
a cleaner job



The close-coupled Bulldog
*cuts clean in every hollow and
on the ridges*



The Ideal Golf Cart—one of the many pieces of golf course equipment offered in our catalog.

As the Ideal Bulldog Mower has low wheels, it has a close-coupled frame and short wheelbase.

That allows the Bulldog cutting reel to cut right down to the bottom of even the smaller hollows. In the same way, the wheels carry the cutting reel *over* the ridges, without digging the sod.

Now the high-wheel cutting unit *can't* get into these small hollows. The long side frames straddle the bottom of the hollows. Also, on a ridge, the long frame allows the cutting reel to gouge and tear the sod.

This feature is very important, for it means a smooth, trim fairway or one that is shaggy (with lovely spots to lose a ball).

Get our interesting book on golf course mowers and equipment.

IDEAL POWER LAWN MOWER COMPANY
446 Kalamazoo St., Lansing, Mich.

IDEAL GOLF COURSE EQUIPMENT

Divots from Leach's Mail-Bag

Question

Sir:

We are co-operating with ——— golf course in furnishing creeping bent stolons from our nursery for planting new putting greens next week. What is your latest advice about poisoning before planting?

R. W. C. (New York).

Answer

Sir:

You are at least a month late* in planting these bent stolons and at best stolons planted at this date in the latitude of Ithaca. Under the circumstances would not advise that you arsenate the soil of these greens before planting the stolons. Rather I would wait until you give the bent the first top-dressing next season (this first top-dressing is usually a substantial one) and at that time would apply three pounds of arsenate of lead per 1,000 square feet of turf. With each subsequent top-dressing would give from one-half to one pound of lead arsenate per 1,000 square feet of turf, depending on whether the individual top-dressing is light or heavy.

B. R. L.

(*Mr. Leach answered this query by mail in November.—Ed.)

Question

Sir:

I have tried arsenate of lead for worms but must admit only sort of half heartedly. Now I wonder as to the effect of arsenate on dandelion and plantains. Can you tell me of any real definite results with these two pests? How often should a 5 pound to the thousand square feet application be made? Also, in order to get a more even distribution, would it be possible to apply with sprinkling-can or spray?

E. A. V.
(New York).

Answer

Sir:

Would advise that there is no definite rule for the timing of the 5 pound per thousand square feet applications of arsenate of lead to turf. Greenkeepers as a

rule watch the turf and as long as the worm, weed and grub control appears to be holding its own they sit tight. If earthworm casts or weed growth begins to creep in they again apply a dose of lead arsenate of anywhere from 2 to 5 pounds per thousand square feet of turf as their own individual judgment dictates.

I do not advocate the application of arsenate of lead mixed with water. The best method is to mix with the top-dressing, or mix with moist sand and broadcast or better still mix with a sufficient quantity of dry milorganite so that the amount of arsenate of lead used clings to the particles of milorganite and none of the former is free to blow about in the wind.

The control of plantain and dandelion by the use of arsenate of lead is not clean cut. The use of iron sulfate as described by John MacGregor in an article in an issue of GOLFDOM last spring would no doubt be of value in controlling these weeds.

B. R. L.

Question

Sir:

In your October copy of GOLFDOM, there is an article on Selective Control of Weeds.

We are greatly troubled in our fairways with crab grass which in some instances grows three feet in diameter and we are anxious to know the best method to be used in eradicating this weed.

October GOLFDOM stated that by putting on 250 lbs. of arsenate of lead successfully killed this sort of grass.

The grass I refer to is in splotches and does not cover the entire fairway and I have heard that you could inoculate the soil around each splotch with a large pump arrangement similar to a hypodermic.

I would appreciate any information that you might give me which would help me to eradicate this particular kind of grass.

