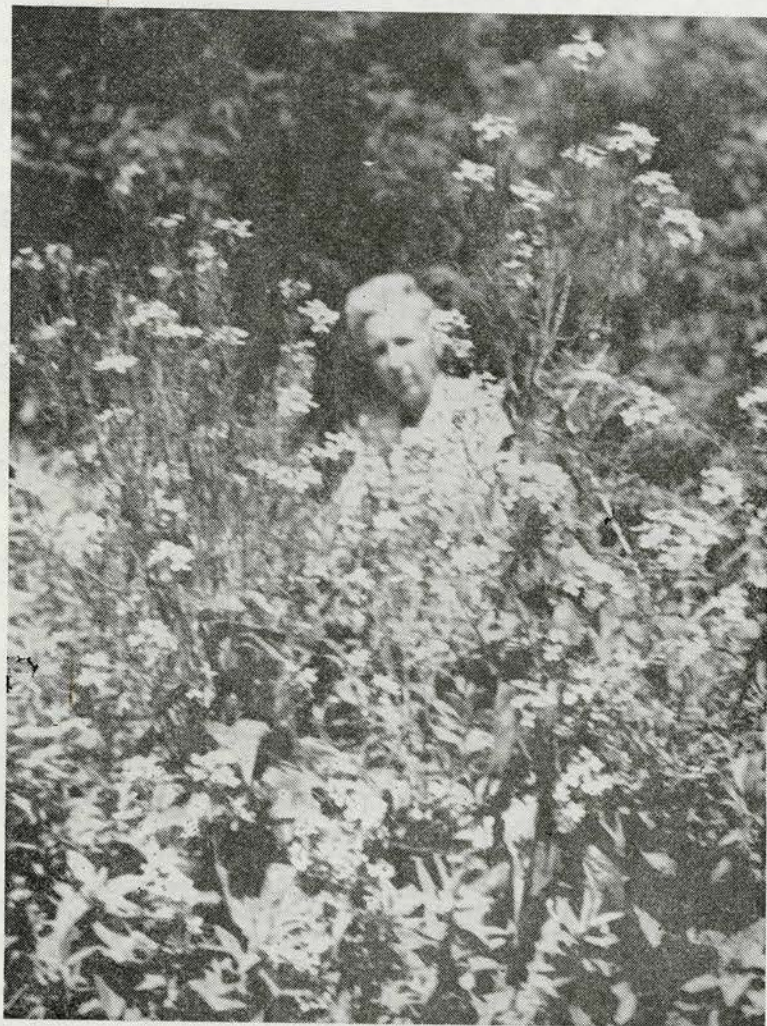


NORTH AND SOUTH DAKOTA HORTICULTURE

FEBRUARY, 1949



Mrs. C. L. Robison, Fairmount, N. D., organizer and leader in the rural garden club there, shown in her garden.

MARK CATESBY, PIONEER NATURALIST

By
Dr. O. A. Stevens

**O. A. Stevens**

Mark Catesby's "Natural History of Carolina, Florida and the Bahama Islands" was one of the outstanding early works on American natural history. Since it appeared some 25 years before the tenth edition of Linnaeus' "Systema Naturae," Catesby's name does not appear as the author of present bird names. However, publications which trace earliest references show that Linnaeus used Catesby's illustrations as his basis for about 60 species of American birds.

A recent account (W. H. Miller in Tyler's Quarterly Historical and Genealogical Magazine, 29:167-180, Jan. 1948) of Catesby gives some details of his life but little about his birds. He tells us that Catesby was a member of a society founded in 1712 in England and that he came to America that year to visit his sister, Mrs. William Cocke of Williamsburg, Virginia. After 7 years he returned to England and the botanist, William Sherard, advised him to write a book on American natural history. The two large volumes on birds and plants are dated 1731 and 1742. The text is brief and appears in two columns, English and French. His account of the "Goatsucker of Carolina" is as follows:

"This bird agrees with the description of that of Mr. Willoughby, p. 107, of the same name, except that this is somewhat less. They are very numerous in Virginia and Carolina and are called there East India bats. In the evening, they appear most and especially in cloudy weather, before rain the air is full of them, pursuing dodging flies and beetles. Their note is only a scrap; but by their precipitating and swiftly mounting again to recover themselves from the ground, they make a hollow and surprising noise; which to strangers is very observable, especially at dusk of the evening, when the cause is not to be seen. This noise is like that made by the wind blowing into a hollow vessel; wherefore I conceive it is occasioned by their wide mouth forcibly opposing the air, when they swiftly pursue and catch their prey, which are flies, beetles, etc. They usually lay two eggs like in shape, size and color as those of Lapwings, and on the bare ground. Its stomach was filled up with half-digested Scarabei, and other insects; and amongst the remains there

Vol. XXII

February, 1949

No. 2

Entered as second class matter at the Post Office at Sioux Falls, South Dakota, under the act of August 24, 1912. Original office of entry, Pierre, South Dakota.

Membership in the South Dakota State Horticultural Society is one dollar per year; fifty cents of this amount is for the subscription to "North and South Dakota Horticulture." The subscription rate for affiliated organizations is twenty-five cents per member, per year.

Published monthly at Sioux Falls, South Dakota, by the North and South Dakota State Horticultural Societies. Address all communications to W. A. Simmons, Secretary, Horticultural Office, Court House, Sioux Falls, So. Dak.

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seems to be the feet of the Grillotalpa, but so much consumed, that I could not be certain; they being both nocturnal animals, makes the probability the greater. They disappear in winter. The Grillotalpa is found both in Virginia and Carolina, in the like marshy grounds as in England, and seems not to differ from ours."

Linnaeus decided Catesby's goatsucker was the same as the one of Europe. Catesby later described a "whip-poor-will" which is taken to be

(Continued on Page 28)

HORTICULTURAL OBSERVATIONS IN THE SOUTHLAND

By

R. W. Smith

President of the N. D. Society



R. W. Smith

After spending forty-five winters in North Dakota, the wife and I decided to try a winter in a warmer climate. Leaving Dickinson by car on October 27, we visited relatives in several states, spent ten days in the Missouri Ozarks, and finally landed in the Lower Rio Grande Valley of Texas on November 30. We left home in comparatively warm weather, and were surprised that the weather did not become decidedly warmer till we got to San Antonio, Texas. At this city a few palm and citrus trees began to appear.

Vegetation Different in the Valley

In the four counties called the Valley at the southern tip of Texas, most of the vegetation is entirely different from that seen elsewhere on the trip. There is much of horticultural interest in the Valley. Many of the streets and highways are lined with palm trees. Citrus orchards are all around, and loaded with ripe fruit. The lawns are bright with blooming hibiscus, oleander, bougainvillea and poinsettias, some of the latter as tall as the eaves of the houses. Even the weeds are different from those in the North. In wild land not irrigated, cactus are as high as one's head, and mesquite and other rank vegetation grow thickly for fifty-two weeks in the year, with an annual rainfall varying from about 18 to 28 inches.

Fruit in the Valley

The production of citrus fruit is one of the major industries of the Valley, and is the chief theme of this article. Frost injury to the citrus crop elsewhere has raised fruit prices here, where marked injury from frost is said to occur about once in ten years. The only frost here this winter occurred November 30. This did not injure citrus, but partly blackened tomato and pepper plants.

