

# Are you green about grass?

Probably not. But establishing and maintaining a good turf is no easy matter, even for an experienced man.

No matter if the game is golf, cricket, bowls, tennis, polo, football or hockey we have the right mixture of grasses.

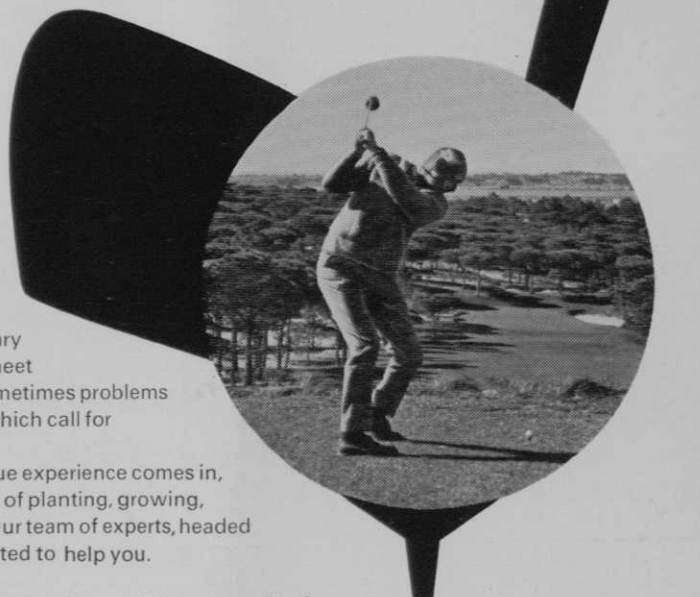
But sometimes it is necessary to devise prescriptions to meet special conditions. And sometimes problems arise in turf management which call for specialist advice.

This is where Suttons unique experience comes in, experience gained by years of planting, growing, blending, experimenting. Our team of experts, headed by Bob Palin, will be delighted to help you.

Send today for Suttons 1971 Catalogue – "Your Grass Seeds and Sports Turf Needs" for the full story, as well as lots of useful information and ideas. This is free and gives you a ready guide to the best range of grass seeds and turf dressings on the market. It is also a sound basis for your own turf care ideas.

## Suttons Seeds

READING · BERKS · Tel: Reading 61151



**To Suttons Seeds (277B) Reading.**  
*Please send me your 1971 grass seed catalogue.*

NAME .....

CLUB, ORGANISATION, ETC .....

ADDRESS .....

# NOTICE OF MEETING

**NOTICE** is hereby given that an **EXTRAORDINARY GENERAL MEETING** will be held at

The English Speaking Union,  
37 Charles Street,  
Berkeley Square,  
London, W.1.

on Saturday, 8th May 1971 at 12 noon.

**BUSINESS** — To consider and vote on a proposition from the Executive Committee that Membership Subscriptions should be increased as from the 1st May 1971 to:

Class A membership	£2.00
Class B membership	1.50
Class C membership	1.00
Class D membership	2.00
Class E membership	2.50

---

## WAGES SCALE RECOMMENDATION

At the Executive Meeting on 27th March 1971, the Committee recommended an increase on their 1970 figures, and suggest they should now read:

Head Greenkeeper	£28.00 to £32.00 plus accommodation
First Assistant	£21.00 to £24.00
Assistant	£17.00 to £20.00

---

## R. C. CRAIG

AND CO. LTD.

SPECIALISTS IN THE REPAIR AND  
MAINTENANCE OF ALL TYPES OF MOWERS

★ Agents for: RANSOMES SIMS &  
JEFFERIES Ltd.