M. S.

Answer

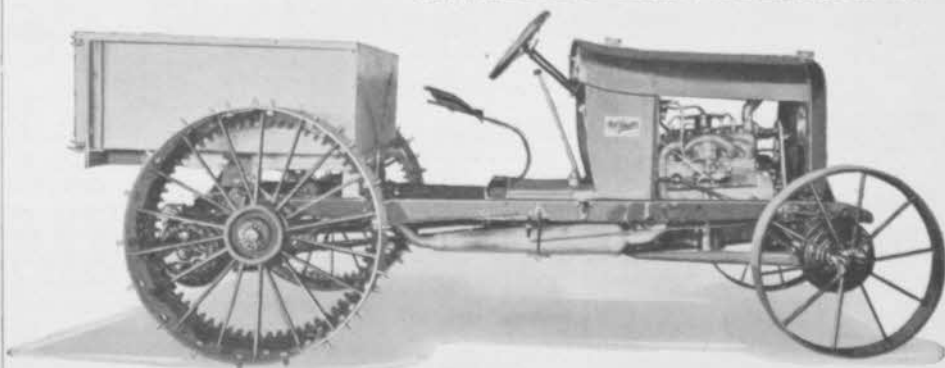
(Georgia)

The weed you refer to as growing in dense patches or splotches is probably

ANNOUNCING

Model A

Staude General Utility
Golf Course Tractor
ANYBODY CAN OPERATE IT



PRICE ONLY **\$695.00** f. o. b.
St. Paul, Minn.

(Complete as shown in cut)

BUILT TO DO THE WORK—NOT TO MEET A PRICE.

Has no equal in durability and low operating cost.

SPECIFICATIONS:

New Model-A Ford Chassis.

Famous Staude Mak-a-Tractor (Thousands in use).

All steel dump body (Capacity one cubic yard).

More Power—Speed—Flexibility.

Tractor has been tested under every conceivable condition and severity of service before being placed on market. Easily pulls mowers cutting 142-inch swath, etc. TRACTOR SOLD UNDER MONEY-BACK GUARANTEE.

Write at once for full information.

E. G. Staude Mak-A-Tractor Co.

2696 University Ave., St. Paul, Minn., U. S. A.

chickweed or some very closely allied species. As a preliminary test would suggest that you mix a couple of pounds of arsenate of lead in a bucket of soil sand or milorganite and scatter some of this mixture over a dozen patches and note the results over a period of two weeks. This method has proved very efficacious in chickweed control here in the East. I do not think the hypodermic injection of these patches would result in obtaining the results you desire. Treatments of this sort have not proved successful in actual practice.

B. R. L.

Question

Sir:

I note in October GOLFDOM an article with reference to the elimination of quack grass by the use of arsenate of lead. The author speaks of using 250 pounds per acre on fairways and I would be glad to know if this chemical can be applied in any other way than in top dressing.

F. P. C.
(Iowa).

Answer

Sir:

The treatment of fairways with arsenate of lead was discussed in one of my articles appearing in GOLFDOM during the past summer and would suggest that you review the article for specific directions for fairway treatments.

Of late I have been supervising some extensive fairway treatments of golf courses in the vicinity of Philadelphia and in these treatments we have used milorganite as a filler. On one course we mixed 150 pounds of arsenate of lead with 500 pounds of milorganite and applied the mixture to the fairway by means of a lime spreader. This method proved very satisfactory providing the spreading was done on days when the atmosphere was comparatively quiet. If the job has to be done in windy weather it would be better to use 750 pounds milorganite to 150 pounds of arsenate of lead.

Milorganite is a first class filler for arsenate of lead in that it is dry, fine in texture, consequently going through the spreader rapidly and also because the arsenate of lead clings to the particles of milorganite, thereby insuring an even spread and the minimum loss of the chemical due to blowing.

B. R. L.

Lead Arsenate on Bermuda Grass

Sir:

I have been reading Mr. Leach's articles in GOLFDOM on worm and grub eradication with much interest. I saw in September where W. T. B., and in October Mr. Leach, wanted to hear from the south, so I will endeavor to tell you my experience with arsenate of lead on Bermuda greens.

Our number six green has always been a poor green on account of worms and soil conditions. It is very strategically and beautifully located, but on poorly drained alkali soil.

