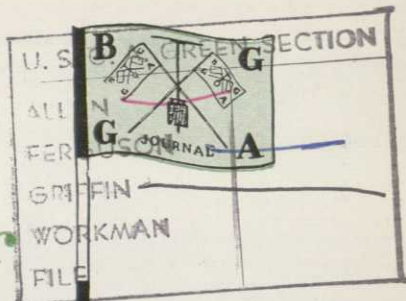


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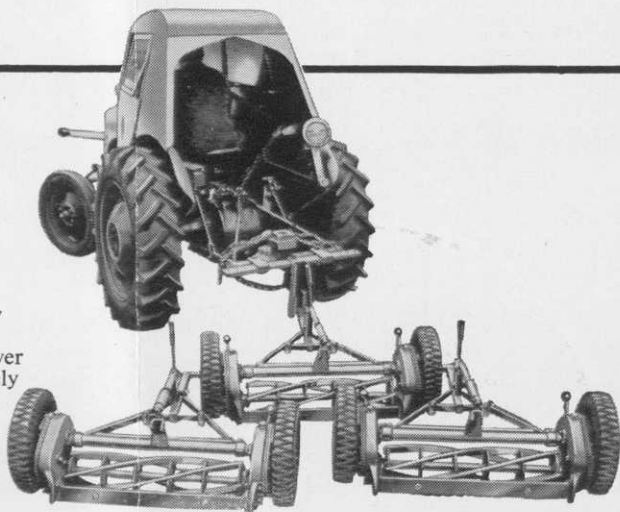
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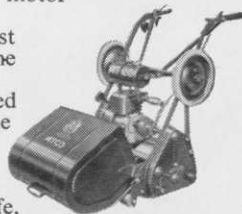
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THE BRITISH GOLF

GREENKEEPER

HON. EDITOR: F. W. HAWTREE.



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PUBLISHED MONTHLY FOR THE BENEFIT OF GREENKEEPERS, GREENKEEPING AND THE GAME OF GOLF BY THE BRITISH GOLF GREENKEEPERS ASSOCIATION

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No. 215 New Series

FEBRUARY 1963

The best sermon is preached by the Minister who has a sermon to preach and not by the man who has to preach a sermon.

WILLIAM FEATHER.

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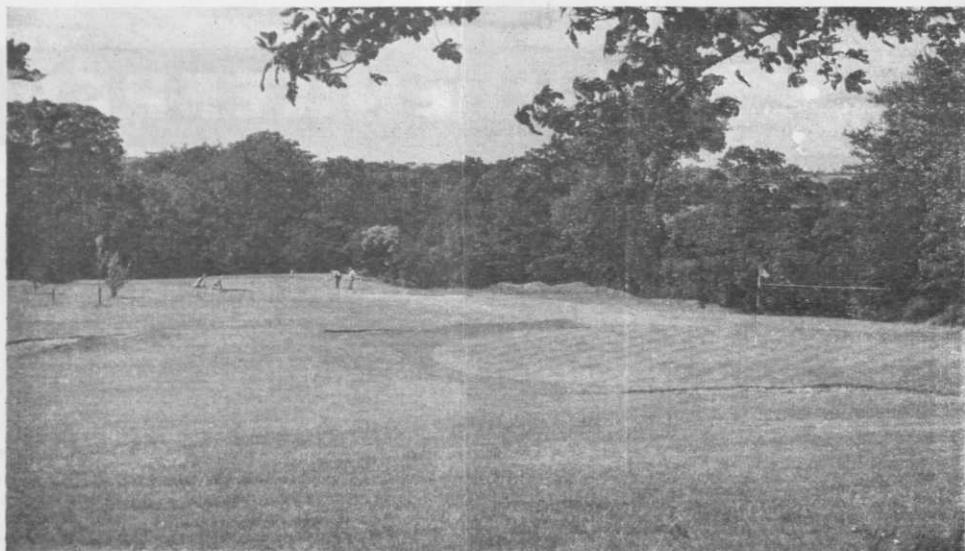
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TEE SHOTS



