


1925

# Nebraska Beautiful

G. E. Condra

*University of Nebraska-Lincoln*

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# Nebraska Beautiful

By G. E. CONDRA

BULLETIN 17

CONSERVATION AND SURVEY  
DIVISION

THE UNIVERSITY OF NEBRASKA



LINCOLN, NEBRASKA  
1925

**THE UNIVERSITY OF NEBRASKA**

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# Nebraska Beautiful

By G. E. CONDRA  
and Collaborators

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BULLETIN 17

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CONSERVATION AND SURVEY  
DIVISION

THE UNIVERSITY OF NEBRASKA



LINCOLN, NEBRASKA  
1925

TO THE MEMORY OF THE PIONEERS  
AND OTHERS WHO CONTRIBUTED TO  
THE DEVELOPMENT OF NEBRASKA  
AND TO THE RECOGNITION OF  
THOSE WHO PURPOSE THE THINGS  
BEAUTIFUL.

## INTRODUCTION

The purpose of this bulletin is to show the physical and cultural beauty of Nebraska, also the kind of development the state's resources should support in the future.

Nebraska has passed the pioneer stage. Its history shows both failure and success — something of the ugly, but more of the beautiful. Some things have been done well, others not so well. A stage of citizenship has been attained in which appreciation and love for the state are manifest, and a clear-cut, purposeful plan for future development is being formulated.

Nature has worked well in Nebraska. Our heritage of those things and conditions which support a people is rich beyond compare. The fundamentals, not the frills and artificial things, are here. At the basis of our civilization are the fertile soil, healthful water supply and invigorating climate. These are supplemented by flora and fauna of helpful proportions.

Our people live successfully in this environment. They recognize that the wealth which springs from the fertile soil and industries should be used primarily for the welfare of the citizens of the state — for the support of home, school, good government and other welfare purposes. These are the things really worth while. They stamp our civilization.

Although beauty is in part physical, it is in the social sense that it has its greatest significance. It refers to harmony, appreciation and usefulness in relation to the general welfare. Such a conception of beauty, starting perhaps with the physical aspects of our environment, follows through to right action or useful service.

Our bulletin covers the subject, Nebraska Beautiful, under the following major headings: Landscape Beauty, Sky and Season, Wild Life Beauty, Parks and Forest Reserves, Agricultural Beauty, Cultural Features.

This bulletin is written in response to the many requests received at the office of the Conservation and Survey Division for literature on Nebraska Beautiful. Such requests have come from women's clubs, community organizations, Camp Fire girls, Boy Scouts, schools and other sources.

It remains for the Director to express his appreciation for the valuable papers prepared by the collaborators, also to express his hope that this report may serve a useful purpose.

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## ILLUSTRATIONS

The illustrations in this bulletin, except two, were made from photographs in the files of the Conservation and Survey Division.

## LANDSCAPE BEAUTY

The most attractive parts of Nebraska are the flat to hilly agricultural lands. These occupy most of the state, yet there are rough lands which are not only beautiful but scenic. The latter are accessible for the enjoyment of many, but their study and interpretation require some knowledge of geology, physiography and biology.

### BLUFF LANDS AND RIVER VIEWS

Fortunately, Nebraska has many places with broad outlook. They are quite common along the river bluffs. Standing at the rim of the upland bordering a valley, as along the Missouri or Platte, one can look for miles across broken land, forest, bottom land and stream, and enjoy to the full the bigness and appropriateness of things. Railroads, towns and industry add to the view. Then by following the by-ways, one can reach the wooded ravines, cliffs and the stony outcrops and gain first hand some idea of the more hidden beauties of the out-of-doors. Here are wild flowers, wild fruits, birds, springs and picnic places.

Some of the most beautiful river views of the eastern part of the state are located as follows: northeast of Ponca, north of Omaha, at Plattsmouth, Rock Bluff, four miles north of Nebraska City and near Peru. These and others like them are easily reached by the state highways and side roads.

Although there are many fine views along the Platte, perhaps the most noted of them is southwest of Fremont, at "Pahuk," known as the most sacred place of the Pawnees.

I have camped many times at beauty spots on river bluffs and observed a sunset, a sunrise or the birth of day. One place in particular remains in my mind. We were in a small open space on the forested bluffs of southeastern Cass County and had a view across the Weeping Water and the Missouri with its bottom lands, bars and wooded islands and to the uplands on the Iowa side.

With twilight came the musical sound of the whip-poor-will and over the more somber notes of the owl. We lay on the ground under the light of a half moon and contemplated upon the starry universe. Then came sound sleep followed by awakening at early break of day when darkness began to give way to light. The sky was partly overcast along the eastern horizon. Its upper part had some glow; above the eastern horizon were patches of dark gray, yellow, and crimson, while below the Iowa bluffs and wooded areas, were dark



banks. The objects on the higher places formed silhouettes. Crows, leaving their roosting places with considerable noise, made their way down the valley. A field sparrow was heard in a grassy spot to the right. Sounds from chickens, cows and dogs echoed from farm yards. Birds of several kinds moved to their feeding and watering places. Events came too fast for record. Light on forest and river, reflected from cloud and sky, was deepening and changing. The rumbling of a train on the Iowa side was distinctly heard, also noises from the



A vista from the Platte River bluffs southwest of Fremont

towns. Native life and industry were awakening. Light increased, and the color scheme changed, especially for the clouds and river. The sun began to rise, large and red, though somewhat dimmed by the feathery clouds. High lights showed on the river. Then there was the full brightness of a new day. Birds returned from feeding, cattle were grazing, farmers were at work, and everything seemed alive in response to the sun.

This was an experience to be remembered, but I did not have the knowledge and ability to describe the picture. I knew that the earth, rotating eastward, carries places through shadow, twilight

and direct ray of the sun, and that it requires about twenty-five minutes for the sun to rise on the whole of Nebraska. I could see that one thousand miles eastward the sun was an hour high, and that in western Nebraska it was yet night but on the way toward day. I was long on cause and human relations but short on art. So let those who know nature's art paint the picture and express in verse and music the birth of day in Nebraska.



Gathering ferns in a wooded ravine below "Pahuk"

## CHALK BLUFFS

A thick chalk formation outcrops prominently along the Missouri in the northeastern counties of Nebraska and extends under the state to Kansas. Years ago it was given the name Niobrara Chalk, because of the good exposures at the type locality. This chalk forms steep cliffs bordering the Missouri River between Boyd and Cedar counties and similarly along the south side of the Republican in Franklin and Webster counties. The chalk is bluish gray where freshly exposed but becomes buff, yellowish or brownish on weathering.

Persons who do not know the Niobrara chalk bluffs, more properly called cliffs, should see them at points in northern Knox and Cedar counties at Santee, Aten or St. James. There is a good bluff land road along the south side of the Republican from opposite Bloomington to Guide Rock. A few years ago the writer made this trip with four boys after returning with them from the Yellowstone, and they were



Niobrara Chalk along the bluff-line road south of Bloomington

more delighted about this part of their trip than they were with the Yellowstone. They climbed over the cliffs and through the deep wooded ravines. They collected crystals of calcite and selenite from the joints in the chalk and found the different colors of ochre. They were interested in the fossil shells which form seams in the great mass of chalk which is made up of myriads of calcareous shells formed years ago of microscopic animals that lived in a sea where now is Nebraska. Later we went to Lookout Mountain, a very high place on the Niobrara Chalk a few miles southeast of Franklin, where the broad views of the Republican Valley and surrounding country were observed and explained.

We have heard much about the chalk cliffs of England and know that the Kansas University yell is in part about our Niobrara Chalk Rock which is well exposed in northwestern Kansas, but not so prominently as at places in Nebraska where it was named. Who is to paint the picture or write our verse about Nebraska's chalk cliffs?

There are many other interesting places, somewhat like the chalk bluffs; the shale banks, or bluffs of northwestern Dixon County; the bluffs, cliffs and abandoned coal mines northeast of Ponca; the rugged exposures of the Dakota sandstone between Homer and Tekamah and the heavy ledges of limestone between Plattsmouth and Jones Point east of Union. The stony outcrops and big quarries and wooded areas at or near South Bend, Louisville, Cedar Creek, Weeping Water and Nebraska City also have much that is interesting and beautiful.

## SCENIC ROUGH LANDS

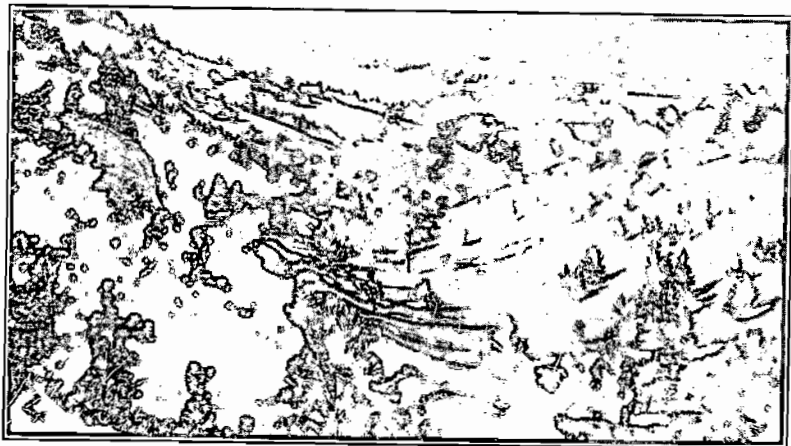
These occur in miniature at places along the Republican, Lodgepole, Loup and other valleys, but are at their best in Wildcat Ridge, Pine Ridge and along the middle course of the Niobrara. Canyons, buttes and cliffs are their most noticeable topographic features, and there is a considerable cover of pine, cedar and broad-leaf forest, the latter mostly on the canyon floors. There is an area of more than 500 square miles of pine forest in these rough land areas.

Grant Shumway has written about Nebraska's scenic roughlands as follows: "Here is where nature sings a wild song into the heart of man and makes him dream of dawns and sunsets somewhere back along the horizon of the past.

"Nature halted in the making of Nebraska, to make an agricultural state or to break it into tumbled mountains, which? It was best for the coming races of man to make a combination of the two. So, mountain in the miniature, prairie broken and rugged in places, have been left after all the centuries of time; our beautiful roughlands!"

## WILDCAT RIDGE

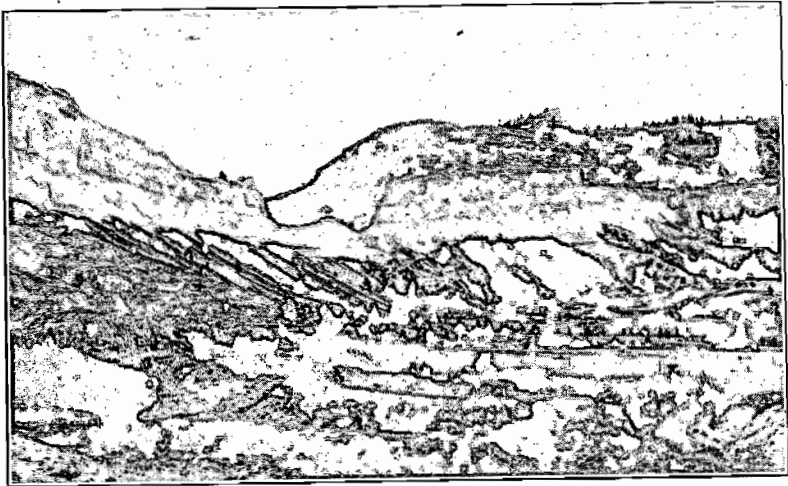
This is between Pumpkin Creek and North Platte valleys. It begins near the eastern end of 66-Mountain at the Wyoming line and extends eastward and southeastward about fifty miles, ending in Court House Rock and Jail Rock south of Bridgeport. It rises between 400 and 700 feet above the bordering valleys in most of its course, but



The crest of Wildcat Ridge south of Gering

lowers eastward. Three prominent spurs project northward and north-eastward toward the Platte ending in Scotts Bluff Mountain, Castle Rock and Chimney Rock, while a spur extending southward ends in Hog Back Mountain and Wildcat Mountain. Among the features of Wildcat Ridge are Signal Butte, altitude 4,583 feet; Bald Peak, 4,420 feet; Scotts Bluff Mountain, 4,662 feet; Hog Back Mountain, 5,082 feet; and Court House Rock, 4,100 feet.

Wildcat Ridge is scenic because of its relief, topography and pine forest. It has a few live streams. One of them, in Green Canyon southeast of Chimney Rock, has a small waterfall. There is a thin stand of pines on much of the upper part of the ridge, thickening in the canyons. Cottonwood, oak, box elder, willow, the choke cherry and buffalo berry occur on the canyon floors. The yucca, brush morning glory, rose and other beautiful flowering plants are found generally in the area.



Wildcat Ridge southwest of Mitchell Pass

The scenery of Wildcat Ridge is due in part to geology. The Brule Clay forms the long, broad, grassy slopes at the foot of the ridge. The friable Gering Sandstone makes the steep cliffs or nearly vertical walls next above, and the well-known Arikaree Formation, composed of soft, light colored sandstone and harder beds, has been eroded into cliffs, stony land and slopes, which form the crest of the ridge on which most of the pine forest occurs.

Wildcat Ridge is crossed by a state highway between Kimball and Gering and by several trails and county roads. The Oregon Trail crossed a spur of it through Mitchell Pass, beyond which is the site of old Fort Mitchell.

Court House and Jail Rock were long remembered by the early trappers and traders and by the Oregon Trailers. Chimney Rock south of Bayard is a very distinctive feature of this area. Scotts Bluff Mountain, just west of Gering, has been set aside as a national monument. It is to be improved by tree planting and probably by the construction of an auto road to its summit from which there is a most wonderful view of the North Platte Valley. There is now a very good foot trail up the mountain.

### FROM THE SUMMIT OF SCOTTS BLUFF

State Secretary of Agriculture Grant Shumway, whose home is in the North Platte Valley, describes the view from the summit of this mountain as follows:

“Where McClellan, one hundred years past, built his beacon fires to signal companions in the camp; where Hiram Scott passed into the great wilderness of stars immortalizing this mountain of Nebraska, the people now wander, in search of recreation and inspiration away from the marts of trade and commerce.

“From the summit of the mountain, look to the north. In the foreground are the silvery ribbon of the North Platte and the homes, industries and spires of Scottsbluff. Beyond are the irrigation systems and a checker board of farms producing beets, wheat, corn, vegetables, fruit, milk and other products. Far to the northeast, close to the rugged hills of the north side of the valley, are two glistening lakes in settings of green — Lake Alice and Lake Minatare. Artificial, they are none the less beautiful. At Lake Minatare is a federal refuge where all wild birds find protection from the destructive hand of man, and they know it, even the migrants. The many gulls and terns of these lakes feed upon the insect pests of the beet field and thus pay man for what he has done.

To the east, close by, nestles the city of Gering. Beyond and across the farms are Minatare, Bayard and other towns and cities, and in the view is also the historic Court House Rock. A black cloud, having passed in the east, left washed white the pinnacle of Chimney Rock, and as St. George Cook wrote in the long ago, “Lo! It stands a pillar of fire in the setting sun.”

“To the south, toward the pine and cedar crowned hills of Wildcat Ridge, and high above all others, stand sentinel two peaks — one bear-

ing the 'euphonious' title of Hog Back, because of length and conformation, and the other, Wildcat Mountain, with its summit more than five thousand feet above the sea.

"To the west and northwest, against the checkerboard of green, are Mitchell, Morrill and other cities. Stretching away towards Fort Laramie, where history was written in the days of the Trail and Pioneer, is the Laramie Range in the brilliant glistening mists. Breaking from its base of evergreens, is the outline of slope and summit of that mighty mountain, Laramie Peak!

"For miles up and down the valley one may trace the line of the Oregon Trail. Here went Jacques Laramie and other trappers; here went the California pilgrims on their golden quest; here also passed the Mormons on their pilgrimage to Great Salt Lake, including the woman hand cart expedition in which mothers put their babies and meager belongings into carts and pushed them two thousand miles across the wilderness; over this trail passed the thousands on their journey towards the setting sun.

"All have gone on. The Great White Medicine Road is torn with plow and blasted by T. N. T. Railroads have come, and state highways are building. The valley is throbbing with industry. Out of the silence comes the 'Voice of the Wildcat Range'!

"What is that rare Identity which marks the Wildcat Range?  
Its pictured Cedar Canyon and its sturdy fragrant pine?  
I've been among the Rockies but I never felt the change  
Of spirit like when wandering among these Hills of Thine.

The Peace is not found where the rugged granite mountains frown,  
Where barren peaks are buried in the everlasting snow;  
The 'God Stupendous' frightens little souls like my own —  
But here He speaks a language which the common people know.

Out yonder in the valley is a turbulence of soul,  
The strife of competition in some futile effort there;  
A smothering environment — a vague illusive goal —  
And folks are going to and fro in quest of daily fare.

But tranquilly I wander in the canyons and the hills —  
By day in golden sunlight and at night among the stars;  
In solitude I hear the Voice, and then the glory thrills  
That sweeps away the pettiness and trifling daily cares.

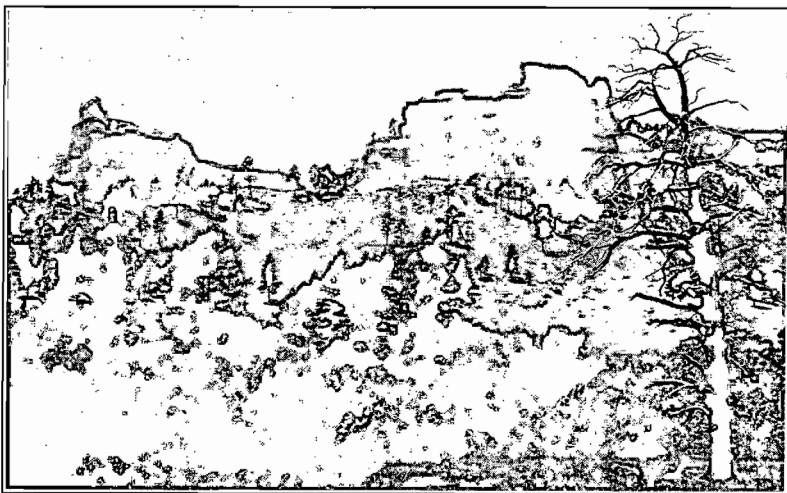
I listen to the Voices in the Wildcat Mountain moods,  
The fair Celestial music like the distant planets' hum;  
A soft aeolian melody is ringing in the woods,  
And songs of the Almighty from the Outer Spaces come.

"The wind eroded rocks of the easternmost pinnacle of Scotts Bluff Mountain invite a wandering foot. Years ago the eagles built their

nests in hollows in the cliffs, and Eagle Crag is thus a name. The sun was sinking toward the western mountains. Below, from the base of the cliff, there was a growing, lengthening and broadening shadow, like the brooding spread of a wing across the world.

“I stood upon Eagle Crag watching a shadow,  
A lengthened spire on the plain at my feet;  
It spread over river and farmland and meadow,  
It covered the world with a shadow complete.”

“Somewhere, unseen, bells tinkled, and out of the somber shadows came the soft pulsing throb of distant motors. The twinkling lights of the cities of Scottsbluff and Gering broke through the shadows, and I felt like one who had been up among the Gods, looking down upon a world that had been transformed into wondrous beauty.”



Church Butte, a mountainous part of Pine Ridge, Sioux County

## PINE RIDGE

This is the smooth to mountainous country bounded by the Niobrara, Hat Creek and White River basins. The ridge proper was eroded from high table land. Its north face is very steep at most places and contains deep canyons, prominent cliffs and long, steep slopes. The topography is similar to that of Wildcat Ridge, due to the presence of the same geological formation, but is more rugged at places. There are two escarpments or cliff elements in the north face



of the ridge, one lying just below the table land level, and the other coming down to the border of White River Basin. The comparatively smooth areas between the rough escarpments in Dawes County form what is known as Pine Ridge Park.

Much of the Pine Ridge country is mountainous and covered with scattered pines. The steeper slopes are bare, but the more gradual ones are grass covered. A few deer remain in the roughest area northwest of Crawford. Many clear, cool streams head in Pine Ridge, and most of them afford very good trout fishing. Monroe, Hat Creek, White River, Ash, Big Chadron, Bordeaux and White Clay are the main creeks and canyons. Crow Butte, east of Crawford, and Church Butte, northeast of Harrison, are among the best known and most beautiful features of the area.



Smiley Canyon road between Crawford and Harrison

The plant life is quite unlike that of the plains. It is in part like that of the Black Hills and Rocky Mountains. There are also a few western birds. All told, it is a beautiful combination even to the mountain-plains-like aspect of its agriculture and development. Here is a good place for those who love rugged lands and some isolation at moderate altitudes.

Pine Ridge is crossed by the Northwestern and Burlington railroads, the latter passing through a tunnel north of Belmont. It is



Part of Nebraska's 500 square miles of pine forest, Dawes County

traversed by three state highways. One, built through Smiley Canyon west of Crawford, is very scenic; another, between Alliance and Chadron, offers a very broad view extending from the edge of the table land to the Black Hills; and the third follows along the Big Bordeaux westward to Chadron. The writer has enjoyed camping and the sunset and sunrise views at points in Pine Ridge crossed by these and other highways. He has been along all the streams and canyons. This experience has developed a love for the country and a desire to go there again. More Nebraskans should see and study Pine Ridge. The Chadron State Park is on the Big Chadron Creek of this area.

### NIOBRARA VALLEY

The western part of this valley in Nebraska is narrow and bordered by rough lands to near Agate where is the well-known Cook Ranch with its big groves and fossil quarries. Eastward from this to Sheridan County, the valley is more open and with few trees; beyond are intermittent areas of stony outcrop and of pine forest to Holt and Boyd counties. The river and valley in this middle course are very beautiful. The river is fed by many small tributaries having waterfalls. The trunk valley is narrow and the ravines are deep and cool. There are ash, elm, cottonwood, black walnut and willows on the valley floor; paper birch on some of the cool north slopes; bur-oaks in ravines and on the lower rough lands, and pines in

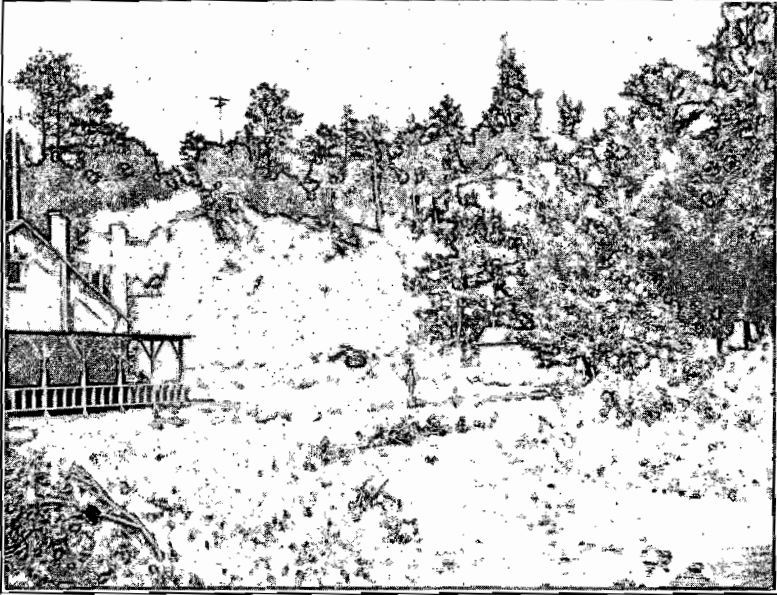
the canyons and at the upper levels. Cat fish are found in the river and trout in its tributaries.

Many times have I been along the middle course of the Niobrara. My first introduction to the beauty there was through Judge Wolcott of Valentine. He loved his country and enjoyed horseback riding to high points reached by rough trails. It was my pleasure to accompany him several times. The Judge knew where to go, for he had been there before. Reaching some objective point, he would turn and say, "How's that," or "Isn't that grand!"



The Niobrara, four miles east of Valentine

Although the Judge has passed on, there are many in the Niobrara country who would lead you to points of beauty. Here are outing places for father, mother and children. There is a well-built highway from Niobrara westward to Valentine, joined by laterals from O'Neill, Atkinson, Stuart, Bassett, Ainsworth and Long Pine. Side trips should be made to the pine covered rough lands, the river, some of the spring-fed tributaries, a few of the waterfalls and to the United States Game Preserve, four miles east of Valentine. The beautiful park at Long Pine should not be overlooked.



In Long Pine Park

## WATERFALLS

Most of the waterfalls of Nebraska are in the Niobrara country, yet a good many small ones occur at other places. There are four in the Dismal River south of Mullen. A very beautiful fall in the Frenchman at Wauneta should be observed by tourists on the D. L. D. Highway. Several creeks in the southeastern counties have small falls, but perhaps the most beautiful of them are in Walnut Creek, north of Nebraska City—one at the mill, and the other one-half mile down stream from the mill.

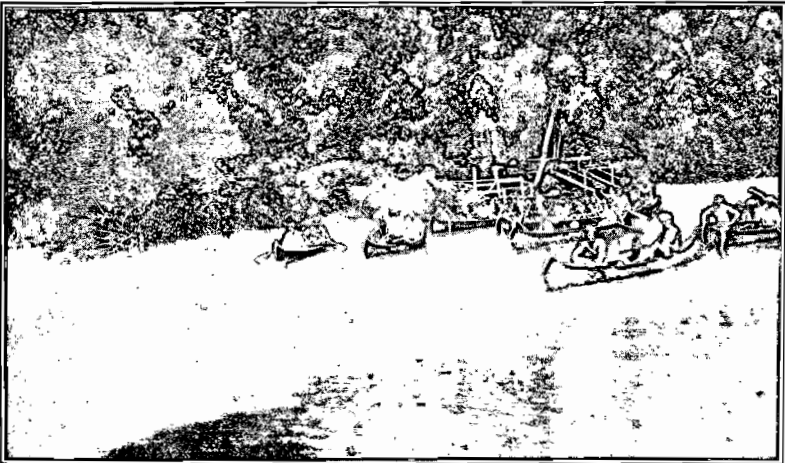
Most of the streams entering the Niobrara from the south between Valentine and Holt County have falls. Of these, Smith Fall, ten miles east of Valentine, is 68 feet high and best known. The largest fall of the state is in Snake River, about 24 miles southwest of Valentine. There are three small falls near this one, and the river forms a nearly continuous rapids in the rest of its course to the Niobrara.



The largest of the Snake River falls

### LAKES AND WATER POWERS

There are about 1,200 natural lakes and 81 water powers in Nebraska. Most of the lakes occur in the sandhills and as cut-offs along the rivers. Artificial lakes have been formed in connection with power, irrigation and park development.