Oranges and grapefruit are grown in abundance, and there are a few lemons, limes, tangerines, kumquats, papayas, dates, avocados and bananas.

The business of packing, processing and marketing citrus fruit seems to be well organized and efficient. Large plants for this industry are seen

in all the cities here. For example, the Texusun Citrus Exchange is a cooperative organization that handles about one-third of the fruit in the Valley. It is owned and operated by about 3,000 citrus growers, operating through nine affiliated associations. Their plants packed about 10,000 carloads of fresh fruit during the 1947-48 season. The processing plant at Weslaco, one of the largest and most modern in the world, canned about 2,500 carloads of citrus juice in the same season. This plant can handle about 2,000 tons of fruit daily. Fifteen minutes after a truckload of citrus fruit is unloaded the pasteurized juice is sealed in cans and packed ready for shipment.

Research and Extension Work

Federal and State officials cooperate in research and extension work designed to improve the citrus industry. Federal soil scientists have determined that three of the many soil types in the Rio Grande delta are best adapted to growing citrus fruit. These are well-drained soils. Heavier soils grow vegetables, cotton and other crops.

The Valley Experiment Station at Weslaco conducts varietal and cultural tests with fruits and vegetables, also tests different sprays for preventing loss from plant disease, insects and weeds.

Hybrid citrus fruits are being tested, but, so far, it is said that the best commercial varieties originated as natural bud sports or mutations. Such is the Marsh White grapefruit, widely grown here for juice, and also the Marsh Pink, a mutation from the White. Mr. E. A. Henninger of McAllen discovered and patented the Ruby Red grapefruit, which seems to be the most recommended variety for the packing trade.

The Hamlin orange is a favored early variety, and the Valencia late orange brings top price and is highly recommended.

The Texas A. and I. has established a branch educational center on an 80-acre farm near the Valley Experiment Station. This institution will combine education and field studies for horticultural students and growers.

County extension work and soil conservation are active here, and 4-H and F. F. A. activities are prominent in the Valley.

U. S. Highway 83, the Main Street of the Valley

U. S. Highway 83 terminates at Brownsville on the Mexican border, approximately 1,700 miles from Bismarck, North Dakota, also on the same road. The last 70 miles of this road contains eight cities of 10,000 to 35,000 population, and several smaller towns and suburbs in between. These cities have active commercial clubs that co-

(Continued on Page 28)

GARDEN NOTES

By
W. E. H. Porter



With the advent of February the coming of spring is not merely a wistful dream but a not too distant reality, tho in N. Dak. the legend of six more weeks of winter is assured with frequently that much more thrown in for good measure. Continuing from last month: Nov. 27th. We are now blanket-ed with 16 inches of snow, most of which fell in one night, and lowest temp. at Yukon is -58.

W. E. H. Porter An invasion of timber wolves in interlake region of central Manitoba, killing calves and sheep and a menace to children attending school. Nov. 29th. Snag, 1,500 miles north of Edmonton, records -62. With surprise and great regret, I hear of the passing of one of our members, Mr. W. F. Buchholz; it seems that he went to the barn in morning to feed the stock and succumbed to a heart attack. He was one of those all too few farmers who believed in and did reclaim the prairie wilderness with a systematic planting of trees and shrubs. Tho a very busy man, I found our occasional visits always an inspiration. London's heavy fog lasted most of the week, 110 hours, longest on record, extending over most of England and western Europe. A writer in "Country Life" tells of large hollies among oak in Staverton Park, near Oxford in Suffolk, which tradition claims is a Druid grove, 3 of which are over 70 inches in circumference, 3 ft. above ground level and estimated at 50 ft. high. The giant, however, rises 30 ft. without a fork and is probably 70 ft. tall; another group near Watford in Hertfordshire was 75 ft. high in 1907. While on subject of hollies there are two interesting contributions in current issue of "Flower Grower," one dealing with the native American holly *Ilex opaca*, which can be grown as far north as southern Canada and of which there are 75 varieties, illustrating a specimen of the Griscom variety in southern New Jersey 54 ft. tall and estimated to be 250 years old. The other describes the Japanese or fine tooth spineless holly *Ilex serrata*, a low growing deciduous shrub having both pistillate and staminate flowers on same shrub, so that to produce berries, it is not necessary to have both male and female trees. Tho bare in winter, the marbled gray and silver green branching is very ornamental. How-

ever, when all is said and done, the English *Ilex aquifolium* is the queen of all hollies; it is this species especially that Brownell nursery in Oregon is experimenting with, listing at present seven varieties of small potted trees. In fact, as long as we live in N. D. during the winter, it does very well here and is beautiful the year round, berries or no berries, thriving under neglect, its only requisite, plenty of moisture and a little peat mixed in with our garden soil to supply the necessary acidity which all hollies require. My own tree grows in a water tight gallon can and is 9½ inches high. A recent count of those magnificent 5 ft. tall birds, the Whooping Crane, reveals only 33 in existence, as in spring; 3 young birds raised balanced by loss of 3 old ones. The English use fifty million extra blankets during winter, probably nothing contributes to carry you thru a N. Dak. winter, as sleeping in a warm bed. Dec. 8th. The weather goes from bad to worse with steadily increasing cold, days without a gleam of sunshine and continuous driving snow powder whipped up by nor'west winds into deep drifts. Mr. Parnell Thomas should investigate the weatherman for un-American activities which are sabotaging our farm production. Snag again records the lowest, -69. Dec. 11th. A three day blizzard with temp. dropping to -35 has passed and again thermometer rises above zero, tho not without payment in advance, ushered in yesterday by heavy driving snow, a freak storm from south Saskatchewan. Last night it did not even freeze in kitchen, so again plants can grace the window sill; what a morale builder a growing plant is, especially those of colored foliage. The variegated English holly, the geraniums, Mrs. Parker and Skies of Italy, sage green and green splashed with white, cream and pink, the fat ocher and olive green leaves of *Sedum adolphi*. Flowers in midwinter are rare and after all a flower at its best is only temporary, while you always have leaves. My fellow sufferers in this desolation of tribulation are the cat and dog, the cat always complaining, the dog stoically silent. In Canada a 62 year old ban on manufacture and sale of margarine has been lifted; however, importation of the product is still prohibited. Radio tells that two years ago Snag had a low of -84; it is said that at -90 when chopping ice, the axe will strike fire. Mentioning the large shipments of Christmas holly from British Columbia, the reporter says that it takes a tree 15 years to produce berries and from then on production will continue for 200 or more years. Dec. 16th. Digging out after the worst storm of season which commenced on Wed. with an all day

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MANITOBA NEWS LETTER

By
W. R. Leslie



W. R. Leslie

International Peace Garden is situated in the region of the geographic centre of the continent. Wheels and other instruments of progress naturally work from their centre. Logically the Garden is placed midway from North to South and from East to West in the continent. Similarly the citizens of North America cherish the desire for peace in the innermost part of their hearts and minds.

Since December 24, 1814, there has been absence of armed strife between English-speaking nations. A condition that has obtained happily for more than one and one-third centuries thus has been proved workable. Everybody rejoices in this wholesome and enlightened condition. Throughout the ages peoples have employed symbols to manifest their ideals. In 1929 the idea of a symbol betokening enduring peace between the United States and Canada germinated and took form in the International Peace Garden.