by the Editor

A SIX thousand mile search for visible grass last month brought up some odd results. No snow round Lough Neagh and hardy golfers enjoying the Massereene Golf Course, Antrim, just about to extend itself to eighteen holes from nine. Deep snow at Lyons —27°C. on the club-house terrace but work well on with their new 18-hole course. No snow on two new Paris courses under construction—the one where tree felling provided frequent blazes along future fairways distinctly the favourite. An inch or so at Wigan where Ashton-in-Makerfield Golf Club is getting ready to move itself to a new home. No: a flake in Majorca though rain has been holding up work on the new Son Vida course. More fell last November than normally in the whole year. A sprinkling at Lavandou in the South of France—but the sun already strong enough to shift it and the new 18 holes all roughly shaped. But up to the knees at Orpington where a new public course is planned not far from the West Kent Golf Club at Downe.

* * *

The Apprenticeship Scheme has had the blessing of the English Golf Union and the Welsh Golfing Union. Next stage is to set up the Central Council. To show how fast they move in Wales, just a fortnight elapsed between requesting consideration and a reply saying it had been approved and more copies were wanted to send out to clubs.

* * *

Thanks to C. R. Cooke, of St. George's Hill, for telling us about the celebration that never was. A paragraph in the *Daily Express* mentioned the 50th Anniversary celebrations of the B.G.G.A. and a lot of greenkeepers may have wondered why they did not have an invitation. To reassure them, neither did the President, Chairman, Hon. Secretary nor anyone else. Out of curiosity, it would be interesting to know the occasion which led to the rumour.

Refuse and sludge into compost at Leatherhead

FOR two years the Leatherhead Urban District Council have been operating a Refuse and Sewage Sludge Utilisation Plant for the dual purpose of a sanitary method of disposal for refuse and sludge and secondly, to produce a much-needed humus in a form that can be readily applied to the soil without inconvenience or nuisance. This plant was first installed in late 1960 and will handle the refuse from the whole of the Urban District and an estimated future population of 45,000 persons with an in-put of 9,000 tons of crude refuse per annum. This figure can be exceeded, depending on the hours of operation.

At present the U.D.C. area has a population of 36,000. The plant cost £73,000 to construct and operates with nine or ten people. Obviously, the principal return for this outlay is the sanitary disposal of refuse and sludge.

The plant was designed to have a capacity of 25 tons of refuse in an eight hour day. It consists of a refuse reception building, separation, salvage and baling building which is linked to a final separation building by a Dano bio-stabiliser. The buildings are of steel framework in-filled with brickwork. Incoming vehicles pass over a weigh-bridge and on directly to a reception hopper. This has a storage capacity of 55 cu. yds. and is constructed below ground level.

From the bottom of the hopper the refuse is transferred on a conveyor to first floor level and through screening and salvage buildings. At one end of this conveyor is a picking station for the removal of bottles. The refuse is then fed into a large horizontal rotary screen which is fitted internally with a helix to propel the refuse over perforated mesh plates. The first portion of the screen has suitable perforations for the separation of dust and in the second portion large mesh plates extract cinders. Blanking plates are provided so that the quantity of the material screened out can be adjusted according to requirements. The



The compost conveyor and glass extractor.

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separated cinders gravitate into a large steel storage hopper of over 6 cu. yd. capacity, from which they are loaded through quick-opening discharge doors direct into trucks standing below.

From the screen the fine dust and tailings are carried forward on a rubber belt conveyor which is designed to display the refuse for sorting and picking and which conveys refuse to the stabiliser inlet. Recoverable materials, such as rags, glass and non-ferrous metals are deposited in chutes leading into bins on the ground floor to await further sorting before sale. Tins are baled by a mechanical process. Waste paper is collected and baled separately. The ferrous materials are removed from the conveyor by a magnetic separator and deposited in bins on the ground floor.

materials are turned into compost by heat fermentation and the self-grinding and abrasive action obtained by the mass of materials in rotation. During this stage air is introduced by an air pump through several air valves on the longitudinal access of the stabiliser.

