OUR MEMBERSHIP CAMPAIGN FOR THE NEW YEAR

Last autumn we added many hundreds of new members to the association which enabled us to extend our services here at Horticulture House and to publish The Green Thumb every month. To maintain its usefulness to the garden lovers of the state and the nation, it is vitally necessary for us to keep our membership at present level. And since the demand for information and help in garden, lawn, and shade tree problems has increased tremendously over the past year, it is equally necessary us to add many new members in order to keep abreast financially of the growing needs.

Our members can help us this autumn in the present campaign for renewals and new contributions if they will spare just enough time to send in their membership renewal for 1949 right away and send in the names of a few friends, not already members of the Association, but who are interested in horticulture and conservation; people who would enjoy The Green Thumb and would benefit by the many services at Horticulture House—the library, the lectures, the summer field trips. We feel that any garden enthusiast is bound to know of others. To help us reach them would be a very practical "donation" from you to the Association and would be much appreciated.

Mrs. Robert M. Perry is membership chairman. Her committee includes Mrs. J. Churchill Owen, Mrs. Kernan Weckbaugh, Mrs. James J. Waring, Mrs. C. Earl Davis, Mrs. Helen K. Fowler, Mr. George Carlson and Mr. Fred Johnson.

The committee to solicit new members is headed by Mrs. Harold L. Roberts, who will be assisted by Mrs. J. Churchill Owen, Mrs. Leonard Van Stone, Mrs. C. Earl Davis, Mrs. Geo. Argall, Mrs. H. Calvin Fisher and Mr. Fred Johnson.

You may either get in touch with a member of these committees or send the name of prospective members directly to Horticulture House.
PROGRAMS AT
HORTICULTURE
HOUSE

Indoor meetings this month will be conducted by various garden clubs. Friday, Nov. 5, 10:30 A.M. The Civic Garden Club will conduct a program. The Fall Garden and Chrysanthemums. Mrs. A. R. McDonald.

Friday, Nov. 12, 10:30 A.M. The Home Garden Club will be in charge. Their program will include a demonstration on making dish gardens, by Mrs. E. C. Horne and Miss Lula Morse. Mrs. G. Hance will also demonstrate dry flower arrangements.

NEW DIRECTOR APPOINTED

We are pleased to call attention to the appointment of Milton J. Keegan as a director of this association, to fill the vacancy caused by the death of John Gabriel. Mr. Keegan's contributions to horticulture were noted in the "Orchid" of last month.

COMMITTEES


EDUCATION: Chairman, George W. Kelly.

EXECUTIVE: All officers.

FINANCE: Chairman, Fred R. Johnson; Robert E. More, Scott Wilmore.

FOREST MANAGEMENT: Chairman, Col. Allen S. Peck; J. Lee Deen, Everett Lee, John W. Spencer.

HERBARIUM: Chairman, Mrs. E. R. Kalmbach; Mrs. H. Calvin Fisher, Mrs. A. D. Myers, Mrs. James J. Waring.

HORTICULTURE HOUSE: Chairman, Mrs. Alonzo Lilly; Mrs. George O. Argall, Mrs. James J. Waring.

LEGISLATION: Stanley H. Johnson; Milton J. Keegan.

LIBRARY: Chairman, Mrs. Helen Fowler; Mrs. J. Churchill Owen, Mrs. W. E. Porter, Miss Alice Wood.

MEMBERSHIP: Chairman, Mrs. Robert M. Perry; George A. Carlson, Mrs. C. Earl Davis, Mrs. Helen Fowler, Fred R. Johnson, Mrs. J. Kernan Weckbaugh. Mrs. J. Kernan Weckbaugh.

PROGRAMS, GENERAL: Chairman, Mrs. Frank McLister; Vice Chairman, Mrs. George H. Garrey; Mrs. James R. Arneill, Jr., George W. Kelly, Wm. E. Gunsh, Mrs. Hudson Moore, Jr.

PROGRAMS, JUVENILE: Chairman, Mrs. Josiah Holland; Mrs. E. R. Kalmbach.

PROGRAMS, OUTDOOR: Chairman, Mrs. Anna Timm; Dr. and Mrs. Moras L. Shubert.

PUBLICATIONS: Chairman, George W. Kelly; Mrs. C. A. Barbour, Jack Harenberg, Mrs. G. R. Marriage, Robert E. More, Mrs. Claire Norton, M. Walter Pesman.

PUBLICITY: Mrs. Ralph Rickenbaugh, Mrs. C. A. Barbour, John S. Barrows, Fred R. Johnson.

RESEARCH: Chairman, Paul N. Morrow; Earl Sinnamon, Ed Wallace.

VOLUNTEER PERSONNEL: Chairman, Mrs. Leroy McWhinney; Mrs. Delbert L. Carlson, Mrs. C. Earl Davis.

Friday, Nov. 19, 10:30 A.M. The Rose Bowl Garden Club will stage a demonstration of winter and holiday arrangements, conducted by Mrs. C. A. Hedley and Mrs. A. Risley.

Friday, Nov. 26, 7:45 P.M. The Men's Garden Club will have charge of a program, subject to be announced later.