Providence was kind in that the prairies were broken in mid-North America in an extensive ground-swell known as the Turtle Mountains. These beautiful tree-clad, lake-gemmed undulating hills, which rise to 2500 ft., straddle the international boundary. The stage was favorably set for the unfolding of the conception. The governments of North Dakota and Manitoba contributed about 2200 acres of land. Nature was generous in presenting a wide variety of trees, shrubs, vines, flowers and watercourses. The task, as in the case of Eden of yore, was to heed the command "to dress it and keep it." Here is where all North Americans enter the picture.

The Garden symbolizing peace entails development. Faith without works is still a dead issue. What is peace worth to each one of us? Calculation of values brings to mind a story from the South: A colored gentleman, after his marriage, asked the parson of the ceremony what he owed him for his needed services. The response was: "Oh, just whatever it's worth to you, Sambo." The depressed groom asked again but his luck was the self-same answer. His reluctant but candid reply was: "Wahl, Pawson, youh done ruined me fur life!" A personal evaluation of the possession of peace by each citizen of North

America stirs him very deeply indeed. The International Peace Garden requires money for unfoldmen. The Federal, State and Provincial governments are contributing. Various organizations such as Women's organizations, Chambers of Commerce, Municipal Councils, Service Clubs, and Veterans groups, are making grants. There remains the most important source of all funds—that expressed with grateful realism by individual donation. The treasurer is Lieut.-Col. A. J. Robbins, Winnipeg, Manitoba; the assistant treasurer, John A. Stormen, Rolla, N. Dak.

In continuing considerations in planting the public or approach area of the home grounds, comes foundation planting, or planting the base of house wall. Shrubs are chosen. Flowers against the house front may be cheerful from late June until early September. That is a small part of the years. Shrubs, on the other hand, are effective throughout the twelve month. Small deciduous shrubs and dwarf conifers are suitable. Usually a mixture is desirable. A planting of all conifers tends to heaviness and in dull weather to gloomy appearance. If flowers are desired, they are well situated in bays and coves of the shrubbery flanking the side boundaries.

Generally a shrub is set at either side of the entrance, some taller shrubs at the house corners and some shrubs at open spots along the wall. Good planting usually permits some spaces to remain unfilled so that the eye travels from the roof to the lawn. Where foundations are high and unattractive, or where there is a broad front verandah, it may improve the picture to have continuous planting of open growing deciduous small shrubs, as spireas.

"Tall erect or pointed forms lead the eye upwards and break up wall spaces—adding to the apparent height. Low, squatty or domelike forms pull the eye downwards to emphasize width. Loose spreading masses merely fill in space and soften the appearance."

In valuating materials, suitable height, desired habit of growth, and healthy and persistent foliage outweigh in importance shrub bloom. Most bloom is fleeting. An example is the double-flowering plum. It is an aristocrat for a period of 4 or 5 days when flowers are opening. Thereafter, the shrub is rather coarse and of minor interest, being without many fruits. Shrubs with freely suckering habit, as Russian almond, are to be avoided in foundation plantings. Most shrubbery in the front of houses require renewing when about 12 to 18 years old.

Service area: includes the portion of the lot
(Continued on Page 32)

GARDEN CLUB GLEANINGS

By

Mrs. G. M. Jorgensen



Mrs. Jorgensen

Roll of the Clubs

Aberdeen Garden Club—Mrs. Clayton Deitz, Groton, president.

Britton Home Garden Club—Mrs. E. M. Drissen, president—Fine donations to Abbott House and to the Children's Home in Sioux Falls were Christmas gifts from this club. The movies taken by Mrs. Drissen and shown at the party were enjoyed so much she was asked to run them through a second time.

Brookings Garden Club—R. A. Cave, president.

Canton Garden Club—Mrs. Al Scholten, president.

Centerville Garden Club—Mrs. H. B. Sayre, president.

Chancellor Garden Club—Mrs. H. C. Winterboer, president.

Crooks—Rural Circle Garden Club—Miss Inga Tidemann, Renner, president. A luncheon or dinner meeting is a popular form of gathering in December, and the home of Misses Inga and Alice Tidemann was the scene of such a gathering for this group. Christmas carols, the Christmas gospel, and a Christmas story featured the program. One of our favorite quotations from the pen of Abraham Lincoln was adopted as the motto of this club, 'I want it said by those who knew me best, that I plucked a thistle and planted a flower where I thought a flower would grow.' This is included in that beautiful hand made year book we mentioned last month, so that all the members can refer to it as a daily creed.

Dell Rapids Garden Club—Mrs. L. G. Elsinger, president. Glancing at the resume of club activities listed in the club's new year book it is easy to see why the individuals are always busy with "garden club work. The page listing "OUR service to the community and the world at large" names eleven projects in addition to participation in all the drives and in projects sponsored by the National Council of State Garden Clubs. The pamphlet is one of the loveliest ever put out by the club, due almost entirely to the efforts of Mrs. B. H. Torgeson, chairman of the committee.

DeSmet—Friendly Garden Club—Mrs. Larry Pittman, president.

Flandreau—Green Fingers Garden Club—Mrs.

Jay Bennett, president. Among the friendliest of gestures toward an officer or friend is the habit of this club in signing a Christmas greeting while they are all present at a meeting. Sixteen members endorsed a lovely greeting and enclosed a story of their party at the home of Mrs. Grace Cherney in December. Mrs. Fern Gifford, secretary, says the club ordered a sample carton of the Barton Company's stationery items, but found that they were so instantly popular they had to order another 50 units.

Highmore—Sunshine Garden Club—Mrs. J. T. Sarvis, president. Winter doesn't stop this club from a full program of activities. One of the most effective projects for garden clubs at this time of year is the annual Christmas lighting contest conducted by Highmore which includes the whole town. Their contest is divided into outdoor lighting, inside lighting, and commercial, and makes a trip around town at Christmas a more enjoyable one each year. T. H. Tomter and James Hamlin were first and second winners in the outdoor division this year; Vern Tompkins and Ed Bottcher in the inside class; and Hamlin's Clothing Store and McDonald's Market in the commercial. Mrs. Tompkins used much ingenuity in making her first prize tree from branches of creeping cedar tied to a straight stick with heavy wire. The club gave plastic bowls and narcissus bulbs for prizes and sold more of the bowls and bulbs to members to raise \$10.00 for the club treasury. In January the group asked the co-operation of the Highmore parents to help keep children from destroying trees, shrubs and plants when they are looking for a place to play. A program on house plants was conducted by Mrs. Tompkins, assisted by Mrs. Salmon, Mrs. Goecken, Mrs. Sporrer and Mrs. Melbourne.

Hurley—Green Thumb Garden Club. Mrs. Lee Thompson, president. A request for a list of movies available from National Council comes from Mrs. Francis Nelson, so evidently the club is planning its next half year program.

Huron—Fair City Garden Club. Mrs. Dewey Gascoigne, president. The Christmas meeting was the setting used when the new officers of this club were installed in beautiful candlelight ceremony. Mrs. G. R. McArthur, recording secretary of the State Federation of Garden Clubs, was the installing officer, with member participation by the club. The retiring officers with Mrs. Oscar McFarling as the leader were given a fine ovation for their work the past year. A Christmas Greens Workshop was conducted by Mrs. Geo. Olson, with 40 members and three guests present. 'It

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THE BADLANDS OF SOUTH DAKOTA

By
H. R. Woodward



H. R. Woodward

The Badlands which lie between the White River and Cheyenne River in South Dakota are shallow-sea Tertiary deposits, cut and dissected into a mass of hills whose steep sides point downward into deep ravines. The beds have been little cemented because of the dryness and because of the soil content. There has been little opportunity for vegetation on these slopes and hence they have been easily carved and eroded by almost every rain.