A twin motor drive to the stabiliser allows it to be rotated at a suitable speed during the day when material is being fed and discharged and a lower speed at night.

The material, by the bio-chemical action and temperature rise, is reduced to an innocuous friable material and is conveyed to the final separation building.

The compost is separated from the inert matter by passing through $\frac{3}{4}$ in. and $\frac{3}{8}$ in. screens. An "egaliser" built in between the screen outlet and the compost



The "Dano" stabilizer and screening building.

The refuse tailings from the conveyor belt are discharged with fine dust into the Dano bio-stabiliser. This comprises a rotating drum approximately 10 ft. in diameter and 72 ft. long, with a special stationary inlet. As the tailings enter the stabiliser they are mixed with sewage sludge injected by a pump; the drum is thus kept substantially filled with tailings and sludge and as it slowly rotates the mixed materials move in a screw path towards the outer end. During this process—which takes about five days—the

conveyor from the fine screen rejects inert matter such as glass, nails, etc.

Some 3,000 to 4,000 tons of compost are produced annually. The compost is primarily humus and although rich in nitrogen and containing valuable trace elements it is not claimed to be a general fertiliser.

The Council do not possess the required sales organisation to market the compost and offers were invited on a contract basis from firms, organisations,

(Concluded on page 12)



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BGG-5

BEATING THE WEATHER

A Special Bulletin from the Sports Turf Research Institute, though primarily aimed at sports grounds will be of interest to frost and snow bound greenkeepers

We can consider protection of pitches under various headings :

- (a) against frost
- (b) against rain
- (c) against snow

and against combinations of these three.

(a) **PROTECTION AGAINST FROST.** The methods explored for protection against frost are :—

1. the use of chemicals
2. the use of cover
3. the use of heat

1. *Chemicals.* In this country chemicals such as common salt have been used to help thaw out frozen pitches, but all chemicals that we have dealt with harm the turf and sometimes the soil as well so that its drainage qualities are severely impaired. This applied particularly to salt. Moreover chemicals often thaw only a shallow depth and thus produce wet mud on a hard base.

2. *Cover.* As regards cover to protect against frost, canvas sheets and plastic sheets give only moderate protection and are by no means as good as straw. Straw—with its entrapped air—effectively used (before frost gets into the ground) at rates of 1 to 2 cwt. per 50 sq. yds., (i.e. 10 to 20 tons for the pitch), can be counted on to give protection against practically any frost. There is often a weed problem associated with the use of straw but a few weeds would scarcely be considered serious as compared with the state of grounds in recent weeks. The real worries with straw are :—

- i. getting suitable straw (good, stiff, clean wheat straw is best).
- ii. handling on and off the pitch (labour is difficult to obtain and machinery may damage the pitch).
- iii. handling, particularly when covered with a thick layer of snow.
- iv. storage (including fire risk).

(N.B.—Straw applied to a frozen ground keeps the frost in).

3. *Heat.* Soil warming can be more or less guaranteed to protect against any frost and the most practical warming is

electrical soil warming which has been comprehensively investigated and proved. If sufficient electricity is used it would appear that snow can also be dealt with in this way. Experience also tends to show that there may be advantages in thawing snow artificially in that it can be thawed at a controlled rate. We have been convinced for some years that soil warming is both practicable and desirable and have worked out suitable depths (6 ins.) and spacing (6-9 ins.) of wires as well as suitable electric loading.

The capital cost of a soil warming installation cannot be given except in relation to each individual job because so much of the cost lies in the possible provision of capital equipment to supply the heavy load of electricity required, i.e. of the order of 750 k.watts.

(b) **PROTECTION AGAINST RAIN.** Good drainage and good management can do much to produce dry grounds but it has seemed to us for some time that League Clubs ought to consider protection against rain with a view to reducing mud formation and the production of poor quality football pitches. We have seriously considered permanent lofty cover to the whole of the ground but naturally this is not easy to arrange practically or economically. More realistically some kind of plastic cover for the actual surface of the pitch has tremendous attraction, but here again cost, convenient handling and labour difficulties enter the picture. Plastic covers can be a nuisance when they have 6 in. of snow on them but the snow can be removed either physically or chemically.

