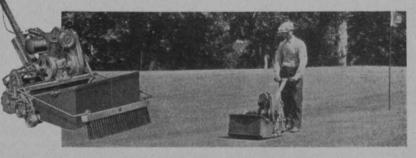
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Price \$12.75, postpaid east of the Mississippi D. T. CROSSMAN, Inc., 65 Duane St., New York City to make golf holes appear longer or shorter than they are. For example, if you place a mass of dark green like the Austrian pine in back of a green, especially on a short hole, it will make that hole appear much shorter because dark color shortens distances. By the same token, you can make distances appear greater by placing back of the green, if conditions are suitable for growth, a mass of willow. The light green color of the willow leaves will make the distance appear greater.

> Does Clubhouse Appear to Float?

Another optical effect worthy of consideration is the appearance brought about when the foundation of a clubhouse is solidly hidden by plants. It is as though the house has been set on a cushion and is not resting on the earth at all, so far as we can see. Unless the foundation is very, very homely, it is usually advisable to allow some of it to appear between plants; then we know for a certainty that the house is resting on solid ground.

Consider the matter of retaining walls. Perhaps we are making a cut and have a bank, as for example at an entrance drive. Ofttimes people will plant a hedge along the top of such a wall and this has the effect of making the wall appear higher. If, instead, something in the way of a vine had been planted at the top of the wall it will droop down over it, hide the wall, and knit the landscape into more harmonious unit.

I saw a golf course recently where they had made an entrance cut through quite a hill. What they did with that hill was to put rocks on it and then among those rocks put a lot of evergreens that in a few years will be very, very unsightly. They will be too tall. It was not very much in keeping with the spirit of a golf grounds and further, so much effort had been devoted to the development of that rockery that the lawn above it had been allowed to grow to weeds.

I mentioned earlier the desirability of screening unsightly objects. I entered a very prominent golf course in New Jersey the other day. Naturally we must make some allowances for winter conditions, but as we came in the entrance gate we saw a large meadow stretching up toward the clubhouse and in full view from the gate were the service buildings. The driveway from the entrance gates to the clubhouse was lined with properly

spaced trees; between the trees in each instance was a shrub.

Now, to the eye of one who is trained in the art of using plants and arranging grounds, the fact that these shrubs were there gave too much in the way of rhythm or beat, and it struck me as I went in that if they would take the shrubs from between the trees and plant them in a mass near the service buildings they would not only improve the appearance of the driveway but they would also screen out a very objectionable feature.

It takes few plants to screen off unsightly objects. There are all sorts of screens we can use. If we have playing grounds, like roque or tennis courts, we may want them very thoroughly screened out and enclosed. For that sort of thing we can use the formal hedge, but again I am looking at maintenance costs. The simpler you can make your plantings the lower the maintenance cost and while the very formal hedge is a fine thing it has to be trimmed three or four times a year and I wonder if it is worth-while.

It is not necessary to shut out unsightly objects entirely. If there is something in the line of sight between the eye and the unsightly object, then that screen, whatever you use, serves the purpose because the unsightly object is partly hidden from view and does not make itself so obnoxious.

With reference to the use of flowers around clubhouse grounds, I find planting in round beds a very common fault. Flowers are desirable, but if we can keep our plants grouped toward the margins of the lawns we will have larger expanses of lawn that can be trimmed much more readily and there will be a feeling of spaciousness created.

### Some Flower

#### **Beds Are Bad**

You go to some courses and you find large groups of very showy, conspicuous flowers like cannas or geraniums. They seem to shout out. They are noisy plants. Is that the sort of spirit we would have around country clubs? I know the spirit differs in various clubs, but before flower beds are put out it should be carefully considered whether or not they really carry out the desire we have for the development of the property.

Generally speaking, we do not like to see flower beds in circles, crescents or squares. Today we have a different type of arrangement. Instead of round beds, we use more rectangular ones. We put our flowers at the base of shrub borders. If we must have them along the drives we put them in borders rather than in beds of varying shapes. In this way they conform to the lines of design and do not break it up.

I do not think the rock garden is altogether in keeping with the country club atmosphere. We should not plan one unless it actually fits the landscape and appears native to it. The rock garden is not a place to exhibit odd forms of rocks. It is designed to make growing conditions favorable for plants which naturally live in that sort of environment. Consequently, most rock work you see in gardens is not really suitable at all. As I said before, we may need to use rocks on banks in order to hold up the soil, but if we do, it is an advisable thing to cover them rather than to make them more conspicuous.