Many eastern tourists have, before they visited the place, formed a rather wrong impression of South Dakota because these Badlands have been so-called. Some of them have expressed the idea that they thought the whole of the South Dakota land area was bad. Nothing could be farther from the truth. This is just one small section of a great state whose 77,000 square miles embraces everything from beautiful farm lands in the east to high plains and mountains in the west. It is also hard for many to conceive that in the gold producing mountains beyond the Badlands, there is one gold mine, the Homestake, that has produced many more dollars in gold in one year than Jefferson paid for the whole Louisiana Territory. He paid \$15,000,000 while the Homestake produced \$21,000,000 in 1941 alone. Then, of course, the Louisiana Purchase included the rich farm lands of Iowa, the great Salt Creek oil field of Wyoming and even Old Faithful geyser in Yellowstone Park. No wonder we have included Jefferson among the immortals carved on Mount Rushmore.

But let us go back to the Badlands. In perhaps no other place in the world can be found so weird and so fantastic a scenery. The Badlands proper are mostly found in that area between the above mentioned rivers, but outcropping sections may be seen elsewhere stretching into northwest Nebraska and eastern Wyoming. A small but similar area is found about 100 miles east of the Wind River Mountains in Wyoming which is called 'Hell's Half Acre.' No doubt this was formed in the same way as the Badlands and bears the same relationship to the Wind River Mountains that our Badlands do to the Black Hills. From the White River side one can see the

Great Wall stretching off to the north and running from east to west. It is a great escarpment not yet eroded upon which the town of Wall has been located and because of this wall the town was so named. Beneath this wall are silent, grotesque and beautiful pinnacles and spires in a wide variety of forms, colors and shapes. The entire region drains into White River and may be presented as the best demonstration of natural soil erosion in America.

Originally, of course, this area was shallow sea bottom which later emerged and became a vast plain, remaining as such for millions of years. Upon this vast plain roamed many different types of animals peculiar to Tertiary times and whose fossil remains are now found in many of the exposed places. The most unique of these are those of the Oreodont, a cud-chewing pig and the protoceras, a small antelope-like animal whose male developed three pairs of horns. Some restorations of these may be seen at the School of Mines and Technology Museum at Rapid City.

The Indians called the area "Mako Sica," which means in the Sioux language "badland," since it was a difficult country to travel in and across. Many early travelers went around it including Jedediah Smith, pioneer explorer of more than a hundred years ago who entered the Southern Black Hills after crossing only a few of the outlying sections of the Badlands. Not only were the cliffs precipitous, but in the area good water was lacking. The first geologizing done in the Badlands was done by Dr. Ferdinand V. Hayden in 1854 and again in 1857. There are no places in the Badlands to commemorate the name of Hayden and no doubt there should be. Hayden was with the U. S. Geological Survey and later did a great deal of work in Yellowstone. As a result of the Hayden Survey there is a prominent Valley along the Yellowstone river today known as the Hayden Valley.

A lot of the area within the Badlands proper is fairly level and fertile and one finds some good farms and ranches on these so-called "tables." Settlers have dug wells and found good soft water and they have made use of the Soil Conservation Program of the U. S. Department of Agriculture and have built many dams. It was at one time a great buffalo country but now vast herds of range cattle abound throughout the region. Some ranches on White River include as many as 70 sections.

The really scenic part of the Badlands with the towers and pinnacles, cathedral spires and eroded layers of vari-colored shales, has been set

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BOOK REVIEWS

By
Mrs. L. N. Brakke



Mrs. L. N. Brakke Tuberos Begonias, by Worth Brown. Published by M. Barrows & Co., Inc., 114 E. 32nd St., New York 16, N. Y. Price, \$2.

Worth Brown, author of this interesting book on tuberous begonias, is a native of Healdsburg, Calif., a small town quite near Luther Burbank's home. He traveled with his father to bulb fields in Europe and in the United States. He and his brother Allen are the largest commercial growers of tuberous begonias in the world. Gardening is his hobby as well as his business. The author tells of the discovery and development of the seventeen types of begonias. Propagation by seed, growing from tubers, pot culture, as cut flowers, care of the dormant tubers and their pests and diseases, are all treated in plain terms. He gives useful, simple guidance for every gardener who wishes a bed

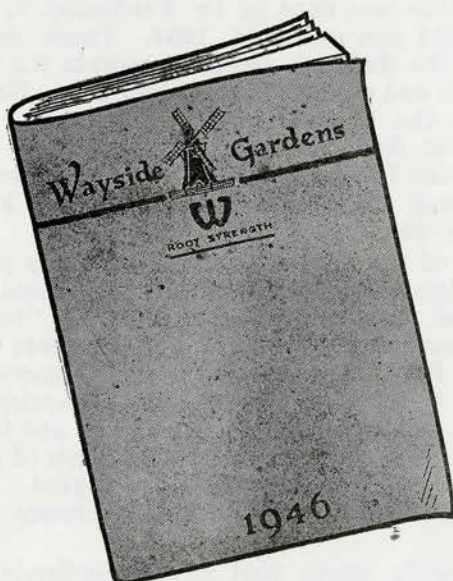
of this "mocking bird" flower in forms resembling the rose, gardenia, carnation, camellia, daffodil and even the hollyhock, in shades of yellow, white, salmon, pink and red. The book contains 67 handsome detailed drawings by Eldon N. Dye, which reveal the practical "how to" of planting and growth from seed or tubers to the properly staked bloom, also the flowers as used for cut-flowers and corsages. The author tells of the table decorations used at the United Nations conference, when it was held at San Francisco, at which Pres. Truman attended. The center of the table was sunken and filled with flowers including about a thousand glorious tuberous begonias. This book was written immediately on his return from the South Pacific, where he served as a senior lieutenant in the navy in World War II.

Learning to Garden, by Olive Mason Gunnison. Published by Funk & Wagnalls Co., 133 E. 24th St., New York 10, N. Y. Price, \$2.85.

The author has been interested in gardening since the age of 12 years. She began attending classes at Brooklyn Botanic Garden to learn more about the subject. In 1934 at the International Flower Show she won the New York State Feder-

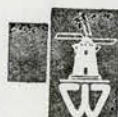
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Wayside Gardens

Mentor, Ohio

THE DIAMOND WILLOW

By
Dr. G. F. Will



Dr. G. F. Will

Besides the Cottonwood there is another native tree of the Great Plains which has been of very considerable value to the inhabitants of the region without very much recognition. That tree is the Diamond Willow.

Unlike most willows, the wood is not soft or spongy but very hard and compact with a good deal of resistance to decay. Ever since man first started his wanderings over the Northern Plains and began to build his camp fires on the banks of streams, large or small, and beside the lakes and sloughs, Diamond Willow wood has been the favorite fire wood.

The Diamond Willow ash is always of a reddish color while the ashes from Cottonwood and all the other native trees are white. It is notable that in all the old hearths in the remains of the old earth lodge villages, all up and down the Missouri, the red ashes of the Diamond Willow show up very distinctly and in large quantities.

