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THE BRITISH GOLF

GREENKEEPER

HON. EDITOR: F. W. HAWTREE

BGGA OURNA

FOUNDED 1912

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

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The Association is affiliated to the English and Welsh Golf Unions.

No. 262 New Series

JANUARY 1967

WHAT'S THAT AGAIN?

One of the players in a foursome took a mighty slash at a fairway wood shot and missed the ball completely. Yielding to temptation, he turned to his friends and glibly announced he was only taking a practice swing. At that moment a menacing roll of thunder sounded. The "missing" golfer looked up and said, "OK, OK, Tll count the stroke!"

-Charles Robins

JANUARY

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EDITORIAL AND ADVERTISEMENT OFFICES: Addington Court Golf Club, Featherbed Lane, Addington, Croydon, Surrey. Telephone: SANderstead 0281. 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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Among other forecasts for what greenkeepers will endure in 1967 is one by a Mr O. O. Clapper of New England.

He sees courses with two groundstaffs — the night team doing all the cutting — the day team spraying, fertilizing, changing holes and general maintenance to ensure that all machinery will last the next night.

Since automatic water systems started, the benefits of night watering have disappointed nobody. You are now warned about what may follow. Lighting the last few holes may be included in the changeover in order to get

Lighting the last few holes may be included in the changeover in order to get the maximum number of people on to the course during the daylight hours. If there still is a course....

The Canadian Golf Superintendents Association was formed last October. It was surprising to learn that they had no organisation of this kind before in that country.

The news will have a special impact in France where there is no word for "greenkeeper". The Canadian Association has classed itself for the purposes of French Canadians "L'Association Canadienne des Superintendants de Golf".

The Germans, on the other hand, have a short simple answer to the problem. It is "Platzmeister" — "course-master", or, to be slightly pedantic nowadays, "green-master". Perhaps it is a pity that this never developed as the equivalent to "Club-master".

Mr C. R. Skogley, Professor at the University of Rhode Island, is on sabbatical leave to tour Europe. Since September he has been installed with his family in Woodbridge. He is working with Fisons on a screening programme for turf grass fungicides. In one of his first newsletters homewards he said: —

"I have visited two golf courses and have golfed on one of them. It was a beautiful course but to a poor golfer rather hair-raising. The roughs consist mainly of heather, bracken, fern, gorse and the like. General conditions are quite good but very unlike anything I have previously seen."

At many continental golf clubs, the clubhouse is closed on Mondays or Tuesdays. The day is not far off in this country when we can make out a strong case for closing the course as well. One complete day, uninterrupted by golfers should boost ground staff productivity. It would also, as one of our opposite numbers in the States picturesquely remarks, give the greenkeeper "a day when he can work on his course without getting hell for doing the job he was hired to do".

WET UNDERFOOT

By

J. D. JOSS

Advisory Officer, The Sports Turf Research Institute

LAST month methods of draining land by pipes or channels to lead excessive water away were dealt with. These are direct ways of removing excess water and lowering the water table, but often conditions in the sub and top soil above the level of the actual drains impede water penetration and lead to wet surface conditions. Treatments to correct such faults are now discussed, but little or no benefit will be derived from any of them if inadequate means of sub-soil drainage exist.

Sub-Soil Cultivation

This operation is *not* the same as mole draining. At a glance the same machine is used, i.e. a mole plough, but there is a vital difference in the attachment on the vertical share In the case of subsoil cultivation a sub-soil shoe is fitted and this has a lifting and shattering effect on the sub-soil. In view of this, sub-soil cultivation is an essential operation on land where level adjustment using heavy equipment has resulted in the breakdown of the land's natural drainage crevices and excessive compaction in the sub-soil region or where a "pan" exists for any reason at all. These conditions seriously hinder water penetration to any sub-soil drains and frequently lead to waterlogging of the top soil.

cultivation to Sub-soil be most effective should be done when the subsoil is as dry as possible. However, as it is usually required during constructional work its timing is governed by the amount of subsequent work in relation to the proposed period of establishment, e.g. seeding. The work can be done even on relatively small areas, e.g. golf greens, and it is carried out following the return of top soil to the graded area and before any tile drains are introduced. Heavy equipment should not be used after its completion. Where a

complete drainage layer of aggregate tapped by underlying drains is to be introduced into a golf green sub-soil cultivation is unnecessary.