I have tried to tell you some things that will be useful to you. But after all, if you have a definite plan for the development of your clubhouse grounds which can be carried out over a series of years, if you adhere to it, if you use common sense and good taste and good judgment, your grounds cannot help appear very much better.

#### It's "Superintendent," Not "Greenkeeper" in New Jersey Now

IN NEW JERSEY now it's the Golf Course Superintendent's association. Greenkeeper has been abandoned as the identification of those responsible for course maintenance because it was inadequate, and a long way from giving the right idea of the heavy and complex responsibilities of the man who has charge of an outdoor plant that represents an investment of from \$50,000 to more than ten times that amount.

The Golf Course Superintendent's association of New Jersey has circularized the state's green-chairmen suggesting that a minimum of \$25 a year for 9-hole courses be budgeted as the superintendent's expense allowance for attendance at short courses, district golf meetings and national conventions.

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# WHEN THE DIVOTS FLY AGAIN

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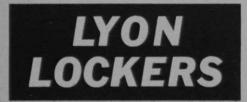
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### Massachusetts Greensmen Ask State for Research Fund

GREENKEEPERS in Massachusetts have had introduced into the commonmonwealth's legislature a bill to appropriate \$15,000 for turf research. The bill, if passed, undoubtedly will influence other sectional greenkeeper associations to work on state governments for similar measures.

The Massachusetts bill is: "For the purpose of constructing and originally equipping certain buildings at the Waltham Field station of the Massachusetts State college, and of research relative to fine turf and lawn grasses and a study as to the maintenance of such grasses, there may be expended under the direction of the trustees of said college such sum, not exceeding fifteen thousand dollars, as may hereafter be appropriated."

It was introduced by a petition of "Howard D. Farrant and others," and is being campaigned for energetically by a Massachusetts greenkeepers committee on which are Frank H. Wilson, T. W. Swanson, John Counsell and James C. Sullivan.

> Letter Sent Turf Owners

The committee has sent to home owners, park superintendents, cemetery superintendents, gardeners, greenkeepers and others interested in growing fine turf and lawn grasses, the following letter:

"The Massachusetts Association of Greenkeepers is introducing in the legislature a bill asking for an appropriation of \$15,000.00 for experiment work and scientific research in fine turf and lawn grasses and a study as to the maintenance of such grasses, and the construction and originally equipping of buildings to carry on this work at the Waltham Field station of the Massachusetts State college.

"There are in Massachusetts 600,000 persons who either own their own homes or are in the process of paying for them. New homes being built by owners or old homes being bought by owners will total about 6,500 this year. Practically all these homes have lawns. There are more than 155 golf courses east of Worcester paying a huge amount of money in taxes and wages and giving employment to an army of boys who caddie on these courses. Cities and towns are maintaining parks, playgrounds, football fields, baseball diamonds and in a great many cases, golf

courses. The state maintains two golf courses for public recreation. All of these involve the maintenance of lawns and special purpose turf. Highways are being beautified everywhere by cities. towns and the state. Immense areas of lawn turf are being grown for this purpose.

"The cemetery superintendents have an organization which should be, and we think is, vitally concerned with the problems of maintaining fine turf. It is hardly necessary to call to your attention the beauty of a cemetery where fine turf is maintained. against one where the effort has not been successful.

"The success of any landscape scheme is the lawn. Home owners and gardeners are struggling with this problem. The same problem besets the owners of the baseball parks, the college football fields, the tennis clubs. The beauty of a city or town largely depends on the successful growing of lawn grasses.

"The Waltham Field station can save che people of eastern Massachusetts, iseventy-five percent of the people of the State live east of Worcester) an immense amount of money by diagnosing soil conditions, recommending seed mixtures to fit these conditions, directions for the proper fertilizing of lawns, advice on weed control, disease control, insect control and by growing demonstration plots.

"To get this bill passed it will be necessary for everyone concerned to do his It is your bill; get behind it. part. While the Massachusetts Association of Greenkeepers is doing everything in its power, we need your help. See the senator and representative from your district. and explain the need for this work. Get all the influence to work that you can contact."

