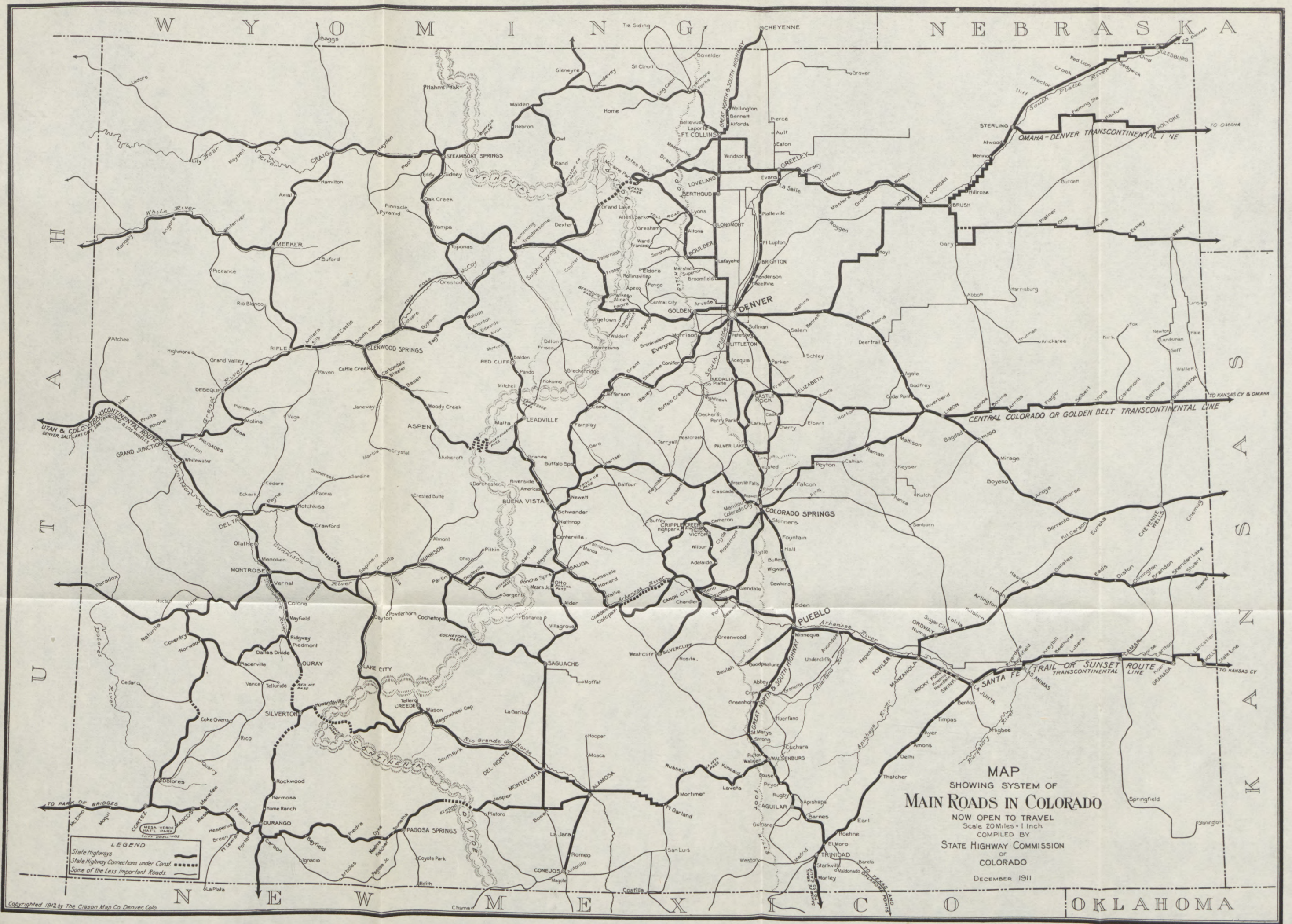
Perched upon a maple bough,
Sang a wren, " 'Tis April now!"
And the while he tuned his trills,
Leaped the rills,
Flushed the hills,
And a hint of coming glory gleamed upon the mountain's
brow.