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ORCHIDS TO CLAIRE NORTON

One of our best known names in Rocky Mountain Horticulture is that of Claire Norton. In the days when information on growing conditions in our region was practically nil, the articles under the nom de plume of "The Perennial Gardener" in the Denver Post were invaluable. We venture to say that many of these articles are carefully preserved in garden scrap books over the state. But Claire Norton's influence is by no means local; her name is known from coast to coast as author of a book on Bulb growing and many fine articles in such well known periodicals as Home & Garden, American Home, etc. As well as a gardening enthusiast Claire Norton is an authority on our Colorado native plants. The Nortons are now located at Laporte, where a treat awaits all who visit their charming gardens there.

The Green Thumb
A Bulletin of the COLORADO FORESTRY AND HORTICULTURE ASSOCIATION
Organized in 1884

GEORGE W. KELLY, Editor
MISS ALICE WOOD, Assistant Librarian
L. C. SHOEMAKER, Treasurer and Custodian

"To preserve the natural beauty of Colorado; to protect the forests; to encourage proper maintenance and additional planting of trees, shrubs and plants; to make available correct information regarding forestry, horticultural practices and plants best suited to the climate; and to coordinate the knowledge and experience of foresters, horticulturists and gardeners for their mutual benefit."

Published Monthly.

Send free to all members of the Association.
Supporting Memberships $2.00; Sustaining $5.00; Contributing $10.00; Patron $25.00; Donor $100.00
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Vol. 5 November, 1948 No. 11

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Term Expiring in January, 1949

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Wm. E. Gunesch—Park-Eitch Co., Florists
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Term Expiring in January, 1950

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Wm. E. Gunesch—Home Gardener

Term Expiring in January, 1951

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Miss Florence Martin—U. S. Forest Service

Milton J. Keegan—Lawyer
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Mrs. C. A. Barbour—Landscape Architect
Mrs. James R. Arneill—Lawyer

Published Monthly.
The Green Thumb

A Summertime Snowbank

D. M. Andrews

The other day I parked by the roadside and with Graflex and tripod, prepared to record a flower portrait. Because the place happened to be a part of the Rocky Mountain National Park a park ranger soon appeared and brought his motorcycle to a stop. While engaged in making some adjustment on his machine he glanced casually in my general direction. The pygmy tripod with short but stout legs evidently aroused his curiosity but discreet in the performance of his duty, he was soon satisfied and went his way.

The Rocky Mountain National Park presents Nature in rugged contours. Relieved from sternness by a plentiful tree growth it is carpeted everywhere in the summertime with verdure mingled with flowers. Even above timberline the Arctic willow steals the sharpness from rocky outcrops with mats of sage green. Flowers everywhere vie with each other in lavish display for the few weeks allotted to them and like the deer, elk and mountain sheep have nothing to fear of friend or stranger.

Not far from where I stopped lay a slowly diminishing snowbank. The time was July and the altitude nearly 12,000 feet. It was still of large extent, an acre or more but recently had covered a larger space. At the lower end a stream of cold water gurgled away among the rocks but shortly reappeared in a little brook bordered with lush vegetation. This could be followed by the eye a long way down the slope where it joined similar brooks from other snowbanks to form a part of Fall River, tributary to the Big Thompson.

At the edge of the snow around the entire bank the uncovered earth seemed quite sterile except for a few budding plants pale from absence of sunlight but showing activity. At a little distance were expanding buds, leaf growth and flowers—according to the lapse of time since their release from arctic winter. Their pageant from snow to early summer might cover in extent ten paces or often less.

At one edge where the snow was thin but compacted to ice was a large colony of the Glacial Buttercup, R. adoneus, with some of the great yellow blossoms fully expanded while the roots were still ice bound. No green foliage enlivened these nor yet the still greater number gilding the brown earth just beyond. Only a few yards away were plants with mature leaves and fully ripened seeds. This illustrates the brevity of the season allotted to alpine plants for the completion of their annual cycle.

Nor is this much assured them because the varying law of averages decrees that the recession of the snowbank is not sufficient every year to uncover all the plants under its margin before snow falls again. Two or three years may elapse before their divinity, the glorious sun, again deigns to show his face.

It has been explained of certain alpines that they "push through the bed of snow which their stems, thanks to their dark tint, are able to pierce". (Correvon: "Rock Garden and Alpine Plants", p. 27). Quite certainly this explanation does not cover the case of the Glacial Buttercup. Some activity doubtless continues within the
plant for a time after being enveloped by the first snow of autumn. Few, if any, of the Rocky Mountain alpines are completely dormant except while held in the grip of winter frost. At the coming of the first snow the ground is seldom frozen. Some alpines brought down to the plains just before this time will burst into bloom within a week. Nascent flower buds have advanced by late summer to a condition requiring but the slightest mildness above normal temperature to bring some of them into full flower. Buds of the Glacial Buttercup on stems two inches in height are often observed after frost has turned the scanty growth of the alpine tundra to rich brown and their blossoms are no rare sight. It is quite evident that such buds safely embedded in the snow would not need to push upward nor would they resist the impulse to expand once their plump roundness was warmed by the sun’s rays. Fortunately the mighty frosts of the high altitudes have no such blighting effect upon these jewels of the snow as we observe in our gardens at the event of unseasonable cold.

Such overlapping of normal cycles among mountain plants is apparent in other ways. Always it bears evidence to the marvelous adaptability of plants to their environment. When the process is reversed and we transfer them successfully to the bland conditions of a garden we are pleased to call it, “acclimatization”, a term to which the original adjustment of the plant to slowly changing conditions is clearly entitled.

The summertime snowbank is always the center of a most interesting floral community. Following after the Buttercup are its relatives the Caltha and Trollius. The white Marshmargold, Caltha rotundifolia, pushes up...
DO YOU HAVE A BIRD FLOWER GARDEN?