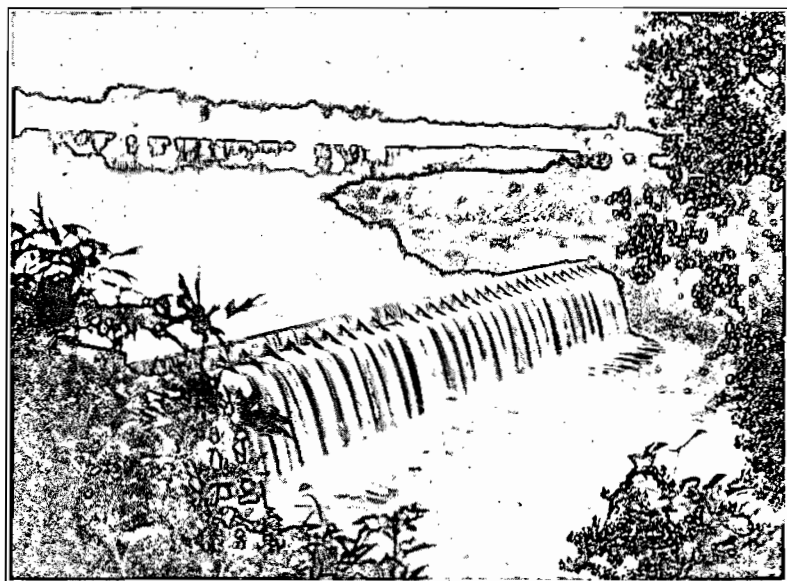


Boys' camp on the Big Blue at Crete



Catching ring perch, Dewey Lake, Cherry County

The sandhill lakes vary much in area and depth. Their shores are comparatively barren except for the marsh vegetation. These lakes are not very attractive places for camping, but they do have some beauty and interesting features. Wild life is abundant. The border lands have a succession of beautiful wild flowers. Chara, lilies and low forms of plants crowd the waters at places. The rushes are filled with Red Wing Blackbirds and sparrows at nesting time. Many



On the Big Blue at Milford

ducks and shore birds frequent the lakes in season, and there are several kinds of fish—bullheads, perch, pickerel and bass. Many people go to these lakes for fishing and hunting and some to study the native life.

Many of the artificial lakes, as at the water powers and those fed by artesian wells, are beauty spots. Some have a setting of native forest; others have been improved by tree planting. They are enjoyed by thousands of people for fishing, bathing, skating, parking and camping. Some of the most used lakes of this kind are at or near Seward, Milford, Crete, Beatrice, Cambridge, north of Benkleman, and at Champion, Kearney, Gothenburg, Sargent, Norfolk and Valentine. All of these places have beauty in both lake and stream. Of the water power lakes, the one in the Minnechaduza north of Valentine seems to be the most beautiful.

The leading cut-off lakes are Crystal Lake at South Sioux City, Quinnebaugh Lake in northeastern Burt County, Carter Lake at Omaha, Riverside Lake four miles west of Oxford and Wortman Lake southwest of West Point.

# BEAUTY OF SKY AND SEASON

By MRS. LILLIAN S. LOVELAND \*

Nebraska with its vast open spaces and wide expanses gives us an uninterrupted view of the sky. Trees and water, hills and valleys, wild flowers and birds are all interesting aspects of nature, but the sky is over and above all and is ever changing, ever beautiful, whether we revel in the gorgeous colors of sunrise or sunsets, or idly watch white fleecy clouds chase each other across the summer sky, or sit on our porches in the deepening twilight, or lose ourselves in the velvety blackness of the illimitable star-studded dome above us, there is a pleasure, a deep joy, that comes to the dwellers in the country, or to nature-lovers who leave their city habitations and paved streets for a brief time.

## CLOUD FORMS

These are commonly divided into four principal classes, and it is well to learn to distinguish them.

CIRRUS clouds are feathery in form and delicately fibered, usually of a white color and well outlined against the sky background. They are the highest clouds, five or six miles above the surface of the earth and are arranged in a variety of fantastic forms. Nearly parallel groups of these clouds are sometimes seen stretching across the heavens like bands of ribbon.

STRATUS clouds are those which present a stratified or bank-like appearance. They are low-lying clouds and are in reality an elevated fog.

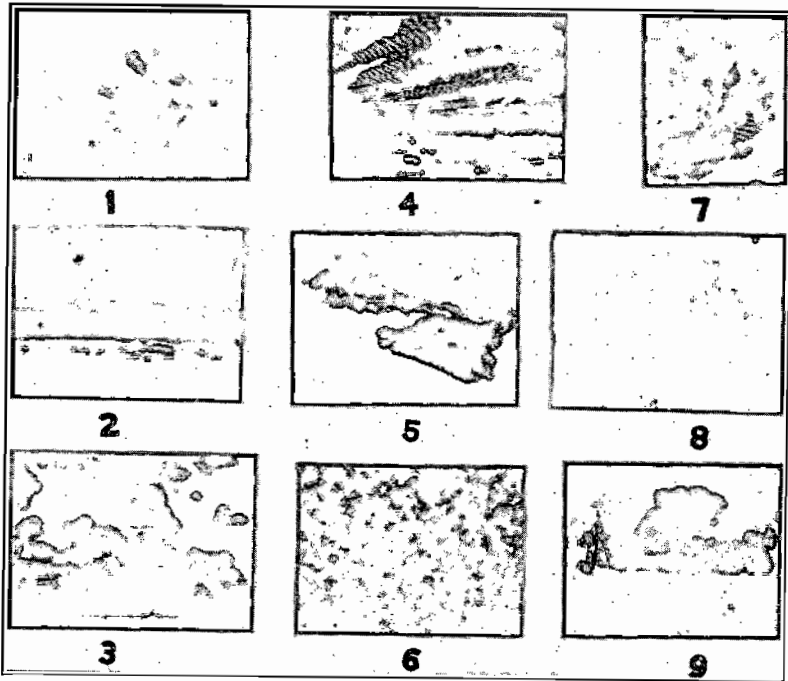
CUMULUS clouds are more or less isolated; they are thick, dense clouds with rounded festoon-like tops and horizontal base. Such clouds are characteristic of the summer sky.

THE NIMBUS is the cloud of continuous rain or snow. There are familiar combinations of these cloud forms which have been given combination names. Cirro-cumulus clouds are small, white balls, or fleecy clumps grouped in herds or rows, like sheep in a blue meadow. Strato-cumulus clouds occur in dry weather and appear very frequently in winter, when they more or less cover the heavens, but with patches of blue sky between. Cumulo-nimbus are the thunder and shower clouds which roll up in such an imposing manner and present a majestic

\* Mrs. Loveland and her husband, Professor G. A. Loveland, former Director of the Weather Bureau Station at the University of Nebraska, have written many good things on our state.



appearance of mountainlike character. The tops are light and fluffy, while the bases are of the dense nimbus character, from whose centers showers of rain and hail descend.



Cloud forms — 1, Cirrus; 2, Stratus; 3, Cumulus; 4, Alto-cumulus, undulated; 5, Nimbus, with fog below; 6, Alto-cumulus; 7, Cirro-cumulus, overhead; 8, Strato cumulus rolls; 9, Cumulus-nimbus, just formed from cumulus

Shelley in his poem "The Cloud" pictures for us in lovely cadences the different aspects and forms of this phase of nature:

"I bring fresh showers for the thirsting flowers,  
 From the seas and the streams;  
 I wield the flail of the lashing hail,  
 And whiten the green plains under,  
 And then again I dissolve it in rain  
 And laugh as I pass in thunder.

I sift the snow in the valleys below,  
 And all the night 'tis my pillow white,  
 While I sleep in the arms of the blast.

Sublime on the towers of my skiey bowers,  
Lightning, my pilot, sits,  
In a cavern under is fretted the thunder,  
It struggles and howls by fits.

I am the daughter of the earth and water  
And the nursling of the sky;  
I pass through the pores of the ocean and shores,  
I change, but I cannot die.  
For after the rain when with never a stain,  
The pavilion of heaven is bare,  
And the winds and sunbeams with their convex gleams,  
Build up the blue dome of air,  
I silently laugh at my own cenotaph  
And out of the caverns of rain,  
Like a child from the womb, like a ghost from the tomb,  
I arise and unbuild it again."

### COLOR OF SKY; SUNRISE AND SUNSET

SKY. The daytime sky in clear weather is a pure blue, lighter near the horizon and near the sun, and the higher we are above sea level, the deeper the blue. Nebraska, being about eleven hundred feet in the eastern part to nearly five thousand feet above sea level on its western border, is thus favored with its full share of blue skies.

There are from 11,000 to 65,000 minute dust particles per cubic inch suspended in the atmosphere; the lighter and smaller particles are in the upper portion, and the larger and heavier ones nearest the surface of the earth. The blue rays are caused by the light of the sun being scattered by these small dust particles in the air which happen to be in our line of sight, while nearer the horizon we have the white light and in the morning and evening the sunrise and sunset colors, yellow, orange and red, because the sunlight passes through the thicker layer of larger particles.

SUNRISE AND SUNSET. Even without clouds a Nebraska sunset is a thing of beauty; a symphony of color, first yellow, grading rapidly upward through a greenish tint to the blue sky above, and fading away more slowly along the horizon. As the sun descends, the yellow belt close to the horizon turns to orange and then to red. The brilliancy of a sunset is greatest when the sun is about four degrees below the horizon; then the whole band narrows and fades entirely by the time the depression of the sun amounts to six or seven degrees.

Sunrise is characterized by a similar succession of colors but in reverse order, and generally of somewhat fainter tints than those of the sunset.

I shall never forget a certain sunset one September evening. It was up in the sandhills in northwestern Cherry County. We were camping

near a haystack not far from the ranch home of an old Swedish couple, the Nordstroms. We had cooked and eaten our supper, put up the tent and made the bed, filling our heavy muslin tick with the fragrant hay for a mattress. About sunset the Nordstroms came over to inspect our camp and to visit awhile. It was peaceful and beautiful there in the gathering twilight; a few meadow larks sang their vesper hymns; the sky was a lovely symphony of color — gold and orange, rose and purple. As there were no clouds, it was a pure color picture without form or shape. All around was the vast, far-spreading range country like a great ocean of soft green billows. The rich nutritious grasses covered the rolling hills and the level bottom lands like a carpet, and there was not a tree nor a house, nor a sign of human habitation except the Nordstrom's little home and the ever present barb-wire fences.

Sunrise next morning found us awake and refreshed. Again there were no clouds, and we saw a perfect demonstration of the color effects in a typical sunrise. There was freshness and life in the morning air which invigorated our bodies and refreshed our spirits with that sense of physical well being, health and joy, that comes from surroundings and conditions such as these.

A sunset of another kind, gorgeous and majestic, was one we marvelled at one June evening from a boat on the Blue River at Camp Kiwanis near Milford. Thunder-heads, those cumulo-nimbus clouds with their light fluffy tops and black forbidding bases, were forming in the western sky with patches of blue or thinner cloud masses between. The rays of the setting sun burst through the open spaces, lighting the whole western heavens with gorgeous color; presently the sun itself shone through with such brilliance one dared not gaze at it. The light filtered through the thinner cloud masses, diffusing them with glowing shades and tones of red and orange, golden yellow and deep rose, while the denser clouds formed a background of rich purple and velvety black. Behind the black cloud mountains was a silver lining of dazzling brilliance, this effect being due to the white rays of the sun shining upon the vapor or tiny drops of water in the clouds and being reflected as in a mirror. All this beauty was mirrored in the smooth waters of the river, flowing quietly between banks of willows, elms, maples and cottonwoods still in the vivid green foliage of early summer.

**HALOS AND CORONAS.** The sun or moon is occasionally surrounded by one or more well marked rings or circles of light — the corona of small diameter and the halo of larger extent. In the former, the inner part of the ring is blue, and of the outer, red. For the halo, the order is reversed. Coronas are formed by the diffraction and interference of light caused by the small water particles in the clouds, while halos

are due to the deflection of the light by the ice crystals or ice needles which compose the high cirrus clouds or other combinations.

**TWILIGHT, MOONLIGHT AND STARLIGHT.** Twilight is the name given to the transition period between daylight and darkness. It varies in length with the distance between the equator and the poles, darkness overspreading the land almost as soon as the sun drops beneath the horizon at the equator and continuing for hours at the poles. In the latitude of Nebraska, twilight lasts about half an hour. How often have we planned to get home from some automobile trip before it should be time to turn on the lights, and have known that we could count on half an hour after the sun had set. This twilight half hour is as lovely a time as one could desire for a ride through the country on a warm summer night.

One August evening in Nuckolls County we made camp on a grassy roadside near a little grove of soft maples. In front of us was a great field of corn extending as far as the eye could reach. After supper we sat by our glowing campfire — made of wood from under the maples — and gave ourselves up to the solitude and peace. The sun had set while we were putting up the tent, and now the twilight was deepening. Gradually the outline of a distant farmhouse, and the rows of tall corn faded into indistinctness, and then sky and earth blended together in the soft enfolding dusk. The moon, half full that night, shone dully in the clear sky, but as the last light of the sun slowly faded, it grew brighter; objects in view in front of us began to take shape and form. By nine o'clock it was shining with full radiance, and we sat entranced with the beauty of the night, the white magic that wove its spell about us. A light breeze rustling the leaves of the maples, locusts whirring in the tree-tops, and a tree-toad singing unceasingly near by, were the only sounds that broke upon the stillness, but they blended with it all and became a part of the brooding peace and healing silence.

Late in the night, probably two or three o'clock, I awoke and looked from under the wall of the tent. The moon had set, and even the light breeze had died down. I gazed up into the velvety dark sky — "midnight blue" it was, all spangled and studded with glittering gems, suns and worlds perhaps greater and more brilliant than our own. Above me shown Pegasus, the winged horse; the Lyra, that bright lyre with its brilliant star, and Vega, 120 millions of millions of miles away from us, whose light, thirty times as bright as that of our sun, consumes twenty years in coming from it to us. I thought of Carlyle, who imagined the stars were saying to him: "Why so hot, my little man? Why indeed?" How insignificant one feels gazing into that illimitable space! How trifling our petty frets and worries! And yet we who trust and love the Maker of all, believe that He is our changeless Friend, and cares what we make of our lives.

On a summer night from our own sleeping porch, I watched the full moon slip silently through soft fleecy balls of cirro-cumulus clouds and repeated to myself these beautiful lines from Shelley:

“That orb'd maiden with white fire laden,  
 Whom mortals call the moon,  
 Glides glimmering o'er my fleece-like floor,  
 By midnight breezes strewn;  
 And wherever the beat of her unseen feet,  
 Which only the angels hear,  
 May have broken the woof of my tent's thin roof,  
 The stars peep behind her and peer;  
 And I laugh to see them whirl and flee  
 Like a swarm of golden bees.”

### NEBRASKA SEASONS

Though Nebraskans do not boast of its climate, as do the citizens of certain other states, and though our seasons have some disagreeable aspects, still there are compensations, and we have our full share of beauty, health and prosperity.

**SPRING.** Often in March we scold about the dust and the wind that fills our houses with dirt and unsteadies our nerves, but this sweep of the winds across the prairies purifies the atmosphere and lets the fresh air and disinfecting sunshine into every nook and cranny, routing mustiness and mould, destroying disease germs and harmful bacteria. Have you ever taken refuge from the wind on the lea side of a straw-stack, and let the warm spring sunshine soak into you? You were filled with a lazy content, and yet you were storing your nerve cells with energy for the coming work which this busy season brings.

**SUMMER.** Though James Russell Lowell lived in New England, we in Nebraska can well enjoy his lines in the Prelude to “The Vision of Sir Launfall,” for they as fitly describe a June day here:

“What is so rare as a day in June,  
 Then, if ever, come perfect days;  
 Then Heaven tries the earth if it be in tune,  
 And over it softly her warm ear lays;  
 Whether we look or whether we listen,  
 We hear life murmur or see it glisten;  
 The little bird sits at his door in the sun,  
 Atitl like a blossom among the leaves,  
 And lets his illumined being o'errun  
 With the deluge of summer it receives.  
 Now is the high tide of the year,  
 Now the heart is so full that a drop o'erfills it,  
 We are happy now because God wills it;  
 We sit in the warm shade and feel right well.  
 How the sap creeps up and the blossoms swell;

We may shut our eyes, but we cannot help knowing  
That skies are clear and grass is growing.  
Joy comes, grief goes, we know not how;  
Everything is happy now,  
Everything is upward striving;  
'Tis as easy now for the heart to be true  
As for the grass to be green or for skies to be blue —  
'Tis the natural way of living."

July with its stifling heat, terrifying thunder storms, or periods of devastating drouth with its dust and discomfort, is a month most of us would like to escape, still loyal Nebraskans say to each other, "This is good for the corn," and in August when the corn crop is made, and the harvested wheat fields are green again, we have our reward. James Lane Allen describes in poetic prose a Kentucky landscape at this time of year, and it applies equally well in Nebraska:

"The sun no longer blazing, but muffled in a veil of palest blue. No more black clouds rumbling and rushing up from the horizon, but a single white one brushing slowly against the zenith like the lost wing of a swan. Far beneath it, the silver breasted hawk, using the incredible as having ever existed; the birds, hushed and hiding; the bee, so nimble once, fallen asleep over his own cider-press in the shadow of the golden apple. The whirring wings of the locust let themselves go in one long wave of sound, passing into silence. All nature is a vast sacred goblet, filled drop by drop to the brim, and not to be shaken. Sometimes I roam through the aftermath of fat wheat fields where float-like myriad little nets of silver gauze the webs of the crafty weavers, and where a whole world of winged small folk flits from tree-top to tree-top of the low weeds. After the owner has taken his last sheaf, I come in and gather my harvest also — one that he doubtless did not see, and would not begrudge me — the harvest of beauty; or I walk past the rank and file of fields of Indian corn, which stand like armies that had gotten ready to march, but had been kept waiting for further orders, until at last the soldiers had gotten tired, as the gayest will, of their yellow plumes and green ribbons, and let their big hands fall heavily down at their sides. There the white and purple morning glories hang their long festoons and open to the soft midnight winds their elfin trumpets."

AUTUMN. It is of this season that Nebraskans can justly boast. Usually the air is clear and sunny, the roads are good and the temperature not uncomfortable until well towards Christmas. In October, after the first heavy frosts and before the leaves fall, comes a spell of warm weather known as "Indian summer." This is the season that nature-lovers delight in, poets write about and artists try to portray in their pictures.

The first thing we think of in connection with the term is the haziness and smokiness of the atmosphere, then of the unusual warm weather and absence of wind. There is a delicious, dreamy softness in the air, not like the enervating heat of summer, but fresh and bracing, for the frosts have purified the air. It is exhilarating to mind and body, yet restful and soothing to tired nerves. The mellow sunshine, delicate pale blue tints of the sky, the brilliant yellow of our native elms, ashes, walnuts and cottonwoods, the red of sumac and woodbine; the slow-moving streams carrying their leafy burdens, quietly, lazily; the new green of the winter wheat fields and creamy buff of corn, and everywhere the smooth, dry country roads; all combine to make this a season of delight.



Winter scene on the campus of the University of Nebraska

Various explanations have been given for the name, "Indian Summer." Some say that the Indians used to predict it, and in the early days, tell the white men about this second summer, or warm spell in the fall; some, that the smokiness and haze were caused by the Indians burning the withered grass on the prairies or allowing their campfires to spread in the forests, as this was the time of year for their hunting expeditions; others recount how the Indians used to attack the white settlers in the summer, and this second summer gave them another chance; that the season itself partakes of the Indian

character; that is, deceptive and treacherous, for the weather would be warm and gentle one day and change suddenly to cold and storm the next. Others say that in East India there is a similar season, that voyagers named ours from it, and others explain that the lack of wind and dryness of the ground cause the dust to remain suspended in the atmosphere, and it is these small dust and smoke particles that give the hazy, smoky effect. Whatever the origin of the name and the cause, the season itself is one of the most delightful times of the year.

**WINTER.** This is not the pleasantest season, but perhaps we Nebraskans would be unwilling to exchange it for that of any other state or country. New England has its deep snows that cover the ground for such long periods, and people are housed up for weeks at a time. Virginia and some other states have a chill, damp, penetrating cold that causes much suffering and discomfort, and one gets tired even of the bright weather and glaring sunshine day after day in California or Florida. Here in Nebraska there is seldom a time when we cannot go out-of-doors in comfort; yet there is snow enough to furnish some moisture for the next season's crops and to make lovely winter scenes as the rounded hills or wide valleys are draped in mantles of white, or the woods along the streams, or groves and trees about our houses bear their glittering raiment of sparkling hoar-frost; and the occasional low temperatures, twenty to thirty degrees below zero, are never of long duration and serve as nature's tonic and restorative, for it is a well-known physiological fact, that the people who live in a climate like ours, are the most vigorous, healthy and energetic.



## WILD LIFE BEAUTY

Our state has many kinds of and associations of wild life, descriptions of which have been published. Bulletin 12 on Nebraska Game Resources and their Conservation, by Professor Wolcott, and Bulletin 7, Handbook of Nebraska Trees, by Professor Pool, were published by the Conservation and Survey Division.

Two interesting articles are run in this bulletin. They are intended primarily for reference and study by those interested in wild flowers and the attractive animals.

## NEBRASKA WILD FLOWERS

By RAYMOND J. POOL  
Chairman, Department of Botany  
The University of Nebraska

Many still think of Nebraska as a "barren waste" of country that lies beyond the Mississippi. Some of my botanical friends even have failed to catch the inspiration which comes from an acquaintance with the prairies and with their myriads of interesting living forms which exhibit a wide range of striking features from season to season. A favorite expression of folks when referring to the things of the prairies is "the monotonous prairies." The prairies may be uninteresting and even monotonous to those who do not know them. But those of us who have spent our lives here and know the place of the prairies in the history of our great nation know that we have among these rolling hills and great expanses of plain a very vital feature of the nation as a whole. And the wild flowers of the prairie and the woodland along the streams have contributed much to the beauty and enjoyment of the out-of-doors here in Nebraska. Only a few weeks ago I had an interesting letter of inquiry about Nebraska wild flowers from a lady who lives in New England. She had passed through the state by automobile and had noted a number of plants which interested her.

The flora of Nebraska is greatly diversified, containing as it does floral elements from the east and west, and a few even from the north and the south. Most of our wild flowers, however, are those that are common in the eastern states, but quite a number of them are truly Rocky Mountain in their affiliations. In this brief paper I will discuss first some of the seasonal beauty manifested by the regulation of the seasons of Nebraska and then some of the more common or striking wild flowers which are seen in the various parts of the state.

## SPRINGTIME AND SUMMER

Soon after the last remnants of winter's white mantle have disappeared from shaded dales, the slippery elms and silver maples open their flowers, while upon somber-hued prairie and hill top the Carolina Anemone and the Pasque flower add touches of white and purple that are prophetic of another summer's bloom. The warming sun and welcome showers of April days soon call forth the sweet William and the Wake Robins of the woods to greet the yellow puccoons and the purple vetches of the prairies, as the first faint glow of green appears over the prairie uplands, and the bursting buds of the trees transform the woodlands into great pompons of purple and brown. The waves of vegetative regeneration and the bursts of varied blooms finally return in their full glory in May and June. Soon the swelling brightness of cultivated fields and pasture places is added and now the whole state is transformed from the more subdued tones of late winter into a vast expanse of varied form and hue.



Springtime flowers on hills and valleys of the sand hills

A more beautiful sight cannot be seen in all the world than Nebraska at the close of June. At that time the native plant cover has developed great richness of form and color over hill and vale. The winding threads of deep-green native woodland and the formal figures of wide-spread grove and woodlot alternating with fields of grain and garden upon a broken background of smooth, green prairie, dotted here and there by bright touches of yellow and blue, and white and purple as the various wild flowers come and go, present a picture of unrivaled beauty. The deep, blue-green of the alfalfa, and the lighter green of fields of maize, and the golden glow of ripening grain add delightful details to the great natural canvas at that season. These need only the unpaintable tints of a prairie sunset to complete the picture. June is the month when all out-doors is at its very best in Nebraska.

With July and August come the first touch of yellowing leaves and the spread of purple and brown and red over the prairies and thickets

and the banks of bright yellow and orange blooms warn us of the approach of another autumn. The chill of the evening and the dusty road, the glow of the goldenrod and the blue gentians in the prairie call us again to the opening of school, to the husking of corn and to the other activities of our colorful and exhilarating autumn.

#### AUTUMN COLORS AND WINTER BOUQUETS

Our state is not particularly noted for the brilliancy and variety of color developed in the vegetation in autumn time. Nevertheless drives along the Missouri River bluffs and in other parts of the state in late summer and early fall will usually reward the lover of autumn tints



Paper birch, along the Niobrara

with many gorgeous bursts of color not excelled in any land. And throughout the late fall and even through the winter when the ground is not blanketed with a snowy mantle, one may enjoy the colors of our native prairie vegetation.

The brilliancy of the oaks and cottonwoods, the hickories and the ashes, to mention only the major elements of the Missouri blufflands, is coming to attract more and more of our people each fall as we learn to appreciate the fine things which mother nature does for us here in Nebraska. The sumac-covered knolls add a touch of scarlet and maroon here and there which can only be found in its broadest

development in the prairies. Add to these the paper birches of the northern part of the state and in the cities and parks where they have been planted, and you have all of the elements for the compounding of the most brilliant and varied autumn colors.

Late in the fall the bright berries of the bittersweet and the wahoo are becoming too well known for their own good. I would sound the warning note of danger of early extinction of these popular species if we continue to harvest them in such "arm-loads" as is now the practice. Masses of decorative vegetation are most beautiful only in the great out-of-doors, while slender and scanty sprigs are most impressive and beautiful inside. Why cannot we catch the real touch of the artistic and at the same time spare the wild things all about us, many of which are threatened with extinction?

Dry bouquets of certain of our wild flowers make very delightful and artistic decorations for our homes for the winter, and they serve to brighten the months when all nature outside is under the rule of Old Boreas. Very attractive baskets and vases may be made up of the goldenrods, the blazing-stars, the bright colored grasses and the hoary Kuhnna. Many of these preserve their brilliant coloration for weeks if they are gathered at the right time, and if they are properly prepared. We have had fine clusters of blazing-stars in our home for as long as two years. Many of the wild grasses add a very delightful touch to such preparations because of their subdued reds and purples and graceful lines. So also many interesting and pleasing combinations may be made up from fruiting specimens of such plants as milkweeds, wild roses, Russian olive, etc. The painted ones are hideous.

#### WINTER COLORATIONS

As a final note in this connection I would direct your attention to the fine winter coloration of our grasses which is seen to best advantage in central to western Nebraska where native grasses still enjoy vast expanses of territory. As many as twenty or more shades and tints can be readily detected among the grassland communities of those regions in late fall and through the winter. Shades of red, purple and yellow are the predominating tones, these often blending in most delicate patterns, ranging through the canyons and over the uplands for mile after mile. Some dozen or more grasses and several species not grasses are mostly responsible for these combinations. The blue-stems and the switch-grasses make up the most of the background of red and purple and yellow, while the buffalo and grama grasses contribute the grayish tones of the broad landscape upon which this autumn and winter picture, a veritable "clavilux" production, is traced. Look for it the next time you go across the state in late fall or winter.