To gain maximum benefit from subsoil cultivation the operation must be carried out at quite close centres and a spacing of 2 ft. should be regarded as the maximum, the sub-soil shoe being set to work at a minimum depth of 18 in. The operation should be done in the direction of the maximum fall on the land, though where really excessive compaction exists two passes would be worth while. In this case the first pass should be done at right angles to the maximum fall.

Sub-soil cultivation can be carried out on established turf where drainage is impeded by excessive sub-soil compaction, but before it is decided upon expert guidance should be obtained. The operation can sometimes be carried out in such a way as to cause little damage to existing turf but there is a risk of severe damage necessitating reseeding.

Spiking

Turf surfaces which are slow to drain because of such causes as excessive surface compaction, or the presence of fibre, benefit from spiking. The formation of numerous slits in the ground assists surface moisture penetration but the work must be done frequently and the underlying soil must be open and its drainage adequate if benefit is to be derived. Further to this on excessively fibrous or mossy areas other treatments, e.g. corrective liming or fertilizer treatment, might be necessary to help correct the conditions favouring the fibre or moss build up.

Usually spiking on large areas is done by tractor operated machines. As depth of penetration is important, the use of long tines is to be preferred. The lighter machines with tines penetrating to 4 in. are very useful as they can be frequently used with the minimum surface disturbance but in many situations the use of heavy models should be seriously considered. These machines have tines capable of penetrating to 9 in. but under some conditions their action is quite severe and disturbance of the surface might restrict their use.

On smaller and finer turf areas quite good machines are available for use but often hand work is necessary to obtain maximum penetration. Purpose-made hand forks can be used or flat tined garden forks and these should be inserted to their full depth at intervals of some 4 in. Before withdrawing the forks the ground can be eased up a little with advantage but great care is necessary if this is done so as to avoid leaving a corrugated surface.

Sanding

During constructional work the incorporation into the top soil of suitable sand or other gritty material is recommended to open up heavy land and make it more permeable.

On existing turf a different approach is required for greens, tees and fairways.

On a green the application of a pure dressing of sand is seldom a good thing in that it tends to form a definite layer which ultimately forms a root break. It is better to build up a layer of approximately ideal soil by regular top dressing with sandy compost. Only in particularly wet conditions is a light dressing of pure sand really justified.

On the tees the position is much the same but conditions where sand alone can be used with advantage arise more frequently. On heavy land with open turf and a muddy surface, dressings of sand improve playing conditions substantially and the sand gets worked into the top soil by treading or during renovation work.

On fairways good, gritty sand or coarse coke breeze can be used with



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advantage much more often than they are. Sand at 10 tons per acre is soon absorbed on a muddy fairway but it is best to allow this amount to be "lost" before applying a further dressing. As an alternative to applying sand in winter to improve already muddy conditions it is worth organising applications of sand and similar materials after thorough spiking and following spring chain harrowing. At this time less damage is likely from the transport and spreading of the material.

Sulphur Treatment

The use of sulphur on golf courses will be strange to many people but the material can have very beneficial results on golf fairways if applied under right conditions. the Heavy and moisture retentive clay soils provide wet, sticky conditions for winter play. Where this is a problem, and providing the soil is of good fertility thus promoting rapid grass growth with a tendency towards lushness, a light application of finely ground sulphur will help matters. The effect of the sulphur is to produce much improved surface drainage and firmer winter conditions. In addition there is usually an increase in the fineness of the turf plus reduced weed and worm activity. This all sounds very fine but it should not encourage clubs to experiment with the treatment without soil tests and expert guidance. Whilst much good work can be done by the discriminate use of sulphur it is very easy to make a mistake which could be costly to correct. A given set of conditions are required before sulphur can be used and casual observation will not show whether these exist or not.