★ LLOYDS & Co. Ltd.  
WEBBS LAWN MOWERS

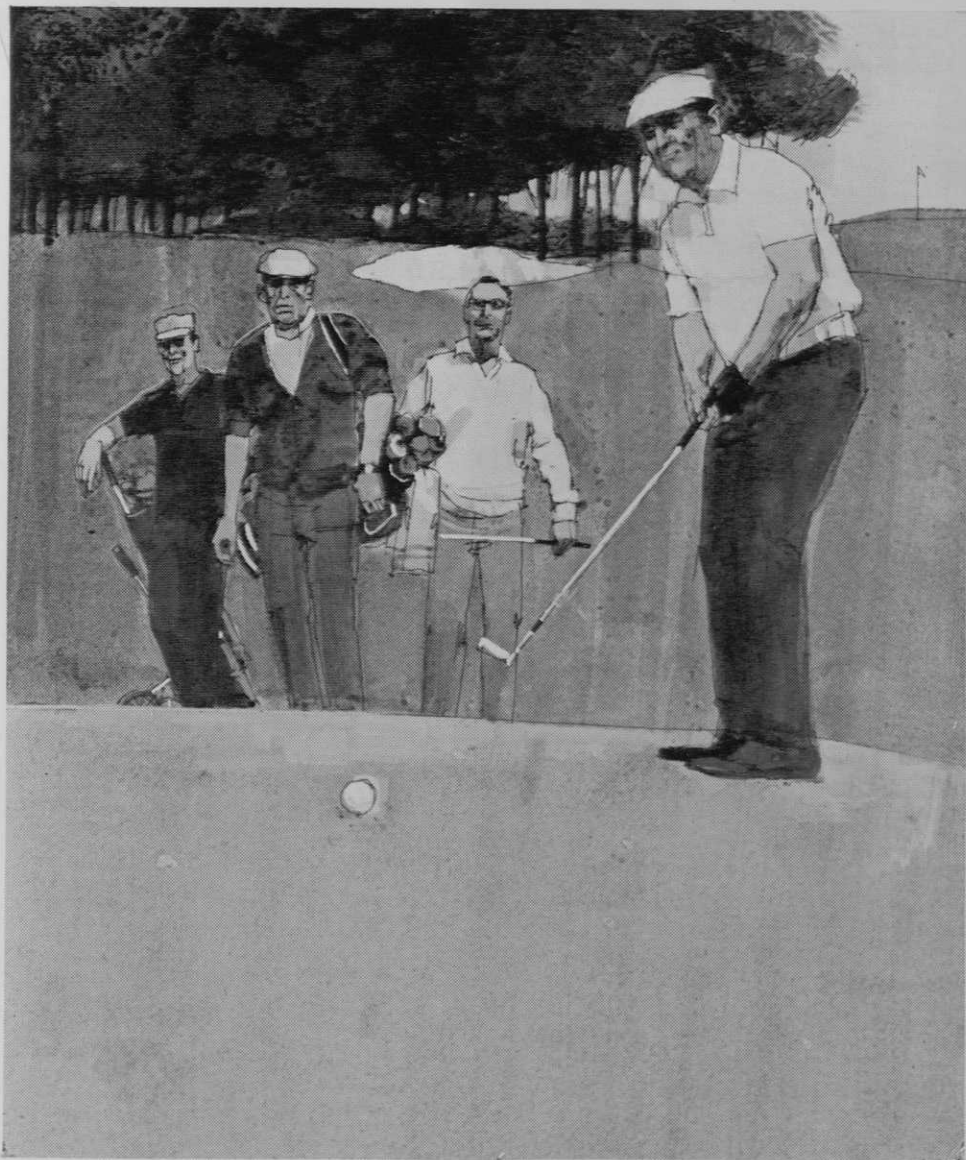
★ Distributors: DENNIS BROS Ltd.  
GANG MOWERS FOR HIRE

We will gladly call on you to advise on your grass cutting equipment or arrange demonstrations. Ring us now.

★

**153 Arch Stamford Brook  
Station, LONDON, W.6.**

RIVERSIDE 5415



## Their game could depend on yours.

Your game is choosing the right fertilizer.

We'd like to think Greenkeeper 2 is the right fertilizer, no matter what type of green you keep.

It's made up of peat-impregnated granules and is a fast-acting fertilizer for fine turf.

It's made by the unique Hi-Lite process and is easy to handle, with

no dust problem.

Greenkeeper 2 acts faster and lasts longer than any ordinary fertilizer giving consistently good results, with no scorching.

That's the benefit.

Greenkeeper 2, the reliable one. You can depend on it.