A MONG the many bulletins of value issued by state agricultural colleges and bureaus, bulletin 172 on Pruning and Care of Ornamental Trees and Shrubs published by Michigan State college, at Lansing, is one that will be read with timely interest by Michigan greenkeepers.

Greenkeepers can get much practical material for their working libraries by watching their state bulletins.

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## ANT PROBLEM IS BAFFLING

#### By JOHN MONTIETH, JR. USGA Green Section

NO SYSTEMATIC study has been made of the control of ants on golf courses. The Green Section however, has made numerous tests with various ant remedies and has received many suggestions from outside sources. No method has yet been devised for ant control that is entirely efficient and practical for all golf course purposes. One important difficulty is that there are numerous species of ants which are troublesome in turf and these species vary in their feeding habits.

Most of the ants on golf courses build nests in the ground in the immediate vicinity where they are feeding. Each colony has one or more queens which lay eggs in large numbers in the nests. These eggs hatch into larvae which are fed with food brought in by the workers of the colony. In this manner the ant colony resembles a swarm of bees. Any treatment that merely kills the worker ants provides only a temporary checking of the insect. If poison can be applied into the ant nests to kill the queen and the young the entire colony is destroyed. New colonies may however move in from nearby and establish new nests.

The following suggestions are presented for trial. If one is not suitable for certain conditions it is well to try others.

> Killing Scattered Individual Colonies

Various methods have been used to kill ant colonies quickly. In the vicinity of buildings, walks or driveways they may be destroyed by drenching the nests with boiling water or injecting small quantities of kerosene or coal oil. These treatments however are likely to destroy grass and therefore can not be used on turf.

A similar method, in which the killing agent is a volatile liquid (carbon bisulphide) has been used frequently on putting greens. In using carbon bisulphide the hole in the ant hill is enlarged with a sharp instrument and two or three drops of carbon bisulphide are injected into the hole by means of a spring-bottom oil can. The hole is then at once closed by plugging with earth. As great care must be exercised in the use of carbon bisulphide as in

the use of gasoline, as it is equally as explosive.

One important objection to this method however is that unless used with great caution the carbon bisulphide is likely to injure the turf.

Extracts of pyrethrum have recently been substituted for carbon bisulphide. The method is essentially the same as the carbon bisulphide method. The ordinary commercial extract of pyrethrum is diluted 1 part to 100 in water, placed in an oil can, and used in practically the same manner as the carbon bisulphide. In tests at Arlington this treatment completely destroyed ant colonies without any injury to turf. Pyrethrum extract is a common insecticide sold under various trade names.

Where colonies form large ant nests two or three ounces or more of either carbon bisulphide or pyrethrum extract is required. In such cases the treatment has been found to be more effective if the ant hill is covered with a wet blanket or heavy cloth for a time to retain the fumes of the chemical.

The above method however is impractical where the ant colonies are numerous because of the excessive labor involved. In such cases it is best to use a less laborious treatment to get rid of most of the ants and to depend on the above for the final clean-up.

#### **Poisoned Baits**

#### Must Not Be Too Strong

Ants can be controlled with poisons. In using poisoned baits it must be remembered that the right kind of bait must be used to attract the particular species that is present. Some species of ants prefer sweet substances whereas others prefer fatty materials. If strong poisons are used the ants that eat them are immediately killed and the other ants will avoid that particular substance. Therefore the principle of using ant baits is to use the poison sufficiently diluted so that before the worker ants feel any ill effects from the poison they will have been able to carry large quantities of it back into the nests where it may be fed to the reproductive forms and the young and thereby destroy the entire colony. Ants frequently appear suspicious of poisoned baits and will avoid them. It is therefore well to change to different combinations when any particular poisoned bait no longer appears effective.

Various ant poisons are available on



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the market under trade names. In many of these proprietary mixtures the basic poison is thallium sulphate. This chemical is extremely toxic to grass and in general should be avoided on golf courses until more information is available as to its possibilities for harm. In tests at the Arlington turf garden extremely small quantities of thallium sulphate sterlized soil so effectively that grass would not grow upon it for at least a year. Concentration of this poison by the ants in their nests may lead to serious turf injuries. Thallium sulphate baits however can be used with safety around the clubhouse or other buildings of golf courses.

Some ant poisons contain borax, which also is likely to cause injury to turf and therefore should be avoided in excess on putting greens.