Think Things Out

If maximum use is to be made of golf courses and the best possible conditions for play are to be provided satisfactory drainage is essential. Where drainage problems exist careful thought must be given to their cause since wet and sticky surface conditions do not necessarily indicate the need for tile drains. Any club contemplating improving drainage would be well advised to obtain expert guidance so that the money they spend results in maximum benefit. It is true that the inherent characteristics of some land will always result in wetter conditions than would be desirable but it is often surprising just what can be done with relatively little financial outlay in relation to the results obtained.



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

6

Golf Course Maintenance Equipment

By Lee Record, Agronomist

T^O meet the demands of present-day golf course maintenance, the most modern and up-to-date equipment is needed. Maintenance equipment alone will not be the answer at every course; administration, programming, adequate budgets, manpower, responsibility and a host of other elements will be necessary.

The following suggested list may not be adequate at many golf courses, depending upon the degree of maintenance. This list should, however, be adequate for the majority of 18-hole courses.

Greens And Tees

- 6 to 8 putting green mowers
- 2 power aerators
- 1 vertical mower
- 1 power drag mat
- 1 power topdresser
- 1 power thatcher
- 1 power spiker
- 1 power sprayer (fungicides)
- 1 proportioner
- 2 rotary fertilizer spreaders
- 2 triplex mowers

Fairways And Roughs

- 2 to 7 gang hydraulic tractors and mowers
- 1 fairway aerator
- 1 fairway thatcher
- 1 fairway sweeper
- 1 power sprayer (herbicides)
- 1 rotary fertilizer spreader
- 1 5-gang mower (roughs)
- 1 3-gang roller

General Equipment

- 1 or 2 dump body golf tractors 2 general construction PTO tractors 1 jeep, pickup truck, etc.
- 1 dump truck (5 ton min.)
-] snow plow

- 1 front end loader and backhoe 1 power sod cutter
- 1 power saw
- 1 power stump cutter
- 1 power soil shredder
- 1 powered hand sweeper
- 2 powered leaf blowers
- 1 water ballast roller
- 6 rotary trimmer mowers
- 3 hand trimmer mowers
- 2 general purpose power reel mowers
- 2 or 3 gas powered runabouts

Miscellaneous Hand Equipment

(This list will go from A to Z.) axes, burners, crow bar, duster, cup cutter, wheelbarrow, ladder, sod edgers, sod lifters, shovels, rakes, funnels, spade, picks, forks, jacks, pruners, tree saws, traps (animal), pumps, gas cans, scales, pullers, hose, bamboo poles, soil testers, soil probe.

Tools For Repair Of:

All power equipment (trucks, tractors, mowers, etc.), plumbing, drains, electrical equipment, sewers, roadways, cement and concrete, water systems, painting and wood working repairs, etc.

Shop Equipment

Lapping machine, air compressor, steam cleaner, table saw, bench grinders, bed knife grinder, reel knife grinder, pipe threader, paint sprayer, welder, drill press, vises, arbor press, work benches.

Irrigation Equipment

Pumping station and number of heads will be determined by the superintendent at each individual course.

This suggested list has only touched a few of the many odds and ends and pieces of equipment needed. If we may have omitted the one piece of equipment which you feel is necessary, by all means add it to the list.

A maintenance building should meet the following requirements:

1. Superintendent's office (desk, file cabinets, adding machine, etc.)

- 2. Toilet facilities (showers, lockers, etc.)
- 3. Adequate heating and ventilation
- 4. Paint spraying room
- 5. Herbicide-fungicide, etc., storage room
- 6. Fertilizer storage area
- 7. Adequate storage area for all equipment.
- 8. Adequate maintenance area.

Also in conjunction with the main maintenance building, an additional storage building is essential for the storing and mixing of topdressing material. Topdressing should be kept in a dry area so that it will be available at any time of the season. A two-year supply should be stored at all times. If we have the necessary equipment and maintenance building, how many men will be required to keep the equipment rolling for the necessary turf maintenance? We suggest the following personnel be considered for the average 18-hole golf course in the North-east.