Down beside the reedy mere
Piped a blackbird, "April's here!"
And the water murmured low,
In its flow,
"Soon will blow
Lovely golden-petaled lilies for the blushing maiden
year."

Sweetly from the woodland's heart,
With his ever joyous art,
"April's come!" a robin cried;
"March has died;
Winds that sighed,
Mourning, moaning round the gables, play a merry lover's
part."

On an elm tree branch a-sway,
Caroled forth a joyous jay;
Clear from his exuberant throat
Note on note
Seemed to float—
"Joy in sun and joy in shower—April ushers in the
May!"

—Selected.



STATE OF COLORADO
EXECUTIVE CHAMBER
DENVER

EXECUTIVE ORDER.

Good Roads Day Proclamation.

"The second Friday in May of each year has been set apart as "Good Roads Day," to be observed by the people of this State in the discussion of public highways and in the construction and repair of the same, for the benefit and advancement of good roads in the State of Colorado, and in such farther efforts and undertakings as shall be in harmony with the general character of the day so established."

In accordance with this law, I therefore designate Friday, May 10, 1912, as "Good Roads Day", and recommend that the day be observed in the manner contemplated by the law, and that the pupils in the public schools be instructed in the elementary principles and practices of road-making, and the beneficial effects of good roads to a community, with such other information on the subject as will fit them as men to solve the perplexing road problem now attracting the attention of our national, state and civic governments.

IN WITNESS WHEREOF, I have
hereunto set my hand and caused the
great seal of the State to be affixed, at
Denver, Colorado, this twelfth day of
March, A. D. 1912.

(SEAL)

John F. Shafroth

Governor.

Attest:

[Signature]

Secretary of State.

THE OLD SANTA FE TRAIL.

Two streaks of sunflowers, nodding gay,
With grass-grown ruts between—
The old-time western wagon-way
Where oxen, tired and lean,
Dragged awkwardly their heavy loads,
On to the miners' far abodes.

And men, as gaunt and tired as they,
Strode sturdily beside;
And some there be who live today,
And some there were who died—
Along the way to where the sun
Flares crimson, when the day is done.

And now, we blaze anew the trail,
In love and reverence;
And follow it, o'er plain and vale
And rocky eminence,
And hail the bravest and the best
Who built the empire of the West.

—Walter Juan Davis.
(Kindness of The Denver Post.)

GOOD ROADS DAY.

A new holiday has been added to our calendar, and the second Friday in May will hereafter be set apart and known as "Good Roads Day," to be observed by the people of our State in not only the discussion of public highways, but in the construction and repair of the same. This holiday has been established for the benefit and advancement of good roads in our State, and it is to be desired that the public schools should observe the day by teaching and educating the children with respect to the benefits of good roads. A practical and patriotic demonstration could be attained by the school boys taking part in the repairing of the roads leading to the various school houses, and as competition rouses enthusiasm and stimulates activity, it is suggested that school directors, school boards or county commissioners, offer prizes for road repairing and road building upon Good Roads Day.

A report of the action taken by the schools will be forwarded to the State highway commissioner by each county superintendent.

OBSERVANCE OF GOOD ROADS DAY.

BY W. H. EMMONS, COLORADO GOOD ROADS ASSOCIATION.

In the observance of the first annual Good Roads Day in the public schools of this State, there is one point which should be emphasized more than any other, and that is this:

"Good roads make good communities, and good communities make great states."

This may well be the keynote around which all instruction should center. In making this statement plain to the scholar some of the great achievements of history can be cited. The teacher may select any time or country for this. For example, one of the greatest achievements of Julius Caesar was the building of good roads throughout the Roman Empire. Until these roads were built the Roman Empire was never truly great. It was the opening of these great arteries of communication with the country to the north of Rome that made that city the central point for all the travel and trade of the great European country. All roads led to Rome. They were the means of building up that country in that they gave to the people the means of communication which brought about the great events of history that followed.