The afternoon is really warm. I'm sitting on the east porch in the shade near a red honeysuckle vine. A small form whirs past me—yes, it's "Pete"—the humming bird that has spent the last six summers with us getting his evening meal from the honeysuckle. An electric light wire overhead makes a nice spot first to scout the surroundings, then to rest or clean his bill. He sticks out his needle-like tongue scraping carefully each side of his bill on the wire. This is really ceremonious and takes place several times during the meal.

A small corner of the back yard has been given over to wild sunflowers and cosmos. Next year it will be bordered by blue corn flowers. Gold finches, house finches and several members of the warbler family spend all day feeding here, chattering in a slight undertone in "finch" all the while. It is especially interesting to see the early season scouts looking for the first seeds, or taking in the prospects for summer feeding. The corn flower seeds ripen first, then sunflower and then the cosmos, the cosmos being especially adapted to the gold finches' lighter weight bodies.

The early period for the parakeets is at the hawthorn and mountain ash. Orioles, tanagers, and just the other day an evening grosbeak, drop in from time to time in search of fruits and seeds, which reminds me—I must make a note to put out some threads next spring. This year the warblers shredded the cloth strips I tied to the plum tree to keep the finches from eating the buds.

A garden’s a delight, but a bird corner—never a dull moment.

Elsa Laybourn.

THE WEEK-END GARDENER

Mom, this ground is dry in the garden. Don't you think that it should be watered? Yes, I know the Oldtimer said to go easy on the water and fertilizer during the late fall, but we are having too much frost now for the plants to make any more growth and I believe that everything should have a good soaking before it freezes up. I am going to try a lawn soaker hose to see if I can't get the soil wet deep down without washing the surface. The Oldtimer tells me this is especially important in Colorado because we have so much open, sunny weather which draws the moisture out of plants. While we are thinking about the effect of our bright sun and dry air, I believe that I will put up a lath shade to the south of that little white pine we put out last spring, and wrap the trunk of the little linden tree.

Before the ground freezes too hard I must hill up the roses. Ouch, that long stem reached out and stuck me in the back. Bring me the clippers, I'm going to cut them all down. O.K., if the Oldtimer says that only the straggly stems should be cut back until spring, I guess I can wait till then.

Now I am going to take time to dig the dahlias and glads and fix them up for the winter. I'll leave the tops on the glads and put them in some place where they can dry out a couple of weeks before I clean them up. I'll pack the dahlias in peatmoss or shavings and put them where they will not be too warm, or dry, or cold or wet. Oh, yes, the Oldtimer reminded me to treat the glad bulbs with naphthalene flakes or DDT to kill the thrips.
The crucial problem of our generation is to safeguard, maintain, develop, increase and wisely use for the common benefit of mankind the natural resources of the earth.

THE IMPORTANCE OF CONSERVATION

Excerpts From Significant Statements by Inter-American Authorities

The Inter-American Conference on Conservation of Renewable Natural Resources which held its sessions in Denver September 7-20 will go down in history as one of the most important conferences ever held. It is very encouraging to see and hear the delegates from twenty-one American countries get together and exchange ideas and experiences in a friendly way. The preaching of conservation has been left too long to the "Nature nuts." Now it has suddenly become apparent that the survival of our civilization depends on stopping wasteful practices and building back our abused resources of soil, water, forests and wildlife.

It was regrettable that more people could not hear these addresses by the outstanding scientists and leaders from all over the American continents. There were not large enough rooms available to accommodate many visitors and it was felt that we should have more local people in attendance that the Latin American visitors would feel in the minority. We feel it as our definite responsibility to bring the essential things of this conference to the attention of as many people in this area as possible, so have arranged to give short paragraphs or condensations from many of the outstanding papers. Eighty-six experts were scheduled to read papers and many others gave short unscheduled talks. The complete report of the proceedings of the conference will be published in a few months.

The talks were divided into six sections. Excerpts from the first three of these sections as well as from the concluding resolutions will be given in this issue and other extracts in two succeeding issues. We will start with some paragraphs from the Declaration of Principles as adopted on the closing day of the conference.

"As representatives of the government of the Americas we have met to take counsel with one another about the wise use of the earth's resources. Our deliberations have been guided by our awareness of the gravity of the situation in which the peoples of the world now stand. Everywhere in the world natural resources have been depleted by ignorant and reckless exploitation that has ignored the inexorable natural laws which maintain them and this depletion was disastrously accelerated by the recent world war. Throughout the world steadily increasing populations have put an ever-increasing strain on the dwindling resources. These two forces, each of which re-enforces the other, have now brought mankind to an almost critical point. The challenge of our time is that we must arrest and reverse them or face the fact that the very existence of civilization will be brought in peril.