PLANTS WITH WHITE, CREAM, OR SLIGHTLY  
PINKISH FLOWERS

THE SAND LILY (*Leucocrinum montanum*). This is a low, grass-like plant with straggly leaves and loose, few-flowered clusters of snow-white flowers very early in summer. It is most conspicuous in sandy soils and so is a characteristic member of the flora of the sand hills. The pure white flowers appear to come directly from the sand in many cases.

THE SOAP-WEED, OR SPANISH BAYONET (*Yucca glauca*). Another sandhill inhabitant, although it is also found far east of the sandhill region, and is a common plant in other parts of the state. The bristly rosettes of sword-like leaves are evergreen and are conspicuous in the winter landscapes of the west. The tall spikes of white or creamy flowers are noteworthy objects of the early summer landscape over the prairies.

THE WAKE ROBIN OR TRILLIUM (*Trillium nivale*). This tiny little lily is found only in the deep rich woods of the lower Missouri in this state, where it often brightens the otherwise brown and sere woodland copses in very early summer. This is the far western frontier of this interesting plant which ranges far eastward.

DOG'S-TOOTH VIOLET OR ADDER'S TONGUE (*Erythronium mesochorium*). To those who insist upon having a "common name" for every plant and animal, this fine little lily should be an everlasting warning. The plant is not a violet, neither does it have anything to do with the tongue of an adder, but the utter ridiculous common names have been fixed upon it to stay. How much better would be "Wild Spring Lily of the Prairies"! It is a true lily, which often develops in great profusion on low prairies in early summer. Another closely related species is more commonly seen in the woodlands.

PUSSY'S TÖES OR PEARLY EVERLASTING (*Antennaria campestris*). Another meaningless name for one of our interesting and very common prairie wild flowers. It is sometimes called "Indian Tobacco" although it is not a tobacco at all, and I am sure that the Indians of the prairie region knew too much to chew it, thinking that they were chewing tobacco. This low pearly plant with its little heads of grayish flowers is a close relative of the "Edelweiss" of Europe.

THE WHITE SWEET WILLIAM OF THE PLAINS (*Gilia longiflora*). This is a tall, but more or less sprawling plant of the western part of the state. The long funnel-shaped, white flowers are seen in early summer. The plants prefer sandy soils.

WILD INDIGO (*Baptisia bracteata*). In reality this plant is a wild pea and one of the conspicuous bunchy plants of the prairies in fore summer. The dark, bluish gray leaves covered with stiff hairs and the

large drooping cluster of cream colored flowers are familiar to all roamers of the prairie lands. The dry pods with rattling seeds are also prominent features. Another species which is smooth and much taller, with an erect cluster of flowers, is also rather common in eastern Nebraska.

**SPRING BEAUTY** (*Claytonia virginica*). A beauty, indeed, seen only in the open woodlands along the streams of southeastern Nebraska — a particularly bright discovery as one rambles through the dry, leafy undergrowth in very early summer, long before the forest has awakened for another season. This is a favorite among eastern flower lovers.

**BLOODROOT** (*Sanguinaria canadensis*). Most Nebraskans have never seen this famous plant, and many of my friends who know the plant are surprised to learn that it is found in the state. It is not uncommonly seen in early summer in the woods along the Missouri and along the Platte as far west as Fremont. It is a member of the poppy family and a notable old-fashioned drug plant.

**PRAIRIE DAISY** (*Erigeron ramosus*). This is not the "ox-eye daisy" so common in the meadows of the east, but quite a different thing. However, this plant is often seen in great profusion in its densely aggregated development over great expanses of native prairie lands about Fourth of July time. I have some photographs of prairies covered with this plant in bloom and they look for all the world like glimpses of a snowy landscape. The flowers disappear completely later in summer.

**WILD ASTERS** (*Aster spp.*). We have a number of species of true asters growing wild in our state. Some of these are typically prairie forms, while others are found most commonly in the woods. Some of these have white flowers, and others produce blue or purple flowers. A common one (*A. multiflorus*) is often seen in dense clusters on dry prairies and along roadsides in all parts of the state. Another (*A. salicifolius*) grows along moist creek banks and on the borders of woodlands.

**THE PRICKLY POPPY** (*Argemone intermedia*). This is another white-flowered plant which one sees commonly toward the western parts of the state and on the plains in general. A coarse, thistle-like plant with milky juice and large tissue-papery flowers. Often confused with true thistles because of the prickly nature of the plant body, but flower relationships are determined by flower structures, and the flowers of this plant are poppies rather than thistles. The plants are often abundant in old corrals and feed yards.

## PLANTS WITH YELLOW FLOWERS

**GOLDENROD** (*Solidago spp.*). This should take first place among our yellow-flowered plants, since it has been selected as the official state flower, but I note that our people are not usually informed as to which goldenrod has been so honored. We have a dozen or more different kinds of goldenrod growing wild in Nebraska, and the state flower is only one of these. Unfortunately the state flower is not one of the more beautiful species common to the state, but is rather coarse and unpopular. The reason for this is a long story, so, as a rule, we use almost any of the forms which we pick up and which are beautiful, as the state flower. Several of the species of goldenrod are readily transplanted, and they should come into popular use as ornamentals. Some of them make very pretty and permanent winter bouquets if handled properly.

**YELLOW PUCCOON** (*Lithospermum canescens*). This bright, orange-flowered plant is one of the most prominent wild flowers of the prairies in early summer, before the rest of the plants of the region have begun to bloom. The flowering stems are usually clustered to form open clumps about a foot in height. The plant belongs to the forget-me-not family, but of course a real forget-me-not must have blue flowers.

**WILD PARSLEY OR CELERY** (*Lomatium foeniculaceum*). A low plant with finely divided leaves, with a very strong celery odor and large clusters of bright yellow flowers borne in umbels like celery and dill, blooming in early summer on dry, exposed hills in the prairies and on the bluffs along the rivers. I always receive many specimens of this plant for identification in the spring.

**YELLOW OXALIS** (*Oxalis stricta*). This plant is also called "sheep-sorrel" or "sheep sour" by the small boy, because of the strongly acid juice. The bright yellow flowers and the elongated seed pods which shoot out their seeds are conspicuous features of the plants which grow almost anywhere if they find sufficient moisture and light. They often become more or less troublesome weeds.

**WALL-FLOWER** (*Erysimum asperum*). This wild mustard is commonly seen in the short grass country of western Nebraska and up and down the Great Plains in general. The coarse stems about a foot in height with a cluster of sweet-smelling flowers at the top are known to every one who has crossed the plains — a plant with ornamental properties. Sometimes a form of the plant with reddish-purple petals is noted. The blooming season for the wall-flower is several weeks long, as a rule.

**YELLOW LADY'S SLIPPER** (*Cypripedium parviflorum*). This yellow relative of the great purple orchid of the north is found quite commonly in the deep woods of the eastern end of the state. Nebraska could not

be classified as an "orchid state," and yet we have this one as well as several other species that may be collected in different parts of the area.

**YELLOW STAR-GRASS** (*Hypoxis hirsuta*). Not a grass at all, but a grass-like plant with yellow flowers belonging to the amaryllis family. The plants are commonly found among the low grassy vegetation of more or less marshy sites along ditches and stream banks. Its very bright yellow flowers will always attract the attention of one accustomed to seeing things out-of-doors. The species shows a decided liking for alkali soils. I have seen it in abundance in such soils in the North Platte Valley.

**GOLDEN CORYDALIS** (*Capnoides aureum*). Commonly found in the open soil or gravel of railroad grades and other embankments. The low bushy plants with bluish, fleshy leaves and small clusters of very irregular flowers are common in such places throughout the state in June.

**SUNFLOWERS** (*Helianthus spp.*). The sunflowers, like the golden-rods, are very poorly understood by most persons. Many plants not called sunflowers are in reality true sunflowers. Some of the plants called "rosin weeds" are sunflowers. There are thirteen or fourteen different species of sunflower to be found in different parts of the state. The common field, annual weed is, of course, most familiar, but there are also a number of perennial species with narrow leaves and other variations from the common field form, that grow along the fences and roads and in moist lands. The plant commonly known as "Jerusalem Artichoke" is one of these. Some of the sunflowers are well worthy of ornamental cultivation. Many of them are particularly fine in late summer when their great banks of golden bloom represent one of the noteworthy features of the autumnal landscape in various parts of Nebraska.

**COREOPSIS** (*Coreopsis tinctoria*). This is a very common weed in moist places throughout the state, but is most abundant in middle and western Nebraska where there are low, wet places in fields and meadows. Probably the most prominent areas in which the plants are developed in great profusion are in the so-called "lagoons" of Kearney and Phelps Counties. In late summer such areas are often characterized by a solid golden blanket of *Coreopsis* plants about two feet in height.

#### PLANTS WITH PINK OR RED FLOWERS

**THE RED COLUMBINE** (*Aquilegia canadensis*) is a plant rather commonly seen in the woods along the Missouri River and its tributaries in eastern Nebraska. The striking and graceful drooping red flowers



with their five-spurred nectaries are always noticeable in early summer before the trees are fully leaved out and before the summer has really begun. The flowers are usually borne on slender branching plants which grow in scattered stands and over moist rocks in the deeper woods. Several relatives of this plant have become popular ornamentals. The large blue columbine of the Rocky Mountains is the state flower of Colorado.

**THE STAR MALLOW** (*Malvastrum coccineum*). This plant is most at home along open grades and embankments, as along railroads and public highways where other vegetation is sparse. It can be recognized as a rule by the small clusters of bright red or scarlet flowers, each of which resembles a small, single hollyhock. The foliage of the plants is usually more or less scurfy and scaly. A good ornamental if used for a border.

**PRAIRIE SWEET WILLIAM OR PHLOX** (*Phlox pilosa*). Who has not noted the beautiful pink to rosy sweet william on our prairies during the fore part of the summer? The flattish clusters of flowers, varying from almost white to deep rose, are among the most notable features of the virgin prairie areas which are now not commonly seen especially in eastern Nebraska.

**WILD ONION** (*Allium mutabile*). This is another one of our attractively colored early summer prairie species. It is frequently found growing in open clusters among the grasses and other plants, and the leaves are quite like those of certain grasses. The delicate pink blossoms make up for the rather ill-smelling nature of the flowers. The small bulbs are indeed very alliaceous.

**WILD PRAIRIE LILY** (*Lilium umbellatum*). Residents and travellers in the sandhill region do not have to be told about this fine wild lily which abounds in the wet meadows of that particular part of the state. The plant is commonly known as the "wild tiger lily" which is a very good name for it. It is usually scattered here and there among the ferns, sedges, grasses and other plants which characterize the low, moist-to-wet sites in the sandhill counties.

**WILD ROSES** (*Rosa spp.*). Several different species of wild roses occur in Nebraska, but the commonest one is the prairie rose, and it is known to the botanical world as the "ARKANSAS ROSE," *Rosa arkansana*. This low, bushy rose with delicate pink flowers and most pleasant fragrance is widely scattered over the prairies and along the roadsides throughout the state. The wild rambler rose (*Rosa setigera*) of the woods of southeastern Nebraska is another striking species of the state. I have tramped through the state for miles and miles when wild roses were in bloom and enjoyed their fragrance which filled the air.

WILD BUCKWHEATS AND SMARTWEEDS (*Polygonum*). There are more than twenty different kinds of these plants in Nebraska, and some of them produce conspicuous clusters of bright-pink or reddish purple flowers. The more noticeable ones are likely to be seen in damp places, such as depressions along the roadway and in low places in fields. Some of them may become troublesome weeds. The small, bright-colored flowers are usually produced in short terminal spikes an inch or so in length. Certain of the species are really quite ornamental.

#### PLANTS WITH BLUE FLOWERS

BLUE WOODLAND PHLOX OR SWEET WILLIAM (*Phlox divaricata*). This is one of our most lovely summer wild flowers. Coming in early summer in the woods before the forest growth has taken on its full luxuriance, the blue phlox is one of the most conspicuous plants that inhabit our eastern woodlands. It is particularly abundant along the streams south of the mouth of the Platte and east of Lincoln. The open clusters of bright-blue, funnel-shaped flowers are well known to every one who strolls through the woods in early summer or who whirls along a stream course by automobile or train at that season when we most enjoy the great open places. I note that this plant is coming more and more to our cities, and our people are now using it rather commonly for ornamental planting. It makes a most attractive border for an early flower bed.

BLUE SAGE (*Salvia pitcheri*). This tall straggler is frequently noted along our roadsides in later summer when the terminal clusters of light blue flowers are in their glory. Not so very pretty as it usually grows, because of its rather untidy habits, but it becomes a gorgeous thing when brought in and given a little mechanical support so that the tall, slim stems do not lop about as they do when in the wild state.

SPIDERWORTS (*Tradescantia bracteata*). A number of different species of these grass-like plants enliven the prairies and meadows in early summer with their bright blue or purple flowers. Some of them are low, hairy plants, while others are tall, slim and smooth. They all produce star-shaped flowers in open clusters, and there is a wide range of tints to be noted in the petals of different species and even of the same species at different periods of flower development.

BLUE-EYED GRASS (*Sisyrinchium angustifolium*). This is another one of those more or less grass-like plants which is not a grass at all. The leaves resemble grass leaves quite closely, but the flowers are really like tiny Irises or Sweet Flags. The plant is commonly included among the members of the Iris family of flowering plants. The dark blue, star-shaped flowers looking up from their grassy background have been noted by every one familiar with meadows and prairies in their June-time magnificence.

BEARD-TONGUE (*Pentstemon*). This is another large group of western wild flowers, and we have several species of them in this state, but the most conspicuous one is the large-flowered "Easter lily" of the hills and bluffs of eastern Nebraska. The smooth, grayish-blue leaves and the tall slim stem with the long cluster of large, bright-blue or purple flowers at the top are prominent features of early summer on the high prairie. The plant belongs to the snapdragon family, but it is often called the "wild Easter lily" by those who do not understand plant relationships. This species would be an ideal member of a rock garden.

CHICORY (*Chichorium intybus*). This coarse relative of the dandelion is often seen along the roads, in abandoned fields and even in alfalfa fields. It may always be recognized by the coarsely-branching, rough, hairy stems with few scattered leaves, and the large blue flowers that look for all the world like dandelions except for the color. The plant may be seen in any part of the state. It blooms late in summer, as a rule. The roots of this plant have been dried, ground and used for coffee.

VIOLETS (*Viola spp.*). We have several different kinds of violets native to Nebraska. The most common ones are the blue, cut-leaved or "bird-foot" violets of the prairies and the woodland forms with heart-shaped leaves. The irregular form of the flowers is more distinctive of the violets than the color of the flower or the nature of the leaves. Now and then we also see white and yellow violets, especially in the woods. It is interesting to know that the pansy is a cultivated violet. We have wild pansies growing in Nebraska.

THE GENTIANA (*Gentiana, etc.*). Most folks think of the gentians as blue-flowered plants, and it is true that many of them do produce blue flowers. We have a number of the blue-flowered gentians in Nebraska, one of the commonest of which is Andrews' gentian of the eastern prairies and meadows. Most gentians bloom late in summer or early in autumn, producing tubular flowers with five points on the rim. The fringed blue gentian does not occur in this state, but some of our native forms are almost as beautiful as that famed flower.

#### PLANTS WITH ROSE-COLORED TO PURPLISH FLOWERS

CAROLINA ANEMONE (*Anemone caroliniana*). This plant is one of the earliest harbingers of spring in Nebraska and elsewhere. Called "Wind-flower" also because of its habitat upon open windy hills and ridges, its blooms are among the very first flowers to be noted over the prairie uplands. A very humble low plant of a scant six inches in height, yet it is often prominent because of the hundreds of cherry, bright-purple to almost white flowers scattered through the brown

grass leaves and other remnants of the last season's growth of the prairie. The daisy-like flower is produced at the top of a very slender stalk, and later each flower is replaced by a little tuft of silky seeds. This plant is a close relative of the Pasque Flower, state flower of South Dakota, which is rather common in extreme northwestern Nebraska in early spring.

**RED BUD OR JUDAS TREE** (*Cercis canadensis*). This low tree or large shrub is a rather common inhabitant of the woodlands along the Missouri River. It usually grows underneath the larger trees in rather close stands or groups, sometimes covering an acre or more. The flowers are very bright, reddish-purple, and they break out all over the trees long before the leaves appear and before the trees of the forest have leaved out. This peculiarity makes the thickets especially noticeable because of the flame-like patches of bright bloom against the somber hues of the still inactive forest. The plants are commonly grown for ornamental purposes, and they stand transplanting very well. The trees are also very beautiful when in leaf.

**THE BEE PLANT** (*Cleome serrulata*). This plant is typically western in its range, and it is very common in western and central Nebraska, where it is often seen about the waste places of the farm. It thrives especially well about old corrals, feed yards and along roads. It usually grows as a bushy plant about three feet tall and it produces a great many pinkish-purple flowers in rather dense clusters at the tips of the many branches. The foliage is rather sparse and ill-smelling. Honey bees appear to enjoy the plant, hence the name. It is really an unwelcome weed in many places, and yet the flowers are very beautiful.

**PURPLE OXALIS** (*Oxalis violacea*). This interesting "sheep sour" is often seen in the prairies where the sod has become more or less broken, where it develops in small patches. The plants are considerably more robust than those of the yellow sorrel described above, and the flowers in this species are delicately purple rather than yellow. The leaves are very sour, and they are popular among those who enjoy such things. The flowers and leaves of this species are so large that the plants will be used to some advantage as ornamentals. They will grow very well in flower pots as house plants.

**ROSE DOCK** (*Rumex venosus*). This is especially common in sandy or gravelly open soils, where it frequently develops great patches of sprawling plants with the thick leathery leaves. After the flowers have bloomed, the sepals become greatly enlarged and winged, and then these broad wings, which are about an inch in width, become very brightly colored. These things are borne in a rather dense cluster, six to eight inches in length and about half as thick, the whole cluster

being brightly colored. The mature clusters resemble the flower clusters in certain varieties of Hydranges. The rose dock has unmistakably promising possibilities as an ornamental. The large colored measses of flowers will dry and retain their colors for many weeks, so that they make nice winter bouquets.

MONARDA OR HORSE MINT (*Monarda fistulosa*). Many species of Monarda have been brought into cultivation, and this is one of the most beautiful and promising. The plant belongs to the mint family but the odor is rather heavy and unpleasant. Growing in the openings among the woods, the plant is especially noticeable in mid-summer to early autumn when the tufted clusters of light or pinkish-purple flowers have been produced. The long tubular flowers are very deeply and irregularly lobed. Those who enjoy bright-colored forms in the shady places about their homes would do well to move some of these plants in during the early spring.

WILD MORNING GLORIES (*Ipomoea spp.*). We have two common wild morning glories in Nebraska, the commoner vine type or purple morning glory and the bush morning glory of the sandhills and western parts of the state. The first species is commonly grown over trellises and back yard fences, and it is too often seen in the fields. The bush morning glory is not vine-like at all, but it grows as a widely-spreading, open-branching herbaceous bush, sometimes reaching a diameter of three feet or more and at flowering time producing a wealth of large purple flowers. The main root of the latter plant is often very large and woody, reaching a length of four feet and a thickness of a foot or more. It may be noted in passing that the common sweet potato is a true morning glory with edible roots.

BLAZING-STAR (*Liatris squarrosa, etc.*). The blazing-stars are typical prairie plants that bloom very late in summer and early autumn. The plants arise from deep-set tubers, and the short erect stem terminates in a long spike of rounded clusters of gorgeous purple flowers. Each flower head is from a quarter of an inch to over a half inch thick and contains several tubular flowers. When these plants are in full bloom, as they are late in August and early in September, they are among the most conspicuous elements of our prairie flora. The purple flower clusters dry so as to retain their color, and they then make excellent dry bouquets which hold their color for several years. One of the species produces a slim spike of flowers, while the others produce rather thick, heavy spikes.

SHOOTING-STAR OR DODECATHEON (*Dodecatheon radicum*). This plant belongs to the primrose family, and it is in reality a kind of wild Cyclamen. Its typical habitat is in wet meadows and along brook banks in the shade of trees. I once saw thousands of the plants in

bloom in the North Platte Valley. The slender, erect, flowering shoots with a few gracefully scattered and drooping flowers with deep reddish-purple parts are very striking. The flower appears to be turned inside out and pointing directly downward, a feature which is reflected in the common name "shooting stars."

RUSSELL'S GENTIAN (*Eustoma russellina*). This is a reddish-purple gentian which is commonly seen in the wet meadows of western Nebraska. The flowers of this gentian differ from those of most gentian flowers in being more widely open when they are in full bloom. In fact, the open flower looks more like a hollyhock or even a rose than a gentian. The species is one of the truly beautiful flowering plants of western Nebraska where it is often seen along the North and South Platte rivers and their tributaries. Plants from that region have frequently been sent in for identification.

LOCO-WEED (*Aragallus lambertii*). There are a number of plants that are known as "loco-weeds" in different localities, but this is the most common and wide-spread of the species which do the most damage to stock. This is a member of the legume or bean family and can generally be recognized from the rosette of fern-like, hairy leaves, from the cluster of which the flowering stems arise. The flowers are usually bright purple (sometimes white) and are produced in an open cluster of a dozen or so at the top of the slender woolly stalk. Each flower is shaped like a bean flower and is replaced in late summer by an elongated pod. The relation of these plants to stock poisoning is too well known to demand any comment in this place.

THE SWAMP MILKWEED (*Asclepias incarnata*). Most of the milkweeds produce very fragrant flowers, and the flowers are interesting on account of other features also, especially their form and relation to insects. The swamp milkweed, as the name indicates, grows only in moist places where it is quite commonly seen in its characteristically dense clumps with the rich wealth of purple bloom in mid-summer. The flowers of this particular species are not so fragrant as those of some of the others, but they make up in beauty for what they lack in the matter of fragrance. The juice of this species is not so milky as in many other species of the group.

PRAIRIE SHOESTRING OR LEAD PLANT (*Amorpha canescens*). This low, much-branching, grayish shrub is one of the commonest native shrubs of our prairies. I have seen it in several parts of the state in broad expanses of uplands dominating the landscape for miles. The silvery, hairy leaves and stems give rise to one of the common names, and the tough bundles of wire-like roots the other. Where the shoestring is abundant the problem of breaking the sod of the prairie is complicated. The slender spikes of deep-purple flowers at the tips of the branches

are always conspicuous in midsummer. A taller species (*Amorpha fruticosa*) is very common in low, wet places along creek banks and in wet meadows where it sometimes forms rather extensive patches of densely tangled bushes. Both of these plants are also called "indigo" in some localities.

## CONTRIBUTION OF ANIMALS TO THE BEAUTIFUL

By ROBERT H. WOLCOTT

Chairman, Department of Zoology  
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A possible definition of beauty is that it is a quality possessed by all things which give pleasure, and if this be accepted, there will be included some things not beautiful in themselves, but attractive and pleasure-giving because of their appropriateness in the setting in which they are placed, as for instance, the prairie dog in a prairie landscape or the cicada's song on a summer day. Some objects which are unattractive in other respects attract because of their oddity, and it is not rare to hear such an expression, as "that is so ugly, it is positively beautiful."

In this discussion no reference will be made to those forms of animal life which because of place, of small size, of small numbers, or of habit of life are never noticed by the ordinary observer. Furthermore, lack of space precludes a discussion other than in general terms.

### BUTTERFLIES AND OTHER INSECTS

Though the insects are, in general, too small to attract observation, certain ones compel the attention even of those quite ignorant of technical matters. Dainty blue butterflies are in spring appropriately associated with violets, phlox and other delicate spring flowers. In June, through fragrant woodlands and over gaily flower-bedecked meadows, sail and flit a great variety of beautiful butterflies, including some of our largest as well as handsomest kinds, such as the large yellow and black swallow-tails, the silver-spotted argynnis, the brown-red, black-veined "monarch," the "red admiral" and the "painted lady." Later in summer about the clumps of yellow and white composites that form a large part of the flowers of the season, hovers a host of yellow and white butterflies which are with us through the fall, though generally speaking, the autumn butterflies are of more sombre colors than those of spring and early season. Often we do not appreciate the beauty about us until we miss it; I can never forget the sense of delight produced by the sight of swarms of butterflies which fluttered about the early autumn flowers along the

track in Minnesota after I had travelled by train through the Canadian Rockies and across the plains of Alberta, with but rarely a glimpse of such insects.

Moths are not so often observed, owing to their nocturnal habits. However, we have some which are very beautiful, such as the hawk-moths or sphinges which dart about the petunia beds in the summer evenings. Almost everyone in Nebraska is familiar with the silken cocoons of the cecropia moth which hang in our shade trees and shrubbery during winter, giving forth the moth the following spring. These cocoons are spindle-shaped and three to four inches long, and the moth, which measures six inches across the expanded wings, has a suit of pepper and salt of a brownish-black tone, with a beautiful band of rose and white across the wings on either side and a kidney-shaped rose and white spot in the center of each wing. Another large species, the luna moth, thought not quite so large as the cecropia, is a beautiful blue-green with long graceful tails on the hind wings.

Among the crowds of insect flower-visitors at all seasons are bees and wasps of varied tints often highly metallic, gaily colored flies, and brightly banded and striped beetles. Brightly marked tiger-beetles, colored violet, blue, green, or various shades of red, run along the paths in the woods or scurry hither and thither over patches of sandy soil. A brilliant metallic gold and green leaf beetle is the common dog's bane or indian hemp.

The evenings of early summer are enlivened by great numbers of fire flies, not truly flies, but beetles, that flash their lights everywhere over low ground.

The cicada, or harvest fly, which saws away in our shade trees all summer long, is not beautiful to look at, but its song is a part of summer and would be missed if it were lacking. Many grasshoppers in late summer form a chorus without which an August day would not be complete, and crickets and katydids add to the interest and beauty of the summer evenings. Many brightly colored dragon flies form a pleasing element of the life about our ponds, and the dark, metallic blue damsel flies with their flopping flight lend beauty to the banks of our smaller streams in the early summer.

Spiders are to most people not attractive, and yet some of our species are beautiful in color, particularly the large yellow and black orbweaver that spins its web between the ripening weeds of fall and continues its hunting even after the first frost.



## FISH, FROGS AND REPTILES

Few of our fishes can be included here, though there are some very brightly colored minnows in some of the brooks in eastern Nebraska and throughout the state. In the breeding season, many of the males of our smaller fishes become very strikingly colored. In the streams in the north and northwest part of Nebraska rainbow and brook trout add attractiveness in more ways than one.

The frogs are handsomely colored, and the spotted salamander with its dark olive color and yellow spots usually mistakenly called a lizard, always excites interest to most people, because its appearance seems unusual. But the greatest claim which the group has to recognition in this connection is the vocal ability of the frogs, without whose songs spring would not be complete.



