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000 q. yds.	Lawn tennis	Cricket Table	Bowling green	Acre		
5/-	22/-	44/-	114/8d.	£13.10.0.	25% Chlordai	ne
/-	25/9d.	51/6d.	165/-	£20. 0.0.	Liquid 20% Chlordane	
			CHIE SEAL		Granular .	
64/4d.	25/9d.	38/6d.	103/-	£14. 7.6.	Berk S/S Fine Turf Feed	
TE III	They play to			£6. 6.0.	Berk S/S/ Outfield Granular	
?/1d.	8d.	1/4d.	3/8d.	10/9d.	Berk Standard Weedkiller	
4/10d.	1/8d.	3/5d.	9/5d.	£1. 5.3.	Berk Super Weedkiller	
9/11d.	3/1d.	6/2d.	17/6d.	£2. 8.0.	Berk Clover Killer	
£12.13.0.	84/6d.	169/-	£19. 3.4.		BerkMercurized Turf Sand	
£12.13.0.	84/6d.	169/-	£19. 3.4.		Berk Moss Killer	
£12.13.0.	84/6d	169/-	£19. 3.4.		Berk Moss Eradicant	
89/-	27/9d.	55/6d.	160/-	£20. 0.0.	Berk L/Sand	
20/3d.	6/9d.	13/6d.	35/6d.		Berk Turf Fungicide	
Term	Contact your	Berk Mer	chant/Distrib	outor		
	CARS.	The state of	THE		Berk Top Dressing	
	105/-	95/-	125/-			
	HOLINE TO		Affinia sia		Berk Supplex Hose	
	Price	es on app	ti		Tricoflex	

(continued from p 8)

collecting point for such water. During the grading work bunkers should be formed and drained as required.

On heavy or wet land tile drainage will be required for the green and on very poor sites a hard core drainage layer with suitably spaced drains tapping this may be advisable. With a sandy, free-draining site it will be reasonable to omit drains in the first place and only introduce them later if proved necessary.

Where a drainage layer is needed, the tapping drains would be introduced into the sub-formation surface and backfilled with porous aggregate of 3 in-3 in gauge, eg graded clinker, gravel rejects etc. The drainage layer is then laid, using small mechanical dumpers and taking appropriate precautions to avoid damage to drains. After a blinding layer of fine hard ash, preserved top soil is then spread over the area to form a uniform surface layer of not less than 9 in firmed depth on the green itself. On banks surrounds less soil is necessary, say 3-4 in.

On sites where an ordinary tile drainage system is needed, or where drains can be omitted, the top soil spreading is completed and followed by sub-soil cultivation to relieve all compaction. The latter is done by means of a sub-soil cultivator or a mole plough fitted with a sub-soil shoe. The operation should be carried out with the maximum fall on the green at 2 ft centres and at a minimum depth of 18 in and repeated at an angle where appropriate. Land drainage follows sub-soiling and care must be taken to remove sub-soil spoil without contaminating the top soil.

On completing the above work, ploughing is usually needed and care should be taken not to turn up subsoil. Cultivations follow to produce a reasonably fine tilth and to relieve all compaction through the full topsoil depth. Ordinary agricultural implements are best for this work, eg disc or tined harrows; the use of rotary cultivators (particularly those operating at high speed and pulverising the soil)

should be avoided. Running the discs etc up and over the banks surrounding the green is often a useful way of blending the banks in to give a natural appearance.

During cultivations the opportunity can be taken to ameliorate the top soil using materials such as gritty lime-free sand, peat and dried sewage. It should be borne in mind that once the turf is laid very little can be done from the surface to alter the character of the underlying soil. Skimping at this stage can mean the difference between an excellent green and just a mediocre one. The quantities of the various ameliorants needed are dependent on the soil type. With a heavy clay top soil up to 7½ tons gritty lime-free sand and 5-10 cwt granulated peat per 100 sq yd might be needed. Poor sandy soils lacking organic matter may need peat dried sewage. ameliorants should be applied evenly and then thoroughly cultivated into the top soil.

(continued p. 13)



FIBREGLASS FLAGSTAFFS GRASS COMBS GOLF FLAGS AND SWITCHES

NEW TURF SWITCH 'St Andrew'

Metal Shaft, Fibre Glass Tip, Length Adjustable £4 15s. each

STEWART & CO., SEEDSMEN LTD. EDINBURGH, 2 Soil tests should also be completed to determine any lime requirement or major nutrient deficiency and appropriate corrective action taken. Any lime necessary is applied at some convenient time during the cultivations but the fertiliser is withheld until just before turfing.