To one who has camped along the streams of the Dakotas this partiality toward Diamond Willow is not hard to understand. It is by far the most lasting of any native woods as a fuel and makes the hottest fire over the longest space of time. It produces a hard charcoal of high quality and the bed of coals after a fire has burned down, with a little banking, will often last till the next morning.

Anyone who has ever cooked with a dutch oven knows that the essential item is a fuel that makes good and lasting coals for piling on the oven cover and banking under and around its base. With plenty of Diamond Willow fuel even the most mediocre camp cook becomes a chef. With plenty of Diamond Willow coals I have seen produced the finest in biscuits, corn bread or Johnny cake, and even delicious pies and cakes in the dutch oven. And for broiling meat a bed of Diamond willow coals is perfect.

Another utilitarian value of the Diamond Willow is its suitability as a material for fence posts. Its heavy compact structure, reminiscent in some respects of red cedar, is calculated to make the posts enduring as well as strong. A four inch Diamond Willow post will last longer and be as strong as a six inch ash post.

And let us not forget the place which the Dia-

mond Willow has occupied in the artistic life of our aborigines as well as that of our pioneers. I refer to the varied, striking and often very handsome even if bizarre canes and staves which our early Indian peoples made from the Diamond Willow trunks, and the making of which they taught to many of their white visitors even in the days of the fur trade.

Nearly every one has seen Diamond Willow canes and knows that the work is based on the greater hardness of the wood around the peculiar diamond shaped scars left on the stem wherever a branch has been thrown out, permitting the softer wood to be cut away and leaving the raised diamond shaped medallions scattered over the surface of the stick.

Diamond Willows are perhaps the most adaptable members of the willow family that grow in the plains. They can be found close to the water along the streams and well up into the hills along any shallow water course. They grow in heavy gumbo and in sandy loam. It is one of the most alkali resistant of all the native trees.

In habit it grows like a tall bush putting up several trunks from a sort of crown. These separate shoots may attain a diameter up to five or six inches and a height of fifteen feet. The whole group of stems may be cut every five or six years and a new series of shoots will fill up and take their places. Consequently it is a most excellent fill-in tree for a snow trap and a perpetual source of good fire wood over the years as well.

THE BADLANDS

(Continued from Page 23)

aside as the Badlands National Monument by the United States government and is administered by the Bureau of National Park Service with the headquarters at Wind Cave National Park. The present superintendent, Mr. Harry Liek, also has supervision over Rushmore National Memorial, Devil's Tower National Monument in Wyoming, Jewel Cave National Monument and Fossil Cycad National Monument, as well as Wind Cave and the Badlands. Mr. Estes Suter, former chief ranger at Wind Cave and custodian at Rushmore National Monument, is in charge as chief administrator of the Badlands National Monument. It comprises a gross area of 154,119 acres and was set aside January 25, 1939 by presidential proclamation signed by President Franklin D. Roosevelt.

The measure of life is in the living of it. The earth is good, and it is a privilege to live thereon.
—L. H. Bailey.



BLIZZARD BELT NOTES

Junior Garden Clubs

By
 Mrs. F. Briley, Mobridge



Mrs. F. Briley

When our State Garden Federation appointed a chairman of Junior Garden Clubs the natural inference is that the members felt a need for that department in the growth of our Society. To plan on cooperation with the younger generation is a step in the right direction. Some very successful work has been done among juniors thru Garden clubs. When we meet the comment that children are over organized with activities outside their school obligations, we can help by cooperating with leaders of organizations such as Girl Scouts, Camp Fire Girls, Boy Scouts, private schools and 4-H clubs. Juniors like to visit yards and gardens, and can be helped to earn merit badges, honors, etc., with our assistance. Some of the nature badge activities are: wild plant finder, garden flower finder, know the trees, birds and their migration, insects, weeds and bird houses. In the spring, give seeds to juniors and let them have a section of their own to display their flowers or vegetables at your flower shows. Offer ribbons or prizes along with the adults. It has been suggested at the club to which I belong that we invite some boys and girls to one of our meetings and get their attitude on the idea of planting some trees of their own. This voices the thought expressed by Mrs. H. A. Gardner of Missouri: "Thus we feel that we are making a valuable contribution toward solving the problems of juvenile delinquency in our state." I would use the word "vandalism" along with delinquency. When planning your year book for the year give the juniors a place on your program. Read the articles for Junior Garden clubs in the National Bulletin. The local presidents of garden clubs receive extra copies. By the way, presidents, have one placed in your city library. Good luck in our new venture for better garden clubs.

Keeping Up With National

By Mrs. G. R. McArthur
 Publicity Chairman, Huron

The 20th anniversary gift of the National Council of State Garden Clubs to our nation will be 40 acres of redwood trees situated in Humboldt county, California.

At our annual meeting in Lexington last spring, many splendid projects were considered, but since we are first of all, horticulturists and conservationists, it was decided that the preservation of the redwoods was a national responsibility which we would share.

These trees are among the oldest plants on earth—they were here when the magna charter was signed—before Columbus discovered America—and we like to know that these living trees were standing straight and tall, their branches stretched toward the sky, when Christ was on earth. It is our responsibility to see that they continue to grow over the centuries. They are living history books. Forty million years ago they covered great areas of our western country. The rings in their trunks tell us of years of floods and droughts; their fossils tell of changes in vegetation and animal life through these ages, and their great roots give us the history of ground levels, all of this is invaluable for research. They have withstood the rigors of time and climate—but they cannot withstand the great saws of the lumber companies which are fast felling their massive trunks and trundling them off to the sawmills. If this sacrilege to conservation is not halted, the redwoods, except in sections already purchased through conservationists, will become but a memory in American history, and a heritage lost.

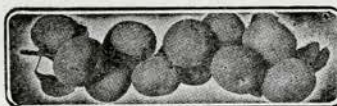
Last year our Seeds of Peace program alleviated hunger among over a half million starving or half-fed persons in western Europe. Today we look back upon this with understandable pride. Through a similar united effort this year we can preserve a primeval forest through the individual efforts of our 232,710 members in our 41 State Garden Club Federations. If every club in the state would contribute \$5.00 or more it would make a sizable sum, and most of us would like to have a part in this gift. All donations no matter how small are welcome. Checks of any denomination should be mailed to Mrs. Hugh Peters, Chairman Redwood Grove Committee, the National Council of Garden Clubs, 500 Fifth Ave., New York 11, N. Y.

Conservation Notes

By Mrs. Arthur C. Bonham,
 Britton, Chairman

Since conservation is world wide there is no place in our country that some form of conservation is not needed to make a better place in which to live. Every community has its problems. Maybe yours is soil, water, birds, food, trees, fertilizer or weed control. Whatever your problem may

(Continued on Page 32)



BEEKEEPING NOTES

By
A. G. Pastian



A. G. Pastian

In the summer of 1899 the wagon I was riding on had its right back wheel dropped into a right ditch at railroad crossing and I to this day just can not learn to like right angle roadside ditches. Backsloping roadside and seeding them to grass and legumes is a simple operation that will yield more hay for the cows, more clean water for duck ponds, and the swimming pool, more clean water for fish, more cover and feed for upland game, fewer snow blocked roads, less soil erosion, fewer washouts and fewer upside down or lying on the side trucks, cars, tractors or other equipment along the public highways.