Several simple baits which have been found to be effective are listed below. The sirup bait may be used most effectively by dipping pieces of sponge, absorbent cotton or cloth into the sirup and then placing them in containers such as metal salve boxes or heavily paraffined pasteboard containers. Small openings are made in the containers so that the ants may have easy access to the sirup. The containers may be placed on the green in the evening and lifted in the morning.

The following poisoned sirups have been found effective:

Formula A: Dissolve 4 oz. of sugar in 1 qt. of hot water. Then add ½ oz. of tartar emetic.

Formula B: Dissolve 1 lb. of sugar in 1 qt. of hot water. Add 125 grains of sodium arsenate, boil and strain.

Formula C:\* Add 9 lbs. granulated sugar, 6 grams of tartaric acid (crystallized) and 8.4 grams of benzoate of soda to  $4\frac{1}{2}$ qts. of water. Boil the mixture slowly for 30 minutes, then allow to cool. Dissolve 15 grams of sodium arsenite (C.P.) in  $\frac{1}{2}$ pt. of hot water and allow it to cool. Add this poison solution to the sirup and stir well. Then add  $1\frac{1}{4}$  lbs. of strained honey and mix thoroughly.

\*Recommended only for the control of the Argentine ant, which occurs only in some of the Southern States and in certain parts of California.

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Another method for using the poisons listed above is to mix the sugar and chemicals dry with an equal volume of bran or cornmeal. Add enough weak honey solution (honey in water) to make a crumbly mixture which can be scattered about the green.

Another dry mixture that is usually effective is:

Mix 1 oz. Paris green with 1 lb. brown sugar. Sprinkle the crumbs very lightly around the ant hills.

The poisons may also be mixed with lard to make a paste-like bait which attracts the species that feed on fatty materials. It must be remembered to keep the poison sufficiently diluted so that it may be carried to the nests.

#### **Repelling** with

#### Water Sometimes Works

A method that has some times been used effectively is that of driving ants from greens by leaving sprinklers running all night for several nights in succession. The ants dislike this excess water and will leave the greens. Because of the danger of complications due to excess water on heavier soils this method can only be recommended for greens with excellent drainage and sandy topsoil.

Tobacco dust and other repellants have proved to be effective under certain conditions. However, like the watering method, these remedies are only partially effective since they merely cause the ants to move out to new territory from which they migrate back onto the greens as soon as conditions are again favorable.

#### Warning

The poisons listed above (except pyrethrum extract) are extremely poisonous to human beings and animals. Extreme care should therefore be exercised in their preparation, use and storage. The sirups especially should never be left where they may be reached by small children.

McGregor Breaks Ankle—John McGregor, superintendent of Chicago GC, and a former president of the NAGA, was a casualty of the Washington convention. Rushing with Mrs. McGregor to board bus for the greenkeepers' visit to the Arlington gardens McGregor tripped on a stairway and wound up with a broken ankle.

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# DETROIT REPORT IS MODEL

#### Statements show value of association activities to member clubs

**B** ECAUSE all of us recognize a well done job, GOLFDOM presents in some detail a description of the activities and work being done by the Detroit District Golf association. We feel that the boys carrying the load in the

Detroit District organization are doing as good a job and are turning out as fine a report as any district in the country. Edward L. Warner, secy., says of the Association: "I think we have gotten someplace in regard to golf course maintenance. Greenkeepers and course workers seem satisfied with conditions in the District. and a workman's daily time ticket is being used at almost all of the clubs. Regular meetings of green-chairmen and greenkeepers are held all during the season, and I know that our green-committee accomplished a lot of good work. . . . A. W. Tillinghast, visiting here on his golf inspection tour last season, said he considered

the Detroit courses equal to any, and certainly better maintained than any he had contacted so far."

James J. Standish, Jr. has been elected president of the DDGA, following the death last August of Norval Hawkins, a dynamic and important factor in the growth of the association.

Joseph Mack, chairman of the Detroit District green-committee, comments enthusiastically on the District's accomplishments for 1936:

"I cannot imagine conditions more favorable anywhere for the development and maintenance of golf courses. I don't believe the desire for knowledge of golf course maintenance and the spirit of co-

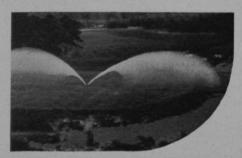


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