The Sports Turf Research Institute has also reported on investigations regarding the use of covers raised from the ground on the air-house principle (Journal No. 37 and F.A. News, July, 1961).

(c) **PROTECTION AGAINST SNOW.** Covers can be useful as above. Snow

(Continued on page 12)



FEBRUARY

12th

North West Section, N.A.G. Lecture, Lancashire County Cricket Club Pavilion, Talbot Road, Stretford.

13th

Southern Section, Lecture, Talbot Restaurant, Moorgate.

19th

Northern Section, Lecture, Market Tavern, Godwin Street, Bradford.

APRIL

4th

Midland Section, Spring Tournament, Sutton Coldfield Golf Club.

9th

Northern Section, Spring Tournament, Woodsome Hall, Huddersfield Golf Club.

MAY

28th

East Midland Section, Spring Tournament, Derby Golf Club.

JUNE

11th

Midland Section, President's Match, Handsworth.

AUGUST.

12th, 13th

and 14th

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Seaweed for soil and turf

by W. A. Stephenson*

ALTHOUGH grass has always been a feature of our countryside, it is only since 1930 that any real experimental work has been done, either in this country or in others on sports turf. So much research on close cut grass indicates a world-wide desire for information, yet nobody has arrived at a perfect formula. This can hardly be expected when one considers the varying factors of soil and climate. To a very great extent good grass depends on a good groundsman. Modern aids in the way of machinery, fertilisers, etc., are very important, but are not in themselves, sufficient. The groundsman must maintain a good soil structure if he hopes to produce hard wearing turf.

Headache

The making of a good pitch, cricket table or green requires much thought and work, each particular surface needing a technique specifically for its use and the local conditions. Having produced a good playing turf there follows, as always, the task of maintaining it, and this can provide the biggest headache. A sports pitch, whether for football, hockey, cricket or bowling, gets a severe pounding during the season and the heavy machinery, such as rollers, combine to compact the surface. Compaction is such that all too often we find that an almost impenetrable surface has been formed on the top layer of soil. This surface resists top water, especially heavy rain and indicates that the crumb structure of the surface soil is not right. A well-known turf consultant has said that most important of all is a layer of top soil with a good crumb structure—even if it is only $\frac{1}{2}$ in. deep.

As early as 1947, J. H. Ouastel and D. M. Webley showed that alginic acid, which forms 25 per cent. of seaweed, was an excellent soil conditioner. It not only improved the crumb structure, but also increased the water holding power of the soils, and that these provided

better aeration of waterlogged soils. The alginates in the seaweed act as stabilising colloids, that is, water holding agents. Sodium alginate is more soluble in water and gives the fastest action, calcium alginate has a similar effect but needs longer to break down. When sodium alginate is added to soil that contains the slightest trace of lime, it immediately changes into either calcium or magnesium salts, and forms a dispersed colloidal solution. The alginates gradually disperse through the soil, and if the alginate decomposing micro-organisms are present, are rapidly broken down to simpler units, which are then used by the organisms in the soil.

Alginates can be detected for many months if these organisms are not present, but they will eventually appear, and the breaking-down process will begin. It is for this reason that seaweed fertilisers sometimes have little or no effect soon after their addition to the soil, but after a few months they quite suddenly show a marked effect. Whole seaweed meal not only supplies the mixed salts of alginic acid, but also other organic matter, which stimulates the soil micro-flora with the long term formation of humus.

Bacteria

Scientists seem to agree that soil organisms must have organic materials; "if one feeds the soil micro-organisms, they will feed the plant". Not only does seaweed, both dried and liquid, increase the rate of the nitrogen fixing bacteria, but a research student at Edinburgh also found that out of 217 bacteria found in rotting seaweed, 161 produced nitrogen salts.

Seaweed is also rich in non-toxic trace elements. Trace elements, particularly the metals, have now been found to be essential to the enzyme system of both plants and animals. Moreover, much lime in the soil can be responsible for locking the minerals already present—particularly iron, zinc and manganese.