Soil Conservation, official organ of the Soil Conservation Service and other U. S. D. A. publications, have many charts showing the different farm practice and their effect on soil erosion, water runoff, etc. Clean cultivated crops such as cane, corn, cotton, tobacco, have the highest percent of runoff and highest percent of wind and water erosion. While grass and legumes have the lowest percent of runoff and a lower percent of wind and water erosion and while grass offers good soil cover, alfalfa and clover have a deeper root penetration. Legumes also form the air above the land, they add humus and nitrogen to soil, yield nectar, pollen, etc. Clover and alfalfa play a part in nature's sweetshop. While we may hear much about weed spraying and commercial fertilizers, artificial sugars, butter substitutes, imitation fruits, etc., at expense of real McCoy. Ma Nature is set in her ways and fixed laws. Man creates nothing, he only discovers things. As many of us have learned as we applied axe, mowing machine, plow, etc., to Ma Nature's store-room, which resulted in floods, dust storms and crop failures. The black mark that white man established with plow and road building equipment can be retrieved by proper use of grass, clover, alfalfa, trees, shrubs, and an expansion of dairy industry and the growing of fruit, vegetables, and with Missouri river development becoming a reality and locker freezer service becoming available, soil conservation service becoming more popular amongst farmers, the black mark left by highway engineers may soon be corrected and roadsides improved and runoff water slowed

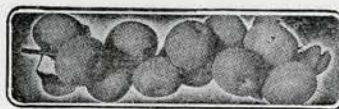
down to a walk. January number Hunting and Fishing carries several interesting stories and articles on conservation, better cover and food for upland game, clear water for fish, all adds up to a sounder economy. In Sports Afield we find headlines, "Car of Game and Fish for Freezing" and other articles such as "Poor land makes poor fishing," followed by comments by Dr. Hugh Bennett of the U. S. Soil Conservation Service, "Poor land makes poor people." "Running Sores on Our Land," by Bill Wolf. While Bill Wolf's article has a nasty sounding headline there is much truth in what he has to say about our streams, lakes, ponds, etc., and some improvements are under way. While there may be considerable fiction and drama published in the above named publications, there has been a different trend towards publishing of editorials and other comments on Forest, Water, Soil and Wild Life Conservation. The promotion of Boy Scout work, stream pollution and many pages on important legislation. Sportsmen meet the farmer and consider fish and game as a crop to be properly protected and harvested.

Some of us may read the sportsmen's publications and disagree with what is published. Let's not drop the subject too hastily, publishers of the above named publications are human and blessed with faults. I find the editors ready and willing to consider constructive comment on forest, soil, water, fish and wild life and many other out-door hunting, fishing, camping or other out-door problems.

I did not attend the crop improvement association meeting held at Huron recently, but I understand crop improvement association plans an increase in legume acreage.

We hear about an extensive weed eradication program reports, claims or counter claims on merits of weed killing by spraying vary from good to bad, to "Chemical spray companies are making hay"?

Our good friend the editor of Dakota Farmer, has been pondering editorially over the question of "how large are our farms"—"are they getting larger or smaller"? With Missouri river development in progress and farmers and present congress agreed to make an attempt to continue the soil conservation service which seems to be in favor of an increase in use of grass and legumes, trees, shrubs, with the above program in progress. We would like to offer some encouragement to the editor of Dakota Farmer and predict that farms will become smaller, with say more dairying, more poultry, more bees, clover and alfalfa,



FRUIT AND VEGETABLE NOTES

By
F. X. Wallner



F. X. Wallner

As last year, I again spent a whole day at Garfield Park Conservatory to inspect Christmas show, Nov. 23rd. I was with a group that was shown even all the propagating benches and the many new mums not yet named. There were many groups of school children, every day being visiting day, during this display, from Nov. 13th to Dec. 5th. The show house and Horticultural Hall are filled with 750 varieties, classed 182 large flowering, 169 PonPon cushion, 79 single, 10 Decorative, 11 Japanese, 9 Caprice and 11 Garfield Park seedlings, and many of the conservatory's own hybrids. The Christmas show starts Dec. 18th and lasts till Jan. 2nd. The main flowers at this time are red, pink and white poinsettias. From Feb. 19th to March 20th the azalea is featured. The Easter show lasts from April 10th to 24th, so there is always a new show in those big halls, the largest in the world. The other six exhibition houses remained the same. The Palm house is 250 ft. long, 85 ft. wide, 65 ft. high. This is the most complete collection of Palms of 108 species and varieties. The fern house is called the most beautiful room in America, here is also the wishing pool. The succulent or Cactus house contains 60 genera and 737 species and varieties of plants of the size of buttons to the size of big trees with 200 blooms. All thru the houses are plain labels giving name and where found. The real Crown of Thorns is pointed out. The warm house is filled with pot plants and tubs of tropical plants, where the temperature is always above 70 while the two show rooms of mums is at 40; some of these latter houses are always moist and dripping with moisture. The droid house is also kept above 70, humid and always wet. Here are the most attractive plants in the world, including the banana. Roots reach 65 ft. to the pool below for vines growing at the top. The Economic house shows all plants and trees of useful purpose, as fruits, timber, spices, oils, perfume, chicle, coffee, fig, lemon and many others. Guides point out the wild white small mum, as grown in China 2300 B. C. Also the 2 year cascade of white and yellow single mum, just a little larger and the 5 ft. trees are the same named in June Horticulture. The hanging baskets are also the same. The big plants

of 50 different varieties and bigger ones with 75 flowers on 3 ft. plants that are 3 ft. across. The big tubs with six big blooms is really 6 smaller potted plants in the tub. Special interest is the orchid collection, not grown in soil but lives on leafmold. Air plants from Brazil, winter flowering begonias, blood lily, amaryllis, Mexican tree fern, club mosses as big as ferns. Holly fern looks like Oregon grape but is not hardy. The chrysanthemum was introduced to the United States in 1800 from China. "Snow in Paris" bush, bird's eye cherry and many other ornamental peppers. Semi-tuberous begonias, grown from leaf stem or tuber in 5 weeks. The rings on a tall Royal palm are not the years, but where a leaf has dropped off. There are 11 large outdoor gardens connected with the greenhouse. The next day I hoped to go thru the Planatorium, Aquarium and Museum but went to the latter first and never got out until time to go home. The Chicago Natural History Museum has long been known for excellence of exhibits, completeness of collections; few people realize the beauty of specimens displayed. There were many artists in different parts of the large building, drawing or painting pictures of animals or other objects. Just too much for a short visit.

MARK CATESBY

(Continued from Page 18)

the nighthawk, but the authorship is attributed to Forster who first used the name in approved form. The above description of the goatsucker also suggests nighthawk, though this illustration is considered to be the chuck-will's-widow, the third of a trio of nocturnal birds. Howell, in "Florida Bird Life," says its "notes are entirely different from those of the whip-poor-will, . . . but the two birds are very frequently confused under the name of the later species." They are evidently very similar in habits. Anyway, Catesby's picture of the mole-cricket was good. The "chuck" feeds chiefly on beetles and is the only one of the three in the stomach of which small birds have been found. It ranges northward only as far as southeastern Kansas.

HORTICULTURAL OBSERVATIONS

(Continued from Page 19)

operate in a Valley commercial club that promotes the welfare of the entire region. These groups are optimistic about the future when local oil wells are more fully developed and when a proposed new dam across the Rio Grande will furnish water to irrigate more acres, and power for new industries that are expanding in the Valley.

