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GREENKEEPER

HON. EDITOR: F. W. HAWTREE.



FOUNDED 1912.

PUBLISHED MONTHLY FOR THE
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The Association is affiliated to the
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No. 217 New Series

APRIL 1963

Bless us and these gifts which we are about to receive. May the fairway of life rise to meet you; may the wind be ever at your back; may His grip sustain you and a heavenly green await you. May you be ten thousand years in heaven before the devil knows what your score really was.

MONSIGNOR S. J. MCGOVERN, at the annual dinner in New York of the Metropolitan Golf Writers' Association.

APRIL CONTENTS

- Page 3 TEE SHOTS
- 4 BUYING NEW EQUIPMENT?—
THE IMPORTANCE OF DESIGN.
- 8 CUT ABOVE THE AVERAGE.
- 10 ASSISTANT S PAGE.
- 12 SECTION NEWS.
- 14 SPECIAL OCCASIONS.
- 15 SCOTTISH NOTES.

EDITORIAL AND ADVERTISEMENT OFFICES: Addington Court Golf Club, Featherbed Lane, Addington, Croydon, Surrey. Telephone: SANDERSTEAD 2690. SUBSCRIPTION RATE: 14/- for 12 issues post paid. Published during the first week of each month. LATEST COPY DATE: 8th of month prior to insertion. All rights reserved. Reproduction of original articles and photographs in whole or in part is prohibited. This Magazine shall not, without the written consent of the Publishers first given, be re-sold, lent, hired out, or otherwise disposed of. Contributions and photographs of interest are invited.

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This 'self-contained' motor mower has become recognised as the best machine of all for the maintenance of the perfect finish required for the Greens. The specification is complete and will maintain peak performance —for life.

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and perhaps most important of all **IMPECCABLE SERVICE**

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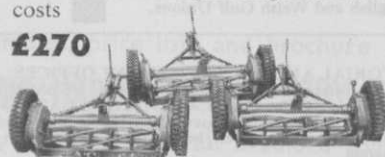


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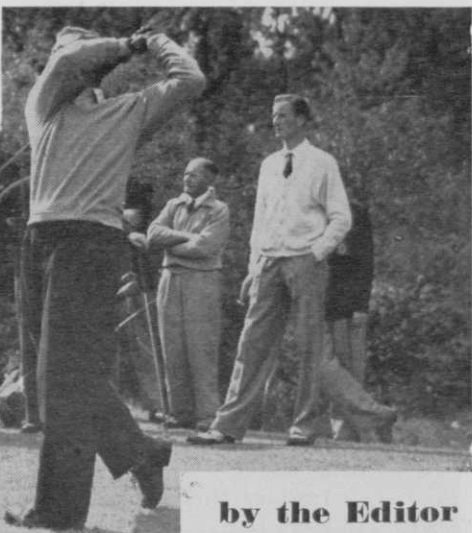
ATCO GANG MOWERS for the FAIRWAYS

Unique—because individual units can be 'ganged' in multiples of one to nine units. The Triple Gang illustrated costs

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TEE SHOTS



by the Editor

FELIX ARNOLD has now completed 35 years as Head Greenkeeper at Rye, but thinks that the age of 70 is still too young to retire. His winter work this year included digging six feet of snow out of the bunkers.

It is only three years since the Rye staff laid 27,000 turves in the last alterations designed by Sir Guy Campbell. Mr. Arnold was responsible for translating the architect's models into reality. We understand, however, that he will not be making the four new golf courses which a London development firm is planning at Sandwich Bay with £8,000 to £12,000 houses for London commuters.

* * *

We made acquaintance with the Charnwood Forest golf course last month. Three miles from Loughborough, these nine holes circle round a beacon with views which would extend to the Urals if you could see that far. Not a bunker on the whole course, by the way. The rocks give ideal practice for Alpinists who come there before tackling sterner stuff.

Royal Birkdale came out of the winter in remarkably good order for the match against Cambridge University last month. Douglas Pate has built several new back tees to ease crowd control problems. He promises not to put greenkeepers on them next August. The 1964 tournament, by the way, is booked to go to the South-West. It is now ten years since our tournament at Weston-super-Mare.

* * *

Messrs. Parkers of Worcester Park have gone into another side of course equipment supply with a new range of hole tins, flag sticks, flags, arrows, tee boxes and ball washers. We have been trying out a sample set in the rugged conditions of public course use and can report all well so far. The ball washer is a good-looking green stove-enamelled cylinder with drain plug, space for mud to settle outside the brush area and the brushes themselves easily renewable. The other items mostly follow traditional lines but we hear that new materials are being actively investigated which will prolong serviceable life and reduce maintenance.