On the other hand, seaweed is probably the richest source of these minerals, in non-toxic quantities. Not only does seaweed provide these minerals for the plant, but it also unlocks those already present, and holds them in solution for use by the plant. It has been shown that the amount of manganese in the leaves of tomato plants that have been treated with seaweed is far greater than the amount of manganese in the seaweed applied. This is possible as the seaweed is an excellent cultural material for the soil bacteria and fungi, and triggers off a reaction to lower the pH of the soil and causes the soil to release its own trace elements. Simple sugars are present in seaweed—such as mannitol which is known to chelate metals and this possibly contributes to the overall effect.

Hot and Cold

Liquid seaweed is probably the most convenient way of applying seaweed to grass. There are many ways of making an extract—hot and cold water methods are easy and cheap, but these only extract part of the nutrients. An almost complete extract can be made by hydrolysis under pressure. This method makes use of all the nutrients and growth promoting hormones. Maxicrop is an example of this method and is compatible with any other solution so that it can be applied at the same time as a weed killer.

Dr. Bentley of Aberdeen has shown that when seaweeds are treated by this method of hydrolysis they yield growth promoting hormones that are effective at 1:100,000. One of these compounds, not yet identified chemically, stimulates

and maintains the growth both of root and stem. This hormone is of great importance both in producing and maintaining a good hard-wearing turf—for only if there is a strong and vigorous root system can the grass make a quick recovery after heavy use.

It is well known that when there is plenty of humus in the soil the bacteria and fungi produce natural antibiotics, these enter the plant and make it disease resistant.

Cold Cure

Experimental workers in New Jersey found that seaweed also produces antibiotic substances when they tried to grow influenza and mump virus on agar jelly made from seaweed. Their experiments failed because the antibiotics in the jelly inhibited the growth of the virus. Growth promoting hormones themselves have also been found to give increased resistance to disease. All these factors in seaweed combine in producing sturdy, healthy plant growth, well able to resist both disease and pests.

Experiments at the Sports Turf Research Institute suggest that the use of seaweed might increase the drought resistance of golf greens, and it is now being used at Muirfield Golf Course, Edinburgh.

Many other famous swards have been dressed with seaweed—from the Tottenham Hotspurs ground to the British Embassy lawns in Washington, D.C.

* Maxicrop Ltd.

With grateful acknowledgments to Parks & Sportsgrounds.

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BEATING THE WEATHER—continued.

can be removed physically from the pitch though this is usually very detrimental to the turf. The alternative of removing by chemicals has always proved damaging to the pitch so that

heat is still a useful way of getting the sort of pitch that is required.

(N.B.—Snow is itself a very good protection against frost and in frosty weather should not be too hastily removed in the absence of other protection against frost.)

REFUSE AND SLUDGE—continued.

agriculturists, etc. who might be interested in bulk purchase of up to 2,500 tons, sufficient compost being retained for local residents. It has not yet been possible to reach an agreement on this basis.

In September, 1962, the Borough Engineer requested authority to expand sales direct to the public—up to a 60 mile radius from Leatherhead, and to obtain the necessary publicity.

In the financial year to 31st March last, 849 tons were sold. During the period April to August 401 tons were sold and in September and October approximately 450 tons have been sold—a total of approximately 850 tons during the first seven months of this year. Two Leatherhead golf clubs use the compost.

In addition approximately 1,500 trial bags, holding approximately ½ cwt., have been sold in the last 2/3 months.

A chemical analysis of the compost is as follows:—

	%
Moisture	32.7
Volatile Matter (other than moisture)	18.9
Non-Volatile Matter (mineral matter)	48.4

Total nitrogen in dry solids	0.82
Phosphoric acid (P ₂ O ₅) in dry solids	0.64
Potash (K ₂ O) in dry solids	0.21
Calcium (CaO) in dry solids	2.83
pH of aqueous extract ...	7.6

It is too early to give a summary of income in relation to expenditure although the following prices are quoted by the Leatherhead Council.