Starting March 15th I cut the grass very close, then top-dressed very heavily (three yards) on 4,000 square feet with one part black soil, one part sand and two parts manure, which practically covered the grass, but in three or four days we had a good putting surface of nice tender grass. April 15th I repeated the process and it began to improve. May 20th I top-dressed with two yards. By July 1st I had a nice turf and about three worm casts per square inch. July 10th I top-dressed lightly (one yard) with one part manure and two parts sand, which is my regular top-dressing and put twenty pounds arsenate of lead and dragged in with the top-dressing and watered. Next morning I had lots of worm casts, the second morning not so many and the third morning still less. August 8th I repeated the July 10th program, which was 40 pounds arsenate of lead or 10 pounds per thousand square feet. I won't say number six is the best green we have, but it is so much better that 80 per cent of the players have commented on it.

I have also retarded the crab grass quite a bit. I am anxious to see what the crab grass does on that green next year as we have lots of it. I have also treated three more greens with five pounds arsenate per thousand square feet with very favorable results.

We also discovered grubs on two of our approaches had been working into the greens, in fact they had damaged the approaches considerably before we noticed them. I gave them a heavy dose of arsenate and stopped them.

I don't think the arsenate hurts the grass one bit but improves it in texture, putting surface and looks, by getting rid of the worms if nothing else, so as you can see I am pretty well sold on arsenate of lead for Bermuda grass. I would like to see more in all the golf magazines on Bermuda grass as I believe it requires somewhat different treatment from bent grass.

G. H. Conger,
Greenkeeper, Dornick Hills Country Club.
Answer to R. C. (III.)

With regard to your letter in which you raise the question of the effect of lead



GUARANTEED
against cutting through
in Fifty Holes of Play

THE NEW
BURKE 50-50

50-50

Now IN 3-BALL CARTONS!

THE 1928 record of the Burke 50/50 proved one thing conclusively: A ball can be as low priced as 50c and yet satisfy the requirements of the most exacting golfer. The Burke 50/50 has everything—distance, direction, durability. That's why we can back your selling with an unqualified guarantee. If it cuts through or loses shape in fifty holes it will be replaced without question.

Make sure your stock has the new Burke 50/50. Don't miss the sales that result from the ever-growing demand for a low priced ball of high quality. Write for samples, prices, etc.

THE BURKE GOLF CO., DEPT. JI, NEWARK, OHIO

Please mention GOLFDOM when writing advertisers

\$1,000,000

SAVED

with

Jacobsen Power Putting Green Mowers



YEAR after year the Jacobsen Power Putting Green Mower has added to its conquests and is recognized as standard equipment on thousands of greens. Golf Clubs of America have saved over a million dollars with Jacobsen Power Putting Green Mowers, with the added satisfaction of more perfect greens, and greens ready for the players earlier in the day.

Jacobsen Putting Green Mowers are gear driven and have auto-type differential, separate clutch control of traction and cutting unit. They travel on their own power with or without revolving the reel. All major castings are made of aeroplane aluminum and the light weight is perfectly balanced over the large aluminum traction roller. The mower exerts no more pressure on the green than a man's foot. Produces a finer cut than any push-type mower, and will not scalp the undulating green.

A power Cart for transporting the mower, and a Green Brush attachment are Jacobsen accessories greatly appreciated by greenkeepers.

A Valuable **FREE** Guide to Green Maintenance.

This new book describes Jacobsen Power Putting Green Mowers and equipment. Gives actual records and data from various clubs, offers a solution of the Brown Patch Problem. A postal card brings you a copy.

Jacobsen Mfg. Co.

Golf Dept., Racine, Wis.

New York Office:
507 West 56th Street



arsenate on turf and mention the fact that certain greenkeepers believe that it is shortening and decreasing the root development would advise that these gentlemen have the wrong bull by the tail. As I have said before, lead arsenate is going to be the goat for all the ills and troubles that affect golf greens for some time to come. Whenever an arsenated green goes bad it will be the lead arsenate that caused the trouble. This is of course inevitable and time only will correct the general condition.