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BUYING NEW EQUIPMENT?

This article will help you to decide the right additions to your machines this Spring

THE IMPORTANCE OF DESIGN

By J. R. Escritt, M.Sc.

Assistant Director,

The Sports Turf Research Institute

THE design of management equipment for sports and ornamental turf and for porous playing surfaces poses a problem for engineers, calling for precision results with a minimum of working components subject to wear and adjustment and to damage by use, weather, etc. These overall requirements can be met successfully and commercially only by simple principles, by robust construction without undue weight, and by adequate controls necessitating correctly proportioned components throughout.

Equipment, which includes both hand tools and machines and power operated implements, is now available in immense variety and price range and the problem of the prospective user is to make a correct selection from this range. The object of these notes is to suggest certain key factors which should receive attention at the time of selection.

★

The first need is to be entirely clear on what is required of any item of equipment. Thus, is it principally for fine turf, general sports field turf or merely a rough turf area? Will it be required to deal with any other condition such as an artificial playing area? Often, even in the smaller sports club, school or other recreational establish-

ment, the several types of surface all occur and call for regular mechanical management in some form or other. When buying new tackle it is worth preparing a written specification of requirements and comparing this with facilities offered by the products considered, especially if considerable expenditure is contemplated.

If the capital available dictates a compromise it is first necessary to decide which is the most important or desired function and to ensure that the selection will deal adequately with this. It is almost invariably unsatisfactory to expect one basic tool, implement or machine to be capable of meeting several requirements. The wisest way of providing for all-round requirements is most probably to plan adequate expenditure over a longer period and to purchase the most suitable items in order of priority of need or revenue reward.

★

Following the financial decisions and definition of conditions and their needs the problem of selection becomes technical and calls for experience. The purchaser may find it wise to choose an independent adviser with personal practical knowledge to assist in making the selection, but points to watch include:

Simplicity of principle. If this is inherent the article will itself at once appear simple. The method by which it achieves its declared function will be easily apparent even to those who do not necessarily have specialised technical knowledge or experience. The inclusion of diversionary devices not contributing to or even interfering with the main function will have been reduced to the minimum both by the designer and by the production engineer. The number of moving parts, especially those which are exposed, will have been ruthlessly



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on the market
at the present time" . . .**

Lancashire Golf Club recommends HI-GROW and SEAGROW to all Golf Clubs.

First-hand testimony to the results achieved with HI-GROW and SEAGROW. The secretary writes:

"We consider that Hi-Grow and Seagrow fertilisers are better than anything on the market at the present time. We would have no hesitation at all in recommending Hi-Grow for use on the fairways throughout the growing season. Seagrow has been used on newly made and old established greens and this has produced marvellous results. Our greens have received praise from everyone because of the marvellous results, and the beautiful colour which has been maintained throughout the winter. We have no hesitation in recommending your fertilisers to all golf clubs".

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The top-quality fertiliser with the exceptionally high N.P.K. content—9% N, 9% P, 15% K.

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A seaweed based fertiliser which has achieved spectacular success.

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minimised. There will be relatively few lubricating points and these will have been made easily accessible. A sound, simple principle which has been carried to its logical conclusion will result in a complete product which will perform adequately without the need for supplementary parts or extra components. If the equipment is constructed on the outfit principle the various implements will be quickly and simply interchangeable with little or no use of tools as, for example, in the case of a tractor with three-point hydraulic linkage.

★

Robust construction. This will again be apparent but will not make the article appear clumsy or bulky. Weight will be built in only where it is necessary, i.e., to produce durability and to assist the function or the control. If it does not assist in these ways there is a fault in the principle or in the detail of design and the article will be unnecessarily costly, or if cheap will be unable to achieve the required results.

The progress of motor mower design whereby machines have become successively lighter in recent years and have yet become both more efficient in cutting and easier in control is an example of this development of design principle. There was at one time a risk of this feature being carried beyond the optimum. An excessive reduction in weight in any unit of equipment will show itself in a lack of rigidity in construction resulting not in easier but in more difficult handling. This feature became apparent in some types of cultivator now mainly obsolete.

★

For long life and good service robustness should show in the proportioning of bearings, especially where these accommodate components which are in constant movement when the machine is in use. Such bearings should be easily and quickly replaceable if maintenance service costs are to be kept in check. It might be said that the bearings are a guide to the soundness of character of the designs.