	PER TON		
<i>Radius</i>	10 tons	5 tons	1 ton
5 miles	20/0	25/0	35/0
25 miles	31/0	36/0	
50 miles	39/0	44/0	

Five per cent. discount on orders from 20 to 50 tons. Special rate for Leatherhead residents: 1-3 tons at 30/0 per ton delivered.

The plant was designed and constructed by Heenan and Froud Ltd., and installed under the direction of A. F. Alexander, B.Sc., Engineer and Surveyor, Leatherhead U.D.C.

With grateful acknowledgments to Parks & Sportsgrounds.

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News



from the Sections

NORTHERN

By J. Parker

Chairman:
G. W. MASON
(Halifax West End)

Hon. Secretary:
8 Goit Stock Terr., Harden,
Bingley, Yorks.

IT IS WITH THE DEEPEST REGRET that I have to inform members of the death of Ted Calam, of Ganton Golf Club. I did not hear in time for the Section to be represented at the funeral, but have written to Mrs. Calam expressing, what I am sure is the feeling of all members, their sincere condolences.

A most loyal and popular member of the Association, unassuming and quiet in manner, Ted will be sadly missed.

Mr. S. Downes

Older members of the Section will be sorry to hear of the death, after a long illness, of Mr. S. Downes, a former member of the Association. He was for many years greenkeeper to Moortown Golf Club.

December Social

A Christmas social evening was held in the Old Queen's Head, Bingley, on Tuesday, 11th December, when forty members turned up for a most enjoyable evening. Competitions for dominoes and darts were held. A tasty meal of meat and potato pie helped down with liquid refreshment seemed to put everyone into a seasonal mood.

February Meeting

This will be held in the Market Tavern, Godwin Street, Bradford, on Tuesday, 19th February. A representative of B.S.A. will give a talk on "B.S.A. Power Units, Servicing

and General Information". Please make a note of this event.

New Members

We welcome to the Section the following two new members: T. R. Lewis, 63 Dean Park Drive, Drighlington, Bradford, and J. Sharp, Jun., 20 Chislehurst Place, Little Horton, Bradford, both of Woodhall Hills Golf Club.

MIDLAND

By F. Cashmore

Chairman:
G. HART
(Gay Hill)

Hon. Secretary:
76 Four Oaks Common Road
Sutton Coldfield, Warwickshire.

OUR ANNUAL DINNER WAS HELD on the 14th December at the King's Head, Bearwood. The attendance was very good and we enjoyed a successful evening. Unfortunately the date clashed with several events at various clubs, and I received a number of apologies from Vice-Presidents who were unable to attend, wishing us every success.

We were extremely sorry that Mrs. Bretherton was unable to be with us owing to illness. I have now received a message from Mrs. Bretherton in which she asks me to convey her thanks to members for the flowers which we sent and saying how very sorry she was not to be with us. We do hope that she has now fully recovered.

A total of eighty-seven members, including our President, Mr. Carl Bretherton, the Association Chairman, Dai Lord, our Senior Vice-President, Mr. T. R. Groom, and our Editor, Mr. F. W. Hawtree, sat down to dinner. After our President had proposed the Loyal Toast, he called on Dai Lord who proposed the toast of the Association and reminded members that it is fifty years since the formation of our Association by the late Mr. F. G. Hawtree. He then read messages from the Prime Minister and Lord Brabazon of Tara, going on to speak of the Greenkeepers' Apprenticeship Scheme and the lack of young recruits to greenkeeping. Our Section Chairman, George Hart, responded and endorsed all that Dai Lord had said about the labour conditions on the majority of courses. Mr. T. R. Groom then proposed the toast of Ladies and Guests, saying how much he would like to see more ladies present. We hope members will remember his words and bring their ladies with them next year. Mr. F. W. Hawtree responded on behalf of the Guests and said how pleased he always is to attend the Midland Section Dinner. He also gave us more information regarding the progress of the Apprenticeship Scheme, saying it has now been accepted by the English and Welsh Golf Unions, and under active consideration by the Scottish Golf Union.