- 1 Superintendent (year round employment)
- 1 Assistant Superintendent or Foreman (year round employment)
- 1 Mechanic (year round employment)
- 2 Laborers (year round employment)
- 3 Laborers to be hired at the beginning of the outside maintenance program to be carried through until fall maintenance is completed.
- 3 Laborers to be hired as summer help

11 men total.

Regardless of the maintenance building and modern equipment the work load cannot be carried out unless an adequate work force is available; a work force that can be depended on, day in and day out; men with responsibility to themselves, to the golf course they are working for and to the equipment they are handling.

(Reprinted with grateful acknowledgments to USGA GREEN SECTION RECORD).



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MISCELLANEOUS

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

HON. SECRETARY'S NOTES

I HAVE RECEIVED AN INQUIRY FROM New Zealand asking if I have any knowledge of an unmarried qualified greenkeeper who would be interested in emigrating to New Zealand.

The job on offer is for an 18-hole course at Bridge Pa Golf Club, about 4 miles from Hastings in fruit and sheep farming country. The course is of Championship standard. Wages in the vicinity of £17 per 40 hour week are offered for an assistant greenkeeper with two weeks' paid holiday, but I have no information regarding accommodation.

Anyone who is interested should write direct to Mr R. Skittrup, 416 Queen Street, West Hastings, New Zealand.

C. H. DIX.



IANUARY

10th S.G.G.A. Lecture, Glasgow, 7 p.m.	10th	S.G.G.A.	Lecture.	Glasgow.	7	p.m.	
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- 10th North-West Lecture, Manchester, 7.30 p.m.
- 11th South Lecture, London, 6.30 p.m.
- 11th S.G.G.A. Lecture, Dundee, 7 p.m.
- 12th S.G.G.A. East Lecture, Royal Burgess Golf Club, 7 p.m.
- 18th Northern Lecture, West Bowling G.C.
- 27th North-East Annual Dinner, Gateshead, 7 p.m.

FEBRUARY

- 6th North-West Lecture, Manchester, 7.30 p.m.
 7th S.G.G.A. Lecture, Glasgow, 7 p.m.
 7th S.G.G.A. Lecture, Dundee, 7 p.m.
 8th Southern Lecture, London, 6.30 p.m.
 9th S.G.G.A. Lecture, Edinburgh, 7 p.m.
 9th S.G.G.A. East Outing
 - 11

News



from the Sections



 Chairman:
 By J. Parker

 D. ROBERTS
 8 Goit Stock Terr., Harden

 (West Bowling G.C.)
 Bingley, Yorks.

November Lecture

THIRTY MEMBERS ATTENDED THE lecture on Thursday, 24th November, held in the clubhouse of the West Bowling Golf Club. The speaker was Mr B. C. Clayton, Senior Advisory Officer at the S.T.R.I., who took for his subject "Top Dressing". In a most interesting talk Mr Clayton detailed the various materials used and the beneficial effects of this operation. Many questions were raised and discussion took place. A vote of thanks was proposed and seconded by our chairman and vice-chairman, Mr D. Roberts and Mr A. Robertshaw.

Christmas Social

Thirty-two members sat down to an excellent and satisfying meat and potato pie supper on the occasion of our Annual Christmas Social held in the Clubhouse of the West Bowling Golf Club on Thursday, 8th December. A short sesion of bingo, and the usual raffle brought success to some members and "the one-arm bandit" helped the three poorest members of the Section! Our thanks are due to our president, Mr W. Mountain, and vice-president, Mr R. Bradley, for their generous contributions to the evening's entertainment. In short speeches our president and chairman extended their seasonal greetings to all members.

January Lecture

This will be held on Thursday, 18th January, in the clubhouse of the West Bowling Golf Club. The speaker will be Mr R. Bradley, who will take for his subject "The Trials of a Contractor". This is one angle of our work on which we have not had a talk and should prove most interesting and enlightening.