I have already had one or two complaints of this nature in this vicinity and have personally looked into one or two of the cases. Not long ago a club which had been using lead arsenate came to me with blood in its eye and claimed that the arsenate had ruined six of their greens. I was fearfully busy at the time but took a day off and went down to look at their grass. It sure looked rotten, I'll admit that much. It was yellow and sickly. I took out my trusty jack-knife and cut into the sod and lo and behold an inch and a half below the surface was as beautiful a layer of hard clay one inch thick as I have ever seen. In other words two or three years ago some jackass had gotten the idea in his bean that the greens were too soft and had top-dressed one whole summer with pure clay. When the organic matter burned out of this clay it formed a sort of hard pan and interfered with the drainage. This past summer we had an exceptionally heavy rainfall, these greens went soggy and these men looked around for a convenient goat and picked lead arsenate. And so it goes.

Not long ago I had luncheon and a very interesting hour's conversation with the golf architect. During the meal he put this question to me: "Why do so many greens go bad two or three years after they are built?" I judge from his question that in his experience, greens are going bad more or less all the time regardless of lead arsenate. I answered his question as follows:

"Let me see and inspect the golf green that has gone bad and in the majority of cases I can tell you what has caused it to go bad. Aside from disease and improper or too heavy fertilization there are two major causes for greens going bad. First, improper drainage, either surface or subterranean. Greens will go bad under these conditions and especially in wet seasons; second, top-dressing with the wrong kind of compost, one containing too much clay or too much sand. Top-dressing is an art, although many people consider it only as a tedious job.

We have turf here that has been arsenated for seven years and plenty of it that has been arsenated for three and four years. It is still going strong.

When lead arsenate loses its toxicity to grubs, worms and weeds it becomes *inert* just like so much sand or cinders and does not affect the grass one way or the other.

B. R. L.

O. K. on These Bermuda Greens

I think our course right now affords the finest example of the use of arsenic of lead and its non-use that you can imagine. The greens are as near perfect as Bermuda greens can be, while the fairways, where arsenate of lead was not used, are in a sad state. Some of them look like they had been literally plowed up. (By June beetle, I presume.—B. R. L.)

W. G. J.
(North Carolina.)

Question

Sir:

Here, at southwest Florida, we have a new 18-hole golf course with carpet grass (seeded) fairways and Bermuda Grass (sprigged) greens. In about ten days we plan to top-dress heavily and sow Italian Rye and Red Top in our greens.

Last year the putting greens of the old nine-hole course were in bad shape. The grass (we kept Bermuda Grass putting surfaces throughout the winter) began to die out—in spots and in strips—we dug up parts of the affected areas, and searched thoroughly for grubs. Quite often we would find as many as three or four white grubs, very often none, in sods one foot square and six inches deep. Samples sent away to State Experimental Station were reported as infected with something "similar to brown patch" and copper lime dust was prescribed. This treatment gave a measure of control, but only for a few days at a time, and finally the copper poisoned the soil and then the winter season, for which the course is pointed, was over.

Now, about ten days ago what was probably the same trouble reoccurred. Some sand was applied without any appreciable effect, and then copper lime dust was applied, and when the writer arrived from his summer job three days ago the affected area looked healthy enough. The affected area was a band about four feet wide, stretching across the green. On this area, as well as on other putting surfaces, there are sandy piles this morning, of about a good tablespoon in quantity. These have the appearance of casts, although the soil is so sandy that there is little form to them. Also digging did not reveal any worms or crickets.

Under the circumstances we have just about made up our mind to apply arsenate of lead when the trouble reoccurs. Of course if we are guessing wrong we are giving the trouble a head start, and that is why we would like your opinion in the matter.

Does arsenate of lead have any virtue as



"THE BEST DARN SPRINKLER MADE"

SO SAID a well known greenskeeper about the Thompson Master Sprinkler.

Had he been specific, he would have said that the Thompson Master Sprinkler is built to stand up under the hard knocks of a greenskeeper's crew...That it covers 108 feet on 45 pounds pressure...That it works on any pressure from 20 pounds up...That it sprinkles uniformly, leaving no dry rings...That it's as good for fairways as for greens.

You, too, will be just as enthusiastic after you've used the Thompson Master Sprinkler. Write us for details.