Trout fishing in Long Pine Creek

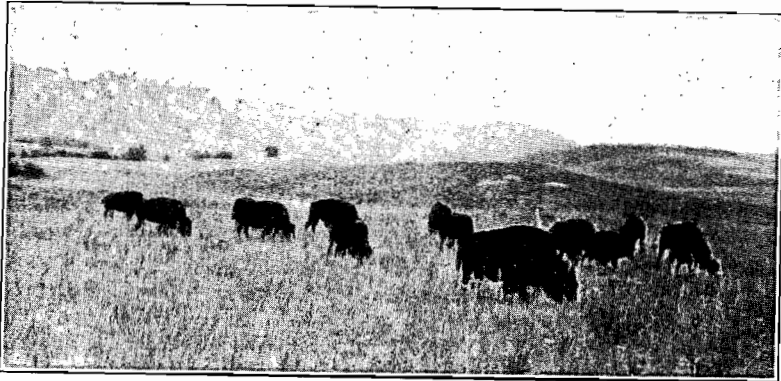
We have some small lizards which from their color or alertness are interesting features of the landscape. Along the Platte and Missouri River bluffs is a handsomely striped one, black and pale-greenish in color, and in the sandhills, two kinds of sand lizards which dart here and there when pursued, taking refuge under prickly pears or the soap-weeds. To most people no snake can be attractive, though most of ours have rather pleasing colors, particularly the garter snakes with their bright longitudinal stripes, the blue-green grass snake and the brilliantly colored milk snake with its rings of red, black and yellow.



A beaver dam, northwestern Holt County

### MAMMALS

Some of the mammals add distinctly to the attractiveness of the landscape interest by their graceful movements or fit into our mental pictures through their calls. In the early days of this state great herds of elk, deer, antelope, and buffalo formed a most attractive



Buffalo on the U. S. Game Preserve, east of Valentine

sight to the travelers across its area, but with the exception of a few deer in Pine Ridge and on a forest reserve in the sandhills and an occasional small herd of antelope toward the west end of the state, these have all disappeared. Fox squirrels, usually called "red squirrels," form an attractive feature of most woodlands of Nebraska, as does the striped chipmunk in the Pine Ridge. Flying squirrels are beautiful, but rarely observed, and are confined to the southeastern part of Nebraska. The sight of a rabbit gives delight and pleasure to the stroller in the country anywhere in the state, and a glimpse of a coyote, though not appreciated by one who suffers from his depredations, adds much to the landscape and interest to the traveller from the East who motors across the state. The prairie dog is not beautiful and often does much damage, but a prairie dog town with its dogs, its owls and occasionally other mammals, is an object of interest and attraction to the same traveler, and the "bark" of the animal adds to its interest.

#### BIRDS

Of all animal forms, the birds, from an aesthetic standpoint, easily take first rank, and among those of our state are many that appeal to us in a variety of ways. The Franklin gull, with its pearly mantle, its black head, and its white breast with a rose tinge, is a beautiful bird, and several of the ducks are conspicuous for their beauty, among which are the mallard, teal, shoveller and wood duck. The large white swan should be noted, and among shore birds the tall black and white avocet with its long slender turned-up bill. The Wilson phalarope is a beautiful little wader, in the domestic arrangements of which everything is reversed, the male building the nest, such as it is, sitting on the eggs and caring for the young, while the female does the courting and is released from the duties of reproduction except the laying of the eggs. The kingfisher is a handsome feature of the life along our streams, and several woodpeckers merit notice, the most striking in coloration being the red-headed woodpecker, with solid red and white and black. In the northwest the big black and white long-tailed magpie is a conspicuous and handsome bird, and among the jays and their allies the blue jay, the yellow-headed blackbird, the red-winged blackbird, and the different species of orioles attract particular attention. The goldfinch, the cardinal, the rose-breasted grosbeak, the blue grosbeak, the indigo bird and lazuli bunting are all birds of striking beauty. Among the warblers, which, because of their size, are less conspicuous and less well-known, but which are dainty gleaners among the opening leaves of our trees in spring, are many of exceeding beauty. Some of these remain all summer, such as the yellow warbler, the caerulean warbler, the yellow throat, the

chat and the redstart. We all love the wood thrush, with its boldly spotted breast and tawny, olive coat, while the eastern bluebird in eastern Nebraska and the mountain bluebird in the west, are among our most brilliant birds.

**SONG.** Conspicuous among our birds for their song are the following: bobolink, western meadowlark, vesper sparrow, song sparrow, lark sparrow, rose-breasted grosbeak, brown thrasher, catbird, mockingbird, wood thrush, robin and bluebird, but others should be added to the list. The clear whistle of the bobwhite, the loud ringing song of the cardinal, the disconnected but sweet songs of the red-eyed vireo, the thrill of the field sparrow, the striking songs of the ovenbird and the Kentucky warbler, and the spirited song of the house wren, entitle all of them to recognition. In the woods, the tufted tit and the Carolina wren, which is rare in the state, produce an effect all out of proportion to the size of the performers, while the quiet songs of many of the warblers are very pleasing. The fox sparrow is a fine singer, but rarely heard in this latitude. The goldfinch has a pleasing but rather aimless song. The hottest days of summer are enlivened by the sweet warble of the warbling vireo in the cottonwoods. To one travelling over the western part of the state the jangling notes of the lark bunting, in connection with his rising in the air and singing and dropping again to the ground as the song ends, forms a picture never to be forgotten. Ludicrous as many of the notes of the yellow-headed blackbird are, this bird has some beautiful flute-like notes which serve to redeem his performance, and the oriole, particularly the Baltimore, with his constant repetition of "pretty-pretty-pretty," delights the hearer. Finally to one who has just at break of day had the opportunity to hear the tinkling song of the horned lark, a relative of the European skylark, coming from so high in the air that the performer is quite invisible, the experience is a delightful memory.

**SOUNDS.** Many sounds other than songs made by birds have associations that are either beautiful or attractive. Among these is the rolling rattle of the woodpecker as he drums on a hollow tree, the soft cooing of the mourning dove, the imperative "whip-poor-will" of the whippoorwill of eastern Nebraska, replaced in the northwest by the abbreviated note of the whippoorwill, the hooting of the great horned owl and the whinnying note and other notes of the screech owl.

**FLIGHT.** The flight of many birds is so beautiful that one watches them with keen delight; included among such is the graceful flight of gulls and terns, the majestic maneuvers of swans, cranes and pelicans and the graceful wide sweeping circles of soaring eagles and turkey vultures. To a less degree, the wheeling circles of various hawks, the hurried flight of the swift and the graceful evolutions of the swallows

attract our attention and give us pleasure. A humming bird is a charming object as he darts here and there, pausing motionless for a moment before the individual blossom, the recesses of which he probes for food.

**BIRD CHARACTERISTICS.** A number of birds, because of something in their form, structure or action, attract us. The long-billed curlew with his long, downwardly curved sickle-shaped bill and the ibis with a bill of a similar shape and even longer; the swallow-tailed kite with long forked tail; and the rare scissor-tailed flycatcher with his curiously bent tail feathers are always conspicuous features of a landscape. The barn owl, or, as he is frequently called, the monkey-faced owl, is interesting because of his odd appearance, and the cross bills are always attractive, not only because of the bright colors of some of the males, but because of the curious shape of the bill with which they shell the seeds out of pine cones. As parts of certain landscapes, water birds and shore birds form one of the most attractive features, and their value is attested by artists who use them frequently in depicting scenes in which water is present. Pelicans advancing side by side in quiet, dignified way — in true soldier fashion — present a majestic appearance as they move across a sandhill lake. The flocks of snow bunting and longspurs lend a charm to the winter landscape, as does the burrowing owl to the landscape of the plains, and our roadsides would lose much of their charm if it were not for the dickcissel, who calls continually from the fence wires and posts. In early days great flocks of swans and geese made huge snowbanks of the sandbars and islands of our larger rivers, but such a sight probably can never be seen again.

In fact when one takes into account beauty of form, of color, of song, of flight, and the charm the presence of birds lends to a landscape, it would be possible to almost include any bird as contributing in greater or less measure to the beauty and attractiveness of our state.

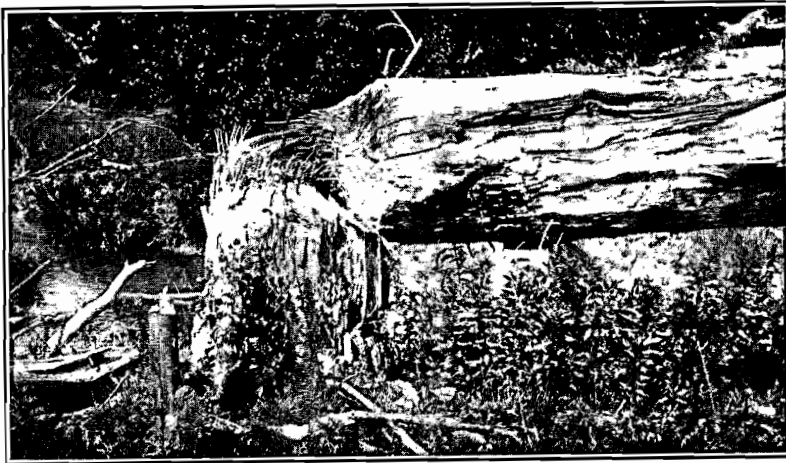
#### ANIMAL CONSERVATION

It has been impossible to go into detail in the enumeration of the various animals which play a part in adding beauty and interest to our Nebraska landscape, either for the resident or the casual visitor, but what has been said is sufficient to suggest at least some of the contributions which animals make to the beautiful in the state and to suggest the great desirability of their conservation. We should have state parks so situated that one or more shall be within the reach of every citizen and so selected as to make it possible, in all of the various parks together, to preserve at least a limited number of specimens of practically every species included in our fauna. The beauty and interest attached to many of our animals will be appreciated



Elk in the U. S. Game Preserve, east of Valentine

only after they are gone, but it is to be hoped that an educated and enlightened public sentiment may be created in time to save many others for a long time to come. Preserves for wild animals are a distinct asset to the state in the part they play in formal and informal education, in the contribution they make to the pleasure of our own residents and in the attraction they offer to the tourist who has become, since the automobile has come so generally into use, a factor to be reckoned with more and more.



Beaver Work, Sioux County

## FOREST RESERVES AND STATE PARKS

Nebraska has been designated the "tree-planting state." It is the pioneer Arbor Day state where the observance of this day began in April, 1872. It was the home of J. Sterling Morton, the father of Arbor Day, which is now observed in every state and by countries in all parts of the world.

In spite of the fact that our state was the leader in the tree-planting movement and although there is a considerable extent of natural forest, only about three or four percent of its area is now forested. The forest, however, seems to be extending at this time, not so much by planting as by the expansion of the native forest, especially along the drainage ways and on the rough lands.

There are two Federal Forest Reserves in the state, known as the Halsey National Forest Reserve and the Niobrara National Forest Reserve, which are described herein by Professor John T. Link, a great admirer of trees and forest.

Nebraska has a good many parks, mostly municipal and private. Practically every town and city has made park provisions for its people where they can gather for recreation and enjoy outdoor life. There are small park areas on the grounds of most of the state institutions. The state, however, possesses only two parks, the Chadron State Park described in this bulletin by Senator J. W. Good who was chiefly responsible for its creation, and Arbor Lodge State Park, the description of which is from the pen of N. C. Abbott.

### THE NATIONAL FOREST RESERVES

By JOHN T. LINK

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The University of Nebraska

There are two national forest reserves in the state, the Halsey and the Niobrara. The former, situated between the Dismal and the Middle Loup rivers in Thomas and Blaine counties, comprises an area of about 150 square miles of which 10,000 acres has been planted with trees. Here the federal government about 25 years ago began experiments in the forestation of the sand hills, having in view the production of posts, poles, ties and lumber. The development thus far has shown conclusively that certain species of trees can be successfully grown on these lands. Among the trees planted are the yellow pine, the Austrian and the Jack pine, the latter producing the best results, due to its

deeper rooting system. The trees in this reserve vary in size, the oldest are thirty to forty feet high, making a dense forest, bearing cones and completely shading the ground, while those of recent planting are mere seedlings.

Within this reserve the government has established a nursery known as Bessey Nursery, so named in honor of Dr. Bessey of the University of Nebraska, who did much to encourage the establishment of the reserve. Young trees are here grown from seed collected in the Rocky



Young trees on the Halsey Reserve

Mountains, Black Hills, Pine Ridge and other places. As soon as these reach the proper age, they are used for transplanting in different parts of the reserve or for distribution to the ranches of the sand hill region where their perpetual green helps to beautify the homes or where they act as windbreaks in this otherwise generally treeless region and thus serve a double purpose.

Parts of the prairie on the reserves have been changed to forest, thus lending variety and adding an additional touch of color to the hills and slopes that blends well with the landscape of this country. The forest litter of needles and twigs makes a nearly continuous covering under the oldest trees. Forest litter, shade and moisture conditions resulting from forestation have paved the way for plants not indigenous to this region, thereby giving increased variety and charm that the eye likes to behold.

The reserve is also a refuge for wild animals and will contribute towards the preservation of species threatened with extinction. Grouse,



quail, magpie and other birds have invaded the forest, and even deer make it their home. All of these, by song, color or form, add beauty and attractiveness to this part of the state.

The Halsey reserve is reached by the Potash Highway which passes through its oldest and most beautiful part just a few miles northwest of Halsey. A beautiful view may also be had from the Burlington Railroad in travelling to or from Alliance. A view across the Middle Loup, skirted by ash, box elder, willow and a few hackberry trees on the low land, with the pines covering the slopes and cresting the hills of the reserve as a background, is one that leaves a permanent impression.



Under the trees on the Halsey Reserve

The reserve is a favorite center of recreation for the people of this section. Thousands of them go there to enjoy the shade, the odor of the pines, to rest and to cast aside the cares of everyday life. Picnics, dinner parties and other forms of amusement are occurrences during summer. Tourists in increasing numbers coming along the Potash Highway stop and enjoy the features of this reserve.

The Niobrara Reserve is south of the Niobrara and west of Snake River in Cherry County, its eastern edge being about eighteen miles southwest of Valentine. This reserve has an area of about 196 square miles of which about 500 acres has been planted to forest. It has not been developed to the extent the Halsey Reserve has, for tree planting was started at a later date.

Although it has been demonstrated that the forestation of the sand hills has proved successful for the purposes originally planned, it seems now that the leading benefit will be to provide transplants for the ranches of the sandhill region to grow as windbreaks, thus giving protection to man and beast, and at the same time adding beauty to the modest homes and giving, by their perpetual green, inspirational effect. As wild life preserves these forests will be of importance to the state and nation.



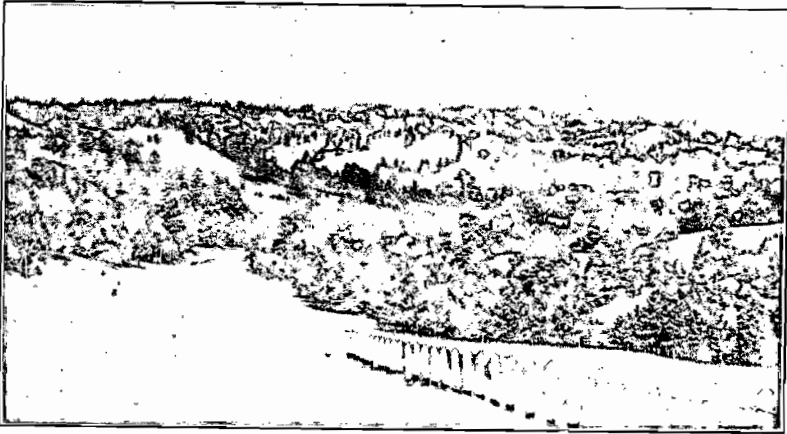
Mr. and Mrs. G. L. Hoppe have done much to promote tree planting in Wheeler, Holt and Garfield counties

## CHADRON STATE PARK

By SENATOR J. W. GOOD  
of Chadron

The Nebraska Legislature of 1921 set aside 640 acres, a school section in Dawes County, as a park dedicated to the use of the people of the state for a perpetual playground for them, their children and children's children. This park is easily accessible from any direction, as it lies along the State and Federal Highway between Alliance and Chadron. Roads radiate from Belmont, Crawford, Whitney, Wayside, Dakota Junction, Pine Ridge, Hot Springs, Hay Springs, Rushville, Gordon, Merriman, Bordeaux and Chadron. At Alliance the highway connects eastward with the Potash Highway and southward by two

routes with the Lincoln Highway at Sidney and Kimball. From Chadron this park is easy of access to tourists traveling over the east and west roads through northern Nebraska and southern South Dakota. By rail the park may be reached on the Northwestern from Chadron and on the Burlington from Alliance, Crawford and intermediate points.



Entrance to Chadron State Park

Three miles of automobile road have been laid out in the park. Starting from the east side the road rises to an elevation of 400 feet and winds around precipices of canyons 200 to 300 feet in depth and clad with a dense forest of pine trees, some 100 feet or more in height. The road then winds northward through a deep, rugged canyon with high pine trees on each side, and passes on to a little stretch of meadow land modified with beautiful flowers, such as violets, sweet peas, bluebells and clusters of roses and other plants. Beyond this it turns back along the creek bottoms that are covered with natural bluegrass, and passes under the shade of large elms, cottonwoods, ash and hackberry to the beautiful stream bordered by high cliffs on the west. Under the big trees along the creek are benches and tables for those who use the park. Big Chadron Creek, joined by spring-fed tributaries, crosses the park from south to north. Its clear cool waters contribute to a happy trip. In the park you see sparkling springs bubbling from the white sand below.

One who has not visited this particular spot of western Nebraska can scarcely realize its beauty. After motoring over miles of nearly level treeless land then, all of a sudden, to have this beautiful panorama of nature's handiwork stretched before your eyes, is like seeing a

gorgeous sunset after a storm. From the high places one can easily distinguish on a clear day the outline of the Black Hills, more than one hundred miles to the north.

Wild life is represented in the park by such species as the grouse, quail and pheasant and occasionally antelope, coming down from the plains and mountains to the west and northwest, can be seen in this vicinity. With a part of the tract entirely fenced, it would be only a few years until this first Nebraska state park will contain the wild animal life shown and observed in other western parks not so easily reached and no more beautiful. Within the waters of the brawling, purling stream the fisherman with rod and fly snares the elusive rainbow, speckled and brook trout. Each year the State Fish Hatchery sends fingerlings to replenish these varieties.

Wild fruits are plentiful along Chadron Creek and may be had for the gathering; wild grapes, plums, raspberries and choke cherries are found in profusion.

The park has become a favorite picnic grounds for people living within a radius of many miles; Rotary clubs, Kiwanians and people generally delight to come here. Students and faculty of the Chadron Normal College look upon their annual picnic in this park as one of the gala days of the school year.

A visit to Chadron State Park in its pristine beauty is worth while. We cannot but pay tribute to the Creator of Beauty, for He gave it to all Nebraska citizens. You should visit and enjoy this park, which has been set aside by the state for your use. Come and spend a day or camp a week.



Shade and meadow, Chadron State Park

## ARBOR LODGE STATE PARK

By N. C. ABBOTT

Superintendent, School for the Blind  
Nebraska City

This paper is prepared so that people, planning to visit the priceless historic heritage of the West, may know in advance something of what to expect; so that visitors may carry away with them to their homes some memoranda, fuller and more definite than they could likely gather in the time ordinarily allowed for inspection; and so that others, neither prospective nor actual visitors, may know something of an achievement by a Man of Vision — the establishment of a Beauty Spot by J. Sterling Morton, in what, at the time of his homesteading, was part of the Great American Desert.

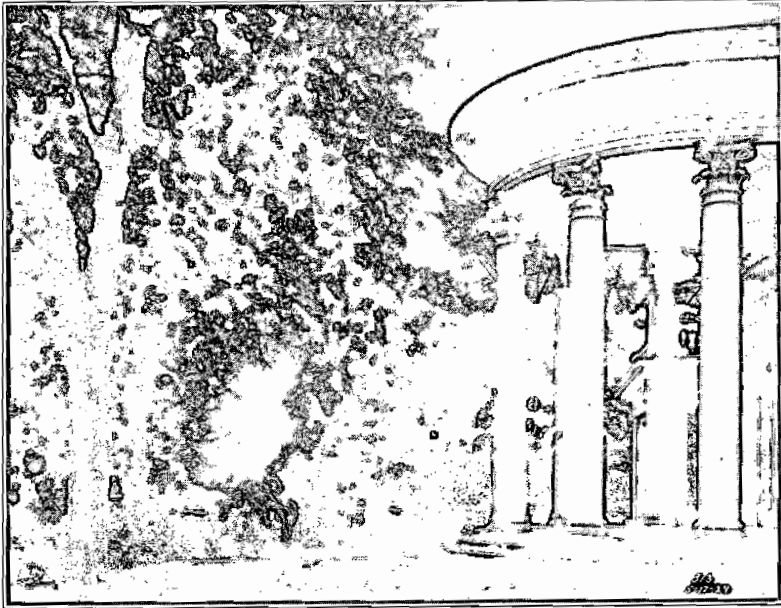
**GENERAL INFORMATION AND DESCRIPTION.** Arbor Lodge State Park comprises seventy acres, or approximately thirty-six blocks of what was originally land in the quarter section taken up by J. Sterling Morton as a homestead in 1855, shortly after Nebraska was created a territory. The site of the original frame home of three rooms, now occupied by a magnificent mansion of fifty-two rooms, and forty-seven acres surrounding, were formally transferred to the state by Joy Morton, eldest son of J. Sterling Morton, by impressive ceremonies on September 27, 1923. At the same time Morton Park, of twenty-three acres, just at the east, was also given to the state. The whole now constitutes Arbor Lodge State Park. This is governed by a State Park Board consisting of six members, appointed by the Governor, of which the Governor himself is ex-officio chairman.

Nebraska City, beautiful historic town of seventy-five hundred, may be reached by the Burlington or Missouri Pacific railroads; or over four splendid auto roads — the King of Trails, Golden Rod, Washington, and Harding. It is easily accessible.

Thirty thousand visitors signed the register during the first summer the park was opened to the general public for inspection, and many thousands besides who failed to sign visited and inspected the property. This record has far exceeded the sanguine expectation of friends at the time the bill of acceptance was on its way through the state legislature.

Visitors in Nebraska City will reach the Lodge easily by going north three blocks from the Post Office and one mile straight west, on a beautiful paved drive throughout, largely over Park Avenue, lined with ornate residences.

**IN WHAT WAS FORMERLY MORTON PARK.** Gently rolling slopes and the lofty trees with delightful shade furnish an ideal place to commune with nature. On the south side of the road stands an old settler's log cabin that gives one a real idea of the sort of structure built seventy years ago to house the pioneer settlers of this region.



Arbor Lodge, Nebraska City

Opposite the cabin is the Memorial to the Tree Planter, who worthily earned such honor as the Founder of Arbor Day. The designer of the whole memorial as well as sculptor of the statue was Rudolph Evans. The plaza, elevated a few feet above the road level, is approximately 100 by 85 feet in size, length being north and south. The cost of this memorial was slightly in excess of \$30,000 largely contributed by those interested in education from every part of the world. Near the south end is the wood nymph, holding a sapling in her left hand and looking downward. Symbolically, the figure represents the spirit of Arbor Day and the Home. The bronze statue, of heroic proportions, stands on a pedestal at the north end. Behind the statue is a curved bench, with high back, in stone. On the back in bronze base relief are references to historic incidents, and the following characteristic quotation from Morton's writings: "Love of home is primary patriotism." "Other holidays repose upon the past; Arbor Day proposes for the future."

This Memorial was dedicated on October 28, 1905, in the presence of thousands. No less personages than Grover Cleveland, Adlai Stevenson, Hilary A. Herbert and David R. Francis were present at the unveiling of the statue and delivered fitting eulogies on their association in

official life at Washington with Morton when he served as Secretary of Agriculture. Both former President Grover Cleveland and Mrs. Cleveland planted trees on this occasion.

WITHIN THE OLD LODGE GROUNDS. For the botanist the acres immediately surrounding the Museum constitute a veritable paradise. Here may be found one hundred thirty varieties of tree and shrub, carefully marked with permanent labels giving common and scientific name. Just north of the old residence is a pinery planted in 1890, as beautiful as may be found. There are also trees of special history. At the south is a sunken garden, built up terrace by terrace, in which are myriads of flowers. In the midst of the garden is a quaint sundial, not the least feature on which is a quotation much commented on: "Days fly, flowers die: new days, new ways; love stays."

Among the trees, for the study of the ornithologist, flit each season from two hundred to two hundred fifty species and subspecies of birds; for Nebraska is third in bird population of the states of the union and Otoe County, in this regard, is a favored spot in Nebraska.

At the time of the death of Mr. Morton, 1902, the automobile was still in the experimental stage. No motor vehicles were then on the estate. He left, however, a barn full of almost every sort of horse-drawn vehicles, and many of them are still on exhibition. Young people, who have grown up in this mechanical age, are delighted to examine stage-coach and rubber-tired phaeton.

THE MUSEUM. The crowning glory of the old estate is, of course, the original residence, now the Museum, and this deserves special treatment. Imagine, if your imagination is strong enough, the offspring of a capital T married to a Chinese bird kite, and you will have the ground plan of Arbor Lodge Museum. The top line of the T which is the front and new part of the building faces east and is slightly longer and narrower than the upright and has splendid semicircular porches at each end as well as in the center. The new part, built by Joy Morton in 1902, is three stories high. The porches have a diameter of about thirty-four feet, the roofs carried up to the second story, in each case on six massive round pillars.

The upright of the T is the old part of the Lodge. This part of the Museum is two stories high. The internal arrangement of rooms, halls, etc., remains just as it was when the Sage of Arbor Lodge died in 1902. This is not true, however, of the exterior. The double-deck porches on all save the west side, distinguishing marks of the 1879 renovation, were torn down when the great front addition was constructed and the whole edifice stuccoed.

This beautiful building of colonial design, with fifty-two rooms, is an evolution from the three-roomed cabin of 1855 — new parts being added and material discarded from time to time, when renovation was

made. Yet some of the hand-sawed logs of the original structure have been retained from the beginning. A description of some of the rooms may be worth while.

**THE TITLE ROOM.** This is at the northwest corner and is intended to represent the passing of ownership of the land. This is done by pictures, following in order, of the Buffalo, Indian, Napoleon, Uncle Sam, and J. Sterling Morton. Eventually it is likely there will be added two other pictures to show the short ownership by Spain; and the present title resting in the State of Nebraska. This room has a beam ceiling, woodwork in walnut. The walls and hangings are in red.

**DRAWING ROOM.** The furniture in mahogany and the walls are covered with genuine Parisian silk tapestry, the coloring as rich as when placed a score of years ago. Here are also fine portraits of J. Sterling Morton and Caroline Joy Morton when in their bridal days. A tablet in this room commemorates the gathering on the night of October 27, 1905, of a distinguished group, including Grover Cleveland, Adlai Stevenson, Hilary A. Herbert, David R. Francis and others. Over an immense fireplace is a peerless mirror.