SECRETARY'S CORNER

By
W. A. Simmons



W. A. Simmons note how many farmers are interested in beautifying their home grounds. The WNAX farmstead improvement campaign and contest, and the educational work of the home extension clubs, I believe are to be given a large measure of credit for this increased interest." Mr. Lowry Elliott, Rt. 1, Milbank, writes as follows: "Surely I will plant more trees, shrubs and flowers this spring. Will plant till I am planted. I enjoy your magazine very much; you have a splendid staff of writers. The _____ Horticulture is good, but somehow lacks the personal quality and friendliness found in your magazine." A Dept. of Agriculture release says: "Hunters in some mountain areas in the east may have to choose between deer hunting and rabbit hunting. Or it may work out that good game management will call for more rabbit hunting to reduce surplus rabbits that are now causing deer to starve. Unfamiliar to many sportsmen are the lessons of a forest service experiment in the Allegheny National Forest that shows how rabbits can practically 'eat deer out of house and home.'" Mrs. Flora Sandoz Kicken, who now operates the "Old Jules" orchard in western Nebraska, writes as follows under date of Dec. 28th: "Am informed that much of your fruit crop was a 'brown out' this year. Ours was a black-out last year, but this year we had more than we could take care of. Had a nice crop, ton to the acre, on our young cherry trees, and also on sandcherry hybrids, tho a little rain in July and August would have improved them. I do not think the Parker pear could have been any larger or better. Many were 12" and over in circumference, and under proper storage, kept a long time to use fresh. We really enjoyed showing the loaded trees as so many people said, 'Why, this is like the west coast.' The trees are hardier than forest trees, here. We

could not get help to harvest the grains, so did not have time to spray late apples sufficiently. We had lots of Wealthy and some McIntosh, that I harvested after 20 degree weather, and they have kept and tasted good. There was a big crop of black walnuts, tho the quality was not as good as usual. The Nanking cherry hedge was a delight and fruit hung on all summer, so we had plenty of time to use it. For two months there were sightseers, customers in the orchard during practically every hour of daylight. Many of the freshly harvested cherries went into the freezers and I expect to see many people put out home plantings, just for that reason. We're glad to get a little snow covering here but why it always has to come at 60 miles per hour is beyond me. We have had no mail delivery for 7 days and if it were not for the plane, equipped with skis, would have seen no one in that time." Editor's comment: This was written before the last bad blizzard. Am wondering how conditions are there now. According to a Dept. of Agriculture release, here is a new method the scientist mentioned has evolved to show at once whether or not a real cross has been effected in lilies, without waiting several years for them to blossom:

"A way of using the microscope to assure better results from greenhouse space has been worked out in U. S. Dept. of Agriculture experiments in lily breeding. A few hours devoted to 10-minute microscopic examinations may prevent years of unproductive use of greenhouse space, and greatly improve the odds of a venture in lily breeding.

Dr. S. L. Emsweller has developed several hybrid lilies—some of value to florists, others to gardeners. Others are coming. His work has called for fundamental studies of inheritance in lilies, including microscopic studies of the chromosomes in the cells. The chromosomes are minute threadlike structures within the cells. The chromosomes are involved in the transfer of inherited characteristics.

Lily chromosomes are larger than in many plants and thus easier to work with under the microscope. With experience the laboratory workers are able to distinguish between the chromosomes of the various species of lilies. They can do this by smearing out and staining the tips of roots on a glass slide. Magnified by the microscope, these reveal the chromosomes for identification.

A peculiarity of lilies is that they may bear either true hybrid seed or 'apomictic' seed. Hybrid seed results from fertilization of one species by pollen from another and represents a true

GARDEN CLUB GLEANINGS

(Continued from Page 22)

was truly a workshop as greens and other material were passed among the members who assisted with the preparation for the demonstration. Outstanding was an all white piece made of angels' hair and angel candles." Winter bird feeding was discussed by Mrs. Julius Johansen, who called attention to various types of feeders and their construction. She also displayed the new club scrapbook kit for the library, and announced the purchase of another new book for the club. Included in the annual reports of officers and committee chairmen were valuable suggestions and recommendations for next year's activities. Mrs. McArthur is program chairman for the coming club year.

Huron Garden Club—Mrs. A. B. Sanborn, president.

Iroquois Garden Club—Mrs. Thomas Keating, president. Mrs. Keating's name is new on the roster of club presidents. Mrs. Wm. Walls is the club's new vice president. Viola Habberstad, secretary and Edna M. Hoebet, treasurer.

Lyons Garden Club—Mrs. Roy Thompson, Colton, president. The Christmas party for the Lyons club was a strictly social affair with Mrs. Alex Sundal's beautifully decorated home adding to the Christmas cheer. A pot luck dinner and gift exchange climaxed the meeting. One new member was added to the club rolls.

Mobridge Garden Club—Mrs. T. Lowry, president. "The Garden Club had a most interesting meeting in January when Mrs. John Heim gave a talk on Vines and Trellises. She told about the advantages of woodbine, clematis, gourds, morning glories and others. Mrs. Heim has had splendid success with climbing vegetables and the story of her experiences was most interesting. She raises climbing cucumbers, tomatoes, squash and beans besides some of the regular climbers. She is convinced that climbing vegetables are the most practical when one has small garden space, and the shade that the plant gives itself on a trellis is an important factor. Incidentally she makes hats from pheasant skins, and has been featured in various publications. Our club has placed the magazine "Flower Grower" in the public library."

Rapid City Garden Club—F. V. Rehurek, S. F. Gar. Club, Pres. Vice Pres. Mr. Sherwood is again in the president's chair while Mr. Wallner takes his annual winter vacation in the west. Roses in December have nothing on Mrs. Crandall, new program chairman for this club, who began in January to make her plans and appoint her com-

mittees for the various flower shows to be held next summer. Not only is she planning the regular shows but has asked the club to help participate in a tulip show which is being sponsored by a University Women's Garden Club.

South Sioux Garden Club—Mrs. Martin C. Johnson, president.

Wednesday Garden Club—Miss Haidy Ford, president.

Vermillion Garden Club—Mrs. C. J. Gunder-son, president.

Yankton Garden Club—O. A. Grossheusch, president.

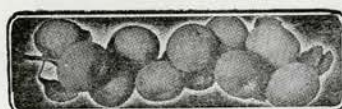
Will our first Junior Garden Club in the state be sponsored by a non-member of the Federation? It seems there is a recently organized group of university women in Sioux Falls who are highly civic minded in their desire to promote more gardening. They are planning a tulip show in co-operation with the Sioux Falls club, and are also planning to sponsor a junior garden club. Mrs. Crandall is member of this group. We are much interested and would like to hear more about these projects.

We have always regretted the fact that the old Clark County Garden Club has disbanded. They were the biggest and most active garden club in the state prior to the organization of the Federation, and gave the State Horticultural Society its most successful conventions of its career up to that time. Individual gardeners in the county have and are proving the many horticultural possibilities there by raising trees, fruits, shrubs and perennials. Mrs. R. L. Keating says they have been raising their own Christmas trees from seed and cutting them the past four years now. They also grow white spruce among other evergreens. Isn't there someone in the county who can reorganize that splendid club?