Again, take our country. The first thing that the founders of this great nation turned their attention to was the need of good roads. Civilization pushed westward over these roads. The people were thus brought in closer relationship with each other. This brought about an interchange of ideas, and the co-operative spirit so necessary in the building of a new country.

As good roads are necessary in the first building of a country, so are they necessary to the continued prosperity of that country. As a nation advances the need and value of good roads becomes more apparent. These are facts which can be verified in the history of the world.

In the observance of Good Roads Day there are, however, other things which should be brought to the attention of the scholar. To make the lessons more effective we should get closer to home. Why are good roads necessary to a county, and what part can the children do in the making of good roads?

I am of the opinion that these questions can best be answered to the satisfaction of the child by dwelling on the following points:

First—The child, especially the one who attends country schools, uses the public roads to go back and forth. If they are in bad shape the child has to avoid them by taking other paths, or often remains at home. It takes him longer to get to school. His way is not as pleasant and easy as it might be otherwise. If

the road is a good one he will enjoy traveling over it, not only for his own comfort, but because of the fact that the road will be less lonesome by reason of the many who will then use it. These are merely some reasons why the farmer or business man wants good roads. A road easy to travel means to him less waste of time, money and labor in getting his products over the road to market. This same idea can be taught to the child in the manner suggested.

Second—Good roads mean closer relationships between the people living in the various communities, and by reason of such relationship a better civic pride in the section is created. Show the child what this means by calling attention to the fact that with good roads the children get out more, they have more playmates and in association always can learn things to their advantage.

Third—A lesson of civic pride and righteousness, if so it may be termed, can also be taught from good roads. In the first place the farmer or traveler over a road is often prone to pass bad places with never a thought that it is as much his business as that of any other man to see that the bad places are fixed. If there is not the pride which, when a bad place is found, makes a man do something to see that it is remedied by notifying the proper authorities or by tending to it himself, the road will quickly become a bad one. Again, in the building of roads much money is often wasted. Too often road work is looked upon as a legitimate prey for the political party then in power. Much money is wasted, and the children, by being taught to have pride in the roads in their communities, and by reason of this pride to overcome the feeling above mentioned, which has too often existed, will, when they become older, make it a point to see that the roads are constructed at a cost not excessive to the community.

There are many other interesting points in connection with good roads. Switzerland and France have spent millions on their roads, and as a result the little republic of Switzerland is selling annually almost one hundred millions of dollars' worth of scenery, mainly to the American tourist. Colorado by improving her roads can sell an equal amount of scenery each year, and should secure as purchasers the people of this country first. Good roads will make possible, in a manner never before dreamed of, the "See America First" slogan. This, of course, means great things to the business interests of the state.

Another thing to be remembered is that the best and most prosperous communities of the world are those that have the best roads. I received a letter not long ago from a secretary of

a farmers' grange organization. He said: "When you can show that good roads benefit some one beside the automobile man and the machinist we will work for better roads here."

This sentiment is wrong. Automobiles are here to stay, and good roads are here to stay. From the former the citizens by the building of the latter receive great returns. But a good road does not alone benefit the automobile man when it means that the farmer can bring his produce to market cheaper than over a bad one; when it means that land values increase where good roads have been built; when it means the people of a community having good roads have a more pleasant social life than when they would have to travel over bad ones; and when it brings to every business man in every city and town in the State more trade because people will more often come to the cities and towns when they have good roads than they will over bad ones.

These are but a few suggestions for the benefit of the teachers. How they can be made to apply to their special sections, they themselves know, but they should not overlook the fact that when in this state alone more than twenty-five millions of dollars will be spent on roads within the next few years, they are dealing with a problem of vital interest to the school children, in that they themselves will soon have these same problems to deal with.