**RECEPTION HALL.** Visitors enter from the east passing through the main porch. They are registered at a desk in the northeast corner whence they proceed to the Title Room where they wait until enough have assembled to form a party. Walls and hangings are in delft blue; woodwork in white enamel. An enormous stairway, such as we associate with descriptions of palaces, leads to the second floor, dividing into two small branches at a height of twelve feet. On the landing is the large painting of the Pawnee Treaty made on the estate, an artistic work done by W. Haskell Coffin. This is a spirited portrayal, the mood is excellent. It depicts, with considerable exactness, the dance by Pawnees in 1857, when they ceded their rights in the Territory of Nebraska to the United States, General J. W. Denver then representing the Federal Government. The coloring of the Nebraska sky is said by competent critics, to be especially well done.

**SUN PARLOR.** Pictures of a log house, similar to the one occupied by the young Mortons at Bellevue, before coming to Nebraska City, and of the fleet of warships about to start on their journey around the world in the second Roosevelt administration decorate the walls of this room. Paul Morton was at that time Secretary of the Navy. This room, as the name suggests, receives a strong deluge of sunlight during a large part of the day. Overhead there is a highly expensive glass, the sand for which is said to have been imported from China into Germany and there ground by hand. The lighting of this parlor at night is done by electric lamps above this so-called opalized cathedral glass, and the light filters through with a twilight effect.



**DENVER ROOM.** This room stands approximately where the south lean-to room of the original cabin stood and is named for General Denver, who had his headquarters here at the time of negotiating the Indian Treaty previously referred to. Denver was Federal Indian Commissioner. His name is perpetuated in that of the capital of Colorado. Many valuable relics may be studied in the Denver Room, also the pictures of J. Sterling Morton and of his four sons and eldest grandson.

**DOCUMENT ROOM.** This is probably the most interesting of all to the student of history. Hardly a document here but what might well be copied into any source history of Nebraska. This was the office of Mr. Morton, where he wrote speeches, editorials for the "Conservative" and letters to correspondents scattered over the whole globe; and where he received friends for social converse and sometimes heated argument. The old desk at which he sat is still there. The writer remembers several conversations at that desk in 1898. There is also an Admiral Dewey chair. The book-cases are those that visitors to this brain work-shop in early days well remember. A good picture of the steam wagon, the first vehicle to run self-propelled and not on rails this side of the Missouri. The bust of Mr. Morton, an early study of Rudolph Evans, is kept here. One might spend days in this room alone, studying intensively.

**DINING ROOM.** This occupies the site of the dining room and kitchen of the original cottage. It contains mahogany furniture, among the pieces two chairs that were used by Mr. and Mrs. Cleveland at a dinner in their honor, suitably marked with silver plates. One case of china is the first used; another the last used in the home. Also china used by Julius D. Morton and some odd pieces painted by Caroline Joy Morton. There is here also an old silver service that it is a joy to examine.

**MUSIC ROOM.** The east room of the '55 cabin occupies this site. In the Arbor Lodge that became famous after Arbor Day had been pretty generally adopted over the union, this room was in the north-east corner. Here Mrs. Morton received her friends. On the walls are pictures by famous artists. One of the early pianos used at Arbor Lodge, an upright, marked "Water's Cabinet Grand," still stands in this room. It is approximately fifty years old, yet a company of opera singers, giving an impromptu recital at the Lodge a few years ago, pronounced it in an excellent state of preservation. I was with the musicians, and Joy Morton, then at home, asked them to try it out. From this room looking to the north one might have seen a good part of the Pawnee negotiations with General Denver mentioned elsewhere.

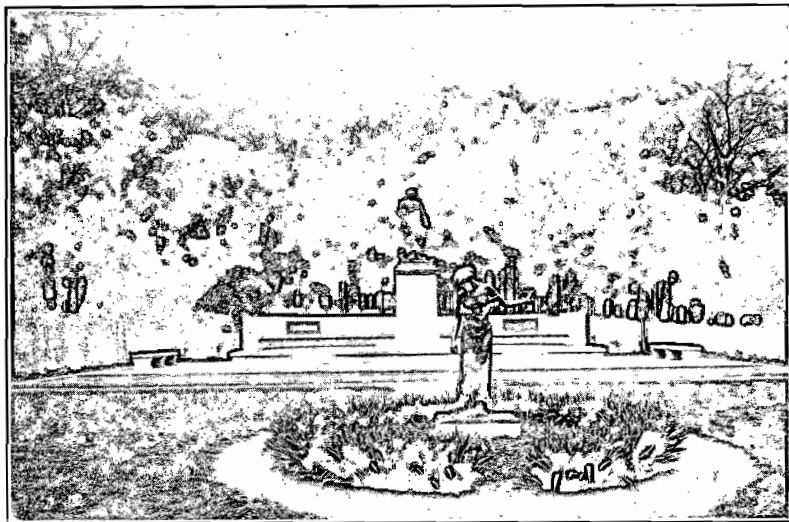
**CLEVELAND ROOM.** So called because it was occupied by Grover and Frances Folsom Cleveland at the time of the dedication of the Mem-

orial referred to several times in this paper. It is full of Cleveland pictures and mementoes. This room is on the second floor in the north-east corner.

**MR. MORTON'S BEDROOM.** Just above the Music Room. J. Sterling Morton died April 27, 1902, and this room is much as he left it. Here you will see old walnut furniture and pictures of some members of the family and friends.

**MRS. MORTON'S ROOM.** This is across the hall from Mr. Morton's bedroom. Mrs. Morton died in June, 1881, and this room contains furniture which was up-to-date then, now most old-fashioned. Red wall paper hung shortly before Mrs. Morton's death still has good color. Many of the paintings and decorations are her own work. A what-not is laden with bricabrac.

**OPEN TO PUBLIC.** The doors to the museum are open from 1:30 to 5:00 every afternoon in warm weather; later in the fall only on Saturdays and Sundays. Mr. and Mrs. Frank Williams, in charge of the park, either in person or by their assistants, are ever ready to point out the beauty and historical significance of the exhibits.



In Arbor Lodge State Park

## AGRICULTURAL BEAUTY

There is beauty in the varied forms of agriculture in Nebraska, due to the diversity of rainfall, topography, soils, and to the success attained under these conditions. Much of the original sod has been turned, in the humid and subhumid areas especially, but there remain considerable areas of the original prairie, as in the sandhills and on some of the wet bottom lands. This prairie, nature's product, though changed somewhat by the introduction of new and better grasses, supports grazing and hay production. Thus improved and so used, it presents a condition of beauty.

Although much of the original wild life has been destroyed on the cultivated lands, there has been developed on these areas a greater beauty in utilization and landscape. Plowing, planting, cultivation, ripening crops and harvest; gardens, orchards and vineyards; poultry yards, apiaries, feed lots and dairy herds; farm homes, good roads, churches and community centers; all these and more are things of country beauty.

**AIRPLANE VIEWS.** Those who can should see at least part of Nebraska from the airplane. The view stretches for miles over plane and hills on which is a great checkerboard of farms in shades of green in summer time and of grays and gold in autumn. This bird's eye view is impressive. A student of Nebraska said, on landing, "I did not know that the world is so beautiful."

**AUTHORS OF PAPERS.** The following articles on the beauties of agriculture were prepared by persons deeply interested in the subjects selected. Grant Shumway, a ranchman at heart, has written many attractive things on Nebraska. A. J. Weaver, a successful orchardist and business man, legislator, and who was president of the Constitutional Convention, has prepared one of our best articles. Professors Mussehl and Davis have written attractive articles in line with the purpose of our bulletin. George Williams, a real farmer, describes the "Farm Beautiful" in a way that will appeal to every good citizen.

## RANCH BEAUTY

By GRANT SHUMWAY  
State Secretary of Agriculture

The sandhills and rough hard lands of Nebraska support cattle raising on a large scale. Among the things which make ranching successful here are the fattening grasses of many kinds, the abundance

of good water and the healthful climate. There is no better grazing country than the sandhills.

Years ago long horn cattle were trailed northward to Nebraska, pastured for a season on open range, and shipped to the eastern markets. Now all is changed; the pastures are fenced and cross fenced; groves, corrals, lots and ranch buildings are in the view, and only the best breeds of cattle are grown. The animals raised on the ranches are shipped direct to Omaha and other markets or they are sent to the feed lots of the corn and alfalfa districts and then to market, showing all told an important state relationship — grazing, feeding and market — all within the borders of Nebraska.



Curious about the camera, Custer County

The duties of the ranch people are not so exacting much of the year as on diversified farms, yet there are many things which call for attention and technical knowledge. Fencing, hay making and the management of the herd require considerable work. After all, the cattle themselves, do most of the work in the production of beef which is the main industry here.

There is much beauty in the ranch country. Except on the rough lands, everything is in the broad open. Ravines, canyons, springs, cool streams and occasional forested areas of the hard lands; the many lakes and varied vegetation and native animal life of the sandhills and the golden sunrise and sunset, and massive clouds over all are features. There is beauty in the appearance and movements of a herd of cattle over the hills and valleys and along the shores of lakes, or to and from the water places, also of a herd of horses at noon or a little after, coming down the slope to water. One animal will begin to feel the sense of thirst, and the walk will give way to a trot. Another will start a lope; a third will run, and as they near the water in the wild, heads up and manes flying.

The ranch country has some isolation but the auto, newspaper, magazine and the radio have overcome much of this. The isolation now is of chosen hours of meditation and of riding over the rolling green looking after the fences, horses and cattle. There is in the hearts of the people a spirit of sociability and generosity. You are perhaps more welcome here than elsewhere in the state, and it would be worth while if more people would visit the ranches and learn first hand the story of ranching in Nebraska.

### HORTICULTURAL BEAUTY

By HON. A. J. WEAVER  
of Falls City

**THE FOUNDERS OF HORTICULTURE.** Nebraska being primarily a prairie state, its citizens from the first settlement have been interested in the planting of forest and fruit trees. As early as the year 1869, with the organization of the Nebraska State Fair at Nebraska City, a Horticultural Society was formed. The names of such men as J. Sterling Morton, Ex-Governor Robert Furnas, Dean Bessey, Isaac Pollard and many worthy successors appear in the horticultural activities of Nebraska. The lives of such men were so full of usefulness that fifty years after they first lived and wrought in this state, we can point to their precepts and examples as consistent with the present-day aims of our modern horticulturist.

**J. STERLING MORTON**, the first Secretary of Agriculture, not only as a pioneer planted trees and flowers, but afterwards, through his initiative and inspiration, gave to the nation and to the world a tree planting day. This state has acquired Morton Park and Arbor Lodge because of the historical significance of this estate and because of the inspiration which is there for those who love the trees and the fruits and the flowers.

**ROBERT W. FURNAS** was not only a pioneer agriculturist but also a pioneer horticulturist; not only a farmer and fruit man, but also as the founder of the Nebraska Farmer, editor and publicist, he helped to demonstrate that Nebraska is not only a grain and live stock state, but a fruit state as well.

**DEAN BESSEY** was one of the state's most useful citizens. Probably he more than any other man helped to build our State University. As an eminent botanist, he worked not only in the national but also in the international field. Because Nebraska was his home, we have the benefit, more than others, of his notable career. His legacy consists not only in the scientific research recorded in published volume, but also in the fine personality and rounded character which has, more than we can estimate, left its impress on our present citizenship. Such is the real value of the educator and scientist to the cause of public education.

ISAAC POLLARD, the fourth distinguished Nebraskan in our hall of fame, was a notable citizen and real benefactor. He contributed mainly as an arboriculturist and as a horticulturist.

EXPERIENCE MADE USEFUL. Such men as I have named and those who have followed them in the wholesome and pleasing vocation of living close to nature, of beautifying the homes of Nebraska with forest trees, flowering plants and orchards, have performed a real public service. The farm grove and the orchard are not only objects of beauty but of utility as well.



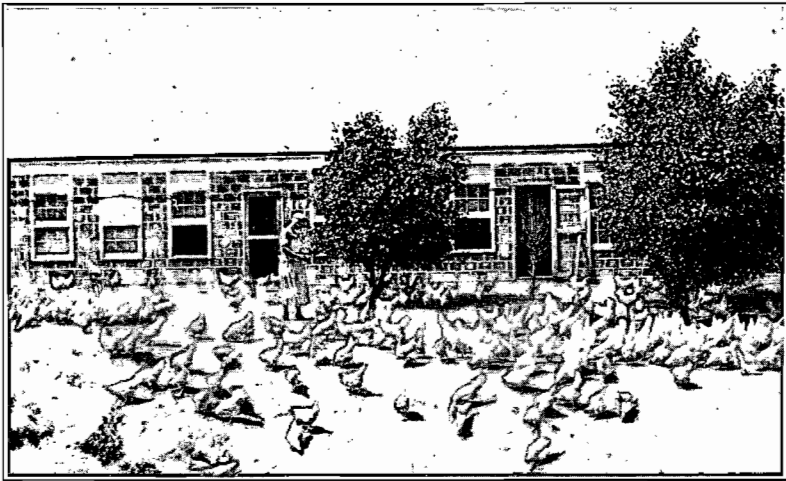
Harvesting and grading apples, Weaver Orchard, Falls City

From the experiments of fifty years there have been written into history fundamental truths as to what plants and trees are suitable for this climate and state. We now have a permanent and successful horticulture in Nebraska. We know, and the world knows that eastern Nebraska and especially the part adjacent to the Missouri River, is a favorable section for the production of most of the hardy fruits. The production of apples is now on a successful commercial basis, and the annual crop is measured in commercial quantities. The same is true of berry and grape production.

It has been a long time since Morton, Furnas and Pollard first planted trees in Nebraska, but the people of the state, comprising in part the sons and daughters of the pioneers who established the first homes, still love the shade of the forest tree and the wholesome fruits

of the orchard. They will continue to plant, and in doing so will not only add wealth to the state, bring happiness to themselves and their children, but in the distribution of our fruits benefit other people who are not so fortunately situated.

**ORCHARD BEAUTY.** There are many orchards in Nebraska, and although they are cultivated primarily for the production of fruit for food, they have much that appeals to the aesthetic. There is beauty at blossom time, in the methods used in husbandry, in the ripening of fruit in late summer and in the harvest. The orchard is a thing of ever-changing beauty. The large orchards at Nehawka, Union, Nebraska City, Brownville, Shubert, Peru, Falls City and other places are accessible on good highways, and their beauty should be enjoyed by more people.



A poultry yard near Sargent, Custer County

## THE POULTRY YARD BEAUTIFUL

By F. E. MUSSEHL

Chairman, Department of Poultry Husbandry, Agricultural College  
The University of Nebraska

Chickens, ducks, geese, turkeys and guineafowl add much to the Nebraska landscape. Geese and ducks along a small stream or on ponds; a drove of turkeys moving across a field in search of insect feed, and the many flocks of chickens — white, buff or red, or other color — are things of beauty.

The poultry houses for the laying flocks as well as for the growing chicks are attractive features. These improvements are on ground with more or less shade and good drainage. They are at the edge of the orchard or windbreak where the flock is well protected during summer and winter and where the birds may feed upon the insects that damage fruit and other crops. Also, many of the poultry yards are arranged so that the birds have access to an alfalfa field or permanent grass of some kind, thus providing both green and insect feed. It is an impressive sight to see several hundred active hens ranging over such a field at dusk, picking up what otherwise would be wasted.

Poultry evidences a quality in husbandry. Where you see chickens well-bred, well-housed and well-fed, there is someone trustworthy and dependable. "Chickens must be 'looked after'" is a common saying.

The poultry yards produce useful foods. Chickens—broilers, fries and roasts; and eggs, uniform in size, form and color, and fresh, are important contributions to the table, both in country and in town, and the turkeys, geese and ducks have a place at Thanksgiving and Christmas. Poultry raisers receive ready money for their products which have importance in the trade and business of the state.

## THE DAIRY HERD

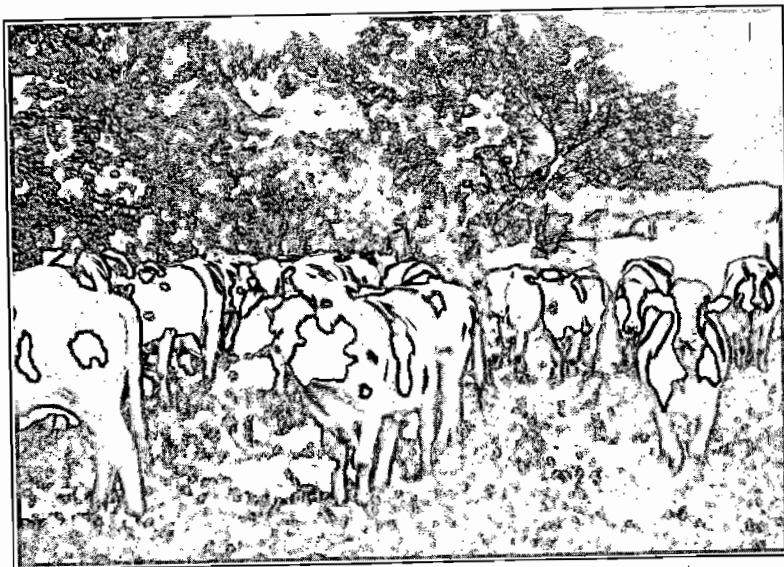
By H. P. DAVIS

Chairman, Dairy Department, Agricultural College  
The University of Nebraska

What is more satisfying to sense than a dairy herd grazing along a stream or on an undulating grassy slope, as observed from some turn in the road? Such views are common in Nebraska. The cows, some standing, others lying down, make the picture in a setting of grass land bordered by trees. All is peace and contentment, and quiet reigns. There is no hum of industry or hustle of trade. Here the useful cow is enthroned—not scrub animals—but Jerseys, Holsteins, Ayreshire, Guernsey and dual-purpose breeds at their best. Then, too, who is not impressed with a dairy herd moving across field, gathering feed for use in milk production, or when going to and from a water supply or when trailing slowly to the dairy barn at close of day?

Man respects and appreciates the dairy cow. She has been a potent influence in the advancement of civilization. From earliest recorded history her possession has been a sign of wealth. She fills an important place in agriculture, and no system of husbandry is complete without her. Certainly no other animal has for generations been so useful. She furnishes food, clothing and power. Nothing has been found so lasting as her skin for footwear or for clothing. More important, however, is that delicious milk that she produces in which float





Dairy herd, Sarpy County

drops of golden fat. Gather them, hammer them and behold, we have butter! Nothing can compare with it in delicate flavor. Its delicate aroma and delightful taste give it a place of honor on the table or in cooking.

There is beauty also in the fact that the milk and cream collected from Nebraska's dairy herds — well-housed, well-fed and clean — are moved in large quantities to the dairy centers of the state and there made into millions of pounds of butter and other products which are shipped to other states and other countries.

“The dairy cow is a thing of charm,  
 She lifts the mortgage from the farm  
 And makes the farmer's life more sweet,  
 And sits him down on Easy Street.

Wher'er the dairy cow is queen,  
 A country prosperous is seen,  
 And dairymen in joyful ranks  
 Are packing bullion to the banks.”

— Walt Mason.

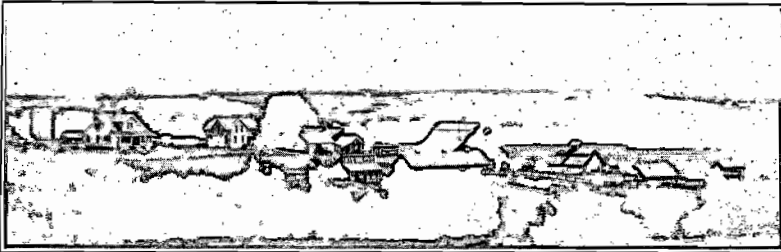
## THE FARM BEAUTIFUL

By GEO. A. WILLIAMS  
Lieutenant Governor of Nebraska

Beauty does not always consist of bright paints, brilliant colors and gaudy appearances that too often receive emphasis. Sometimes the most glowing and attractive exterior only serves to hide the ugly unsightliness of the real object.

Beauty is the perfection of form or shape resulting from a harmonious combination of diverse elements in unity. It is more, for real beauty is that quality of objects that gratifies and satisfies irrespective of form or color. In beauty of the highest type there must be harmony, symmetry and accord, both in quality, arrangement and detail.

WORKS OF NATURE. In the beginning of the earth's history when the Creator had finished his work, there was nothing in evidence but those things we term "the works of nature," and yet the Almighty in contemplating the scene pronounced it "very good," and it is recorded that "The morning stars sang together, and all the sons of God shouted for joy."



Farm improvements, Platte County

LOVE FOR OUTDOORS. This same Creator has implanted in the human heart a love for and an undying appreciation of the pure and undefiled things of nature. In the beginning and for centuries the human family lived in the country. There were no towns, no cities, no Coney Islands, no gilded pleasure palaces. And even after thousands of years of customs and associations that tend to lead away from nature, the man or woman does not live who has not from time to time felt in his soul a great longing for the simple, beautiful, incorruptible things of nature. In all the various activities of life there is no place where this call of nature can be satisfied save on the farm. "Back to the farm" is not simply a desire for a change of occupation, a purpose to exchange the livery of the office for the overalls of the farm, but it is the soul's deep yearning for a return to the beauties of nature, for an experience with the great out-doors of God.

This is the secret of the farmer's continuity of operations, of the firm indomitable spirit so manifest on the farm. This is what binds a man to the farm and causes him to continue to plow, to plant and to reap, even though the pecuniary returns are at times such as would bring discouragement and defeat to any other business.

**NATURAL BEAUTY.** There is real beauty in the broad expanse of the outdoors in Nebraska. Nowhere has nature been more lavish in shaping the conformation of the face of nature. Wonderful breadth of territory stretching for miles and miles as far as the eye can reach and clothed with the rich verdure of green. Gently undulating plains, the monotony relieved by a stretch of hills, occasionally quite broken, again larger hills with canyons. Streams along which are many varieties of trees, shrubs and flowers.

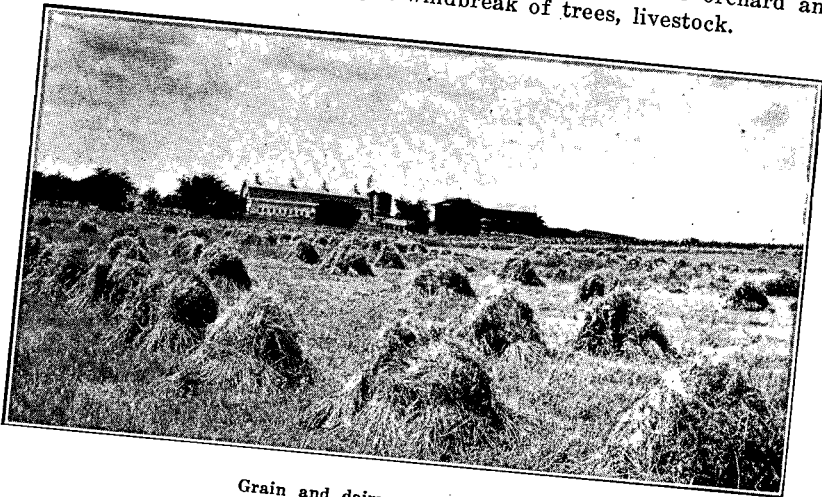
**ARRANGEMENT OF FARMS.** In the first preparation for agriculture, symmetry and proportion are in evidence, the country being divided into sections of 640 acres, each by lines drawn every mile with roads on each line, the sections usually subdivided into quarters of 160 acres each. This plan of division is pleasing to the eye and in the matter of utility because of its order and uniformity.

**THE IDEAL NEBRASKA FARM.** Let us visualize the ideal Nebraska farm home of 160 acres, and there are many such places in the state. We first notice the arrangement of the buildings and grounds. From the road passing the home we walk across the spacious well-kept lawn, adorned with shrubs, flowers and trees. Simplicity and taste are apparent both in arrangement and variety of plants. The house, a modern structure, gives immediate evidence of the home spirit. Verandas, front and rear, are adorned with vines and flower boxes. Inside are found those modern conveniences that add so much happiness and comfort. Furnace heat, bathroom, electric or gas plant, water pressure system with both hot and cold, hard and soft water are here. The kitchen is commodious, with arrangements and conveniences that make work a pleasure. The spacious dining or living room is the center of the home life where the happiness of family relationship is enjoyed to the fullest extent. Farm parlors are made to be used, and the piano and victrola add their share.

Sleeping rooms are made attractive for the boys and girls and in many ways show the loving touch of mother's hand. In the basement is the furnace room, adjoining the fuel room with coal, wood and cobs. The third compartment reveals a store of food stuffs with an array of home canned fruits and vegetables, all in glass, that is at once the wonder and envy of the city visitor.

**OTHER BUILDINGS.** In close proximity to the house, or it may be attached, we find the wash house with laundry equipment of washer and wringer, stove and water supply. A line shaft extends overhead

or on the side wall connected with which is the washer, cream separator, grist mill and grindstone, all operated by electricity or a gas engine. The garage with automobile is close at hand. In right relationship to each other and to the general plan are the horse and cattle barns, double corncrib, poultry house, machine sheds and other structures. On the west side of the building is the garden, then the orchard and on the north, all protected by a windbreak of trees, livestock.



Grain and dairy, near Woodlawn

East of the building is the pasture wherein are the pure bred cattle for which the Nebraska farm is famous. One of the chief attractions of the farm is the purebred herd, whether the number be few or many. What man is not attracted by the sight of the purebred cattle or who does not love the well-bred horse, that giant combination of intelligence, beauty and strength? And we must not forget the poultry. Flocks of purebred chickens, dusks, geese and guineas, each variety with its own peculiar color and voice, contribute liberally to the beauty of the Nebraska farm life. Nebraska, although a comparatively new state, is near the head of the list of states in its quantity and quality of purebred live stock and poultry production. There is no sight more pleasing to the eye than the beautiful purebreds in pasture and barn lots, the picture of contentment and prosperity.

**WATER SUPPLY.** Nature has richly endowed Nebraska with an inexhaustible supply of the purest water. Drawn from underground gravel beds, it is pure, with no mineral deposit and of normal temperature. Wind mill or gas engine pumps force the water to large storage tanks.

from which it is piped to the house and barn and to the drinking tanks for animals and poultry. Pure wholesome water in abundance is conducive to good health and comfort and is one of the greatest blessings.

**PREPARATION AND PLANTING.** One of the most satisfying phases of farm life is the privilege of cooperating with the great forces of nature in the work of production. There is a fascination about the turning of the soil with the plow and the successive workings of the ground until it is finely pulverized and fitted to receive the seed. The farmer deposits the seed with assurance, remembering the promise "while the earth remaineth, seed time and harvest shall not fail." And each season he watches with increasing interest amounting almost to reverence, the slender shoots of green bursting the ground and pushing forth into the light of day, proclaiming their purpose to contribute to the sustenance of man and beast and thus fulfill their part in the great plan of the Creator.