See the "Master"
at the
Greenskeepers' Show
in Buffalo



THOMPSON MANUFACTURING CO.
2251 E. Seventh St., Los Angeles, California

WHEN
**Winter
blows
down
from the
North**



**Will
your
drains
stand the test?**

Winter subjects many subdrains to the tremendous pressures of freezing soil and water. Years of use have shown that Armco corrugated pipe successfully resists these unusual conditions. It also adjusts itself to the heaving and shifting of soil which accompanies frost action. Reports on actual field installations or samples for your own tests supplied on request. Your name and address bring complete data.

Forty manufacturing plants throughout the United States and Canada assure you immediate service on drainage requirements, no matter where you may be.



ARMCO CULVERT MFRS. ASSN.
MIDDLETOWN, OHIO

ARMCO
perforated
PIPE

a brown patch preventative or control? How will it affect the Italian Rye and Red Top putting greens? Would the lime of the copper lime dust have a harmful affect on Italian Rye and Red Top?

(P. S.—This summer, on the creeping bent greens that I installed in northern New York five years ago, I used arsenate of lead with perfect success in control of worms.) Sincerely,

T. H. P.
(Fla.)

Answer

Sir:

Your difficulty can probably be narrowed down to one of three things, viz:

1. If your turf dying out is due to white grubs (not June beetle grubs) the grass will be loose in the dead areas for the simple reason that grass injury and death by white grubs is caused by their eating and cutting the roots just below the surface. Pull on the grass in these dead spots. If it comes up readily and examination shows that the roots have been cut then your trouble is white grubs and I suggest you give the turf a treatment with arsenate of lead, five pounds per thousand square feet of surface.

2. From what you say toward the end of your second paragraph it may be June beetle. These grubs throw up casts as you describe, but you would not find the grubs by shallow digging because they spend the daytime in burrows a foot or more below the surface. They do not eat the grass roots but destroy the grass by their burrowing and tunneling. These can also be cleaned up by the use of arsenate of lead.

3. The trouble may be caused by fungus in which event I would apply consistently any of the standard mercury brown patch preventatives. I would not use the copper lime dust. It has, in the long run, a decidedly unsatisfactory action on soil resulting in toxicity to the grass.

Arsenate of lead has no virtue as a brown patch control or preventative. I have successfully grown Italian rye and red top in arsenated soil.

B. R. L.

AS a means of encouraging members to bring their whole families to the club for evening meals, one manager hit on the subtle scheme of offering a special 'surprise' dessert for the children. This dish consisted of a scoop of ice-cream, a small slice of cake, or cookies, and, at one side, wrapped in gayly colored paper, some small toy or favor costing not over a penny or so, but of tremendous appeal to the youngsters.

These favors were mainly purchased from the local dime store and consisted of inch-long china dolls, lead-soldiers, and the like.

Some Slants on Operating Pay-as-You-Play Course

By "THREE SEAS"

IN CONSIDERING the successful operation of public and semi-public courses the basic points to be drawn out are: the difference between straight fee courses operated on a basis of the fees to pay for the course upkeep and profit and a golf course being run on a fee basis to enhance the value of surrounding property as a real estate proposition.

The primary object of a daily fee course is to get in as many fees as possible. It usually has to buck the municipal courses where often workhouse labor is used and the question of profit is not considered so much as politics.

Promote Private Club Idea

The answer to this competition is to endeavor to make the staff give the players the impression that your course is a private course. Treat them as if they were visiting members of a club. Don't let your registry have a ticket system, a sort of "here's your ticket where's your money" style; have them register in a book, have a duplicate green fee receipt book, like a private club, have a boy get their clubs and ask if they want a caddy and arrange starting times for them. On Saturdays, Sundays and holidays don't take their money until they have seen the starter and know how long they have to wait. If they have no starting time, make sure that your registry clerk courteously explains why, to save them disappointment and delay. Give them free service such as an occasional piece of whipping on a club, adhesive tape, and free checking of clothes.