Too few of the clubs and individuals who are members of the Federation take in all the advantages of their membership dues. You can save far more than your membership every time you order a magazine through the subscription service inaugurated by Mr. Simmons because you can secure all magazines at "excursion rates" as he calls it. The price you pay is far below all club or special offers put out by the magazine companies. Only members of the Horticultural Society or the Federation are eligible to this service.

And speaking of magazines, you can secure a free specimen of a "small, intimate book, simple and friendly" called My Garden which was mentioned here last month. Just drop a line to My Garden, 34 Southampton St., Strand W. C. 2, London, England.

(Continued on Next Page)



union of the characters of the two lilies. 'Apomictic' seed may result from a stimulation of seed bearing by the applied pollen, but without a true union. Such seeds are fertile and will grow but they have only the qualities of the mother plant.

When a lily breeder makes a cross he cannot be sure whether he has true hybrid seed or apomictic seed. If it is apomictic seed it takes from one to three years of wasted greenhouse space and care to reveal that it is only an unmodified offspring of the mother plant.

By starting samples from lots of crossed lily seed and examining sections from root tips, Dr. Emsweller and his assistants have been able to compare the chromosome patterns with the patterns of the parent plants. Unless such a sampling reveals cells that have a new and mixed pattern with chromosomes that can be identified as coming from both parents, the seed is not worth the time and expense of growing to maturity. Dr. Emsweller reports that it takes only about 10 minutes for a skilled worker to make such an examination."

BEEKEEPING NOTES

(Continued from Page 27)

sheep, fish ponds, trees, small fruit gardens and the newcomer, the locker service. A bee hive and a baseball diamond and with a highway improvement in the making, maybe the editor of Dakota Farmer can picture himself sitting in a boat fishing and be safer than on the high wire he speaks of.

The writer has attended a few sportsmen's meetings, a state Beekeeper Association meeting, the National Federation of State Beekeepers' Association and a district Soil Conservation Achievement program. I went to bed early the evening before the Soil Conservation meeting. Had the misfortune of being smoked out of bed. A man a few doors down the hall went to bed smoking and set the mattress afire.

The speakers at the Soil Conservation Achievement program stressed the importance of and use of grass, legumes and how they effect our water shed, erosion, etc. Legumes and their importance in reclaiming wind blown and eroded cultivated fields and how they were put back into profitable grazing and beef production.

While none of the farmers referred to the importance of bees and dairying it may be fitting and proper to add those here.

January 1st Dakota Farmer carries a few cover pictures, showing a milking parlor and refers to dairying editorially. We hear President

Truman ask Congress to do something about the high cost of building material. These activities will make South Dakota a land flowing with milk and honey, a garden of Eden with modern locker freezer service added.

Attending State Beekeepers' meeting and National Beekeepers' meeting made it necessary for me to travel across South Dakota, east, west and north and south and through western Iowa to Council Bluffs, Omaha, Kansas City and St. Louis. Back by way of Des Moines to Omaha, traveling by bus and most of the way during daylight and observing roadsides.

I see highway engineers in other states are blessed with faults too. As we see evidence of roadside erosion, and several carts and trucks in roadside ditches either lying on side or upside down. Number of persons killed or hurt in those spills.

I have no record of, but upon my arrival at Bradley, I found one of my next door neighbors in the hospital and his car wrecked as it hit an upright end of a culvert and turned end over end as it hit a right angle bank. More evidence that right angle roadside ditches are public enemy No. 1.

GARDEN CLUB GLEANINGS

(Continued from Page 30)

A wonderful offer of free plants to anyone who loves to watch things grow was received from Mr. and Mrs. Arthur C. Rapp, Council Bluffs, Iowa. The Rapps have long been prominent in Iowa and in national horticultural circles and now have retired from active business to make their home at the Willows at the south edge of town where they can follow their hobby. Here on a 5-acre plot they grow everything it is possible to grow in that climate—and many things that other folks say are impossible—and dispense hospitality and plants to every one who loves 'em. Their land is devoted entirely to hundreds and hundreds of shrubs, lilacs, trees, peonies, daffodils, iris, tulips and wild flowers all planted in such a naturalistic manner that you easily imagine yourself in a section of native growth. Now Mr. Rapp says, "In working the garden this fall I noticed an unusually large number of shrub seedlings that might interest those who are willing to make an effort, even though there is no promise of a sure thing. If you happen to know of anyone who is willing to make experimental plantings just tell them to write to me in the spring. It won't cost them anything other than postage."

GARDEN NOTES

(Continued from Page 20)

heavy windless snow, at dark it was 8 inches deep and still falling and overhead a low grey unbroken canopy and quite mild with north wind. Waking at 1:30 a. m. could hear the whine of a rising wind; the barometer was low and inclined to fall. I was nervous and slept little; dawn revealed sweeping gusts of driving snow powder, so decided first to carry my 24 hour supply of coal from the shed, an old garage 80 yards distant, and my luck was in for the blizzard had not yet got under way. Then to the barn to feed the cow, dog and cat, as storm was becoming a steady roar. The dog refused to leave the barn but amazingly the tom cat followed me to the house, at times plunging out of sight, but come he did and was rewarded with a meal after his own heart. By afternoon visibility was nil, tho it was not cold at 9 above. As so often happens today is cloudless, still and horizon clear and sharp. Winnipeg now has accumulated 29 inches of snow and Brandon 4 ft. less one inch. The British royal family has a sense of humor; Princess Margaret was sponsor to the new heir to the throne, Prince Charles; she said, I am Charley' Aunt.

MANITOBA NEWS LETTER

(Continued from Page 21)

connected with the kitchen door. Here is found the garage, car drive, clothes drier, garbage container, sometimes the well, and frequently a small kitchen garden. In the last, salad vegetables, and rows of flowers to supply the house with bouquets are cultivated. The first consideration in the service area is convenience. The second object is economy of space. A minimum of area is to be taken up with drives. If entrance to the garage be from the front, it may be well to have the garage situated near the house. The service garden may then occupy the area from the garage to the lane.

BLIZZARD BELT GARDENER

(Continued from Page 26)

be, study its needs and plan to carry on some form of conservation. We need education. Garden clubs cooperating with conservation directors in their community can help. The more people interested, the sooner will the problem be solved. The Britton Home Garden Club this year is concentrating on conservation, giving several programs on subjects relative to conservation in this community. Maybe other clubs could be of real help to their community.

To keep the birds happy: Put out the "old

maids" from your pop corn for them. Fill the paper milk bottle caps with peanut butter and crumbs and press into the crotch of trees or under the limbs for chickadees and nuthatches. Crumble bread crumbs into left over fats and pack tightly into ice cream cartons. Cover, and when cold, cut an opening in the side with a razor blade. Hang so it will swing freely from a limb for the tufted titmice, chickadees and woodpeckers to find.

BOOK REVIEWS

(Continued from Page 24)

ation of Garden Clubs sweepstakes award, having won the gold medal of the New York Horticultural Society in 1931 and its silver medal in 1932. She was the originator of the Battle Garden, at the New York Flower Show in 1932.

For three years she conducted a column on gardening in the Brooklyn Daily Eagle. She writes articles for gardening magazines and is a lecturer before garden clubs.

At the request of her friends she has written a simple book on gardening, telling how to prepare the soil, the buying of good seeds, plants, shrubs and trees. She gives the proper care and planting advice needed in the average family garden based upon her long years of sound practical gardening experience.

The PIONEER SEED HOUSE

NURSERY-GREENHOUSES OF THE
NORTHWEST

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