Grand National Sweep

Members will shortly be receiving books of tickets for our Annual Sweep and I hope all will do their utmost to help make a success of this effort from which most of the profit goes into our Benevolent Fund.



Chairman:

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

Lecture

AS ALREADY MENTIONED IN THE December notes our January lecture will be given by Mr W. Finch on Wednesday, 11th January 1967. Our next lecture will be given by Mr W. H. Bartle, from the Research Station, under the title "Golf Course Maintenance" which will be held on Wednesday, 8th February 1967; as this will be the first time Mr Bartle has lectured to our section we do hope all members will make every effort to come along. As usual, it will be held at the Stirling Castle, London Wall, Moorgate, E.C., at 6.30 p.m.

New Appointment

Mr D. B. Battrick has written to say he has taken up a new appointment as Head Greenkeeper to the Piltdown Golf Club.

New Members

We should like to welcome to the section three new members: Mr D. Campe (Class B) of 420 Fairfax Drive, Westcliff-on-Sea, Essex; Mr J. Paine (Class C) of 10 Colson Road, East Croydon, Surrey; and Mr F. C. Reed (Class A) of Ilford Golf Club, 41 Albany Road, Manor Park, E.12.



Chairman: G. HERRINGTON (Lindrick) By J. J. Dearlove Hon. Secretary: 63 Langsett Avenue Sheffield, 6

Lecture

MR A. A. WAGER OF LINDSEY & Kesteven accompanied by Jim Aldous of the same firm travelled up from Lincoln to give a further talk to our members on the subject of fertilisers on Thursday, 24th November. It was, once again, a most successful evening with 30 people attending to listen attentatively to a rather complex but

interesting talk. We were treated to a good account of how various types of soil were originally created and their contents, also about the supplements often required to ensure a constant supply of plant food. Question time was again very popular and to the point, and I think everyone was satisfied that the answers were very clearly and honestly explained.

Mr Shardlow thanked Mr Wager for the interesting talk and Mr Aldous for assisting.

Secretary's Farewell

As these will be my last notes as secretary of this section I would like to take this final opportunity to say a big Thank You to all members of this section for their marvellous support over the last three years; also for entrusting me with this office. I am leaving on the 9th January to take a post with the Wildernesse Club, Sevenoaks, Kent, and hoping that I will be able to continue my interest in the association.

I would also like to ask you to continue your support of the section, and encourage others to do so; this is the best way to show appreciation to your secretary, and encourages him to arrange interesting evenings for your benefit. It has been a pleasure to share your company and most rewarding to be a member of your section and I will look forward to news of future activities from Sheffield.

Mr Ron Whitehead is taking over until the A.G.M. in April and any correspondence should be addressed to him at 1 Southmoor Avenue, Armthorpe, Doncaster.



Chairman: J. SIMPSON (Ponteland G.C.) By D. Earsman Hon. Secretary: Arcot Hall Cottage Dudley Newcastle on Tyne 3

Annual Dinner

OUR ANNUAL DINNER AND SOCIAL Evening will be held at Shephards Panorama Restaurant, Gateshead, on Friday, 27th January, at 7 p.m. for 7.30 p.m. We hope that you will do your best to attend and wives and friends are invited. The tickets are 19s, and obtainable from me.

Subscriptions

There are still quite a number of subscriptions outstanding and I should be pleased if members would let me have them as soon as possible, or notify me if they no longer wish to belong.

New Members

We welcome to the Section the following new members: A. Phillips, 1 Bell Meadow, Brandon, Durham; J. P. Dickson, 9 Marine Road, Alnmouth, Northumberland; D. Barker, Caravan, Lime Villas, Beamish, Stanley, County Durham. OVERGREEN MK. 3 for sale, £100. Reconditioned by Ransomes authorised service agent, L.H.E. Ltd., 195 Clarendon Park Road, Leicester.



Chairman: G. HART (Gay Hill) By R. Goodwin Hon. Secretary: 167 Birmingham Road Lichfield, Staffs.