The Artistes who entertained us at the concert which followed were, Billy Scrivens, Baritone and Accordionist, Marie Hughes,

Soprano, and James Fenton, Electronic Clavioline, and they were able to hold their own against the Bar with far more success than on previous years. The party of members who went on stage to sing carols rounded off the entertainment with great success.

Mrs. Mason and her daughter were again in charge of the raffle and Mr. Eric Lumby acted as auctioneer, the result of which activities help so much in clearing our expenses. The prizes for the raffle were kindly donated by Mr. Carl Bretherton, Mrs. Mason, Reg. Pugh, and F. Cashmore. We are grateful to our friends of the Trade for their continued support, Mr. Bill Payne and Mrs. Payne, Messrs. Parker & Ballinger, Tudor Mowers of Wolverhampton, a party from D. L. Ford Ltd., Balsall Common, and another from E.T.B. Mower Services, Solihull, which included Ron Stanley who was with Messrs. Ransomes, and is now Service Manager with E.T.B. Members are always eager to ask for advice and this is to the mutual advantage of both.

SOUTHERN

Chairman
J. K. GLASS
(Thorpe Hall)

By W. Mason
Hon. Secretary:
18 Albert Road, Hendon, N.W.4.
Tel.: SUNnyhill 0245

OUR ANNUAL DINNER WILL TAKE place at the Talbot Restaurant, 64 London Wall, Moorgate, E.C.2, on Friday, 29th March. Will members please apply to me for tickets for themselves and their friends. Further details will be given on application.

January Meeting

We were very pleased to welcome Mr. B. C. Clayton, M.A., on the 9th January. Unfortunately, owing to bad weather, and the late arrival of the January Journal which contained a reminder, the attendance was poor but we would like to record a hearty vote of thanks to Mr. Clayton for his most interesting talk which covered most subjects appertaining to greenkeeping in general. Question time which followed seemed all too short.

February Meeting

May I remind members that our February lecture to be given by a representative of Messrs. Parkers will take place on Wednesday, 13th.

MISCELLANEOUS

PROFESSIONALS AND GREENKEEPERS having stocks of used golf balls contact Sparkbrook Golf Ball Co., 295 Highgate Road, Stoney Lane, Birmingham, with a view to filling export orders.

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WELSH

By S. A. Tucker

Chairman:
M. GEDDES
(Royal Porthcawl)

Hon. Secretary:
36 Clase Road,
Morrison,
Swansea, Glam.

I HAD THE PLEASURE OF BEING invited to the Clyne Golf Club on 19th December on the occasion of Harry Fry's 70th Birthday Party and Presentation from Club members. The Club Captain, Mr. A. Lew's, presented to Harry, on behalf of the members, a gold watch, and Mrs. Fry with a handbag. The Ladies' Captain, Mrs. Frayne, on behalf of the lady members presented him with a table lighter and Mrs. Fry received a brooch. Harry has now retired after forty years' service with the Clyne Golf Club, and I must congratulate him on such a fine record of service to one club, also for the great help he has given to the Association. On behalf of all members, I wish him and Mrs. Fry a long and happy retirement.

Spring Meeting

I have made application to the Clyne Golf Club to hold our Spring Meeting there on the 3rd April, 1963, and now await the Committee's decision. The Secretary has informed me that he will notify me at the earliest possible date of the decision, so I hope to publish it in the March Journal. Failing this, I will notify all members by letter.

Subscriptions

I was sorry to hear from Mr. Geddes that there are a few members who have not yet paid their subscriptions. Will these members please give this matter their immediate attention to enable Mac to bring his books up-to-date. Your help can mean so much to others.

NORTH-WEST

By B. Ellis

Chairman
T. Brennan
(Wilmslow G.C.)

Hon. Secretary
Romiley G.C.

ALL MEMBERS OF THE NORTH West Section will, I know learn with profound regret of the death of Mr. J. Williamson, a Vice-President of our Section. At the comparatively early age of 58, Mr. Williamson's death will be a serious loss to all, for he took a keen interest in our Section affairs, and, until recently attended Lectures and Competitions whenever his commitments allowed him to do so.

He was a very popular member of the Stockport Golf Club and for a period held office as their Chairman of Greens.

