The simplified design of the PENNSYLVANIA “New” Fairway Mower lessens the time required for adjustments, as well as the need for minor repairs, and thus insures a maximum number of cutting hours from this lighter, faster Quint or Trio. Furthermore, both the adjustments and any minor repairs may be made by the average tractor operator.

The “New” Fairway gives the same efficient, flexible operation as our Super Fairway. For instance, as shown in the illustration, it has the same unique lifting device which enables the operator to raise or lower the two outboard units without leaving his seat.

Its moderate price is another “New” Fairway feature. The price of the Quint (144-inch cut) is $625; of the Trio, $375; and of the single mower units, $110 each—all f. o. b. Philadelphia.

Write for further facts on the “New” Fairway and for our new folder describing the Improved 1928 Model Super Roller Greens Mower.

PENNSYLVANIA LAWN MOWER WORKS
1628 North 23rd Street
Please mention GOLFDOM when writing advertisers
Control Brown Patch
Save $600 - $1000 this year by using
CALOLOGREEN or CALO-CLOR
(Special Finely Powdered Calomel) (Calomel-Corrosive Mixture)

The U. S. Dept. of Agriculture Recommends these mercury salts. Their latest experiments prove conclusively that calomel (Calogreen), and calomel-corrosive sublimate mixture (Calo-Clor) give longer protection and better control.

Calogreen and Calo-Clor are pure chemicals, 100% active, containing no fillers, fertilizers, or other inert substances. 3 ozs. per 100 sq. ft. will give complete control.

Other brown-patch remedies, which perhaps you used last year, required over FIVE times the quantity. 16 ozs. per 1000 sq. ft. to give complete control.

As the cost per pound of all these remedies is approximately the same, you can control large and small brown-patch at 1/5th your last year's bill—if you use the latest methods based on government experiments.

Write for free booklet describing these experiments, with directions for using CALOLOGREEN and CALO-CLOR

MALLINCKRODT CHEMICAL WORKS
St. Louis Montreal Philadelphia New York

Your Club Needs Such a Sprayer

Investment in a Hardie Sprayer pays big dividends in price of membership, joy in the game, and reduced cost of maintenance of course and grounds. All of the soluble insecticides, fungicides, worm eradicators, weed killers and fertilizers can be most effectively and economically applied with a power sprayer. Brown Patch is no problem for the greenkeeper who has a Hardie. It has numerous other important uses about the course and grounds. Ask your equipment dealer or write for the Hardie catalog showing many models for every golf course and country club requirement.

THE HARDIE MANUFACTURING CO.
Main Office and Factory, Hudson, Mich.
Branches: 222 N. Los Angeles St., Los Angeles, Calif.
Western Factory, PORTLAND, OREGON Canadian Factory, PETROLIA, ONTARIO

HARDIE DEPENDABLE SPRAYERS

Please mention GOLFDOM when writing advertisers
C. D. WAGSTAFF & CO.
EVANSTON, ILL.
Designers and Builders
of
Notable Golf Courses
for a
Guaranteed Contract Figure

Write us, without cost or obligation to you, regarding your requirements.

The Wagstaff organization also is contracting the yearly maintenance of golf courses, an advancement in golf service we at present are limiting to the Chicago District.

Brown Patch is Here

Use SEMESAN, a known cure and preventative. Mix it with Urea yourself and save the high cost of prepared mixtures.

BUCKNER SPRINKLERS are positive in action, fool proof and unconditionally guaranteed.

EQUIPMENT GRASS SEED FERTILIZERS

J. OLIVER JOHNSON, Inc.
World's Largest Golf Course Equipment House
Morgan, Huron, Superior Streets CHICAGO

© REG. J. O. J., INC., 1928
Phone Monroe 6580

Please mention GOLFDOM when writing advertisers
A Complete Playground for Your Golf Club

HERE'S the thing that will keep the children off the course; away from the dangers of the fairway. A complete playground—enough to keep 25 children interested in wholesome play. Just one compact unit, ready to set up on your club grounds.

Medart are pioneers in the playground field—our 55 years of experience are all embodied in the manufacture of Medart Playground Apparatus. This special golf club unit is made up of Standard Medart Equipment—built to withstand the roughest usage and all weather conditions. And, above all, it has every feature of safety.

Medart Playground Outfit No. 4

Specially adapted for the golf course. The outfit consists of Medart's Standard horizontal bar, trapeze, swing, 1 pair of flying rings and slide. The heavy center frame and slide support is built of 3" galvanized pipe with rigid frame fittings. The slide has Medart's newest safety features. Complete with all fittings and instructions for erecting.