"In some areas millions of people must live below a tolerable level of subsistence and nowhere in the world has a proper living standard been achieved for everyone. Moreover, mankind is oppressed by fear of further wars. Much of this fear originates in hunger and want, in which the seeds of disorder from which might come the wars we so greatly fear. We believe that on the road toward peace the only guarantee of peace is a careful development, utilization and protection of renewable natural resources. We firmly believe that the earth is rich enough to insure a better living standard for everyone, provided that measures for such development, utilization and protection are immediately adopted and adhered to by all from now on. We believe that, although our knowledge is incomplete, inexact and intermixed with error and misconception, nevertheless mankind now knows enough to devise effective measures and apply them with success. We believe that it is within our power to maintain civilization, to advance farther than we have now come toward the comfort and stability that are mankind's oldest dream and to pass on to our successors an increased and strengthened natural heritage now being drained by our wastefulness. Finally, we recognize that in comparison to other parts of the world, the Americas have a greater natural endowment and have been less exhausted by war and exploitation. This good fortune lays on us a responsibility for leadership in meeting the challenge that we may by no means avoid or escape. The only limit to land cultivation is the fact that the very existence of civilization will be brought in peril by the over-increasing strain on the dwindling resources. These two forces, each of which re-enforces the other, have now brought mankind to an almost critical point. The challenge of our time is that we must arrest and reverse them or face the fact that the very existence of civilization will be brought in peril.

"The catastrophe that threatens civilization results from man's failure to live in harmony with the principles that govern his environment. Man has abused the earth that is his principal source of wealth; and the earth therefore dispassionately makes his existence even more precarious and threatens him with extinction. Until he brings himself to live in harmony with nature there is no hope for peace or plenty or progress."

"We give the following significant extracts from the talks of twelve men, in the first three sections: "Human Populations and the Productive Capacity of the Land," "Renewable Resources and International Relations" and "Land Use and the Social Sciences."
ensify agricultural research in Latin American countries. This research is to be organized for the study of land use, to be complemented with survey programs for the purpose of making an inventory of problems created by the use of the land."

CLINTON P. ANDERSON, Former U. S. Secretary of Agriculture, Albuquerque, New Mexico.

"The ratio between renewable resources and human populations refers to the simple problem of whether individual people are able to provide themselves with life necessities and whether their descendants will be able to do so. The ratio affects peace through economic relationships. There is evidence that hunger breeds war and war breeds hunger. We hope that the opposite is also true: that plenty breeds peace and peace breeds plenty.

"The world's people are using resources as if they still had unlimited room to move around. To insure ourselves against disaster in the future we must not only stop the losses but make sure that what resources we have provide adequately for our wants. There is reason to hope that we can do this.

"The earth's population is increasing but no one knows where or if it will level off. In the past we have been able to counter balance population pressure by increased agricultural production. We have brought new land under cultivation and introduced new machinery, crops, insect control methods and other technological improvements. These have increased our effective acreage but the process can not continue indefinitely.

"With proper use and distribution the world now has the resources to support its people. Our worry begins when we ask: At what level and for how long? Although freedom from hunger may not be synonymous with peace, both objectives lie in the same direction. The same compass points will guide us toward our goal."

MAURICIO NABUCO, Brazilian Ambassador to the United States.

"Nature provided us with plentiful resources and took immense measures to conserve what she made. It is now time to find what we can do to help ourselves.

"The destruction of renewable resources will bring poverty, and poverty always produces political instability. With abundance we will have peace and the magic route to this seems to be conservation."

WILSON POPENOE, Director, Escuela Agricola Panamericana, Tegucigalpa, Honduras.

"A stable and prosperous economy entails the cultivation of the right crops on the right land and the encouragement of cultural practices which will make for a permanent agriculture. New crops and new methods are important in raising living standards in the tropical American republics, many of which are essentially agricultural in nature."

AMOS E. TAYLOR, Director, Department of Economic and Social Affairs, Organization of American States, Washington, D. C.

"In the period of its tremendous growth, this country was so preoccupied with prosperity that it failed to recognize the loss of valuable resources which, under a constructive program, could have been conserved and replaced without impairing the national welfare. Attention was directed away from the fact that the economic world was rapidly becoming more interdependent.

"In some circumstances we may ultimately be forced to face the question whether the possession of essential resources by a nation shall necessarily create absolute title to them. The principle of trusteeship may have to receive wider application if falling water is to be absorbed by the soil and if the remaining soil is not to be carried off by the periodic rush of water poured from the sky."

NATHAN L. WETTEN, Professor of Rural Sociology, Dean of the Graduate School, University of Connecticut, Storrs, Conn.

"A survey made in the United States in 1934 indicated that erosion had badly damaged or ruined about 282 million acres of crop and grazing land; and it was estimated in 1946 that about 500 thousand acres of land were being ruined in this country each year.

"Once the seriousness of the erosion problem has been determined and it has been decided what agricultural and forestry practices must be followed in order to remedy it, the sociologist should endeavor to suggest procedures for translating social policy into action. This involves an understanding of the relations of individuals to the groups in which they live. To some extent it involves the problem of motivating men to sacrifice immediate personal gain of a temporary nature in the interest of the welfare of future generations.

"To the sociologist, the problem of conservation appears largely one of social control. Stated simply, the question is essentially this: How can the immediate interests of individual owners of renewable natural resources be identified with the interests of society and future generations?

"There is need for a vast educational program that will acquaint the public with the nature and seriousness of the problem; and there should be a general diffusion of knowledge regarding conservation techniques. Knowledge relative to techniques is very important, for many conservation practices bring relatively prompt and profitable returns to the private owners of resources. When these methods are widely known and used they will be passed on to future generations without the necessity of purposeful social control. They will be embodied in the folkways of the culture.

"Education is also needed, however, to emphasize the social, as opposed to the individual, benefits that derive from conservation. Many conservation practices do not benefit the individual owners of renewable resources, yet are of vital importance to society as a whole. Moreover, education is needed to put across the idea that the present generation should assume responsibility for the resources that will be available to future generations.

"Legislation to be effective must grow out of the attitudes, the folkways and the mores of the people. Only then can it be enforced in a democracy.