Regarding booking of times for starting, don't charge extra but try and give the same players the same times every Saturday, Sunday and holiday. Run a handicap board and in no time you will have quite a number of players who will look on the place as their own club and talk it up saying "we have no trouble at So-and-So course. We have small tournaments; we have our own starting times, etc. etc."

Do not worry if some times they miss a starting time, there are always some players ready to fill in. Too much care cannot be given to getting a satisfactory starter, one who will listen, say "yes," but still go on being scrupulously fair on starting. Never allow the starter or registry clerk to have words with a player; let

A Personal Message

from W.G. Mattern of the
Vulcan Golf Company

TO have watched the phenomenal development of our business into one of the most important factors in golf has been more than a generous reward for the efforts we have put behind it.

Surely we are justified in feeling that American golfdom has recognized the ideals and handicraft of an organization unique within the industry. To this Vulcan organization I gladly give full credit and, in their behalf, renew the pledge with which we introduced the first Vulcan golf clubs:

"To build finer golf clubs than have ever before been offered to American golfers, and to establish new standards of quality and precision in golf club manufacture never before attempted."

Entrenched in the esteem of the golfing public and the trade, Vulcan confronts the new year with high enthusiasm and presents new models which surpass in value even the standards which Vulcan set in 1928.

W. G. Mattern

Vulcan Golf Company
Portsmouth, Ohio.

VULCAN
Clubs of Character for Every Golfer



them bring them to the manager and let him thrash the question out. This service is not much and not hard to give, but so strongly marks the difference between the average municipal course and yours that you can get much higher fees, consequently a better class of player and naturally a much easier kind to handle.

Keep on the Job

The manager, especially if he is the pro, must be on the first tee or office at all times that are busy. If he is the pro, the players always need him and he can cement a great many friendships right on the job. He must be careful not to undermine the starter's job by allowing favoritism in starting or upsetting the registry clerk by trying to get special friends on the starting sheet.

Ticket Policy

To further create the private course idea I am strongly in favor of straight day tickets up until two hours before darkness when half fees should be charged. Then the only time when eighteen hole tickets should be issued is before eleven a. m. Saturdays. It is better to get fifty cents extra for a day ticket than an eighteen hole ticket. I find that ninety per cent do not play more than eighteen holes, especially on Sundays. Copy the private clubs and do not allow women to play Saturday afternoons and Sundays and holiday mornings. The writer has found this works very satisfactorily, so much so that in one case the players got together and purchased the course.

A last maxim: *Never* try to mix yearly members with fee players on a straight fee course. The yearly members will ride the fee players ragged and cause endless trouble and dissatisfaction.

The Real Estate Deal

The real estate course is a much more delicate matter. Here is entirely a different proposition. If it is called a Public Course, people will not buy around it because it is a public course. Still you have a golf course representing a big investment and upkeep and you must try and make it run itself. However, your golf club is primarily there to sell your land. You must not expect to sell property and still take in as much as a straight fee course. Experience has shown me that around 2,000 players will play free in a season on such a course in metropolitan territory. Lot-owners, salesmen, prospects, members of the company, etc., are "dead-headed."

The best way to handle this question, I believe, is to run the course open one year, then get your regular players and choose 150 to 200 and sell them a yearly membership in the fall, payments strung out until May 1st.

Close the course rigidly on Saturday afternoons, Sundays and holiday forenoons and members can book starting times 24 hours ahead, weekdays if necessary. Close the course against outsiders at the discretion of the manager. Particularly have a special locker room plainly marked "members only."

Do not try to push Real Estate down their throats every time they come to play



Complete information sent on request. Early orders receive prompt service.

All orders F. O. B., Granger, Ind.

Can You Afford a Compost Pile?

LECCO - The Complete Grass Food eliminates this expense.
One Ton will make 40 applications.

Last Word in FINE TURF

COCOOS creeping bent seed. Thirty pounds will plant a green of average size (5,000 sq. ft.)

WASHINGTON stolons. This strain makes putting greens that will stand heavy traffic and rough treatment.

LYMAN CARRIER

Elevator, Warehouse and General Offices, GRANGER, INDIANA