## Greenkeeper 2

**FISONS**  
Fisons Agrochemical Division

Recreational and Industrial Dept. Papermill Lane, Bramford, Nr. Ipswich.  
Tel: Claydon 492.

# A QUESTION OF FERTILISERS

By W. N. S. BISSET,  
Advisory Officer, Sports Turf Research Institute

As the season has arrived when most of the outdoor maintenance activities on a golf course have commenced, most clubs will have applied their fertiliser. The bills for these materials and other items will have been received and almost invariably will show some increase on the previous year. This usually gives rise to queries by committee men on the necessity for the various materials and ways to keep expenditure to a minimum are examined.

## Why Fertiliser?

Of all the factors influencing growth, the nutrient status of the soil is one which can be partially affected by the greenkeeper. However, the extent to which fertilisers improve gross growth is not only dependent on the quantity and quality applied but also on the effects of the other inter-related factors, e.g. light, temperature, moisture and air. Lime is not a fertiliser but is sometimes required to correct over-acidity which restricts growth and fertiliser availability.

To obtain the optimum grass growth, providing that all other factors are favourable, a wide range of mineral elements are required. Most soils, however, naturally contain sufficient minor elements to grow satisfactorily and in general only the major nutrients require replacing, i.e. Nitrogen (N), Phosphate (P) and Potash (K).

Different soils have different levels of natural resources which the bacteria, etc. convert to available plant foods.

For plants to take up the N, P and K these nutrients have to be in a soluble state and, therefore, are liable to leaching by rainwater and loss into the drains. This point is illustrated by a number of reports of stimulated weed growth blocking rivers as a result of leached fertilisers from agricultural land. The naturally produced elements are, of course, subject to the same losses as applied fertilisers. Artificial watering can also increase the losses by this method.

Once the plants absorb the nutrients they are used to build up plant tissue and it can be seen from this that on golf greens and tees where the grass clippings are removed the nutrients are also removed. A further loss is now created.

Fertilisers are, therefore, required to maintain the balance of nutrient levels so that optimum grass growth is obtained. On a golf green higher levels of fertiliser treatment are required because (a) wear is more intensive and quicker recovery is necessary, (b) clippings are usually removed and (c) artificial watering increases leaching.

On a golf tee fertiliser treatment should only be slightly less intensive than on a green as quick recovery from wear damage is necessary to maintain satisfactory playing conditions. Circumstances on a fairway are different as clippings are invariably returned thus creating a cycle of nutrients. However, occasional fertilising may be necessary to make up losses due to other causes.

## What Fertiliser?

Once it has been decided that fertiliser is necessary the type of fertiliser to use is the next consideration. Different materials have been shown in experiments to have different effects on turf. The three major nutrient, N, P and K, are required annually by the grass plant. The form in which these elements are applied is important. Experiments have shown that alkaline N fertilisers such as nitrate of soda should be avoided as they lead to a turf which is wormy and weedy. Organic N fertilisers have a similar effect if used alone but have advantages which merit their inclusion in mixtures — they are slower acting and assist drought resistance.

The acidic N fertilisers should, therefore, be used and the most convenient is sulphate of ammonia with dried blood or hoof and horn forming the organic content.

*(continued on page 16)*

Sports turf takes a lot of looking after. Up until now you could have chosen a wide range of different weedkillers to keep your turf clean.

Fisons, Britain's leading producers of weedkillers, offer you the easy way of winning the weed game. With just two products. Mecodex and Cambadex.