$115.50

The outfit stands 10 feet high and requires a ground space of 26x20 feet. Shipping wt. 1050 lbs. Price f. o. b. cars—St. Louis, Mo.

Fred Medart Manufacturing Company
3542 DeKalb Street
St. Louis, U. S. A.

For 55 years makers of Gymnasium Apparatus and Playground Equipment

Please mention GOLFDOM when writing advertisers
A TORO Tractor for Every Need—and Every One Built up to TORO Standards of Quality

TORO
Whippet
Tractor

Sets a new standard in the light weight tractor field. Good looking and extremely easy to operate. Equipped with three speed transmission, lights, starter, brakes

The TORO Junior
(with Worm Drive)

THE TORO Junior has been provided to fill the need of a smaller size than the TORO Standard five-unit Golf Machine. A sturdy, dependable machine to operate three standard 30-inch Cutting Units and for general utility around the golf grounds.

TORO Standard Tractor

has ample power to carry five mowers over any hill where golf can be played satisfactorily. It is widely used on hilly clubs where converted farm tractors have failed completely. Lighter than any farm tractor of same size and capacity. . . pressure on turf less than a man’s foot. Easy starting, low full consumption, low upkeep, automatic steering device. Delivering trouble-free service on over 500 clubs.

Write for catalog of complete TORO Line

TORO Manufacturing Co., 3042-3168 Snelling Ave., Minneapolis, Minn. Service Stations in all the larger distribution centers.

LOWEST UPKEEP EXPENSE

Please mention GOLFDOM when writing advertisers
Here is the best of golf Sprinklers

because:

- it gives the volume and coverage required by golf courses;
- it gives even distribution;
- it is gearless, simple and always ready to do your particular kind of work for which it was especially designed.

The price is right—$15.

We'll let you prove this to your own satisfaction.

The "LARK"

L. R. NELSON MFG. CO.
PEORIA, ILL.

WASHINGTON

The only strain recommended by any recognized authority—we grow it exclusively. Our improved WASHINGTON—your eventual choice when the facts are known.

Ask us for the facts

BENT GRASS CO.
HOOPESTON, ILL.

GOLF COURSES
DESIGNED and BUILT COMPLETE

PRELIMINARY SERVICE FOR LAYOUTS, ITEMIZED ESTIMATES, ALL DETAILS AND INFORMATION FURNISHED GRATIS
WRITE FOR OUR ECONOMICAL METHOD OF PROCEDURE

UNITED STATES GOLF ARCHITECTS, INC.
"DESIGNERS, ENGINEERS, CONTRACTORS"

STANLEY F. PELCHAR
GOLF ARCHITECT
310 SO. MICHIGAN AVE., CHICAGO

OTTO CLAUS, LANDSCAPE ENGINEER
Telephone Harrison 6714

JAS. J. PRENDERGAST
CONSULTING ENGINEER

Please mention GOLFDOM when writing advertisers
It's new!

The LAING Golf Ball Washer

Here, at last, is a ball washer that is

- practical
- permanent
- convenient
- fool-proof.

Quickly does a clean job in a clean manner. No soiling of hands or clothes.

Sturdy construction—finest quality of brushes.

They last a life-time and there's nothing to get out of order.

Let us send a washer for your inspection. "Put it through the mill", and see for yourself that it fulfills every claim made for it.

Removal of one bolt at front of washer permits basin to swing down and open for quick and easy cleaning. See illustration at right.

Practical construction makes brush holders readily accessible for brush replacements. See illustration below.

Order direct or through recognized golf equipment dealer.

Sole distributors for United States

GEORGE A. DAVIS, INC.
5440 NORTHWEST HIGHWAY - - - CHICAGO

Please mention GOLFDOM when writing advertisers
Roll Your Fairways as You Roll Your Greens

Gang Rollers are sold by side wheel mower manufacturers, because constant rolling is now recognized as essential to the development of good fairways just as it always has been to Putting Greens.

Roseman Hollow Roller Mowers roll as they mow—cost less than a gang of mowers plus a gang of rollers—cut operating cost in half—and last twice as long as any other kind.