MAY I WISH ALL GREENKEEPERS A Happy and Prosperous New Year.

Subscriptions

There are still a few members who have overlooked their annual subscription. Mr Cashmore, Hon. Treasurer, is looking forward to hearing from these members so that he can bring his books up to date.

Sixtieth Anniversary

The Sixtieth Anniversary of the Warwickshire Union of Golf Clubs was recently celebrated by a Grand Dinner. Among the many distinguished guests were Mr Frank Cashmore, Association Chairman, and Mr George Hart, Midland Section Chairman. A great tribute to two great stalwarts who, between them, have given many years valuable service to greenkeeping and the game of Golf.

I am sure all greenkeepers will join me in congratulating Frank and George on being invited to this memorable and, I am sure, most enjoyable occasion.



Chairman: W. Burgess (Ringway G.C.) By H. M. Walsh Hon. Secretary: 78 Hadfield Street, Oldham, Lancs.

Lectures

OUR LAST LECTURE WAS GIVEN BY Mr E. Kitson, Sales Manager of S.A.I. Horticulture Ltd., for which we once again had a very good attendance. The subject covered by Mr Kitson was "Fertilisers for Fine Turf" and a very interesting and instructive talk it was, as I think all members present agreed. Our Lecture for 6th February will be given by our friend Mr Hewitt of Atco Service Branch, Longton, so once again I ask for your very good support on this occasion at the usual venue. The Garrick Hotel, Fountain Street, M/C, 7.30 p.m.

Greetings

Once again I hope all members had a Happy Christmas and New Year.



THE SCOTTISH GOLF GREENKEEPERS ASSOCIATION

Chairman :

J. K. CAMPBELL St Andrews

General Secretary : R. B. MOFFATT 71 Kelton Street, Glasgow, E.2

Winter Lectures

The following lectures have been arranged for the interest of all members. The committee hope to have a large number at all lectures. A special invitation to the January lecture is sent to all greens' conveners or secretaries. Mr Wood, the secretary of the Joint Council for Apprenticeship, will give a talk on the Apprenticeship Scheme. We ask all members to pass this invitation on to the above persons. The lectures will take place at 7 p.m. and are as follows:—

January: Mr Wood, as above.

February: To be arranged by section committee and details will be in the magazine.

Dates

Glasgow: The Christian Institute, Bothwell Street; 10th January, 7th February.

Dundee: Nicoll & Smiberts; 11th January, 7th February.

Edinburgh: Free Gardeners Institute; 9th February. The January lecture will not be held in the Institute but details will be in the magazine. The date is the 12th January.

EAST SECTION

January Lecture

WILL MEMBERS OF THE EAST Section please note the lecture on 12th January will be held in the Clubhouse of the Royal Burgess Golfing Society, Barnton, Edinburgh. This is by courtesy of the committee and members of the Royal Burgess to whom we are most grateful for this kind offer. The lecture will start at 7 p.m.

I, once again, remind all members that an open invitation is sent to all clubs for any member of the committee to join us at this lecture as Mr B. M. Wood, secretary of the Joint Council for Golf Greenkeepers, will be giving a talk on the Apprenticeship Scheme. We hope for a large number of members and club members.

I am sure if any club greens conveners or secretaries are interested in employing a boy under the scheme Mr Wood will be only too pleased to give them any information which they may want.

Twentieth Annual Meeting

The above meeting was held in Glasgow on 23rd November 1966, Mr J. K. Campbell, chairman, welcomed all members present who numbered 40.

Mr J. K. Campbell was re-elected Chairman; Mr G. Alexander re-elected Vice-Chairman; Mr R. B. Moffat re-elected Secretary and Treasurer. Mr I. Fraser and Mr T. Wemyss were elected Auditors.

It was agreed the subscriptions stay as at present. The proposal that the term as chairman be reduced to two years was also agreed.

Mr Campbell proposed we start a small magazine for the Scottish Greenkeepers. This would be on a three-monthly basis to start with and members would be asked to pay for their copy to get this going. Mr Campbell has agreed to be editor and hopes members will let him have all matters of interest to publish. We hope a number of the Trade will advertise which will help cut cost. The committee wish Mr Campbell every success in this venture.