Having completed the bulk of the work by, say, August the site can now be cultivated at intervals to clear it of weeds until October. Of course, if adequate watering facilities are available it is possible to carry straight on and turf the green. However, turfing usually commences when weather and ground conditions are favourable from the first week in October. smooth and evenly firmed turf bed should be prepared to the levels and contours desired by alternate hand raking and heeling. During this work any surface stones or other rubbish would be removed. The final operation is to spread and rake in the fertiliser.

Turf lifting these days is best done mechanically and many contractors have a suitable machine available for hire. The work is done quickly with the minimum of damage and a uniform end product is assured; this eases laying considerably. The turf should be laid with broken joints, each turf being closely butted to the adjoining turves. It is best to work from boards placed on turf already laid so that the prepared soil surface is not disturbed. The necessary materials should be transported over boards so that newly laid turf is not subject to direct traffic.

On completion the green should be given a light rolling using a 5 cwt hand roller. A sandy compost is then applied at the rate of about 4-5 lb per sq yd, and thoroughly worked into the surface.

The major work is now over but the green is by no means in a playable condition. Self congratulation should be reserved until an acceptable putting surface has been created.

head Greenkeeper required for 18-hole course. Good wages and conditions offered. Write, with full particulars, to the Secretary, Bury Golf Club, Unsworth Hall, Blackford Bridge, Bury, Lancs.

HEAD GREENKEEPER REQUIRED. Applications are invited from suitably qualified persons for the post of Head Greenkeeper. 18-hole course. All modern appliances available. Salary £1,000 pa. Housing accommodation provided. Apply stating age, qualifications, and the names of two persons to whom reference can be made, to the Secretary, Howley Hall Golf Club Ltd, Scotchman Lane, Morley, Leeds.

ASSISTANT GREENKEEPER REquired. Up to £15 per week according to experience. No accommodation. Apply to the Secretary, Hampstead Golf Club, Winnington Road, London N2.

EXPERIENCED GREENKEEPER required to take charge at Brickenden Grange Golf Club, Nr Hertford, Herts, now nearing completion. Accommodation available. Good prospects. Applp E G Smith, 104 High Street, Ware, Herts.

HEAD GREENKEEPER WANTED for Broadway Golf Club. Apply in writing to: The Secretary, Willersey Hill, Broadway, Worcs.

HEAD GREENKEEPER REQUIRED.
State age and previous experience.
Salary by negotiation. Modern equipment available. Apply, The Secretary, Crompton & Royton Golf Club Ltd., High Barn, Royton, Lancs.

HEAD GREENKEEPER REQUIRED for first-class Golf Course near Munich, Germany. Right man is most urgently needed for the summer season, but the appointment could also be permanent. Knowledge of German not essential. Apply giving details of career and experience, stating salary required to: The Secretary, Golf Club, Feldafing, 8133 Feldafing, Bavaria, Germany.

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Smoothest! 21" Toro Greensmaster. The machine thoroughly tested by Moor Park and Wentworth Golf Clubs and used during preparations for the Esso and Piccadilly Tournaments, 1966. The machine that will give your green a really superb finish and cuts cutting time on a 18-hole course by 3 hours! The Greensmaster gives 147 cuts to the yard. It's unique floating action isolates the cutter from the traction and catcher units. So there's no gouging or digging. No engine vibrations to disturb the cut. Greensmaster is powered by a 3 h.p. four-stroke Tecumsh engine. If you've any of those really difficult plateaux or undulating greens scored by your present machines—you must see how the Greensmaster achieves perfection.

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And remember—Flymo guarantee availability of all Toro models and spares, all over the country.



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.

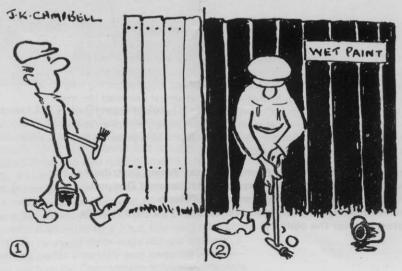
MARCH

7th North-West Section Lecture, Manchester, 7.30 p.m.

17th Southern Annual Dinner, South Herts. G.C.

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HON. SECRETARY'S NOTES
MEMBERS WILL UNDOUBTEDLY
be very sorry to know that Mrs
Bretherton has been in hospital since
before Christmas but I am glad to say I
understand her health is now improving,
though slowly. I have arranged for a
few flowers to be sent to her with a
message of sympathy and the wish for
her speedy recovery from all members.

Executive Committee Meeting

A meeting of the above Committee has been arranged for Saturday the 11th March 1967 at the Imperial Hotel, Birmingham, commencing at 12 noon.