**CULTIVATION.** The next step is cultivation. How little the world in general knows of cultivation. Proper cultivation of farm crops really begins in the preparation of the ground and continuing through the growing season is a science of the highest order. Crops may be injured or even ruined by improper and unwise cultivation. The farmer knows when to stir the soil. He knows also that while he has a wide latitude in which to operate, yet the soil should be neither too wet nor too dry. He knows also that while he stirs the ground he must keep in mind the following facts: First, there is no concord between weeds and grain. They cannot prosper together. One or the other must prevail. Therefore, he cultivates in a manner calculated to destroy the weeds and at the same time preserve and stimulate the grain. Second, the close proximity to the growing plant of freshly turned soil is invigorating and stimulating, so he seeks in his work to throw around and against the growing plant a modicum of fresh soil, the amount depending upon the size and variety of the plant. Third, he has learned that continued pruning of the plant under the ground is as disastrous as would be the continued cutting off of branches above the ground during the growing season, consequently he must so adjust and operate his machine that the first two objects may be met and the last avoided.

**HARVEST.** While each of the various activities of farm life is fascinating, yet the time of the harvest eclipses them all. Poets with rhyme and verse, artists with pallet and brush and philosophers with pen have vied with each other in setting forth the glories of the harvest. Golden harvest, that wondrous period when man looks for the fruition of his labors, for the reward to which he is justly entitled

as a result of his faithfulness in planting and cultivating, that time of the year when faith changes to sight, and all creation receives the tangible assurance that the promise is again fulfilled. Who can look upon the broad expanse of yellow wheat, ripe for the sickle, and see the machine cutting round after round, tying the grain in bundles and depositing them in rows at regular intervals with seeming human intelligence, without a thrill and a stronger purpose being born in him to faithfulness in the duties of life. Again who has not experienced a response in his soul to the tune of the ears of corn as they strike against the throw board on a clear, frosty, November morning? And who, as the great loads of yellow ears of corn come in from the field to be deposited in cribs, or the surplus unloaded in fast growing piles in slat pens, has not been led to appreciate more fully the wonders and the beauties of Nebraska farm life?



Harvest time, Seward County

**SOCIAL LIFE.** Then there is the social life and the real essence of the community spirit. Nowhere is it more manifest than on the Nebraska farm as the neighbors come in for a friendly visit, or at the rural school, or the community center where the district gatherings are held from time to time. Here every one meets on an equality. There is neither class nor distinction.

The daily mail is a part of worth while Nebraska farm life and brings the news of the world every day. The farm home has the morning paper, daily weather report and in the evening enjoys the radio with the city dweller. The automobile is a live contributing factor also and largely eliminates distances between the farm and surrounding towns. Ordinarily the ruralist is no further from church than the urbanite. He can drive the several miles in the same time the other can walk his few blocks.

Let no one think to pity the farmer in his supposed isolation and hardships of life. Rather he is to be envied, for in his calling he

stands without a peer. With every condition conducive to beauty of soul and soundness of mind and body, he is found cooperating with the mighty forces of nature in the work of sustaining the millions of earth who must be fed and clothed.



The garden beautiful, Broken Bow

**CHOICEST PRODUCT.** From farm homes presided over by wise and godly parents come the finest boys and girls who develop into good citizens, blessing the community and the world with their presence and activities. Who can picture the glories of earth in brighter and more enduring form than in a farm home where boys and girls are growing into manhood and womanhood under such favorable, wholesome surroundings? From the farm have come the men and women of genuine character and worth. The men and women who have saved the world in every crisis, who have paved the way for the advancement of the human family, who have wrought and sacrificed and won victories, have come from the farm.

## CULTURAL FEATURES

Nebraska's culture is well founded. It is based upon fundamental resources and conditions—fertile soils, healthful water supplies and the most invigorating climate under which civilization has developed.

Here, through the touch of man, nature has contributed to a high order of social development evidenced by the general improvements, the home, the school, the church and the government. Our heritage is great; the accomplishments are visible; the purposes of the people are constructive and definite, and the future seems to be secure.

Following are discussions on some of the cultural features. The signed articles were prepared by persons who have attained prominence and leadership in their respective fields of work.

### AGRICULTURE

The farms and ranches, because of their number and importance, reflect quite truly the state's condition of development as shown by the papers on agricultural beauty, run elsewhere in this bulletin.

The agriculture with some exceptions, is under efficient management; systems of crop rotation are used; the best breeds of farm animals are raised; machinery is housed, and the effects of toil, thought and purpose are in evidence generally. Most farms are operated not on a basis of securing immediate big yields and returns, but with some regard for averages over a longer period and with a purpose to con-



Broad, deep, fertile Nebraska — the Cornhusker State!



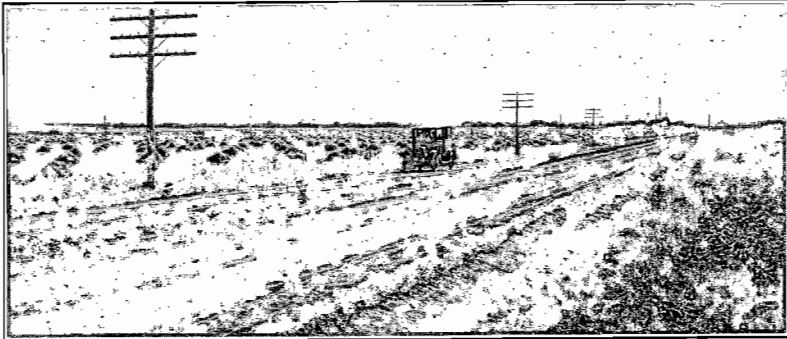
serve the soil for future production. The agriculture of the state has been stabilized through experimentation, adaptation, rotation and diversification. This has been necessary and possible because of the many kinds of soil and because of the varied climatic conditions.

Elementary agriculture is taught in the grade schools, and the Agricultural College of the University has high rank in instruction, investigation and extension work. The farmers—both men and women—of the state have many organizations which promote agriculture and social betterment.

Nebraska has produced many men of prominence in agriculture, among them, Dean E. A. Burnett, Robert W. Furnas, C. S. Harrison, J. Sterling Morton and Isaac Pollard.

### HIGHWAYS AND ROADS

Nebraska is developing a system of good roads according to a definite plan. Part of the system is building in cooperation with the Federal government. The old trails, narrow grades and mud holes are



A state highway (D-L-D), Lancaster County

giving way to improved roads—dirt, gravelled and paved. The well-crowned grades, tangents, long culverts, wide bridges, markers and danger signs are features of these roads which are kept serviceable and attractive by patrol.

The improved highways connect all county seats of the state and are used and enjoyed by many. It is over them that milk, cream, hogs and grain are drawn to market and autoists go to and fro in the state and to tourist points without. There are many things of beauty on and along the state highways, and the right-of-ways proper are not marred by ugly advertisements and signs.

## RAILROADS

These, with 6,742 miles of main line and 500 miles of double track, reach nearly all parts of the state. The lines are becoming more serviceable and more beautiful. Weeds are kept down on the right-of-way, and the road beds are not neglected, at least not by some companies. The most noticeable improvement, however, is in the erection of new and serviceable depots and in the beautification of their surroundings. This improvement is accompanied by a greater measure of courteous service on the part of the railroad employes. Who does not enjoy, not only the passing scenery of both country and town, as viewed from the car window or observation car, but also the beautiful grounds and conveniences of a depot so built for the travelling public?

## INDUSTRY

Nebraskans are workers. The value of service is recognized by all. There are few of the tramp and leisure classes, and "jobs" are available here for those qualified to work in some constructive capacity.

Much of the man power is in the country, on farms and ranches, but many people are engaged in manufactures, transportation, jobbing and other industries of towns and cities. Industrial plants—well housed, with improved processes, efficient labor, modern machinery, safety devices and regard for the welfare of employes are the rule. The chief beauty of these industries, however, is in the spirit of co-operation that maintains throughout. There are few real strifes between capital and emuloyes, and honest toil or service is recognized as the main factor in the industrial development of Nebraska.

## FINE ARTS

Among the recognized divisions of the Fine Arts are writing, music, painting, sculpture and architecture, all of which, except the last two named, are taught in the public schools of the state, and advanced courses are offered in the colleges and universities.

Although Nebraska is a comparatively young state, it has made considerable advancement in the fine arts. It has borrowed much from without and produced a good deal from within. A point has been reached, however, when more persons who know and love the state should pen the better prose and verse; put words to music and paint the better pictures of Nebraska.

WRITING. Dean L. A. Sherman, a scholar and noted teacher of the University, has inspired many in literature and writing. J. W. Searson, Hutton Webster, H. B. Alexander, A. E. Sheldon and others have become well known text writers. Harvey Newbranch and Will Owen Jones are among the best editorial writers; Edgar Howard, M. A.

Brown, Theodore W. McCullough and Will Maupin are widely known on account of their many years of editorial work, and A. L. Bixby has general recognition as an entertaining poet-philosopher. The University has a School of Journalism of high rank, and Nebraska, all told, occupies a creditable position in literature, writing and publication, and has the credit of starting Walt Mason, Dorothy Canfield Fisher and Willa S. Cather on their road to fame. Its best known poet is John G. Niehardt.

Dramatic art, the history of which has a close connection with that of writing, is encouraged in the grade schools and taught in the colleges and universities. Professor Harriet Alice Howell of the State University and Adrian M. Newens of the University School of Music, Lincoln, have been foremost in this line in the state.

Debating, which is related to dramatic art and writing, is well organized in the high schools and colleges and taught in the University. Professor M. M. Fogg has contributed most in this field.

MUSIC. The state has several schools of music, many well known music teachers and a number of composers. "Lassie O' Mine" by Edwin Walt, "My Own Nebraska Land" by Adam Breede, "Nebraska, My Native Land" by Grace Welsh Lutgen and Leon Berry, and "The Scarlet and Cream" by Robert W. Stevens, are among the best known productions, of which there are many. The need now is for more songs and music about Nebraska.

Mr. T. Lieurance, a producer from Indian melodies, and Howard Hansen, formerly of Wahoo and now director of a school of music at Rochester, New York, are thought to be the state's musicians of greatest note.

PAINTING. Departments in the normal and denominational colleges and of the School of Fine Arts at the University of Nebraska are doing much to teach and conserve this division of art, and Robert Gilder, J. Laurie Wallace, Augustus Dunbier, Alice Chaver, Alice Edminston, Clara Walsh Leland, Hermine Stellar and others have produced paintings that add credit to the state. Lawton Parker is Nebraska's outstanding artist in this field.

Photography is, in the best sense, not only an aid to but a division of fine art, like writing and painting. It uses equipment, light and shade, and interprets, organizes and describes the better picture.

Nebraska stands quite high in several departments of photographic art, and the University has a well equipped studio in which and from which much photographic work (still and motion picture) is done for the state surveys, extension service, Agricultural College and state departments generally.

SCULPTURE. This is one of the last and highest forms of art to be developed in our country. It is being established in the content of

education at the School of Fine Arts at the University of Nebraska and incorporated more and more in the designs of churches, schools and public buildings, as in the new Capitol especially. The state claims Gutzon Borglum, who lived here for a time, as her sculptor of note.

ARCHITECTURE. Nebraska architecture has been borrowed from the East and from the West, and not until recently has there come a strong movement for plans and designs which add historic beauty to buildings and structures. Homes with straight lines and for utility; the bungalow type of the West and the colonial types of the East represent the succession in home building. Homes are now designed not only for beauty and service but with some relation to Nebraska conditions.

The architecture for large structures has changed markedly the past few years as shown in the bridges, commercial buildings, churches, schools and court houses. The Memorial Stadium at the University and the new Capitol are the outstanding structures in the state.

Although architecture is not taught as fully in Nebraska as in some states, it is emphasized in certain courses in the Engineering College of the University, and Professor William F. Dann, who taught in this institution, will be long remembered by many students for the cultural courses he gave on architecture and other fine art subjects. Messrs. W. E. Hardy and Walter W. Head of the Capitol Commission, who have traveled in many parts of the world, have helped in bringing to Nebraska a desire for better architecture.

There are several well known architects in the state. Mr. Thomas R. Kimball is ex-president of the National Association of Architects.

### HALL OF ACHIEVEMENT

The great strength of Nebraska is in its "average" citizen, but several have attained state-wide, national or international prominence in some line, and probably no other commonwealth with so short a period of development can claim so many who have gained such recognition. One record, that of the Bryan brothers, should stand for all time. This family from the same town and state contributed a congressman, who was three times nominated for the presidency of the United States, and a governor who was nominated for the vice-presidency.

Our Hall of Achievement, which probably will not meet with the approval of all, has been selected in consultation with those who are judges of achievements, and it would seem that the lives and works of the men and women so named should be studied and reviewed by our citizens generally. Then, too, let it be understood that this is only an incomplete listing, and that others are to attain great leadership in the future. Our selection is as follows:

Agriculture and Horticulture — Robert W. Furnas, C. S. Harrison,  
 J. Sterling Morton, Isaac Pollard.  
 Art — Lawton Parker.  
 Cartoonists — Herbert Johnson, Clarence A. Briggs.  
 Education Organizer — J. W. Crabtree.  
 Engineering — Bion J. Arnold, James Warren McCrosky, Joe Sargent.  
 Finance — Charles G. Dawes.  
 Fraternal Insurance — A. R. Talbott.  
 Law — Roscoe Pound.  
 Medicine — George H. Simmons.  
 Music — T. Lieurance, Howard Hansen.  
 Pioneers — S. C. Bassett, Col. T. J. Majors, C. H. Morrill.  
 Poet — John G. Niehardt.  
 Politics and Reform — William Jennings Bryan.  
 Scientist — Lawrence Bruner, Charles E. Bessey.  
 Sculptor — Gutzon Borglum.  
 Sociology — George E. Howard.  
 Soldier — General John J. Pershing.  
 Teacher — Charles E. Bessey.  
 Writers — Willa S. Cather, Dorothy Canfield Fisher, Walt Mason.

## PLACE NAMES

By JOHN T. LINK

Conservation and Survey Division  
 The University of Nebraska

Culture is reflected in the names of places, but Nebraska, like most other states, has done a poor job in naming these. Very little regard was had in the pioneer days for Indian names, which were apt and descriptive, and frequently trivial incidents and experiences gave rise to names. Many of them are inappropriate and some even vulgar. Most of those now in general use must be retained, but quite a few can be revamped or changed in order to conform to priority and to make them more appropriate.

During the last five years a careful investigation has been carried on under the direction of the Conservation and Survey Division of the University of Nebraska to determine the origin of all place names in the state. This includes the name of the state, the names of the counties, towns, railroad stations, sidings, present and past postoffices, the names of streams, lakes, sloughs, valleys, canyons, buttes, hills and other topographic features. Approximately 10,000 names are involved.

**NAME OF STATE.** The name of the state was suggested by physical features. The word, "Nebraska" is a corruption of the Omaha "Ni-bthaska." It has been variously interpreted as "flat water" and "shallow water" although the idea of shallowness is not necessarily implied in the name. It has been translated as "spreading water" and "water, wide with a shallow brim." While all of these have in them an element of truth, neither designates the real meaning. The word

"Ni-bthaska" is a compound word. "Ni," incorrectly spelled "Ne," denotes "water" or "stream" and "bthaska" flat or spreading and carries in it the idea of a plain. The water referred to is the Platte, formerly also called the Nebraska River, which is wide or spreading, and the plain referred to is the Platte Valley bottom which is also wide. The word then has a twofold meaning — that of "spreading water" and a "wide plain," "water spreading over a wide plain." So the name was applied first to the Platte River and valley and later to the state as a whole, which is characterized by several comparatively broad rivers, broad valley bottoms and upland plains. Dr. Condra, when speaking on resources and development, has said that we should think of Nebraska as being "broad, deep, and fertile" — capable of supporting the people and their institutions — and that some time a strictly cultural interpretation and designation will be evolved for the state.

COUNTY NAMES. The names of the 93 counties have been derived from various sources. Former presidents of the United States have been honored in the names: Washington, Adams, Jefferson, Lincoln, and others. Statesmen, such as members of the cabinet, senators, state and territorial governors have left us Franklin, Hamilton, Webster, Blaine, Seward, Stanton, Saunders, Hitchcock, Douglas, Burt and a score of other names. Recognition for service rendered on the battlefield suggested such as Hooker, Custer, Thomas, Sherman, Sheridan, Kearney and McPherson. Railroad builders have left us the names of Deuel, Kimball, and Perkins. Business men and others prominent at the time the counties were organized or set apart prompted the names Nuckolls, Morrill, Chase and Keith. The Indian has left us Otoe, Sioux, Keyapaha, Cheyenne, Dakota and Pawnee. Physical conditions are responsible for such names as Rock, Scotts Bluff, Box Butte, Valley, Garden, and Banner. The antelope and the buffalo are the only native animals that have perpetuated their names upon the counties. Merrick County was named for a woman, and as a compliment to the Hon. Henry DePuy, Speaker of the House of Representatives of the Nebraska Legislature at the time, whose wife's maiden name was Merrick.

INDIAN NAMES. As we go to smaller units — cities, towns, stations, streams, lakes and the like, we find that their names are also traced to various sources. The Indian has suggested such as Sappa, Kola, Naponee, Nehawka, Arapahoe, Ogallala, Niobrara, Winnebago, Ponca, Minatare, Tekamah, Omaha, Tecumseh, Kenosha, Arkeketa, Kiowa, Leshara, Aowa, and some in their translation as Red Cloud, Redbird, Blackbird, Spotted Tail, and Weeping Water. Unfortunately we have too few Indian names, for these, as a rule, have significance. They are descriptive and at the same time euphonious when compared with such names given by the white man as Dead Man's Run, Rustler's Roost, Crazy Woman Creek, Skull Creek, Break Neck Hill, Louse Creek, Sowbelly Canyon and Stinking Water Creek.

**EXPLORERS AND OTHERS.** Such names as Sarpy, Barada, Rulo, Bordeaux, St. Deroine, Decatur, Wymore, O'Neill, Fremont, Harvey, Filley, Martinsburg, Schippee Max, Lemoyne, Friend, Hildreth, Goehner and hundreds of others were given for explorers, trappers, traders, surveyors, early settlers and founders of towns. The names Lane, Holdrege, Tobias, Scribner, Shelton, Prosser, Gurley, Chapman, Dix, De-weese, Shelby and scores of others are monuments to railroad men. Bancroft, Whittier, Emerson, Dickens and Byron remind us of men of letters.

**PHYSICAL FEATURES, TREES, ANIMALS, ETC.** Physical features and conditions, real or imaginary, have given rise to the names Muddy Creek, Alkali Lake, White Clay Creek, Silver Creek, Clearwater Creek, Arabia, Soudan, Cedar Bluffs, Contrary Creek, Chimney Rock, Courthouse Rock, Hogback Mountain, Pebble Creek and many that are similar.

Practically every kind of tree native to Nebraska has stamped its name upon the map of the state, especially in the names of streams, for it was along the water courses where trees were principally found. Many streams have been named Plum, Boxelder, Maple, Oak, Cedar, Pine, Willow, Hackberry, Evergreen, Elm, Walnut, Catalpa, and Cottonwood.

Smaller vegetation is responsible for such names as Calamus, Blackroot, Rose, Sunflower, Lilac, and others. Native animals have left us such names of streams and lakes as Antelope, Elk, Bear, Beaver, Prairie Dog, Wild Cat, Panther, Possum, Coon, Wolf, Coyote, Red Deer, White Tail, Rattlesnake, Badger, Eagle, Swan, Turkey, Duck and Goose. The butterfly has been immortalized in the name Papillion, the French for "butterfly." Even the mosquito and the louse have not been overlooked.

**LOCATION AND ALPHABET.** Location suggested to the minds of the pioneers such names as Plattsmouth, Thirty-two Mile Creek, Four-Mile Creek, Eight-Mile Creek, Central City, Center, Lakeside, Hillside and many expressing the same thought. Historical events prompted such names as Mayflower, Massacre, Canyon, Armada and Bennington.

When the Burlington built its lines west from Lincoln there was a strong tendency to name the stations in alphabetical order and this accounts, in part at least, for such names as Crete, Dorchester, Exeter, Fairmont, Inland, Juniata, Kenesaw and Lowell. Along the St. Joe and Grand Island Railroad in the southern part of the state there was a similar tendency, for there we have Alexandria, Belvidere, Carleton, Davenport, Edgar, Fairfield and Glenville. The stations between these points were interlopers and hence do not follow the alphabetical order.

**IMPORTED NAMES.** The early settlers brought with them not only their families, implements and household goods, but also the names of their home towns. This accounts for such names as Aurora, Bloom-

ington, Oshkosh, Fairbury, Elgin, Alliance and others and is an index showing whence the influx of immigration came. Europe has contributed Praha, Prague, Dresden, Buda, Bruno, Copenhagen, Dannebrog, Stromsburg and the like. Canada has sent us Hemingford, Imperial, Warsaw and Halifax.

**RELIGION AND INDUSTRY.** Religious sentiment is expressed in such names as Bethany, Lebanon, Palestine, Hebron and Gilead. Industry suggested Brickton, Appleton, Cornlea, Grinton, Melbeta and others.

**TRIVIAL CIRCUMSTANCES.** When Mr. Robert Harvey surveyed in the northern part of the state, the clothes of his party became infested with lice, and a cleanup was ordered at a certain stream which has since borne the name of Louse Creek. Nonpareil in the western part of the state was so named by Gene Heath, an early day publisher in that section, because, as he says, "Nonpareil was the smallest legal type allowed, and the town was as small as it could be to have legal existence."

**CONCLUSION.** This is but a very brief resume of the work being done in the classification of place names in Nebraska. It is hoped that in the future more attention will be given in applying new names. These should be chosen with the view of significance, for then they have cultural value.

## STATE SEAL

This is supposed to symbolize some fundamental feature of the state or to express the spirit and aspirations of the people, or both, but our old seal does neither. In fact it shows little more than the desire of emigrants to reach the gold fields and areas west and northwest of Nebraska. It was never very suitable and does not represent the Nebraska of today.

The Legislature of 1921 authorized the Governor to appoint a commission to prepare a new seal, one that would express the dignity and purpose of Nebraska. The commission \* so appointed worked in cooperation with Mr. Goodhue, architect for the new capitol, and designed a seal along the lines suggested, but it was found later, according to the decision of a Deputy Attorney General, that the seal could not be used officially until accepted by the Legislature. This decision came too late for action in the 1923 Legislature, so nothing further could be done, and the seal was not incorporated in the new Capitol at the place set apart for it.

Nebraska should accept this new seal or provide another to be agreed upon and used.

\* The commission was composed of Hon. George Williams, Mrs. M. Penney and Dr. G. E. Condra.



## THE HOME BEAUTIFUL

By MRS. M. PENNEY

Former President, Nebraska Federation of Women's Clubs

The pioneers of Nebraska had only crude materials with which to build homes. They used sod, poles, some stone and at places dug their abodes in bluffs. When the railroads came, materials were shipped in. With these materials and with brick burned within the state, it became possible to construct better suited homes, thus meeting the needs of growing families and providing comforts and conveniences hitherto not enjoyed.

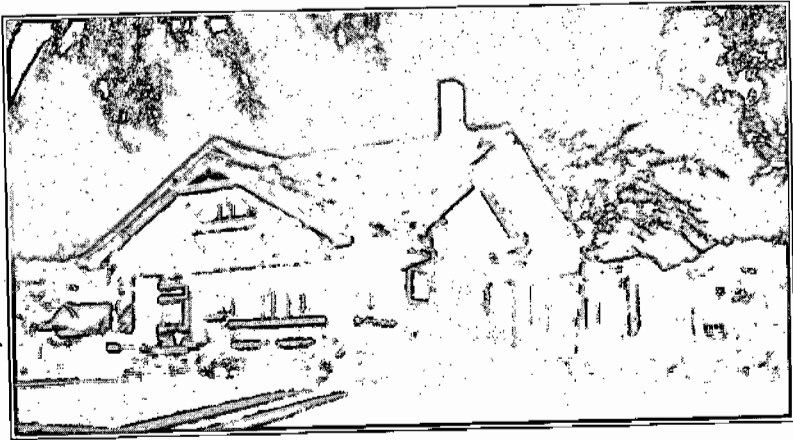
Although Nebraska is now noted for its beautiful homes, there is much difference in them in the various parts of the state, due primarily to the occupations and wealth of the people. Ranch homes, farm homes and city homes, although alike in most respects, have essential differences as to their arrangement and settings. Most of the homes in Nebraska, however, are substantial and not "faddish."

As a member of a pioneer family, I have observed life in the dug-out, sod house, log cabin and in the comfortable modern home, and know that ideal home life does not depend upon architectural lines, nor can it be valued by the building material, interior space, or decorations. Houses are not necessarily homes. The home harmonious depends upon the spirit and atmosphere of home life. I do realize, however, that the development of harmony in the family is related to better housing conditions, and that with every step towards prosperity and success there must come the desire for higher standards of living.

The ideal home provides for the welfare of father, mother and child; the threefold nature in each — the spiritual, the intellectual and the physical — is to be attained. Law and order are the foundation principles of the Union, as they are also the fundamentals of the home harmonious, which is the nursery of good government. The pre-school years are important ones in the life of the child for the forming of right habits, because the attitude of obedience to, and respect for law has been well founded, or disobedience and disrespect flaunted before the kindergarten age. Much depends upon the home, and especially upon the mother, who has the larger share in fixing the tendencies of the child and the opportunity for close touch with the teacher in understanding and directing the child's behavior.

That the home harmonious shall become the home beautiful seems to be the natural course of evolution. Pioneer days are past. The makeshift buildings have given way to better buildings, beautiful grounds interior decorations, better equipment and new furnishings, all of which represent the very best use of the great wealth derived from our fertile soil.

The government has recognized the importance of the home and the economic value of woman's work through a department of Home Economics in the Bureau of Agriculture, and Dr. Louise Stanley, head of the department, presents in "Woman, the Doer and Buyer," a comprehensive program for study of home making and household administration. In this will be found the usual divisions of food, shelter, clothing and related subjects, also the divisions — Social Relations, Art, and The Economic Value of Woman's Time. The division of the program devoted to art acknowledges beauty as a necessity — Art, not for "Art's sake," but for our own sake, associating beauty with life and the application of the principles of art in the home with its interior decorations, provisions for music, pictures, good literature and the beautification of its surroundings.



A home in Decatur, Burt County

The week in which Arbor Day falls each year will be National Garden Week. This reminds us that we should extend our activities to the home grounds that may need vines, flowers and shrubs. While making our own home and its surroundings beautiful, we at the same time will improve ourselves and add beauty to the state.

Nebraska has moved from the day of the isolated pioneer home with little opportunity for outside communication, when man and animal roamed the prairies at will, to the day of the telephone, automobile, airship and radio. In the great sweep of marvelous things can we expect the Nebraska home not to keep pace with progress?