Long Service

I am sure all members of the S.G.G.A. join with the committee in wishing Mr R. McKillop a long and happy retirement. It was with interest I learned Mr McKillop, better known as Bob to the older members, retired in July 1966 after 53 years service with the Greenock Golf Club. Bob started with the club in 1911 when his father retired after more than 30 years as greenkeeper. I think this must be a record with 83 years employment from the same family to the one golf club. The Association honoured Bob along with two other members, J. L. Allardice and H. Morris, by electing them as Life Members.

It was agreed that the secretary should inquire about affiliation to the S.G.U. as this would allow members to enter open competitions.

I close now and wish all members best wishes for 1967.

SITUATIONS VACANT

- ROYAL LIVERPOOL GOLF CLUB requires experienced Assistant Head Greenkeeper. Immediate vacancy. Written applications with references and details to be submitted to the Secretary, Royal Liverpool Golf Club, Meols Drive, Hoylake.
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with Ann Mawson

First of all, may I wish you all a very happy New Year, and all the best for 1967.

During the cold winter nights a warm supper is nearly always appreciated, so here are a few supper ideas.

Nut Cutlets

Deep fat for frying, 1 stick of macaroni, egg and bread-crumbs for coating, 2 oz of nuts, pepper, salt, pinch of mace, pinch of mustard, 1 oz. of semolina, $\frac{1}{2}$ pint of milk.

Soak the milk and semolina in a small pan for 15 minutes. Stir until boiling and cook until the mixture leaves the sides of the pan. Add the mustard, mace, pepper and salt. Blanch, skin and chop the nuts, add them and spread the mixture on a plate to become firm. Divide into five to seven portions; roll into balls and with the forefinger and thumb shape into cutlets. Dip in beaten egg and toss in breadcrumbs; place a small piece of macaroni at the top of the cutlet (to represent the bone), fry in smoking-hot fat until golden-brown colour, drain and serve with a suitable sauce and vegetables. To serve five to seven people.

Stuffed Baked Onions

2 oz. of dripping, pepper, salt, 4 tablespoonfuls of breadcrumbs, 1 teaspoonful of chopped parsley, 1 oz. of bacon, 6 even-sized onions.

Skin the onions and take out the centres. Chop the bacon and parsley and mix with the breadcrumbs, pepper

and salt. Press a little of this mixture into the centre of each onion. Melt the dripping in the tin; when hot, put in the onions and baste with the hot dripping. Cock steadily until the onions are tender (the time depends on the size of the onions). Dish and serve, enough for four to six people.

Sheep's Tongues

Allow 1 sheep's tongue for each person, salt, pepper, stock.

Wash the tongues well and put them in a pan with the stock, salt and pepper. Simmer gently until cooked. Skin them and take out the tiny bones from the root. Arrange on a hot dish with some vegetables round them. Onion sauce is very nice with this dish.

Vegetable Pie

2 cups of cooked carrots, 1 cup of cooked peas, 2 tablespoonfuls of melted butter, $\frac{1}{2}$ cupful of grated cheese, 1 cupful of milk, 1 beaten egg, salt, pepper, breadcrumbs, slices of tomato, and a little butter.

Slice the carrots and mix with the peas. Add the butter, cheese, milk, egg, salt and pepper, mix lightly and turn into a buttered pie-dish. Sprinkle the top with breadcrumbs and dot with butter. Arrange a few slices of tomato on the top as a garnish, and bake in a moderate oven, about 30 minutes. Enough for four people.

- Until February . . .

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TO MANUFACTURERS.—In order that our information may be kept constantly up to date, manufacturers or suppliers are requested to forward their latest trade lists, catalogues, and any other confidential information regarding their products. By so doing the Bureau will be able to function to the mutual benefit of all concerned.

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Printed by Lindsay & Co. Ltd., Edinburgh, for " The British Golf Greenkeeper "

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