Cost in relation to working life. It is important to consider at the time of selection what is required to be the working life of the equipment. Only where a definitely short period is certain should mere cheapness be a main consideration. In all other time considerations the relative value of the equipment and that of the operator's wages should be thriftily related. Time spent using equipment in its proper function is productive whereas time necessitated in adjustments, service, or other attention is unproductive. Satisfactory machinery maintenance is one thing—constant adjustment and repair is another. All this is true even though the equipment may be only in seasonal use.

★

Ease of control. Given a sound and simple functional design the next most vital aspect affecting efficiency of use is physical ease of control. In recent years this necessity has come to receive much closer attention. It is still not unusual, however, to find that what looks in the showroom to be an attractive tool or machine is rapidly found by the unfortunate operator, who is often not the purchaser, to be mankiller. More often than not this critically unsatisfactory feature is due to the neglect of the designer or maker to allow prototypes to pass through sufficiently protracted trials before handing them over to the production engineer. An enthusiasm for novelty on the part of the purchaser or of the designer should not be allowed to override the absolute necessity of ensuring that the more essential needs of functional design have been met.

★

Three important components related to ease of physical control are handles, ground wheels, and remote controls.

It is worth remembering that both the former are fundamentally levers and must be adequately proportioned or mechanically assisted to allow the normal exertions of an operator to raise, lower, or propel the implement. Handle controls are sometimes, though not always, easy to check even in the showroom but the wheels and tyres should be carefully considered in relation to relatively soft

(Concluded on page 16)



**Call in
the Fisons
turf
specialist**

...his advice is free

If you're an official responsible for sports turf care, you'll find the Fisons turf specialist a good man to know. He'll carry out an inspection and, if necessary, a pH test (like the turf specialist in the picture). Then he'll plan a special programme of maintenance and treatment for your turf. This advice is invaluable—he gives it to you free! Write and ask for a turf specialist to visit you.

A CUT ABOVE AVERAGE

Gordon Young reports from Park Royal

RANSOMES "DEMO"

BLUE skies, the sun shining and a light breeze delicately perfumed by the smell of brewing Guinness; just the right kind of day to watch a demonstration of grass-cutting machinery. One of the many given throughout the country by the Demonstration Unit of Messrs. Ransomes Sims & Jefferies Ltd., and held, in this instance, by the courtesy of Messrs. Arthur Guinness Son & Co. at their Park Royal sports ground during the first week of March.

Of course there was very little length to the grass but who could expect fit at this time of the year, after THAT winter? The two able demonstrators must have felt like Yul Brynner's barber looking for something to cut! However, it was a pleasure in itself to see some green turf in good condition and free from snow mould, snow scald, Typhula blight or whatever one's own particular name is for that recent and most unwelcome immigrant to this country.

There was sufficient length of grass to surround the rotary cylinders of the close-cut mowers with a green haze and to give that Spring is here—have you heard the cuckoo?—freshly mown grass smell. One had to imagine the 24-inch wide lanes being shorn in the long grass by the new "MATADOR" fitted with the alternative five-knife cylinder, but one was left in no doubt that shorn they would be, by what the makers claim is "the most versatile medium motor mower on the market". Similarly, one could picture the 27-inch "ROTA-CUTTER" tackling and conquering with one cut tangled grass up to two feet tall.

Among the twelve machines demonstrated, from the 14-inch "SPRITE", with its choice of 2-stroke, 4-stroke or electric motor models, to the 7-ft. "SPORTCUTTER" Triple Gang Mower were such well-known Golf Course favourites as the:—

18-in. "AUTO-CERTES", a machine specially designed for cutting greens, the salient features being 106 cuts per yard for high class finish and power-driven transporting wheels for moving the machine from green to green.

18-in. "TYPHOON MAJOR", a very useful rotary machine, inexpensive to run and handy as a general utility mower for tidying up areas of grass not normally cut.

20-in. "ANTELOPE", an inexpensive, power-driven, side-wheel mower, designed for cutting tees and the backs of bunkers. Ideally suited for mowing banks.

20-in. "MARQUIS", a light and reliable motor mower giving a high standard of finish and particularly useful for cutting tees.