To Mrs. Williamson and family we offer our very sincere sympathy in their sad loss.

EAST MIDLAND

By S. T. McNeice

Chairman:
D. G. WHITEHEAD
(Wollaton Park)

Hon. Secretary:
40 Laward Road,
Clarendon Park, Leicester

THE SECTION ANNUAL SPRING Tournament will be held at Derby Golf Club on Tuesday, 28th May, 1963, by very kind permission of Mr. F. Constable, Superintendent of Parks, Derby Corporation. Further particulars will appear at a later date.

Change of Address

Mr. W. Earnshaw, The Cottage, Blankney, Lincs., has informed me he is leaving Blankney and that his temporary address for a few months will be 7 Beardshaw Avenue, South Shore, Blackpool.

SITUATIONS VACANT

HARLOW AND DISTRICT SPORTS TRUST LTD.—HEAD GREENKEEPER required for the new Canon's Brook Golf Course at Harlow, Essex. The course has been laid out to championship standard and play over the first part of the course will start in April. Applicants should be greenkeepers with some experience, looking to the future, and meantime willing to shoulder the difficulties attached to a new project. The successful applicant will come under the general supervision of the Trust's Head Groundsman and will probably have two assistants. He will be offered living accommodation to rent within easy distance of the course. The pay will be up to £750 a year according to qualifications. Applications to: O. W. Gilmour, Terlings, Harlow, Essex.

GREENKEEPER/STEWARD — Married couple, salary plus profits from catering and professional's shop. Scope for income from lessons if qualified. Modern three-bedroom house rent free adjoining club, 9-hole course. To take up duties early February. Apply stating experience, with names of two referees, to: Hon. Secretary, Glossop & District Golf Club, Glossop, Derbyshire.



THE SCOTTISH GOLF GREENKEEPERS' ASSOCIATION

ON BEHALF OF ALL THE MEMBERS of the Scottish Golf Greenkeepers' Association, I would like to thank our past Chairman, Mr. W. Bradford, also our past Secretary, Mr. I. Fraser, for all their work for the Association. We also give to Mr. D. L. MacDiarmid, Royal Burgess, as Chairman, and Mr. J. Campbell, St. Andrews, as Vice-Chairman, a very warm welcome to their term of office.

Will members please note that the new Secretary and Treasurer is R. B. Moffatt, 71 Kelton Street, Glasgow, E.2.

R. B. MOFFATT,
Secretary.

NORTH & MIDLAND SECTION

OUR FEBRUARY LECTURE WILL BE given by Mr. J. B. Lithgow, of Mason (Omoa) Ltd., on "Soil Fertility and Fertilisers" in Nicoll & Smibert's Restaurant, Dundee, at 7-0 p.m. on the 12th February, 1963.

This will be repeated in Westburn Park Rooms, Westburn Road, Aberdeen, on Wednesday, 13th February, at 7-0 p.m. for our Northern members.

Social Evening

Our Social Evening will be held in Nicoll & Smibert's Restaurant, Dundee, on Saturday, 23rd March, 1963, at 7-0 p.m. Tickets may be obtained from members of the Committee.

WM. RITCHIE,
Secretary.

EAST SECTION

OUR FIRST LECTURE OF THE winter was held at the Free Gardeners Institute on the 6th December, when the speaker was Mr. Ian Forbes, of Messrs. Stewart & Co. Ltd. We had a good turn out of members and a vote of thanks was given to Mr. Forbes by our Chairman, Mr. H. Smith, for a most interesting lecture which was enjoyed by all.

Our February Lecture which was also booked for the Free Gardeners Institute will now be held at the Torphine Hill Golf Club (by kind permission of the Committee) on the 14th February at 7-0 p.m. This will be followed by a meal.

A. HUISE,
Secretary.

B.G.G.A.

HON. SECRETARY'S NOTES



A MEETING OF THE EXECUTIVE Committee will be held on Saturday, 23rd March, 1963, at the Imperial Hotel, Birmingham, at 12 noon. Luncheon interval will be at approximately 1 p.m.

C. H. DIX.



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