"Thus a great deal can be accomplished through wise legislation. But the problem of conservation is much too complex to be solved by legal enactments alone. Rather the solution will require a combination of all of the forms of social control involving both persuasive and, to some extent, coercive methods. The ideals of conservation must be incorporated into the value systems of the people and translated into routine customs and traditions. This is a slow process but
Huston Thompson,
Federal Trade Commission,
Washington, D.C.

"Man in the United States today ocusses his mind on Russia and perhaps over-dramatizes the subject. The atomic bomb makes his imagination stand as still as if mental Igor mortis had set in. Nevertheless, it is body whirls in riotous action, like ob's Satan, who went hither and hither and up and down. Strange is, that the supreme tragedy of the ages is acted before his unseeing eyes.

"At his feet, in the center of the stage, man plays this drama out, continuously, stupidly, almost inevitably, yet never seeming to know how to escape it. He slaughters his forests and uses the top soil. Instead of parallel furrows, he ploughs diagonally, thus surrying the life-giving soil down the hill into the stream. In the past he has killed the beavers so as to gloss the不受 of soil and with and them he protection of our mountain prey. From the Rio Grande south, he has burned the tops and sides of the mountains, leaving them to be swept clear of soil when the rainy season comes. While populations increase, the oil diminishes. Yet the approach of the Fifth Horseman does not seem to disturb him. He is never satisfied until his wonton action has brought him to want. Then he has moved on to greener pastures to re-enact the tragedy."

"Now there are no longer any green pastures; except in rare distant areas.

"Instead of looking up to the hills from whence cometh his help, he battles the mountains as if they were his enemies. As the trees topple and the soil goes down the streams, choking the channels of the rivers, increasing the floods, blocking navigation, lowering the water levels, bringing on dust bowls, man continues to glorify his warrior heroes and to detour from the men of peace who try to save him by saving the soil. As the song goes—'Smoke gets in his eyes.'"

"These actions, that through the ages have been so obvious, have always brought on political action and reaction, yet seldom have they changed man's methods. Here and there stand out the acts of brave non-conformists, who have sought to, and stopped this curious inhumanity of man to nature."

"Forest and prairie fires, erosion that fills the channels of the streams—results of man's action on the mountain slopes—know not national or international lines, once the erosion disease begins to run its fevered course in the physical world of conservation."

William E. Warne,
Assistant Secretary, U. S. Department of the Interior,
Washington, D.C.

"It is time to take a long-range view of our ground-water resources. We need both a comprehensive inventory of our ground water and effective legal control which will check excessive development without discouraging the wise use of ground-water reserves. Anything less will deprive future generations of their rightful share of one of our most vital resources."

Raymond E. Crist,
Department of Geography,
University of Maryland.

"In North America the settlers adopted the policy of wearing out the land and moving westward. Eventually they brought under cultivation the richest soils of the continent but they are finding that even these will not maintain their productivity under indefinite misuse."

"History furnishes many examples of people who built their culture on a system of land management that led directly to their ruin. This should be instructive to countries which still have land wealth to use. They should institute surveys and create programs to stop erosion and to promote land building through the use of locally adapted crops and methods."

R. M. Evans
Board of Governors, Federal Reserve System,
Washington, D.C.

"We who have responsibilities in the monetary and credit field are particularly interested in the wise use of our resources, human as well as material. History has proved that human welfare is closely related to the way we care for our resources. Only by their prudent use can we provide the basis for a higher standard of living. Monetary and credit policy can contribute to but cannot by itself assure high levels of production and employment. High production is only possible on a permanent basis if our resources are used wisely. We must remember that in the future not only do we want higher living standards but also that the population will be larger than at present."

"Although the importance of a wise use of our resources seems self-evident, we in this country have only recently appreciated the dangers and taken steps to correct them. Earlier, there were fresh lands to turn to when existing soils were no longer productive. Now there are very few new lands to bring into cultivation and we are beginning to realize the importance of maintaining the lands we have and of restoring the soils that have been damaged."

John E. Doerr,
Chief Naturalist, National Park Service, U. S. Department of the Interior,
Washington, D.C.

"The term "national park" denotes:

'Areas established for the protection and preservation of superlative scenery, flora and fauna of national significance which the general public may enjoy and from which it may benefit when placed under public control.'

"The National Park System, representing less than one percent of the total area of the United States and its possessions, is actually a very small unimpaired natural reserve for a country once so rich in a variety of natural resources. It is within the scope of this Conference to foster and encourage throughout the Americas the establishment and preservation of national parks. They are one means of accomplishing the urgent and important conservation work necessary to avoid world-wide economic and cultural poverty and starvation. Thru attracting tourists the national parks of a country bring in new money and serve as a medium for better international good will and understanding. Natural features of national significance can be of great importance in drawing to any country a favorable volume of tourist trade. The national parks are excellent places for presenting effective conservation education programs."

Send us names of your friends who would enjoy the Green Thumb.
The accompanying pictures were taken on September 5th this year, when a party of five backpacked into Wheeler National Monument from near Wagon Wheel Gap. An attempt was made to get in to the monument earlier in the year to check the plants and flowers found there, but at that time high water prevented the trip in. This is certainly a most spectacular group of rocks. The lower layers of soft white rock have weathered away in fantastic forms. One could spend many days photographing the unusual formations. No road leads to this place at present, so backpacking or horse packing in are the only ways to get to the monument. There is some talk of building a road but it may be just as well to keep some of these wild places where those who appreciate them must work to get there. These soft rocks might soon be ruined by many careless visitors.