Roseman Tractor Mower Company
6-8 East 46th Street, N. Y. C.
810 Church St., Evanston, Ill.
Away With Worms
Control Measures to Keep Greens Right for Putting
By B. R. LEACH

On occasions when earthworms are unusually numerous on a particular golf course or in an extensive section of the country, as was the case last year in the middle West, there is considerable conjecture among greenkeepers as to the reason for their undue numbers. In many cases the preponderance of the pest is laid to conditions which have absolutely no bearing on the question. It is quite generally believed among a certain proportion of the greenkeepers that organic fertilizers, such as cottonseed meal, tankage, etc., encourage the presence of earthworms and should be avoided for that reason. As explained in last month's GOLFDOM, the earthworm feeds on partly decayed vegetable matter, such as dried blades of grass, etc., hence the presence of organic fertilizers would not directly stimulate the earthworm population. Such fertilizers, or for that matter, any chemical applied to turf, influences the earthworm population only as it improves the texture of the soil and renders it more friable and suitable for the earthworms' development.

Under normal conditions earthworms do not breed well, or increase greatly in numbers during seasons of excessive rainfall, this being especially the case in heavy or poorly drained soils since this pest heartily dislikes excess water in the soil. Conversely it does not breed well or increase in numbers during dry seasons when the soil is dry and hard. At these times earthworms usually are down in the soil at a depth where the soil is moist. Under the circumstances a season of sufficient rainfall to maintain the soil in good friable shape will, other things being equal, result in an abundance of earthworms in the fairways and approaches, with the consequent invasion of the greens from the surrounding turf.

The earthworm population usually increases rapidly on any piece of ground after it has been properly drained. On the other
hand, greens built on very sandy soil soon begin to support a fair earthworm population as soon as the greens are top-dressed with a mixture of soil and organic matter, especially if the soil used in the topdressing is heavier than the native sand. In both these cases the increase in worm population is due to the making of the soil more conducive to their well being; in the first instance by removing the excess soil water and in the second instance by making the soil more capable of retaining sufficient soil moisture so that it does not dry out rapidly.

As stated in last month's article the better the soil of your green is for the growth of turf the greater will be the earthworm population. Under the circumstances artificial control measures are necessary to hold them in check on the choicer portions of the course, such as the greens and approaches.

Extend Treatment

Before considering control measures it might be well to point out one fact which should always be borne in mind in connection with earthworm control and that is the fact that no matter how often you treat a green for earthworms they will nevertheless be constantly creeping into the green from the surrounding turf just outside the green proper. Consequently when you confine your earthworm treatments to the green only it is very improbable that your green will ever be entirely free from worm casts.

The system of stopping dead at the edge of the green when applying chemicals for earthworms is mighty poor business and false economy. Extend the application of the chemical for at least ten feet out beyond the edge of the green 15 or 20 feet is even better.

Another ill-advised attitude of many greenkeepers is their snap judgment on a worm killer or a job of worm killing based entirely on how many worms come up to the soil surface and turn up their toes within a short time after the chemical is applied. If you will just retire to a quiet, secluded corner for three minutes and do a little thinking you will realize that this method of judging a worm killer is abject bunk. When I am doing a job of worm eradication I don't give a damn if I never see a worm come up and croak. What I am interested in knowing is how many worm casts there will be on that green the second morning after I have applied the chemical. Dead men make no noise and believe me dead worms make no casts, and the absence of worm casts is the surest indication that the treatment has been successful.

Another point to bear in mind if success is to be obtained with the use of such worm eradicators as dichloride of mercury or mowrah meal; as stated previously the earthworm loathes dry soil and goes down to moist cool soil when the top soil is dry and baked. Consequently it is poor practice to treat soil in this condition for the control of worms because the liquid has to penetrate the soil to too great a depth before it reaches the worms. Keep the soil of a green in a moist but not wet condition for a week before the application of the chemical and the worms will be right up under the surface so that the chemical can flood the earthworm burrows and give you a first-class control. Failure to observe this important point is the cause of many failures in earthworm control. The chemical will do the work if you give it half a chance. Furthermore, grass which has been dry for several days is in a weakened condition and severe burning often results from treatment with bichloride under these conditions.

Control Measures

Mowrah Meal: This is a first-class earthworm killer, its principal value resting in the fact that it is pretty nearly foolproof and can be applied with very little fear of burning the turf. It is, however, a very expensive method of worm control inasmuch as the meal sells around ten cents a pound and 35 to 40 pounds are necessary for a thousand square feet of turf. It is scattered dry over the green and then watered thoroughly.

Bichloride of Mercury: As a worm killer this chemical is damned by some and praised by many. It is a first-class material if you use a little horse sense along with it. There are two methods of applying it to turf; first, in solution by means of sprinkling cans, barrel sprinklers, etc., and second, dry mixed with sand. In the latter case the mixture of bichloride and sand is scattered over the green and watered in with a hose. Either method is good provided you know your stuff. In using the dry method ten ounces of the bichloride is mixed with a sufficient bulk of sand to insure easy spreading and applied to a thousand square feet of turf. After treating the green, water the green