Although there are those who see a danger in the tendencies of modern home life, and perhaps not without cause, I feel that so long

as the ideal of the home is preserved, there need be no cause for alarm. So long as we give proper thought and attention to the care and guidance of the young, directing them along wholesome lines, the future home will be secure. It will require not only wishbone and backbone, but abiding faith, love and constructive work to conserve the Nebraska home as the most important factor in the state.

## THE SIGNIFICANCE OF THE CHURCH IN THE STATE

By WALTER AITKEN, Ph.D., D.D.  
Pastor of St. Paul Methodist Church  
Lincoln

There are two senses in which the term "church" is used, indicating on the one hand an architectural design and on the other a body of believers or a congregation of worshippers; but the term is also used in a more comprehensive sense, to denote an institution, like the home or the school. The development of church architecture is a study of more than passing interest, whether you study it from the standpoint of the Jewish temple, Christian cathedral, Puritan meeting house, or the present average church building. Its architectural outline is distinctive and bodies forth an ideal which ministers to the worshipful spirit in man. We are not simply thinking of a place of sensuous beauty and sublimity, appealing to eye and ear, but a spiritual sublimity which appeals to the soul, and conscience, the sense of right, and the symmetrical development of man in his moral and spiritual relations. The church should be a place of beauty and loveliness, and there is no reason why art should not be developed to stimulate interest and culture the aesthetic, although we must not mistake the church as being simply the minister of art. The great cathedrals have played a large part in this development. Their grandeur has made us think of the original glory of the primeval forest, with a tracery exquisitely and delicately wrought. Altars and windows have symbolized the great doctrines of the church and the faith of the ages. Fitly built and endowed for worship the cathedral has stood, the natural monument of endless glory.

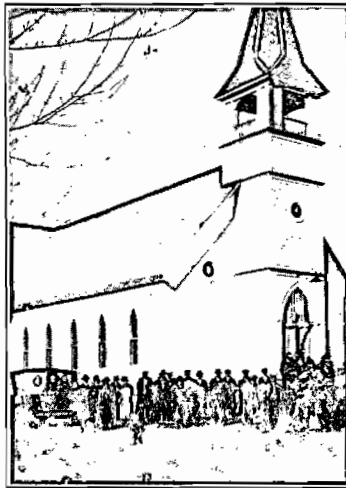
There is an old poem which speaks in such delightful terms of the construction, history, power and spiritual significance of the church, from which I am constrained to quote, because it breathes such a deep spirit of reverence and devotion:

"And whence, then, came those goodly stones,  
'Twas Israel's pride to raise,  
The glory of the former house, the joy of ancient days:  
In purity and strength erect, in radiant splendor bright,  
Sparkling with golden beams of noon, or silver smiles of night?"

"With gradual toil the work went on, through days and months  
and years,  
Beneath the summer's laughing sun, and winter's frozen tears;  
And thus the majesty sublime and noiseless pomp it rose,  
Fit dwelling for the God of peace! A temple of repose!

"From nature's quarries, deep and dark, with gracious aim He  
hews  
The stones, the spiritual stones, it pleaseth Him to choose;  
Hard, rugged, shapeless at the first, yet destined each to shine,  
Moulded beneath His patient hand in purity divine."

**ART AND RELIGION.** Those of the reformers who were the iconoclasts of another day, in their desire for simplicity and plainness of worship, undertook to destroy art, images of saints and pictures of various kinds, because they seemed to minister to idolatry; and, indeed, if the images were the object of worship, the work of these reformers must



A rural church, Seward County

be considered as timely, but if art is the handmaid of religion, then we cannot refrain from saying that it was a case of mistaken zeal and misdirected energy, the result of which caused the pendulum to swing to the other extreme. Religion has always been identified with art's best expression. Its ideal has been revealed in the great poems and songs of the church, creating for us a great wealth of devotional literature. It touched music, and there have come melodies and harmonies endowed with the spirit of heaven, expressing the homage of the mind, the passion of the heart, and the exultation of the spirit in its moments

of spiritual rapture. It inspired the brush of the artist and the chisel of the sculptor. It touched architecture, and there came into being temples and churches of exquisite beauty, in harmony with the highest conceptions of spiritual worship.

The finest art, however, is the art of making men, shaping life, conserving moral and religious force, teaching liberty, disseminating knowledge, creating a literature in harmony with the highest concepts of religious truth and establishing the kingdom of righteousness in human society. Art which touches only the surface without changing the nature of men is a failure in the realm of character, and mere art in itself can go no further.

**THE CHURCH AND CIVILIZATION.** The church is primarily at the foundation of civilization and society. The destruction of the church would be fatal to the best results in either. All that we call civilization in the highest sense of the term is the visible expression of that for which the church stands. Those upward movements which have brought transformation to human life have received their inspiration at the hands of Him to Whom the church is dedicated. The mighty sweep of its beneficent influence, its wide diffusion of spiritual and intellectual life, with the attendant result of strength of character, the development of humane feeling, the inspiration of hope, the sweetening of life and the shedding of light, dispelling error and gloom, are but the expressions of His munificent spirit. In quiet and solitary grandeur the church stands a monument to the Unseen, a visible representation of God, the incarnation of His spirit and the channel of spiritual and beneficent activity. A noted Neapolitan philosopher saw deeply into this truth when he made the discovery of the presence of God in the work of the church, and declared: "The epochs in the history of the world are marked, not by the overturning of empires, or the migration of nations — such things belong to the external history — but the real history, the inner history of man, is the history of religion."

Worship in its primary significance may be said to be the speech of God to man and that of man to God, establishing at once a reciprocal relation and action. The wistful longing that moves at the heart of man in the midst of the problems, perplexities, and confusions of human thought is to know God, to be very sure of Him, and to pour out the desires and affections of the mind to Him. Prayer becomes the articulate expression of the common heart whose thirst cannot be assuaged other than by drinking from the waters of the eternal spring of divine goodness. The sweet singer of Israel long ages ago expressed the thirst of man for the Infinite: "As the heart panteth after the water brooks, so panteth my soul for Thee, O God, my soul thirsteth for God!"

So that as naturally as the animal seeks to quench its thirst, with a draught of water, the spirit of man seeks satisfaction in God. It is this

that has turned the attention of men to the church, because the church has sought to interpret God, and from the earliest ages has led them to say with feelings of deep emotion and reverential awe, "Surely God is in this place!"

It brings us to the memory of men and women who have developed the maturity of sainthood and the discipline of character by meeting in and passing through its sacred precincts, who have gone forward with the light and love of God upon their lives, rearing monuments of everlasting remembrance to be cherished by their children and their children's children. That is the kind of a church the poet describes in the words:

" A band of faithful men  
Met for God's worship in some humble room,  
Or screened from foes by midnight's starlit gloom,  
On hillside or lone glen  
To hear the counsels of God's Holy Word,  
Pledged to each other and their common Lord,  
These, few as they may be,  
Compose a church, such as in pristine ages  
Defied the tyrant's steel, the bigot's range,  
For when but two or three,  
Whate'er the place in faith's communion, meet,  
There, with Christ present, is a church complete."

Because the Church of His Presence is broad of scope, generous in feeling, held by spiritual vision, a builder of life and character, composed of men and women who seek to live in harmonious relations with Him, called to a holy fellowship to be the depositories of divine wisdom, each group reflects but a part of the truth while together they present a symmetrical fullness, preserving amid the adverse influences of agnosticism and atheism, the "faith once delivered to the saints" and the practice of righteous conduct; and fortunately, notwithstanding the heterogeneous professions of man, no age has been without a witness conserving for manhood not only the finest traditions, but the truest principles of philosophy and life. Many times, in the midst of error and sin, the church has been slow in its movements, with meager achievements for its labor, but in the last analysis, men have come back to testify that in religion is the sole principle of the subsequent progress of mankind.

The foundations are secure. It matters not how man criticise or endeavor to tear it to pieces, the church has passed through so many crises where the elements of danger seemed great, and it has proved its virility and power to withstand the most merciless onslaughts. The challenge of right has brought no intimidation, cringing fear, or cowardice. Days of persecution have always been days of brightness and success. There is more danger from apathy within than from

hostility without. There is no fear of deterioration of influence without if there is no spiritual degeneration within, and it is well for us to see to it that the past achievement does not hinder us in those progressive measures which will enhance the usefulness and influence of the church in lifting common humanity to the highest standards of living. Its mission is manifold. It deals with all classes and conditions. Side by side in its pews are those who are burdened by sorrow and those whose cups are filled with joy; those who have gone to the verge of despair through their own sin and those who have developed the qualities of sainthood. Its domain is confined to the moral and spiritual life alone.

Religion by legislation is out of the question, for when a legal statute becomes its stay, religion itself is repealed, the spiritual ideal is ignored, outward Godliness is not synonymous with goodness, nor piety with virtue. Many years ago this became evident to the Fathers who sought to extricate the church from the influence and power of the state, and restores the individual conscience and thought; this, and this alone, can account for the variety of creeds and the great divergence of opinions in the matter of religion and forms of worship. What a splendid heritage we in America have! The story of the struggle for religious liberty reveals a noble motive and notable achievement. From the beginning of our wonderful development the church has been in the front line of progress; its place has always been before the times, the natural leader in the building of states. Because of this, we find it impossible to measure its influence; many of the ideas, ideals and convictions, exclusively entertained by the church in other days, have become the common property of the state, but there is no less religion in the church, because we find more in the state, any more than there is less water in the river, simply because it has overflowed its banks. The tide has been rising. The four walls of the church cannot confine the power of religion, which is as quiet as leaves and as penetrating as light.

It is impossible to study the development of American history by leaving the church out. The life, character and habits of the American have been so largely moulded by the sacred concepts and religious devotion of the church. The building of Aladdin's palace is a small thing compared with the achievements in the building of our great states, but the secret must be seen in the religious character of the pioneers who blazed the trail of freedom and independence. If gold and love of adventure led the Spaniard to the conquest of the New World, love and freedom and religion led the Fathers of the Republic to hammer out their freedom on the anvil of adversity and lay the foundation of a truly great nation. It is a striking and memorable picture that the Pilgrim Fathers bring to us. Exiled from home, with

intrepid spirit and undaunted courage, they faced every conceivable disadvantage; the dangers of the sea and the greater dangers of the land; the rigor of unfriendly seasons and an extreme climate; famine, exposure, disease, and death, but they kept right on establishing the church, the school and framing a government, leaving to posterity a great heritage and a universal blessing. Happy are we who enter it, especially if we are fully conscious of the obligation it entails, as it serves to spur us to nobler heights of citizenship and more intense religious devotion, to the higher things of social, civic, moral and spiritual experience.

As children of such a noble inheritance we must not be disobedient unto the heavenly vision. We must carry forward the ideals of the Fathers. We must make and keep the church a place of spiritual culture and worship. We must make it a school where the young life is trained in godliness and good citizenship. Much as we value the material grandeur of the church and the artistic settings we give to it, we must always regard it with reverence as the House of God, dedicated to His worship, where people are wont to come and meditate upon the majesty of the Divine character, and meanwhile, cultivate the passion for philanthropic action, pure friendship and virtuous practice. Naturally, when the church reflects the spiritual culture of the Divine Master, the state will be morally influenced in the direction of righteousness. The embodiment of His teaching must ever be the supreme ideal of the church.

### • THE SCHOOL AND THE CITIZEN

By J. W. SEARSON

Professor of English  
The University of Nebraska

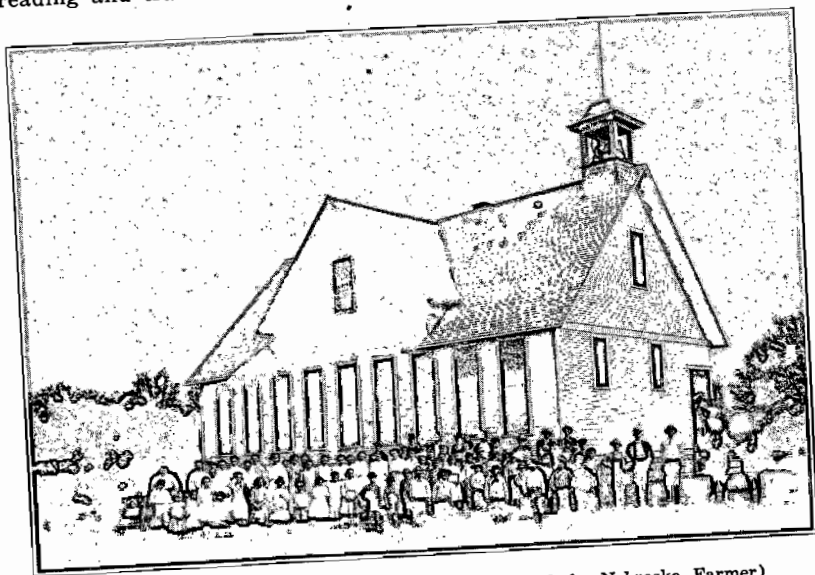
EDUCATING NEBRASKA'S CITIZENS. Nebraska's fair landscapes are everywhere dotted with comfortable homes and fine schoolhouses. Along main highways of travel or in secluded byways stand nearly 7,000 Nebraska rural schools, little temples of learning and the pride of every countryside. In every village the schoolhouse stands prominently among the best culture land-marks of the community. In the largest cities, modern grade and high school buildings are imposing structures. A great state University and over fifty private and public academies, colleges, schools of business and normal schools offer additional educational advantages to the students of the state.

PRIMER TO GRADUATE DEGREE. Nebraska is proud of the educational opportunities she offers her young people. At public expense, everyone may now secure an education beginning with the kindergarten and extending through eight grades of the common school, four grades of high school, four years of college or university and three years of the



graduate college which grants the Doctor's Degree. Thus the humblest child in the least favored district may have the same chance to rise to the top as is given the child in the most favored circumstances. Free public education is provided for all through the generosity of taxpayers who realize the supreme value of educating the growing young citizens of the state.

**LARGE PURPOSES AND SCOPE OF EDUCATION.** Why are Nebraska's citizens so eager to provide so generously for education? Because the prosperity of a democratic state rests upon the intelligence and welfare of individual citizens. Every child must be trained to know useful facts, to do worth while things, and to be an upright citizen. True, the schools cannot alone do this big work. Other agencies must help. The home starts the child right and gives him sympathetic help and care. Men of business set him examples of thrift, honesty and integrity. The church holds before him lofty religious ideals. The whole community offers him a field for his activities and gives him a chance to do his share, obey the laws and get on well with others. In addition, reading and travel are other broadening influences at his disposal.



A country school, Washington County (Courtesy of the Nebraska Farmer)

**ELEMENTARY SCHOOLS AND HIGH SCHOOLS.** The value of school subjects rightly taught cannot be overestimated. These subjects have come to embody the truest cultural and practical needs of the race. The course of study is the product of an age-old effort to secure what is best for character building and citizenship training. The very

organization of the elementary and high schools teaches discipline, obedience, respect for law and order and self-control.

Reading and literature cultivate a taste for the best and help every child to get his share of race inheritance. Through good books he may know the highest ideals and loftiest motives which have driven humanity to accomplish its greatest tasks. Supplementing this work in the schools, 118 public libraries give additional opportunities to both children and adults for further enjoyment in the field of reading and good literature.

Writing is also emphasized. From the first the child is taught to read, to write and to speak the English language. Writing and speaking are stressed as forms of expressing thought clearly and effectively. Courses in penmanship, spelling, language and composition definitely develop these valuable skills. Legible writing, correct spelling and clear-cut, correct oral and written expression have become important universal signs of the educated person.

Arithmetic offers the very best of mind training and develops the power to think accurately, clearly and logically. From the most elementary number drill through the courses in higher mathematics, the child is trained in habits of accuracy, precision and clear thinking.

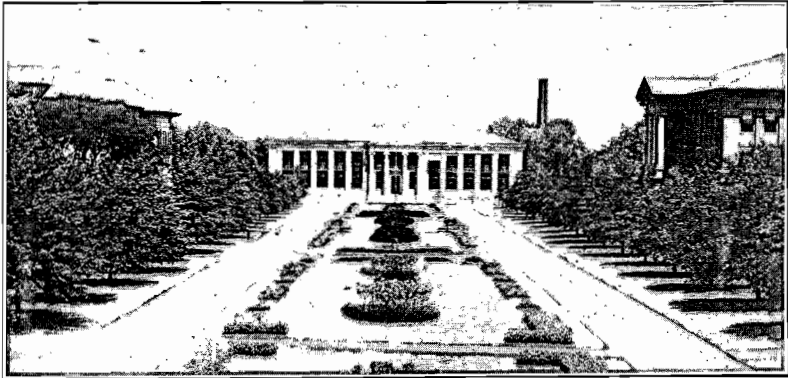
Geography acquaints the child with the marvellous natural resources of state, nation and world. It makes him familiar with the different peoples and tells him how these peoples have tried to make the most of the resources at hand. History leads the pupil interestingly into an appreciation of the development of state and national life, familiarizes him with the sacrifices which have made possible the growth of our institutions and inspires him with a love of the state and of his country. Civics tells him of the organization of the community, state and nation and shows him clearly his obligations as a citizen. In a state like Nebraska, rich in natural resources, interesting in its historical growth and fascinating in its civic features, the studies of geography, history and civics are of supreme importance.

Then there is the study of hygiene, health and physical fitness, including athletics and well rounded programs of physical well-being. The schools endeavor to develop sound bodies as well as sound minds — bodies that through work, proper exercise, sleep and good health, are sturdy enough to meet the demands of the trained mind. Through proper exercise and play, the young citizen gets some of his most valuable cultural and moral training. In well-directed games, he learns the principles of fair play and good sportsmanship, he learns how to play according to the rules and to abide by the umpire's decision. In short, he learns how to get on with others — one of the greatest lessons a democracy can give to its citizens.

In the science laboratory he learns how to discover facts, how to collect and classify them and how to form right judgments from them.

He discovers the properties of matter and is stimulated to find how to make the widest and best use of available resources. He studies life in its largest sense and learns to meet its choicest needs.

Everywhere the schools provide the best vocational training. In a great agricultural state, proud of its farms and homes, the schools offer liberal courses in agriculture and home economics. Believing that the right study and practice of agriculture is strictly cultural, the schools are placing more and more emphasis upon the study of the state's leading industry. Home making, also is stressed. Cooking, sewing, nursing, caring for children and home management are taught as means of fitting young girls to become efficient home-makers. The cozy country home nestled in its picturesque little grove and the city residence facing the paved streets are alike destined to remain scenes of happiness and prosperity if the young people in the schools learn to develop the state's agricultural resources and to build and maintain comfortable homes of culture and refinement. In addition to agriculture and home-making, the schools are fitting children to some extent for the trades and hand crafts.



The Agricultural College of The University of Nebraska is a place of beauty

**COLLEGES AND UNIVERSITIES.** Picturesquely situated at the head of the state's greatest educational system is our state university now enrolling more than 10,000 students annually and ranking high among the great institutions of learning of the nation. Cooperating with it are the normal colleges, the denominational schools and colleges, the business colleges and many private schools. The broad purpose of our colleges and universities is to afford the student the finest type of technical training which will enable him to render the state the best possible service. The state needs trained leaders.

Technical education insures this leadership. Hence, the University with its ten associated colleges, the normal colleges, and other higher institutions of learning are liberally supported to give to the state the best type of leadership and service.

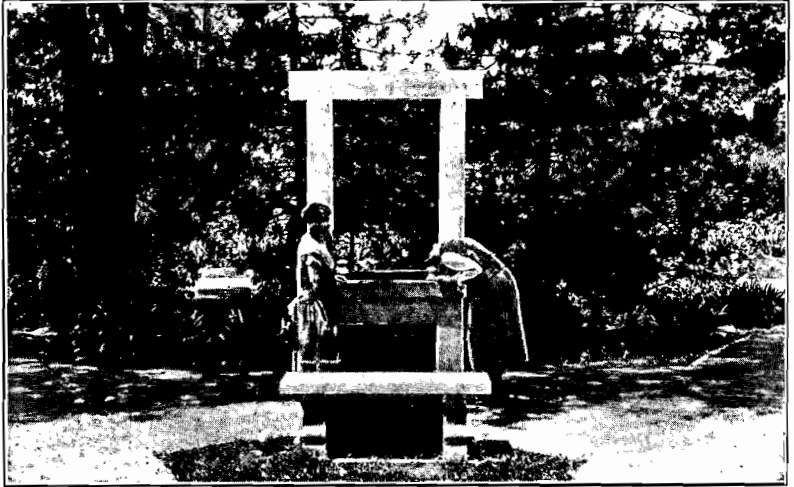
**CULTURAL CONTRIBUTION OF THE STATE UNIVERSITY.** A bird's-eye view of the character and extent of the work of the State University will enable one to understand how the state insures a continuance of its cultural and vocational leadership. The University is composed of ten different colleges, or grand divisions, all cooperating closely in providing higher education for Nebraska's young citizens. The College of Arts and Sciences provides general training along all cultural lines and definitely encourages a love of painting, music, sculpture, architecture and literature while offering vocational training for journalists and artists. Specialists in every department of agriculture and home-making are developed in the College of Agriculture. Trained civil, mechanical, electrical and other engineers are provided for the state through the College of Engineering. Trained teachers, efficient lawyers, skilled physicians and nurses, expert pharmacists and dentists and masters of accounting and business administration are guaranteed to the state through technical colleges maintained by the University. But this is not all. Research experts are needed. Directors of surveys are in demand. Experts in soils, animal breeding and plant breeding are required to develop the state's resources. All such specialists are trained by means of the Graduate College which is established and maintained for purposes of scholarly research. Thus the state stimulates scholarship, discovery, invention and the development of new abilities and provides in the highest educational sense for the promotion of the general welfare.

**STANDARDIZATION AND PROPER EQUIPMENT.** To carry out the big educational vision of the state, more and better grounds, buildings and equipment are needed. Beautiful school grounds, the provision of proper playground apparatus, improved buildings and right equipment are indispensable. Every community is honestly proud of its school-house well cared for, surrounded by well kept grounds and provided with good furniture, good books and supplies and otherwise fitted to enable the teacher to do the real work of training the community's children.

**IMPORTANCE OF A GOOD TEACHER.** Second in importance to the influence of the parent is that of the teacher. True, skilled physicians are needed. Devoted ministers are extremely important. We cannot well do without expert lawyers, doctors, dentists and pharmacists. But first after the parent in the great program of the child's education is the teacher. It is especially important, therefore, that the child be provided with teachers of strong character, positive personality, expert knowledge, broad sympathy and exceptional skill in the classroom.

Hon. J. Sterling Morton, one of Nebraska's far-sighted thinkers and builders, called the state's attention to the need for well-trained teachers in the following statement which is the recognized American classic on teacher training:

"We demand educated educators. We demand professionally trained teachers, men and women of irreproachable character and well-tested abilities. We demand from our legislature laws raising the standard of the profession and exalting the office of the teacher. As the doctor of medicine or the practitioner at law is only admitted within the pale of his calling upon the production of his parchment or certificate, so the applicant for the position of instructor in our primary and other schools should be required by law to first produce his diploma, his authority to teach, from the normal schools.



To the memory of a good teacher

"We call no uneducated quack or charlatan to perform surgery upon the bodies of our children lest they may be deformed, crippled and maimed physically all their lives. Let us take equal care that we intrust the development of the mental faculties to skilled instructors of magnanimous character that the mentalities of our children may not be mutilated, deformed and crippled to halt and limp through all the centuries of their never-ending lives. The deformed body will die and be forever put out of sight under the ground, but a mind made monstrous by bad teaching dies not, but stalks forever among the ages, an immortal mockery of the divine image."

**COSTS AND RETURNS.** Of course, the schools, colleges and University of Nebraska all cost money. They impose a real burden on the taxpayer. But intelligent taxpayers welcome the burdens. They feel that the school system is worth far more than the cost. The returns in trained citizens, men and women fitted for service, fully justify the cost. Although Nebraska is young, the results of her educational system in trained leadership, technically fitted experts, better strains of plants and animals and otherwise in cultural and economic service are a monument to the foresight and wisdom of the founders of the state.

**SOME OUTSTANDING RESULTS.** Some of the immediate results the state secures through its great educational system are worthy of notice by way of summary:

1. **Physical excellence.** This is shown in better health, good habits, fitness for work and play, increased powers of endurance and greater capacity for the right perpetuation of the race.
2. **A trained mind.** Skill to think clearly and independently and to form right judgments upon the basis of facts insures a balanced intelligent citizenship.
3. **Sound character.** The schools provide the finest moral training and character education and in cooperation with the home and the church, promote sound religious training. With sound character come lofty purposes and aims and courage to follow the path of duty in daily practice.
4. **Technical training.** Through the technical colleges, the state is provided with expert teachers, lawyers, dentists, pharmacists, engineers, agriculturists, home-makers and artists. This technical training returns much to the state in service and fosters a high type of common citizenship.
6. **LOYALTY TO DEMOCRACY.** With increased religious morality and intelligence then come increased loyalty to truth and duty and a more intimate appreciation of the principles of democracy applied in the state and in the nation. Intelligent patriotism, a real love for the flag and deep gratitude for safe-guarded privileges and opportunities lie at the deepest roots of love of the state and veneration for American ideals.

**A SCORE-CARD FOR NEBRASKA CITIZENS.** Wonderful cultural and vocational opportunities are offered by Nebraska's great educational system. Excellent results in terms of citizenship are being secured. Surrounded by all these uplifting influences and inspired by the natural resources and beauties of the state, it should not be unreasonable to expect every citizen to measure up to a high standard. Consequently the following score-card, or measuring stick is proposed. On each of the ten points suggested, it would seem fair to expect every progressive citizen to measure well up toward the 100 per cent mark.

Here is the Nebraska Score-Card for citizens—with ten points, and all ten are needed to make the well-rounded citizen:

1. **SOUND STOCK.**—Good physical inheritance, an ancestry of strong, sturdy character, industrious and with no hereditary tendencies to disease and crime.
2. **COMPLETE PHYSICAL FITNESS.**—Good health, high resistance, strong, well poised, well built, and keeping fit through proper work, exercise, sleep and wholesome recreations.
3. **RIGHT AIMS AND BROAD VISION.**—Forward faced, constructive, loyal to tasks, cooperating, patriotic, law-abiding, religious, zealous for high achievement.
4. **CAPACITY TO SERVE.**—Working for common good, using education and technical skill for the benefit of all.
5. **SKILL TO DISCOVER TRUTH.**—Open minded, scientifically trained, disciplined by lofty desire to know the truth.
6. **SKILL TO FORM RIGHT JUDGMENT.**—Assembling facts, drawing correct inferences, possessing courage to follow facts until they become of use.
7. **EXPRESSION SKILLS.**—Clearness and effectiveness in speaking and in writing—ability to transmit to others truthful discoveries and judgments.
8. **THRIFT SKILLS.**—Working, earning, saving, investing wisely, using accumulations of time, money and material effectively.
9. **MATING AND REPRODUCTION.**—Seeking right comrades, choosing right mates, keeping fit for reproduction.
10. **REST AND RECREATION.**—Enjoying beauties of sky and landscape; developing an abiding love for good literature, music, painting, architecture and sculpture; drawing a clear line between real rest and dissipation.