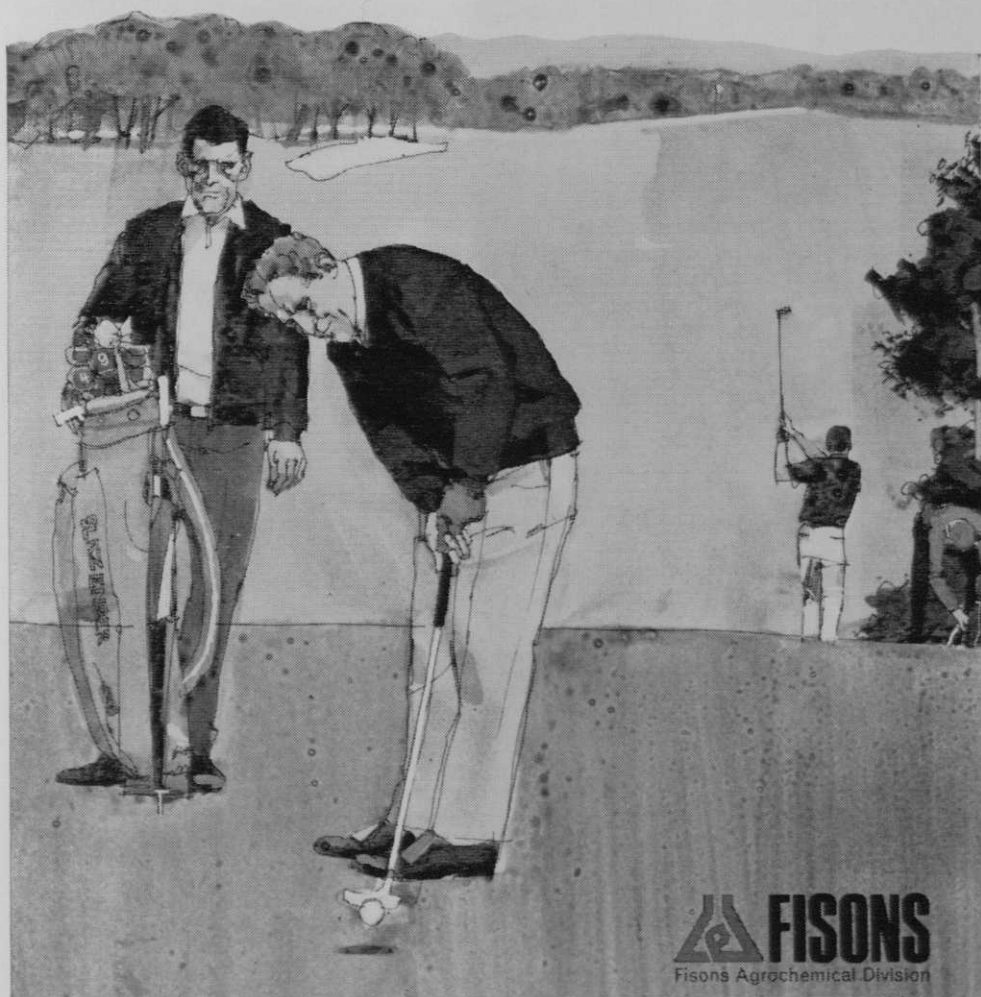
Highly-active, broad-spectrum weedkillers. Together they can solve all your major weed problems, at just one simple dose rate.

For free advice and information ring the Fisons' Sales Office at Claydon (near Ipswich) 492.

You've got nothing to lose.

## Mecodex and Cambadex.

### With these two on your side you always win.



Fisons Ltd., Recreational and Industrial Dept., Papermill Lane, Bramford, Nr. Ipswich.

(continued from page 14)

To apply P, superphosphate is prominent as the most suitable, with bone meal providing the organic content. Basic slag provides phosphate but also contains lime and will lead to weed and worm invasion if used regularly.

To apply potash, sulphate of potash is the most suitable material.

### **What Form of Fertiliser?**

To apply fertiliser to the fine turf on greens a powdered formulation is to be preferred as there is no risk of the localised scorch which is often obtained with granular materials. On tees either a powder or granular may be used according to preference. The ease with which granular fertilisers are handled makes these materials most suitable for application to the much larger fairway areas.

Liquid fertilisers are often suggested but they have decided limitations. The kind of fertiliser which can be used is restricted by solubility difficulties and there are problems in application. Because of the quantity of liquid involved there is a risk of scorch when applied by a sprayer and because even distribution is required application by a sprinkler is not recommended.

### **How is Fertiliser Applied?**

The methods which are used to apply fertilisers are varied involving hand or machine application. The person or persons whose job it is to apply the material should obviously be competent. Damage by uneven fertiliser distribution is not only harmful to the sward itself where excess can cause scorching but also to the general appearance where areas may be missed. When dealing with powdered materials it is, of course, essential to bulk the actual fertiliser with a suitable dry carrier, e.g. screened sandy compost to obtain an even spread. This applied whether the fertilisers are applied by hand or machine.