Of novel interest was Ransomes' first battery electric mower, the "MERCURY ELECTRIC Mark 3". No fumes, no noise, no awkward cables, no mechanical knowledge necessary and no electrical danger when cutting wet grass (if you do such a thing!). Very convenient for cutting verges below the windows of the room where the Green Committee is in session. It allows one to hear while working and without appearing to be listening, the kind and generous remarks that are continually being made about the greenkeeper and his devotion to duty.

I cannot finish without mentioning the hospitality and the lavish light (and dark) refreshments dispensed by Messrs. Ransomes in the luxurious Guinness sports pavilion, at the end of the demonstration. Altogether a most instructive and enjoyable afternoon.

I understand that further tours are being organised, covering the whole of England, Scotland, Northern Ireland and Eire, so if you have not seen this demonstration, you may still have a chance to do so. It is hoped that you, too, have nearby a suitable sports ground with brewery attached.

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For irrigating large areas of turf*, B.O.I.L. POP-UP Sprinkler Systems ensure maximum efficiency, minimum cost and complete reliability.

B.O.I.L. POP-UP Systems can be equipped with extremely accurate, fully automatic control, that will ensure regular watering daily (several times a day, if required) for periods up to 14 days, *with no attention whatever*. Think what savings this means — in time — in labour! The B.O.I.L. fully automatic POP-UP Sprinkler System is one of the biggest steps forward in irrigation ever made.

Please write for full details or, better still, ask the B.O.I.L. man — a fully trained irrigation engineer — to call and tell you all about it.

**Such as playing fields, sports grounds, golf courses, parks, lawns, tennis courts, etc.*

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A really effective clover killer for turf.

★ 'DICOTOX' EXTRA

Highly concentrated selective weedkiller for economical treatment of large areas.

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Curative and preventive fungicide in powder form for dry application.

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M&B

ASSISTANT'S PAGE

Basic rules with two well known proprietary selective weed-killers

"DICOTOX" EXTRA Selective Weedkiller

What does it control?

One application of "Dicotox" Extra will easily control a wide range of turf weeds including plantains, catsear, hawkweed, daisies, creeping buttercup and dandelion.

"Dicotox" Extra is a 40 per cent ester-oil formulation of 2, 4-D which means that light rain during spraying, or even heavy rain a few hours after application, doesn't affect the final result.

"Dicotox" Extra is completely harmless to established grass and can be used anywhere where there are turf weeds to be eradicated.

Best time for application?

When weeds are growing strongly.

For best control of daisies, spray in spring and again in September. To control creeping buttercup and dandelion, spray at the normal rate, up to the time of flowering; application at the double rate may be necessary at later stages.

Application rates?

From 2 pints (normal rate) to 4 pints (double rate) of "Dicotox" Extra per acre may be applied by knapsack sprayer or spraying machine. Depending on the equipment used, the volume of spray applied may be between 20 and 100 gallons per acre; volumes below 20 gallons per acre are not recommended.

For small areas, 1 fl. oz. of "Dicotox" Extra in sufficient water to cover 120 sq. yds. (1 to 2 teaspoonsful of "Dicotox" Extra in 2 gallons of water will treat 15 sq. yds.).

Packing and Prices?

1 gallon drums—94s. each. 5 gallon drums—84s. gallon.

"CLOVOTOX" For clover in turf

What does it control?

"Clovotox" controls white clover, yellow suckling clover, yellow trefoil (black medick), mouse-ear chickweed, and pearlwort. Applications under favourable conditions have shown a useful effect against yarrow.

"Clovotox" mixes readily with water to form a stable solution. It is non-poisonous and harmless to grass.

The application of nitrogenous fertiliser shortly before using "Clovotox" will enhance the effect against clover. Close mowing should not be done during the three to four days before or after treatment with "Clovotox".

Best time for application?

When both grass and clover are growing actively, in warm weather with adequate moisture present.

Application rates?

Established turf

1 gallon of "Clovotox" per acre (4 fl. oz. per 120 sq. yds.).

Young turf

4 pints of "Clovotox" per acre (2 fl. oz. per 120 sq. yds.) provided all the grass seedlings have reached the 2 to 3 leaves stage.

Mix the "Clovotox" with the appropriate quantity of clean water; a spray volume of between 10 and 100 gallons per acre, preferably about 30 gallons, is recommended.

For smaller areas, treated by means of a knapsack sprayer, 2 gallons of spray is usually sufficient to treat 100 to 120 sq. yds.

Packing and Prices?

1 quart tins—25s. each. 1 gallon tins—8s. each.

★ (N.B.—A fluid ounce is 2 tablespoonsful) ★