WHEELER NATIONAL MONUMENT
Extracts from the talk given by Dr. R. T. Allen before the Denver Rose Society, October 7, 1948.

MODERN TRENDS IN ROSE GROWING

Don't do too much unnecessary fussing in your rose garden! Don't have so many plants that you cannot enjoy your garden. Don't make elaborate preparations such as digging out deep places and backfilling with rocks, cans and rubbish. These are some of the errors that present-day rose growers are counseled to avoid. There are, however, many positive recommendations.

On account of our general alkalinity of soil in the Denver region, special emphasis must be given to fertilization; to supplying humus to the soil through applications of manure, peat moss and compost; to supplying iron sulphate or sulphur for correcting chlorosis. Ammonium sulphate may be used at times. If there are doubtful or poor soil conditions it is wise to have an analysis made. Above all make sure of plenty of humus!

Denver is fortunate to have so few pests. Mildew can be treated with copper or sulphur preparations; preferably copper in a spray. Leafhoppers can be controlled by DDT; aphids by nicotine (with soap) or rotenone; red spiders with HETP. For rose sawfly or borers, use gum to stop up the holes.

Watering should be on the ground surface rather than overhead to avoid mildew and blackspot.

Pruning is usually taken care of by the weather in winter, so only dead and weak wood need be taken out. Save 10-15 inches on the live stalks when possible. Climbers may be laid down to protect from winterkill and then only dead wood cut out.

For planting, good stock is a must. Planting can be done in the spring or fall depending on the stock and the care given but the plants should be hilled up if in the fall. If the grower has a method that has proven successful, he should stick to it but I recommend that the plants be spaced at least two feet apart and a big hole dug so that the roots can be spread out and not crowded. The hole should be carefully watered and filled in, with the union just below the surface.

FRIENDS OF THE LAND WILL ORGANIZE CHAPTER IN DENVER

At a dinner held recently in Denver several prominent soil conservationists, including Hugh F. Bennett, chief of U. S. Soil Conservation, spoke on the work of FRIENDS of the LAND. The society has a membership of over 8,000 and has 31 chapters scattered all over the United States. It is hoped that a chapter will soon be organized here.

It is primarily an educational society, trying to enlighten the public on matters pertaining to the increased productivity of soil, coupled with the conserving of soil, water and forests. The aim is to increase the teamwork between private citizens and the various governmental agencies active in the conservation of renewable resources.

Several of the officers of the society are nationally known authors, including Louis Bromfield, Malabar Farm; Dr. Fairfield Osborn, Our Plundered Planet; William Vogt, Road To Survival. The books and magazine articles of these writers and others are widely read. The society has received great assistance and encouragement from Garden Clubs and other women's organizations. In fact it works with all existing local and national conservation groups.
IT TAKES GOOD DESIGN, PLANTS AND MAINTENACE TO MAKE A GOOD GARDEN

The home of Mr. and Mrs. Lou W. Appeldorn at 2055 Raleigh, Denver, is a good example of the result that can be obtained from careful attention to the above three points. The nice way that plants have been used to set off architectural features gives character to these grounds. The artistically designed wall shown in these pictures gives a fine background for the shrubs and vines planted against it. The summer house and fireplace in one corner, formal pool in another, naturalistic pool and rocky, and appropriately placed bird bath all give definite points of interest to build picture vistas around.

Suitable plants, trees, evergreens, shrubs and flowers have been carefully selected to make just the proper effect and not become too soon overgrown. The final touch—maintenance—has been well done, so that it brings out all the character of the design and plants.

Mrs. Helen Fowler is largely responsible for the basic design, but Mr. and Mrs. Appeldorn have secured plants and help in maintenance from many good nursery and landscape people. Large estates may create wonderful landscapes by the expenditure of immense sums of money, but when some of these same effects are created on a small city lot it is worth calling attention to.

A good example of how architectural features form a background to be ornamented with plant material.
SMALL FRUITS FOR COLORADO

George W. Kelly

Many sections of the state do not have a long enough season to allow the large tree fruits to mature, some built on small lots do not have room for them; so here are listed some plants which produce good fruit and are hardy, but take up little space, and may at the same time be valuable for their landscape effects.

Grapes

The best all-around grape for Colorado is Beta (or Alpha). They are hybrids of wild grapes and the Concord. Size and quality intermediate. Will bear almost every year, while Concord, Niagara, or Diamond will do well to produce a crop once in three years. Not much for eating raw, but the juice and jam is very good.

Raspberries

Spring bearing red raspberries are largely raised commercially, but the work of covering and uncovering is a strong reason against them. Latham and Chief seem to give good results. Black raspberries will grow sometimes but are generally not worth the effort. Blackberries and dewberries are no good.

The everbearing red raspberries are generally the best for the home garden. The St. Regis is a small well flavored berry, but short cropper. The Indian Summer is in good favor as they produce good summer and fall crops even when the plants are not covered and are allowed to freeze sack each winter. Good size and fair flavor.

Raspberries should be in every garden. Most of the standard one crop kinds will do well here, but the

An improvement over the species in quality of fruit. They are of low growth, beautiful in flower, and every few years will bear immense quantities of fruit. Hardy almost everywhere.

Plums

Some of the plum and cherry hybrids are very valuable because they will bear early, and will survive drought. Opata, Dura, Oka, Compass, Tom Thumb are the names of a few kinds which will produce under difficult conditions.