As a direct result of the cultural influences with which our educational institutions are surrounding nearly a half million children, the Nebraska citizen of the near future should be rated high on the foregoing score-card. When every citizen measures up to this high standard, there will be no question whatsoever of the cultural value of education or of the ability of Nebraska schools to produce good citizens.

## MUNICIPAL AND INSTITUTIONAL BETTERMENT

By PROFESSOR M. I. EVINGER  
 In charge of Municipal and Institutional Planning  
 Conservation and Survey Division  
 The University of Nebraska

**INTRODUCTION.** During the early history of the state and until quite recently, the towns and the institutions (private, fraternal, religious and public) were built without much regard for the future. This re-

sulted in loss of materials and wealth and contributed to more or less ugliness. Now, however, the towns and institutions, as with the homes, are planned to insure health, public safety, efficiency and beauty. The aim is to make the towns suitable places in which to live and work, and the institutions capable of fulfilling their purposes, providing for each, the opportunity for symmetrical growth according to the probable needs.

**CONDITIONS.** More than one-half the state's population live in incorporated cities and towns, and more than one-third of its total population now lives in cities of more than 2,500 inhabitants. To accommodate urban population, which is increasing, thousands of new dwellings must be built each year, many miles of streets must be extended and improved; the business districts developed; industries enlarged, and public utilities such as water, sewers, electric current and gas, constructed and extended. Population increases force the cities into greater density of housing or into the development of new land areas; into greater congestion of traffic or into increasing the capacity of their street systems; into over intensive use of schools and playgrounds or into the building of additional schools and recreation areas. Growing cities are never completed structures and always present inevitable problems of expansion.

Presumably, the mistakes and omissions in community development of the past were not evident when made. Promiscuous plotting of streets, or the failure to reserve tracts of land for public use at a time when costs were small may well be due to vague and uncertain requirements at the time of initial development. As a result most of the cities and towns of the state suffer inconvenience from indirect and uneconomic street development, from a lack of adequate space required for public buildings and recreation areas, from a failure to insure the permanence of character of buildings and their uses in districts where once established and from a lack of systematic correlation of the necessary elements of a community structure.

The total assessed valuation of Nebraska is three and a quarter billions of dollars, about twice what it was ten years ago, seven times that of forty years ago, and twelve times that of fifty years ago. Without doubt the cities and towns of the state now represent an investment of not less than one billion dollars, which value will increase rapidly with the growth of urban population, since each additional inhabitant of a city brings to it a corresponding increase of a thousand dollars in assessed valuation, a large part of which is real estate.

**PLANS NEEDED.** Most of the cities of the state recognize the need for plans that will control their growth along lines of convenience, economical administration and satisfactory industrial conditions.



## CITY PLANNING

It is becoming well recognized that the principles of forethought or planning, so commonly followed in building operations, should be applied to cities, because they require as much technical procedure as business institutions. Cities are as definitely in competition as individual or business enterprises, and their old methods of dealing with municipal problems are giving way to new methods.

**PROBLEMS.** The tendency of the people to gather together in urban communities has brought with it real problems. These problems are the responsibilities of providing for all citizens an opportunity for normal living conditions, with sufficient light, air and sanitation for each individual, with provision also for recreation, education and aesthetic development. Health, order and civic welfare do not come of their own accord. They must be planned for wisely, and the problem of achieving them grows as the community grows.

To produce desirable achievements, economy of operation and maximum service, a definite organization and a definite policy must be had. A city plan is one way of meeting the uncertainties of growth and constitutes the city's policy in the guidance of its physical and social development.

**PURPOSES.** A city plan is a comprehensive program for the building of a better city. It means shaping and developing the physical form of the city in harmony with the peculiar needs of its parts and the securing of greater comfort, safety, health, convenience, utility and beauty. Planning is an economic problem. It determines a program not for spending more money, but for using more effectively the funds which are normally available each year for municipal improvements.

It is important to appreciate that the preparation of a city plan does not imply immediate and full accomplishment. It pictures the future city, the product of what only time, normal growth and rational development should mould into a harmonious reality. It is a compendium of maps, drawings and recommendations; a graphic representation of ideas, a statement of building principles dealing with problems of civic improvement. The development of the framework of the plan into a full figure comes with growth. If the underlying principles on which the plan is based are logical and based on fact, then they should be considered as fixed and controlling, and modified only as the future economic and social requirements may demand and justify.

The preparation of a complete plan involves the making of an inventory of the city's existing condition, its resources, its topography and such other factors, physical or otherwise, as are fundamental to its growth. It involves the consideration of these factors as affecting future population growth and the dealing with the areas required to accommodate such growth.

**FEATURES OF PLAN.** The material features of the urban structure, constituting the principal problems commonly referred to in a discussion of city planning are very practical and reasonably definite. They may be briefly classified as follows:

1. Street System.
2. Transit System.
3. Transportation (rail and water).
4. Public Recreation.
5. Zoning.
6. Civic Art.

These features as well as others are not single unrelated problems, capable of being solved independently. They are integral parts of the broad problem of one large composite whole.



An improved street, Lincoln

The problems of today arising out of these physical elements are great. Those of tomorrow will be many times greater. Correction of faults is difficult in the cities of today. How much more difficult ten, twenty, or fifty years hence, with the cities' areas extended; their populations multiplied, their interests increased and more diversified — unless proper plans of development are prepared and adopted early!

Any consideration of the entire structure of the organization of a modern city must of necessity recognize the important part played by sanitation in the general city improvement problem. The importance of sanitation may be indicated by such real necessities as water supply, fire protection, sewerage and drainage. In the planning of these sani-

tary facilities, it is necessary to study them in relation to the topography of the land, location of streets, and the uses to which the land areas are put. However, the plans of these essential public services should not conflict with the general plan of the city.

**STREET SYSTEM.** The street system is the fundamental guiding element of a city plan, because streets are the framework of the city's structure. The future city will be built upon them. Were it the unusual case of designing a city in advance, the streets then could be laid out of sufficient width and treatment to carry the traffic which they would be called upon to handle by virtue of their relation to the type of districts they serve. Since few cities have been well planned in advance, it becomes the function of present day city planning to remedy the mistakes of the past and to guard and make protest against their recurrence in the future. A major thoroughfare plan provides the city with a program for the rectification of previous mistakes in street planning and for the extension of new streets along studied coordinated lines. The plan is both remedial and preventive. Its object is to check the slow but positive losses due to traffic blockades, roundabout travel, excessive gradients and imperfect subdivision of property.

**TRANSIT SYSTEM.** For the proper growth of our larger cities adequate transit systems, including street cars and motor busses, are imperative. Their ultimate satisfactory service to the public depends upon the development of an adequate thoroughfare system, as it affords a basis of calculation for the city's transit needs.

**TRANSPORTATION.** The principal activity of the modern city is commerce. Its growth and prosperity depend upon commerce. The most essential agency of commerce is the railway, because it is the greatest agency in the field of transportation. The interests of the city and railroads are mutual, and each must recognize the interests and necessities of the other. In any city or town the railroad constitutes one of the most important and in many cases the controlling feature of the city plan. Anything having to do with its location, whether at street grade, elevated or depressed, thereby introduces corresponding complications in the street plan as almost no other form of barrier. Railroads are much like the hills and rivers; when once established, they are relatively permanent improvements, and needs must be gradually reshaped to meet the growing requirements of business and the convenience of the public.

**PUBLIC RECREATION.** It has come to be recognized by all progressive communities that to assure proper development in mind and body a certain portion of its area must be set aside and maintained for public use and benefit. Failure to provide for such areas, as towns and cities grow in size, results in a general civic malformation. Recreation is an essential human need. It is vital to the individual and consequently to the community as a whole. Wholesome recreation encourages con-

tentment, improves the health and increases the capabilities and efficiency of individuals. It may be of the kind that calls for physical activity, for mental diversion, for the enjoyment of art or the beauties of nature, for amusements, or that merely provides relaxation and rest. The kinds and extent of recreation facilities which a community should provide depend upon its size and the availability of park areas. Recreation facilities may consist of special developments, such as community centers, children's playgrounds, parks, parkways and boulevards.

Many cities do not seem to fully appreciate the advantage of improving their water fronts until they have been at least partially spoiled by developments impracticable to remove. Omaha, appreciative of its magnificent view of the Missouri River and of the great natural beauties of the bluffs and ravines which constitute much of its water front, has accomplished much in the development of its river front for recreational purposes and preserving the natural beauty as well as the taxable values of abutting areas. Other things being equal, water properties have exceptional advantages for public recreation purposes. Any tract of land which because of its elevation commands extensive water views, over a not too artificialized foreground, is guaranteed in perpetuity, landscape of calm, vast and spacious character which affords just the kind of contrast needed by people.

Parkways and boulevards give an appearance of order and dignity to the city, a feeling of plenty of air and spaciousness and a sense of security and comfort. These, with the green of nature, are the prime factors in any conception of a city's claim to beauty. Improvement and earnest maintenance of private home places responds immediately to well developed and well-cared for public boulevards, parkways and parks. While it is not presumed that a community can develop a public recreation system in a short time, yet early and consistent effort is necessary if even the gradual execution of a careful plan for the development of such a system is to be a matter of fixed policy.

It is most important that our Nebraska communities be made to realize that the suppression of hideous sites and the promotion of beautiful artistic effects in public places entails a far smaller invasion of private rights than does much of the legislation regarding public health, safety and morals already enacted and in force. Offensive noises and odors may be suppressed on the theory of safeguarding the public health, for as a matter of fact, they have much to do with our physical comfort and conscience as well as peace of mind. Objects may be offensive to the eye, as well as to the ear and nose, as a man's aesthetic fitness is constantly appealed to through his sense of sight. Our municipalities have expended and will continue to expend large sums of money on parks, boulevards and other forms of civic beauty, the first aim of which is to appeal to the sense of sight. Why then

should there not be appropriate legislation interposed to protect from annoyance this most valuable of man's senses as well as to protect him from offensive noises and odors?

It would seem that the doing away with ugliness and deformity and the building up of the beauty of the city are closely allied to the establishment of rules for the neighborhood on the maxim of the "greatest good to the greatest number," so that they might include regulation of private property to gratify the collective sense of fitness and civic pride. Beauty inspires pride. The way to make a person proud of his home or of his city is to have it appeal to him through his eyes. Although the park system of a city and its open spaces are very important for recreation purposes, they are also of tremendous importance as indicating the artistic value a community places on beautiful things and as typifying a city's ideals.

Many private places bordering the towns and cities of Nebraska are attractive and beautiful. One, located just northwest of Ord, is particularly noticeable. Here Mr. Frank Koupal has planted many kinds of flowers, shrubs, fruits and trees and made a beauty spot alongside the city golf grounds. Although Mr. Koupal spends much time on this place and takes pleasure in making things "grow," the community receives the greater benefit.

**ZONING.** Any comprehensive consideration of the causes and effect of city growth and its control will at once bring out the interdependence of such important elements as streets, transportation and public recreation facilities, not only in relation to themselves but to the topography and natural physical conditions which largely determine the most appropriate use for which any given area is best adapted. Industries, particularly the large and heavy ones, should be encouraged properly to locate on areas where rail transportation is or can be made conveniently available. Business areas should be preferably on level or gently rolling land, centrally located with reference to the street system and along appropriate parts of the outlying major streets. The residence section, which properly should occupy the higher elevations, served with streets planned in accordance with residential needs as to width, character and alignment and with parks, playgrounds and other recreation facilities, etc., constitute from two-thirds to three-fourths of the average city's area, are owned privately, and consequently are not assured of uniformity of development, so necessary for stability and permanence, unless a reasonable and effective method of controlling growth is adopted in a very large number of cities and towns throughout the United States for accomplishing this end. "Zoning" is the term usually applied to the plan of governing the use of private real estate through the application of public regulations, which are established in accordance with some definite plan of city development. It is

now the one great outstanding opportunity for real accomplishment in better city planning.

**CIVIC ART.** The foregoing discussions have stressed the more organic and practical considerations involved in community development; relatively little has been said about beautification or enhancement of the city's appearance. The planning and execution of those essentials which are necessary or proper for the comfort of the citizens and which incidently combine beauty with utility, are the function of civic art. The opportunity of planning an entirely new town comes only rarely. The best we can do is to guide the growth of existing cities and towns that they may become more artistic as changes take place. In planning the future growth of a community, we should seek



The use of trees, shrubs and flowers on the campus of the University of Nebraska

to preserve its individuality, for without individuality it has no soul, and without a soul it has no beauty. Don't attempt to imitate any other city, beautiful as that city might be. Make it what it ought to be with its background of location, topography, history, traditions and community life; and then it will follow that the surroundings of the community will express nobility, dignity and beauty.

Beauty of design is a matter of form, of harmonious proportions, of color, of truthful expression of a practical purpose well conceived and of inspiration. It follows, therefore, that if the several elements of the city plan heretofore briefly outlined have been carefully conceived and gradually developed in good proportions, the development

of the city will proceed on general lines of order and harmony, the architecture of buildings and their landscape setting will be pleasingly related to each other and enhance each other's beauty, and finally the application of the principal of adaption of form to function will transform the unattractive city into one of great and permanent beauty.

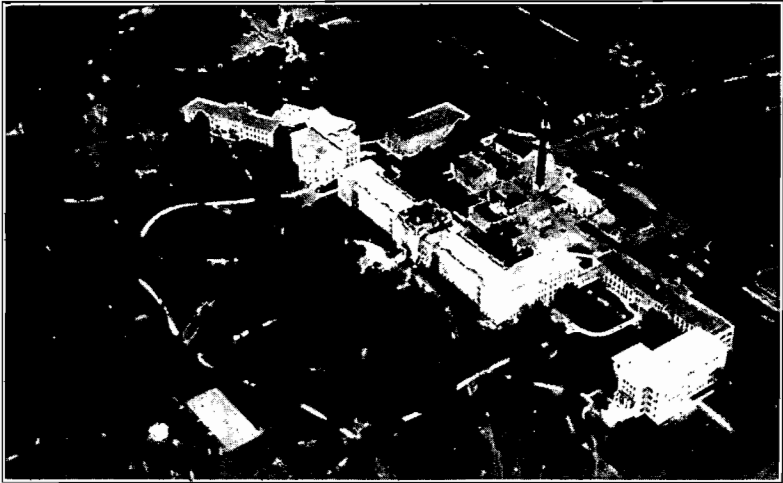
For the average community dweller his home, the place where he labors, and the communicating streets in between are common place, in fact, so much so that their importance and possibilities for enhancing civic beauty are often overlooked. This is particularly true with respect to the general appearance of streets and their furnishings. Beautiful avenues and streets impart a sense of satisfaction and admiration. They stimulate a desire for home ownership and for neatness and cleanliness which is inherent in most of us. The street system may be embellished by such desirable furnishings as tree planting, clean noiseless pavements, uniform sidewalks, dignified lighting and other electric services, street name signs, drinking fountains, monuments, statutes and subdued business placards and signs. Not the least of importance in this connection should be the matter of building line control and the design and care of private homes and grounds. The furnishings of a city street, like the furnishings of a living room, should add not only to its utility value but to its beauty and aesthetic influences.

The appeal of a city, its charm and attractiveness, depends very largely on the proper planting and maintenance of its street trees. Graceful in figure and clothed in Nature's emerald they possess a superlative beauty of form and beauty of color. They not only please the eye and adorn the city, but they also contribute appreciably toward the health of the community by transpiring moisture into the atmosphere and by producing a restful effect on the eyes and nerves.

The planting and care of shade trees along streets and even highways has usually been a matter of individual action and initiative. The lack of a comprehensive street tree planting schedule and the need for its adoption are evident in most of our cities and towns. The lack of shade trees on some residential streets, planting of undesirable species, too close spacing and blighted trees, due to lack of proper care, all evidence the importance of the municipality in assuming the responsibility for a uniform policy respecting street trees.

Trees should be selected with reference to their fitness to the particular street on which they are to be planted. Where the streets are relatively wide and the residences are well set back from the street line, the American elm, incomparable for beauty and shade, may be used. On narrow streets, with less space between the street line and buildings, other species should be selected, probably through the advice of the State Forester of the Division.

"It is a small task to plant a tree. The subsequent attention needed is not large. The trees, once started, help themselves as scarcely anything else of moment to us ever does. They grow while we sleep. They drink the sunshine and compound their own food out of the refuse gases of the air and the water solutions of the soil. Out of these inert, in attractive, barely recognized substances, by a miracle of transformation there comes forth that thing of life and beauty — a tree."



Airplane view of the State Hospital for Insane, Lincoln, showing its environment of lawns, trees and gardens

### INSTITUTIONAL PLANNING

**PUBLIC SCHOOLS.** Almost one-sixth of our urban population is enrolled in the public schools. This great multitude of boys and girls spends three-fourths of a year in the atmosphere of school buildings and school grounds. The psychological influences of wholesome environment on boys and girls of the impressionistic period of school age are generally recognized. It must be apparent that careful planning for the development of school building programs must affect in a large degree the welfare of school children and through them the future development of the city. City planning recognizes the desirability of reserving sites for public schools and that the selection of such sites should be made with reference to the development of the city plan.

**COLLEGES AND UNIVERSITIES.** Institutions of higher learning in Nebraska are gradually giving needful regard for fundamental conceptions of unity of design in their general building plans and particularly for



the formulation of definite principles for their guidance in the selection of sites for future structures which, in order to become really effective, demand both an adequate landscape setting and a visible rational system of grouping for their mutual support, beauty and enhancement. The spirit of the design of the composition of an educational institution should reflect symmetry, simplicity, and dignity; projecting far into the future a scheme toward which each existing improvement might be a step. There is no single factor in the development and expression of the architecture of an educational institution along lines of order, harmony and beauty that is of more importance than the question of



An old building made beautiful, The University of Nebraska

developing the institution as a whole toward these essential ends, and without which no individual building or no individual open space can be really beautiful.

ASYLUMS, PENAL AND OTHER INSTITUTIONS. All that has been said, briefly, about the beauty growing out of the formal design of educational buildings and their grouping applies also to the design and development of other institutions such as state and private asylums, hospitals, and those of an eleemosynary and correctional nature. In the aggregate, the educational, philanthropical, penal and religious institutions, as well as others, all form very important parts in the city

or town. They are deserving of separate and special consideration because of their greater influence on urban beauty. They should serve as conspicuous object-lessons for the advantages to be gained in original comprehensive planning for the cities or towns in which they may be located. The admonition, then, of municipal art, with respect to urban and institutional development, is that each should be zealous in preparing comprehensive plans, supplementary to each other and toward which each may expand and develop by harmonious and co-ordinate steps, each marking certain progress toward a pictured reality, a final splendid goal of ultimate and beautiful completeness.

EXTENSION SERVICE. The Conservation and Survey Division of the University of Nebraska extends a state service in municipal and institutional planning. Although this is supposed to relate only to municipalities and state institutions, some assistance is offered religious and fraternal organizations in the planning of their grounds and structures.

This service is extended in order to bring about that kind of development which will conserve the general welfare as is done in the development of agriculture, highways, public health and other lines. Several cities and a few institutions have used this service.

## THE CAPITOL

By WILL OWEN JONES  
Editor of the Nebraska State Journal

When a Nebraskan approaches the entrance of the new Capitol, he will pause to scan the inscriptions that meet his eye. At each side of the monumental stairs he will find carved in stone these dedications:

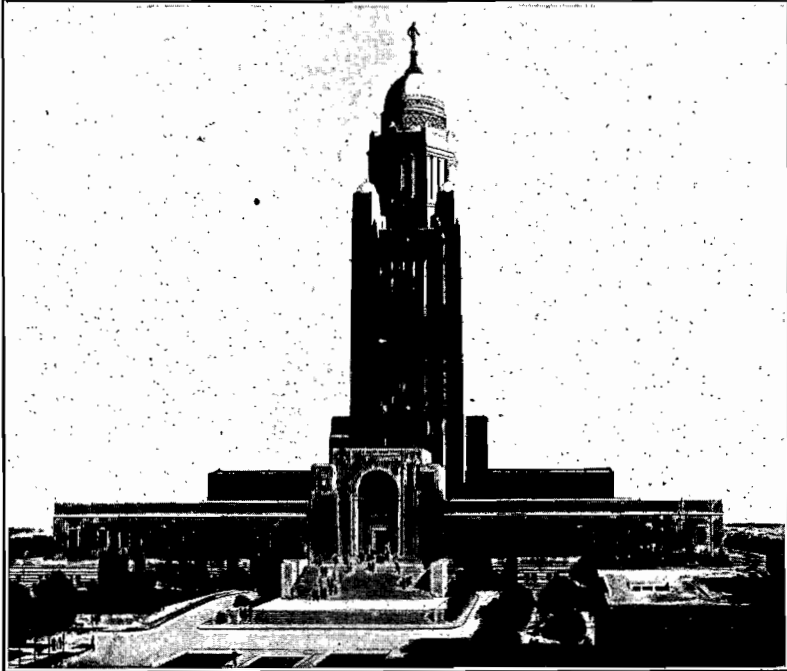
Honour to pioneers who broke the sods that men to come might live	Honour to citizens who build an house of state where men live well
---	--

Looking upward at the top of the portal wall, he will see four colossal heads in stone, representing Justice, Wisdom, Power and Mercy, "constant guardians of the law." Cut in the pylons on each side of the entrance, he will see the coats of arms of the state and the nation. The corners of the buttresses, rounded into fasces, symbolize the authority of the state. Under the arch of the portal he will see a stone panel representing the irresistible movement of the settlers to the Nebraska plains. The door itself will carry bronze reliefs reciting chapters of history. Over the portals is seen the admonition, "The salvation of the state is watchfulness in the citizen."

The Nebraskan glances to the right and left and sees that this dignified portal is flanked by walls of such simple beauty that his eye

rests upon them with satisfaction. A line of county names under the cornice encircles the building and seems to bind it together. He knows that from the center of this base of masonry, 420 feet square and two stories in height, is to rise a tower, a shaft of 400 feet, to serve as the chief architectural feature of the building. As he stands and studies the still incompleeted work, the nature of the triumph achieved by the lamented Goodhue begins to enter his consciousness.

He sees that this Capitol is to be more than a collection of offices



The seat of state legislation and administration and a symbol of the spirit and purpose of Nebraska

where clerks may work; more than a series of state apartments where executives and judges and legislators may perform their functions. As an office building it will be a marvel of convenience and economy. Four courts will give outside light to every office. The grouping of departments, the lack of waste space and the simplicity of the plan and the finish make this the most successful adaption of business architecture to public use yet made in any state capitol. Mr. Goodhue

gave Nebraska a masterpiece on the strictly utilitarian side. His greatest service, however, was in the spiritual values he blended into the walls as the masons put them together.

After gaining inspiration from the sculpture and the inscriptions at the north entrance the observer walks around the building. At the northwest corner, in spaces above the cornice, he sees two panels carved in relief, the work of Lee Lawrie. These are the first of a series of eighteen great pictures in stone, showing the development of law among men. The first is Moses receiving the tables of the law. Then come in order Deborah judging Israel, Solomon's judgment, Solon giving the law to the Athenians, the promulgation of the law of twelve tables, the secession of the Plebes, Plato writing the book of laws, the Areopagus, the code of Roman law under Justinian, the signing of the Magna Charta, Ethelbert giving Anglo Saxon law, Milton defending free speech, Burke defending America in parliament, Las Casas pleading the cause of the Red Man, the Mayflower compact, the adoption of the constitution of the United States, the Louisiana purchase, the Missouri compromise, the Emancipation Proclamation and the first Nebraska convention. At the top of the central pavilion on the south front is carved the explanation that "Political society exists for the sake of noble living." History in stone, conceived in a high spirit of consecration to public service and molded in virile style by the hand of a master!

One who catches the spirit of this sculpture and these inscriptions will wish to walk around the building a second time. Then he will see things that escaped him on the first journey — the Asiatic bulls in relief on the cheeks of the entrance balustrade; the names of Indian tribes, with Indian corn stalks; quotations from their lore and some of their primitive religious emblems; the heads of great law-givers on the southern front, guarding the Supreme Court windows. He will begin to sense, too, the stern simplicity of the design of the structure. The newest and boldest stroke in American architecture, this building is at the same time one of the oldest. Mr. Goodhue drew his inspiration from the most ancient structures of Asia, from Egypt, from Spain and from the southwestern American states. The pile he planned is notable for the simple dignity with which it rises from a level plain, depending upon line and mass, light and shadow, rather than upon ornamentation for its beauty. Simple decoration is to be found on these walls already in place and on the tower that is to come, but it is always an integral part of the structure." Mr. Lawrie has looked upon his sculpture as plastic architecture. He worked with Mr. Goodhue in the most complete sympathy. For this reason the sculpture does not seem to be superimposed. It belongs to the building. It is all so simple, so appealing, such an expression of Nebraska's life, and

hopes, and ideals, that a catch comes in the throat of the native son as he beholds it. He feels a clutch in his breast as he studies the completed design and begins to understand its significance.

The main part of the interior is planned for the efficient transaction of public business and the preservation of the state records. When the central section is erected, a number of the apartments of state will remind one of the dignity and beauty of the old cathedrals. The governor's suite shows Mr. Goodhue's idea of what these important rooms should be. The foyer leading to the rotunda, the rotunda itself, the legislative halls and the supreme court and library will all speak of the dignity of the state and the importance of the state's business. In every great apartment will be carved inscriptions, selected with scholarly zeal by Dr. Hartley B. Alexander, calling upon the state officers, the legislators and the judges to look to the hills of learning and experience whence cometh their help. On the mantel in the governor's public office is a paragraph from Washington's farewell address. Over the speaker's chair will be a quotation from Lincoln. Justice, Law and Liberty will speak over the doors leading to the senate chamber. In the memorial room at the top of the tower Abraham Lincoln will live again in a pregnant paragraph from his second inauguration.

Let the citizen, the state officer, the legislator walk around this building when it shall have reached completion. Let him go within and read the words of the immortals on the walls and study the mural paintings and the sculpture. Let him ascend to the tower and there amid the evidences of the sacrifices made by our soldier sons look out over miles of rolling land, swelling in fruitfulness, sustaining one of the most intelligent and democratic communities on the globe. Then, if he is a real Nebraskan, he must experience new tides of feeling coursing through his being. As his mind dwells upon the sacrifices of the pioneers which have blossomed in this temple, he must consecrate himself anew to personal purity and to public service. This will fill the desires of the scholars, the artists, the men of business, the engineers and the artisans who have given so wholeheartedly of their lives to the creation of this Nebraska shrine.

A SYMBOL. The Capitol expresses the wealth and purpose of Nebraska. Its base typifies the wide-spread fertile lands. The dome, built on bed rock and rising in the blue heights above, expresses the aspirations and ideals of the citizens, reaching upward to the highest and noblest in civilization.

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