Warden Thomas J. Tynan has kindly written the following story of the road-work being done by the convicts who, under his direction, are opening up "the Switzerland of America," and making travel possible throughout our state. The initial work of the convict-road builders was done under Warden John Cleghorn, Warden Tynan's predecessor, who did some pioneering in that line, and it was the cherished dream of Warden Tynan, who, when placed at the head of our great penal institute, spared no effort to realize his dream. He has perfected every detail and is now carrying forward one of the greatest humanitarian movements of the day, and at the same time is doing yeoman-like work for his state.

NEW LAMPS FOR OLD.

BY THOS. J. TYNAN, WARDEN, COLORADO STATE PENITENTIARY.

"John and Peter, Robert and Paul—
God, in His wisdom, created them all,
John was a statesman and Peter a knave,
Robert a preacher and Paul was a slave.
Evil or good as the case might be,
White or colored or bond or free,
John and Peter and Robert and Paul—
God, in His wisdom, created them all."

—The Chemistry of Character.

The cry of the lamp vendor without the walls of Aladdin's palace of fairy lore caused that good old dame, Aladdin's mother, to hurriedly part with her priceless magic lamp—for the cry voiced the then impossible and unheard of—something new for something old—yet today the fairy lore of thousands of years ago has been resurrected and brought to a practical life by the Colorado Honor System among convicts that has realized the hitherto impossible, the making of new and strong men from broken and weakened men!

The criminal is one of the costliest units in Society, and it is only during the period of his imprisonment that Society has an opportunity to direct his labor to such useful purpose as will materially reduce the total bill for the cost of crime. Not only do most of our prisons fail in this, but they become fiscal burdens upon the community.

The penitentiary in Colorado is returning to the state an equivalent of more than dollar for dollar in the product of its convict labor upon the highways of the state, and the value of these highways—the value of the mended humanity and restored individuality—is one that dollars can never reach.

Colorado owes many of its wonder thoroughfares and scenic beauties to the men that are housed behind the forbidding walls of the prison at Canon City—these men and the System that has enabled it, have given to the people of the state, roads that are

the peer of any in the world—roads that spell PROGRESS in letters of endless duration.

The highway to the crest of the Royal Gorge, the Canon City to Colorado Springs boulevard, the Sky Line drive, the new Santa Fe Trail and others—always a source of wonder and delight to thousands of visitors—are but the triumphant vindication of the Honor System of working convicts on state highways, exemplified in Colorado, and which has not only revolutionized penology, but which has fully demonstrated that the greatest good from financial, commercial and industrial vantage points have been gained for the state, as well as the reformation and reclamation of the delinquent and criminal element that is so inevitably a part of our twentieth century civilization.

Splendid highways have been shot through mountain fastnesses—enduring monuments for all time, and splendid manhood has been made from weakened and broken material—enduring through the future generations, and this has only been possible through an Honor System that is founded on "Appeal to the Best in Man."

Convict labor on state highways, as practiced in Colorado is more or less of a new feature. It is not to be confounded with the Southern convict "contract" camps where men are sold at auction to the highest bidder and where the commodity of human flesh has been absorbed in the commercialism that has Mammon for its Mecca.

In Colorado it has proven a tremendous saving to the taxpayers of the state from a economic standpoint and has produced roads on par with any in the world.

From a reformative standpoint it has been a still greater saving to Society in lessened criminality, and to the men themselves in increased self-respect, stamina of character and an added sense of reliability, honesty and honor.

In 1908, the first convict road camp was initiated. The work progressed slowly and entirely too much attention was paid to the safe keeping of the men at work. Within a short time after my inception into office, we enlarged upon the Honor System, increased the number of camps, eliminated the stupidity of armed guards, and placed these men on their Honor, under skilled and competent road overseers, with the result that more than triple the quantity of work was performed. The men worked with an energy and a zeal that has never before been equaled—they worked so because they felt they were working for themselves; to retain the precious privilege of sunshine, outdoor work and the additional ten days a month that the road work allows them from their sentences.



ROAD THROUGH THE ROYAL GORGE BUILT BY CONVICTS.