Elderberries

Are appreciated by birds and are good for pies and sauce.

Amelanchiers

Called service berry and Juneberry. Delicious fruit, but of slow growth and hard to transplant. Tolerates drought and poor soils.

BOOKS IN THE HELEN FOWLER LIBRARY

Every student of horticulture is familiar with Liberty Hyde Bailey's "Cyclopedia of American Horticulture" published in 1900 and his "Standard Cyclopedia of Horticulture" published in 1928. "The Silva of North America" by Charles Sprague Sargent is another important source of information. First published in 1890, it was reprinted in 1947 with the permission of Dr. E. D. Merrill, Director of the Arnold Arboretum of Harvard University. In the preface Dr. Sargent wrote, "Books . . . are only guides towards obtaining a knowledge of trees. To be really understood, they must be studied in the forest; and therefore, since the plan of writing this Silva was formed, I have examined the trees of America growing in their native homes from Canada to the banks of the Rio Grande and the mountains of Arizona and from British Columbia to the islands of southern Florida. I have watched many of them in the gardens of this country and in those of Europe and they are now hardly a dozen of the trees which will be described in this work which I have not seen in a living state." The fourteen volumes are superbly illustrated with figures and analyses drawn from nature by Charles Edward Faxon and engraved by Philebert and Eugene Picart.

We have recently acquired "The Bradley Bibliography," compiled at the Arnold Arboretum under the direction of Charles Sprague Sargent by Alfred Rehder and published in 1911. This monumental work in five volumes is a guide to the literature of the woody plants of the world published before the beginning of the twentieth century. Dr. Merrill wrote of Alfred Rehder, "In the bibliographic field he has done more than any living individual in the whole field of horticulture."

We are very pleased to have these books in the library for study and research.

It is gratifying to note that public sentiment for the preservation of parks and monuments and recreational reserves is slowly but surely gaining ground. Even the "practical men" are learning that only animals can survive on food and shelter alone. Humans must have something more—some of those intangible values they find in the peace and beauty of the natural landscape. Commerce would not long thrive in the world in which there was no artistry, no imagination.

—By Randall Henderson, in Desert Magazine.
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BLUE STAR HIGHWAY MARKERS

The pictures here show the new stone markers recently erected at the Kansas and Utah state lines of the Blue Star Memorial Highway. This is one section of the national route from Maine to California. The project was sponsored by the National Council of State Garden Clubs. Mrs. Frank E. Neal of Lafayette, Colo., is state chairman and has worked long and hard to get these markers put in place. In addition to these state-line work project the beautification of some section of this highway. Highway 40, being the main east-west road through the state, is a good place to start this important improvement program.

Do you enjoy the Green Thumb? Tell your friends about it. The more members we have, the more we can do.
VERDANT VERSES
FROM DARKNESS TO LIGHT
What's going on within the earth?—
Bulbs swelling underneath;
Then thrusting up and pushing forth
From bulb to tall green sheath.

And in this sheath a bud's concealed,
Which comes out in the Spring,
With lovely scent and hue, that only
Sun and rain can bring.

Who'd guess that hard, white, little
bulb
Such beauty would attain?
This is a mystery of God
We try to solve,—in vain!

KATHERINE PAULL,
Littleton, Colorado.

THE WEEK-END GARDENER

Hi Mom, what's to be done in the garden this afternoon? The perennial beds are worked over, the ground is soaked up for winter and the bulbs brought in. Most of the leaves are off and blowing around the garden which reminds me that most perennials need some much as protection in the winter. I know, that a mulch is not intended to keep things warm, but to keep them cold, or rather to prevent sudden changes in temperature. Where I can do so I'll put on some good manure, then it can be a good winter protection and also be leaching good chemicals into the soil all winter. Where can't safely put on manure I'll give a good coating of peat moss or compost believe that there will be some manure left over. I'll put it on the lawn may do some good between now and spring. I'll save the chemical fertilizers until spring.

Did you know that there were two kinds of leaves on this bush? No, I now there is a nice little Chinese elm tree growing up right in the center of this spirea bush. When could that have started there without my seeing it? I'll bet that there are more of them around the place and probably some oxelder sprouts, too. I've noticed them in the neighbor's yard, but don't see now there is a nice little Chinese elm tree growing up right in the center that old willow tree has finally quit, so I'll get some tools and help and take it out. That should be a good chore this nice cool weather.

I've been noticing those black clouds in the west all day. What does the weather man say is coming? Snow and colder. All right we will take me right away to take in the garden furniture and put away the tools efore the weather gets any worse I'm going to lift those two stepping stones and level them up.

Come on winter, we are ready for you.
A FAVORITE COMBINATION OF PERENNIALS

By Frances Binkley

One particular combination has become a favorite of mine simply because of the difficulty in achieving it. A long time ago I came on the suggestion that yucca and delphiniums would make a good border combination. And so I tried it, for the first time, in a desert-like garden on the banks of the Snake River in Idaho. The soil was a heavy clay, the summer was very hot, and water for the garden had to be carried a long way in a pail. The yucca flourished, with lovely five-foot spikes of creamy blossoms, but the delphiniums became discouraged, as did I after carrying good many pails of water. So the yuccas were left standing alone—in bed of portulaca.

Later I tried the combination in Ohio, on the shore of Lake Erie. Again the soil was a stiff clay. The delphiniums, with some pampering and protection against pests and heavy summer rains, did well. The yucca windled and departed, apparently displeased by the late, cold spring and heavy, wet soil.