If a machine is employed it is important to ensure that calibration is carried out prior to each treatment so that no more (or less) than the required amount of fertiliser is applied. It is argued, and justifiably so, that a skilled man spreading fertiliser by hand is still one of the best methods of applying fertiliser.

### **When Fertiliser?**

In the spring it is important to select the correct time of application and this can be done accurately using local knowledge of weather etc. Often a "false spring" occurs early in the year only to be followed by a sudden cold spell. To obtain full benefit from fertilisers in the spring the grass should be starting to grow (seen as greening up of rough or hedgerows, etc.) and the fertilisers will then boost the natural growth.

Further fertilisers are generally required during the season and should be applied when growth from the previous dressings is beginning to die down, the object being to maintain even growth throughout the season. The fixture card should be borne in mind so disturbance of play is minimised.

Still and showery weather is best suited to the application of either powder or granular fertilisers but the lack of wind is not so critical with the granular types. Artificial watering removes some of the doubts regarding when to fertilise but excess water can lead to uneven distribution.

### **Where Fertiliser?**

As stated previously fertilisers are required regularly on greens, surrounds and approaches, tees and, as often as necessary, on fairways. Selective fertilising of weaker areas of finer turf is not generally recommended but on fairways more frequent treatment can be carried out on weaker parts.

In organising the fertiliser treatment on one's particular course, a soil analysis should occasionally be carried out as a check; one of the services provided to member clubs by the Research Station. Poor results can be obtained by using too little fertiliser or the wrong material, just as too much fertiliser can create an amount of top growth far in excess of requirements and in the latter case there is obviously room to prune the budget.

---

### **USED GOLF BALLS BOUGHT**

Any quantity. Price 4s. per dozen.

Solid and perished balls no value.

**Sparkbrook Golf Ball Co. Ltd.,  
291 Highgate Road, Birmingham, 12.**

# Supaturf

## FERTILISERS

Order NOW for Spring & Summer

Supaturf fertilisers are scientifically blended to ensure the correct proportions of organic and inorganic ingredients. They provide a regular and sustained release of essential plant food throughout the growing season.

**Supaturf** Spring/Summer Fertiliser  
for Fine Turf

**Supaturf** Spring/Summer Outfield Pelleted  
Fertiliser for Football Grounds, Cricket Outfields,  
Golf Fairways, etc.

Prices and details on request.

SUPATURF PRODUCTS LTD WERRINGTON PETERBOROUGH PHONE 72470



GRASS SEEDS · FERTILISERS · DRESSINGS · SPORTS GROUND · PARK & HORTICULTURAL SUPPLIES



## ESTABLISHED Tradition

See us on Stand No. 1,  
Avenue F, at the Inter-  
national Sportsground,  
Machinery and Equip-  
ment Exhibition, Motspur  
Park, Sept. 15, 16, 17.

is important to our highly skilled team of maintenance and service engineers. Immediate delivery of spare parts — from the largest stock of spares in the trade. An immediate service exchange assembly (engines, cutting cylinders, magnetos, etc.). Reliable maintenance service to keep your equipment in top working order. Our Service Engineers and Demonstrators are available at any time. H.P. facilities available.

### NEW EQUIPMENT ALWAYS IN STOCK

Distributors and  
Authorised Repair  
Agents to Ransomes,  
Sims and Jefferies.  
Official London Area  
Distributors for

**Ransomes**  
specialist machines

**HONDA**  
Tractors,  
Cultivators,  
Generators.

Main Agents and Distributors for  
Clinton and Briggs & Stratton engines

Officially Appointed  
Service Depot for  
**VILLIERS & J.A.P.**  
Industrial and Agri-  
cultural Engines.

### RELF AND KENDALL

406 BRIGHTON ROAD, SOUTH CROYDON, SURREY. CRO 0578  
11 STATION ROAD, NEW BARNET, BARNET 6228

Member of the British  
Golf Greenkeepers'  
Association

Member of the National  
Association of  
Groundsmen

Contractors to : Municipal Authorities, Sports Clubs, Golf Clubs, Reconditioning and Maintenance of all grass cutting equipment.