The mileage of the Royal Gorge road is about eleven miles, of which there are some eight miles of rock work. The actual cost was but \$6,200 and the contractor's estimate on this work was \$40,000.

The camps are modern, sanitary, and with no suggestion of the physical restraint commonly associated with prison life.

The men pledged their "word of honor" to the writer and splendidly maintained it, establishing a standard of morale in the criminal world that has absolutely disproven the heated denunciations that the system was dangerous, anarchistic and foolhardy.

The road camp is the hope of every man in the prison, and the man's own conduct—the moulding of the man's own character while under observation—must be the medium that enables this class of work for him. At the road camp he is decently clothed in blue or khaki, he is better fed, he works eight hours a day, and on Sunday his time is his own, to fish, swim, play ball or be regaled by the musical program of the phonograph that each camp is provided with. This is the alluring incentive held out to the prisoner as against service behind the walls—and it has proven more than successful!

During the years 1909-1910, our convicts built over fifty miles of finished roadway, much of which had to be blasted out of solid rock, and this work represented a net saving to the taxpayers of over \$160,000.00.

Since December 1, 1910, with four camps approximating some fifty men each, we have more than doubled the record of the former two years by having one hundred miles of splendid roadway constructed—and by the close of the current year we expect to reach the high water mark of four hundred miles of good roads, which, when completed, will stand for a saving to the people of the State of Colorado of over a half million of dollars.

The total cost for maintaining these men is an average of thirty-five cents per day, and for this sum each man does a good two and three dollar day's work.

Not only are they building roads—adding to the wealth and scenic splendors of Colorado, but they are building for themselves, released energy, rehabilitated manhood, clean and healthy minds, physical strength and strength of character, and under competent overseers, mastering a trade that will guarantee to them the path to an honest livelihood upon their release.

During the past three years, we have had over one thousand individual men on these camps. These men, some fifty, one and two and even three hundred miles away from the prison—out in the free, open stage of unwall'd nature—with nothing between them and escape but the "word of honor" they pledged us—have created a national reputation for loyalty. Less than



A Beautiful Stretch of Convict-Built Road.

one per cent have violated their pledges by successful escape, and this with every class of criminal imaginable. With the same temptations besetting them as would men in the usual mining or railroad camps, they have not wandered one iota from their proper places and the various communities have come to feel as safe near our convict camps as they would anywhere else.

Taking the road work as a whole, it seems the only and the best way to secure the most beneficent results to the entire state as well as to the delinquent, and the Honor System as practiced here, dispenses an equal equity of profit to the people of the state—and with a reasonable salary scale for the convict road builder which the writer is advocating—answers every requirement, meets every issue and is eminently satisfactory both to Society and to the Delinquent.

Colorado expended \$1,784,950 on good roads and highways in 1911.

COLORADO ROAD STATISTICS.

Miles of good auto roads.....	2,000
Miles, slightly improved.....	20,000
Miles, highly improved in 1911.....	600
Miles to be improved in 1912.....	1,000
Total expenditures in 1911.....	\$1,784,950
Estimated expenditures for 1912.....	\$2,400,000

THE LINCOLN MEMORIAL HIGHWAY.

On "Good Roads Day" let us not forget the great Atlantic-to-Pacific highway proposed by the women of Colorado as a fitting memorial to Abraham Lincoln.

There is now no adequate memorial to this greatest of Americans, and the women of Colorado, at the suggestion of a pioneer woman, Mrs. James B. Belford, have recommended that this great thoroughfare be built and called "The Lincoln Memorial Highway." The project of this Atlantic-to-Pacific highway will be brought before Congress for endorsement, and every man, woman and child in the State can help in establishing this superb memorial. Let the children of Colorado do their part in erecting a suitable memorial to the man who knew "Malice toward none, charity toward all." Let them have a voice and a part in establishing a grand highway that will link the States of the Atlantic and Pacific coast in a common bond of patriotism—a great highway dedicated to the man who typifies the highest Americanism—Abraham Lincoln.

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