Now for the third time, in Colorado where yuccas are native and delphiniums are at their happiest, I am trying to bring these two together in a border, for contrast in color and form and texture of foliage.

The yucca was a favorite of the Victorian English garden. “A graceful and elegant plant,” said William Robinson, the great naturalistic gardener, who praised its exotic foliage and liked to see it standing alone, with a background of shrubs and perhaps some tritomas nearby for color contrast. To visualize our yuccas taking a place of honor amid the soft green and lush growth of an English garden is to have an entirely fresh view of the plant. We must admit it is a stubborn and unyielding plant too, hard to kill, yet reluctant to flower after moving. Delphiniums, on the other hand are responsive and gracious, pleased with a high altitude and cool summers. The absence of drenching summer storms here allows the tall blue-flowering stalks to reach their full perfection.

ROCKY MOUNTAIN HORTICULTURAL CONFERENCE, 1949

Plans for the conference have been almost completed. The first forenoon session, February seventh, will be given over to a discussion of New and Unusual plants or the Rocky Mountain area, led by Dr. A. C. Hildreth of the Cheyenne Horticultural Field Station. Professor M. M. Binkley will be chairman of the first afternoon session when discussions will be held on a wide range of landscaping problems. The evening session will be devoted to the problems of City Forestry.

At the second morning session prominent national experts will tell of the new developments in tree care. Demonstrations of new equipment and tours of the city greenhouses will be arranged for the second afternoon, weather permitting. The annual meeting of the Association will be held on the second evening. A short talk will be given and entertainment provided.

A new feature of this conference will be the educational and commercial exhibits set up all around the room. All sessions will be held at the Silver Glade Room at the Cosmopolitan Hotel.

Other experts who will participate in the program include: Charles Drage from Fort Collins; Prof. L. R. Quinlan from Manhattan, Kan.; Dr. L. W. Durrell from Fort Collins; Curtis May from Beltsville, Md.; R. Whitten from Columbus, Ohio; R. K. Alman from Cedar Rapids, Ia.; Jess L. Fults from Fort Collins; Mrs. T. O. Guptill from Cambridge, Mass.; Dr. Thomas L. Martin from Provo, Utah; Harold W. Lathrop, George Carlson, Ivan Wood—all of Denver. Many local people will assist in the discussions.

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“WISDOM FROM THE DESERT”

Plant life is not as adaptable as human life. We humans range over the earth from the Arctic circle to the equator—and while we do more or less complaining about drastic changes in temperature, our bodies soon adapt themselves, and eventually our minds become reconciled. But in the plant world each species has its own zone of life, and it will not survive too drastic a change in soil and climatic environment.

One evening recently I accompanied friends on an overnight camping trip to a little pinyon forest 4200 feet up on the Santa Rosa slopes. After a month on the floor of the mid-summer desert we wanted to enjoy the novelty of sleeping under blankets.

One learns more about the character of an associate on a single camping trip than in months of association in an office. Life in a primitive environment brings out traits not revealed in normal association.

We had flapjacks for breakfast. One of my camping rules is that each member of the party be given the option of making his or her own hotcakes. Making camp flapjacks is a fine art. It takes much practice and I have a chronic distrust of tenderfoot campers who volunteer to cook the hotcakes for the crowd. Generally they don't know the first rule—the proper regulation of the fire. I don't like burned flapjacks—and so I reserve the right to make my own—and grant the same privilege to the others.

After they've learned to cook 'em to a nice golden brown, the next lesson is flipping them over in the air. That takes courage, faith, good timing and perfect rhythm. Only folks with a little music or poetry in their genes ever learn to flip hotcakes gracefully. But you don't have to be a poet or a musician to enjoy camping. It is good tonic for the ails of a jittery civilization—even if you have to eat burned flapjacks.—Randall Henderson, in Desert Magazine.
AST autumn we added many hundreds of new members to the association which enabled us to expand our services here at Horticulture House and to publish The Green Thumb every month. To maintain our usefulness to the garden lovers of Denver and the state it is vitally necessary for us to keep our membership at its present level. And since the demand for information and help in garden, lawn, and shade tree problems has increased tremendously over the past year, it is equally necessary for us to add many new members in order to keep abreast financially of the growing needs.

Our members can help us this autumn in the present campaign for new members and new contributions if they will spare just enough time to send in their membership renewal for 49 right away and send in the names of a few friends, not already members of the Association, but who are interested in horticulture and conservation; people who would enjoy The Green Thumb and would benefit by the many services at Horticulture House—the library, the lectures, the summer field trips. We feel that any garden enthusiast is bound to know of others. To help us reach them would be a very practical "donation" from you to the Association and would be much appreciated.

Mrs. Robert M. Perry is membership chairman. Her committee includes Mrs. J. Churchill Owen, Mrs. Kernan Weckbaugh, Mrs. James J. Waring, Mrs. C. Earl Davis, Mrs. Helen K. Fowler, Mr. George Carlson and Mr. Fred Johnson.

The committee to solicit new members is headed by Mrs. Harold L. Roberts, who will be assisted by Mrs. J. Churchill Owen, Mrs. Leonard Van Stone, Mrs. C. Earl Davis, Mrs. Geo. Argall, Mrs. H. Calvin Fisher and Mr. Fred Johnson.

You may either get in touch with a member of these committees or send the name of prospective members directly to Horticulture House.