# PLAYERKILL on Frosty Greens

## TO PLAY OR NOT TO PLAY . . . WHOSE DECISION?

By PAUL M. ALEXANDER, Ph.D. GCSAA Director of Education

Like a slap in the face, the sign on No. 1 tee coldly states, "Golf Course Closed Because of Frost."

The overworked, harassed green chairman sighs resignedly and says, "Boy! How will I explain *this* to the Saturday morning boys?"

He turns and enters the pro shop. Before getting half way through, the golf professional halts him with a half-hearted, "Good morning, Mr ———".

After a pause, he asks, "Say, do you think we can get the superintendent to reconsider and open the course? We've already had to close four Saturdays this year because of rain and this sure bites into my sales."

Shaking his head, the green chairman heads for the locker room again, only to be stopped once more. The first four-some of the "Saturday morning dew-busters" group has recently arrived and they look pretty steamed up!

"Why on earth should the superintendent close the course because of a little frost. I pay dues all year 'round and I resent coming here and being told that I can't play . . . besides, Saturday morning is the only time I can get out for golf."

"Look, there are only four of us and we certainly can't cause any damage. How about letting us tee it up?"

### Unaware of turf threat

Does all of this sound too familiar? It certainly should — particularly for those courses located in areas where fall and spring frosts are common occurrences. And it is only natural for people to react in this manner. Why shouldn't they? Their reactions stem from the fact that they, unlike the superintendent, do not know *why* traffic on frosted turf (especially greens) presents a threat to the continued health, vigour and playability of that turf.

### Expose them to facts

This is not to say that we should try to make every green chairman, golf professional, club manager or golfer an expert agronomist. Far from it. On the

other hand, it actually behooves us to make sure that they are exposed to certain facts about "playerkill" . . . which is the net result of permitting play on frosted or frozen turf.

*An example of how frost can affect major tournaments took place recently during the Del E. Webb Pro-Am in Nevada. An early morning frost delayed the starting of the field, resulting in selection of the winning team on the basis of 27 holes instead of two full rounds.*

The total number of foot imprints is not the basic reason for closing a course (although this is certainly a consideration); rather, the superintendent is concerned about the damage done to the individual leaf blades within each imprint. If conditions are such that individual cells within the leaves contain ice crystals, it is almost certain that these cells will be ruptured when trod upon. When enough cells are ruptured, the leaf blade will die or, at best, be severely injured.

Playerkill is reflected in a slight depression of the turf which produces the much-hated "bouncing ball" type of putt. Worse yet, it becomes practically impossible to maintain a true-line putt—regardless of how well the ball is stroked. These are just two of the *short-term* undesirable effects of playerkill on frosted or frozen turf.

### Long-term effects

More serious—and of importance to all persons interested in the golf course—are the long-term effects of playerkill; those which persist until weather conditions are such that vigorous turf growth resumes, and the damage heals over. A few words of caution are really necessary at this point—these long-term effects can occur just as easily on overseeded bermudagrass greens as they can on bentgrass greens.

### Temperature requirements

To the superintendent, the reasons are obvious; if playerkill occurs relatively



late in the growing season when soil temperatures are low, the chances of re-seeding or renovation procedures being successful will be very poor. True, the grasses used for overseeding (or re-seeding) purposes are of the "cool season" types, but they, like all living organisms, have definite temperature requirements which must be met in order for them to germinate, grow and mature.

Playerkill is not to be taken lightly by any green chairman, golf professional, club manager or golf course superintendent. Without true putting surfaces and near-flawless turf that all golfers seem to demand, the over-all operation of the golf club is bound to suffer.

### Poor turf results

Simply stated, poor quality turf results in fewer players, which, in turn, leads to lower sales potential for the golf professional, reduced food and beverage sales in the clubhouse and increased headaches for the green chairman.

The need for closing a frosted or frozen course boils down to a clear understanding of all factors involved. Once these factors are placed in the proper perspective it becomes obvious that the superintendent, with his agronomic knowledge and expertise, is the one club representative who should bear the responsibility and authority for such a decision.

### Notify club representatives

In addition, it should also be the superintendent's responsibility to ensure that other club representatives are notified immediately as to his decision so that the golfing membership can be informed. Finally, the superintendent must watch the course conditions very carefully so that he can reopen the course as soon as weather conditions permit.

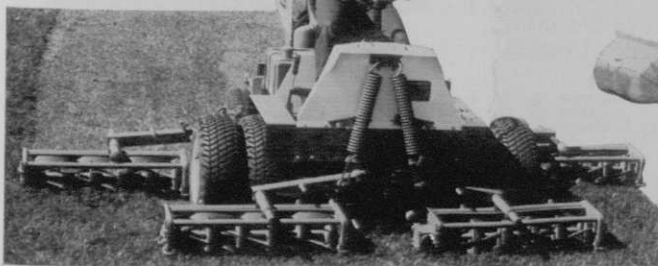
How about it? Is the price paid for one round of golf on frosted or frozen greens worth all the potential trouble mentioned above?

*With acknowledgements to  
"The Golf Superintendent"*

# ROLFE PROFESSIONAL MOWBILITY

The widest range of professional machines for local authorities, parks and sportsgrounds from Britain's most experienced distributors. Write or ring for the catalogue or a demonstration anytime anywhere to the country's best known turf machinery specialists.

JACOBSEN Commercial 60 60" Riding Mower Turf King 3 gang 76" or 84" AGRIA 4 wheeled diesel Tractor 18 h.p. GOLF Towed sweeper 36" BUNTON Rotaries 24" to 52" PARKER Parker Vac Commercial Vacuum Collector



JACOBSEN F133 5 gang 133" cut



JACOBSEN Sod cutter 12" to 17"



JACOBSEN Greens King 3 gang 70"

## ROLFE'S MINI-TRACTORS LTD

WINCHESTER HILL, ROMSEY ( ), HANTS.

TELEPHONE: ROMSEY 3185

SITUATIONS VACANT

# HEAD GREENKEEPER

This post became vacant in January, 1971. Salary by negotiation, not less than £1,350 per annum. Free unfurnished bungalow adjoining the course.

- Three Courses—(a) Dunluce Championship Course  
6,850 yds.  
(b) Valley Course  
6,250 yds.  
(c) 9 hole Course  
1,350 yds.

This is an opportunity for a first-class man to improve his status. Assistantce may be given with removals.

Applications in writing with references and full details of experience to:  
The Secretary/Manager,  
ROYAL PORTRUSH GOLF CLUB,  
Portrush, Co. Antrim,  
Northern Ireland.  
Tel. Portrush 2311.

## HEAD GREENKEEPER REQUIRED.

Wages according to experience. Cottage available on the Course. Applications giving full details of experience, present employment, etc., to the Secretary, Haydock Park Golf Club, Golborne Park, Newton le Willows, Lancs.

## HEAD GREENKEEPER REQUIRED

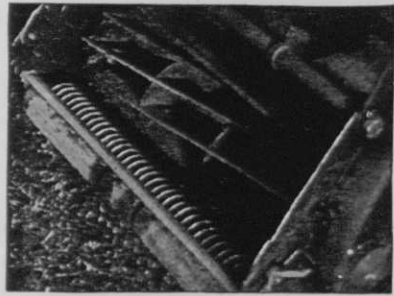
immediately for new Golf and Country Club now being constructed in mid-Essex. First class, fully experienced man able to take sole responsibility for golf course, prepare cost budgets, etc., would be offered excellent salary with new house provided. Apply in writing to the Secretary, Three Rivers Golf and Country Club, c/o Heycroft Holdings Limited, 687/691 London Road, Westcliff.

## SANDY LODGE GOLF CLUB

require a First Assistant Greenkeeper with knowledge of greenkeeping and course maintenance. Rent- and rate-free three-bedroomed house available on course.

Applicants should apply in writing to the Course Manager, Sandy Lodge Golf Club, Northwood, Middlesex.

## FOR FAST GREENS



FIT A GRASS COMB  
TO YOUR MOWER

**STEWART & CO.,**

FINE TURF SPECIALISTS  
EDINBURGH. EH2 2AY