IN SEARCH OF KNOWLEDGE

One of the most recent trainees to receive his certificate on completion of

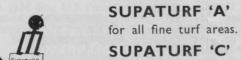
his apprenticeship wrote: -

"You may be interested to know that I have also passed my Third-Class Certificate in the National Association of Groundsmen and I am studying to take my second and first-class certificates this year. I also passed my UEI in Horticulture obtaining second place in the country in Grass and Green-keeping. I attend fortnightly lectures during the winter months, given locally by the National Association of Groundsmen. Unfortunately there are no such lectures arranged by the Association.

"Yours sincerely,—Patrick J Coleman, Merry Hill, Wolverhampton."

We think this is a first-class example of using to the full the limited facilities at present available and getting the most out of them. We shall watch Patrick Coleman's career with much interest.





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News



from the Sections

SOUTHERN

By W. Mason

Chairman.

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

Meeting

WE HAD A VERY GOOD ATTEND-ance for our special meeting on Wednesday, 14th December which was held prior to our Mr J K Glass, who was in the chair, told the meeting they had been called together to elect a vice-chairman for the whole of the association and that all head greenkeepers present should take part in the election. Mr S Morton and Mr C A Moore were then put to the meeting. Mr J Stobbs proposed that C A Moore should be elected and this was seconded by E Hall; and Mr Maidment proposed S Morton and this was seconded by H Hughes. The vote was then taken and it was left to two of our presidents, Messrs R C Craig and W J Holloway to collect and count, the result being 13 votes for S Morton and 20 for C A Moore. Mr Moore responded by thanking the meeting, saying he would endeavour to do his best for the association. Mr P Marshall (Messrs Ransomes, Sims & Jeffries) then took over the meeting by showing us wonderful slides on the various Ransomes machines with a running commentary as he went along. Afterwards a number of questions were asked and answered. In all a most interesting and enjoyable evening. Our next lecture will take place at the Stirling Castle, as usual, on Wednesday, 8th February at 6.30 pm and will be given by Mr W H Bartle, from the Research Institute, and the title he has chosen

is "Golf Course Maintenance". We look forward to a full house with plenty of questions for Mr Bartle to answer.

Annual Dinner

Our Annual Dinner will take place at the South Herts Clubhouse on Friday, 17th March. The Club has very kindly consented to the use of the course in the afternoon for anyone who wishes to play an 18-hole fourball better ball competition. Will you please, when sending for tickets, let me know if you will be taking part in the competition. An early request will be greatly appreciated so that arrangements can be got under way.

that arrangements can be got under way.

I thought the following letter from C J
Pitman, now greenkeeping in Portugal, might

be of interest to members:-

Dear Mr Mason,—I have settled down to some hard work here at the New Vale da Lobo golf course. I am in charge of the already constructed nine holes. It is very warm and dry at present and we have the automatic pop ups on most nights. Henry Cotton, the architect, has put a layer of clay under the greens to hold some of the water and this is working extremely well.

Please convey my best wishes to the Southern Section members for a Happy

New Year.

Yours sincerely, Christopher J. Pitman.

Mr S H Battams

It is with very great regret I have to report the death of Mr S H Battams, who passed away on Saturday, 17th December. I would like, on behalf of all our members who knew Sydney so well, to express our very deepest sympathy to Mrs Battams and family in their great loss.

MIDLAND

By R. Goodwin

Hon. Secretary:
167 Birmingham Road
Lichfield, Staffs.

Chairman: G. HART (Gay Hill)

Apologies

I WOULD LIKE TO EXTEND MY sincere apologies to Mr D Greey, Mr B Baxter, Pattisson's Ltd and May and Baker for the omission of their names in the list of Prize donors at Blackwell, in the December issue of the Journal.

Spring Tournament

The Spring Tournament will take place at Whittington Barracks Golf Club by kind permission of the Captain and Committee, on Tuesday, 23rd May 1967.

Visit

A visit to Sutton & Sons Ltd is to be arranged for June. I hope to give further details in next month's Journal about this kind invitation.

NORTH-WEST

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

Lectures

OUR LECTURE FOR JANUARY WAS given by Mr J Castell, of Fisons Ltd, to a very interested audience. They were very quick to take up Mr Castell's offer to answer questions put to him on fungal diseases. It was another very successful meeting and well attended — thank you, gentlemen.

Our next lecture, which will be on 7th March at the usual venue, The Garrick Hotel, Fountain Street, Manchester, at 7.30 pm, will take the form of an open discussion amongst the members present, so if you have anything to ask or information to give please roll up and make our last lecture of this winter series as successful as all the others.

New Members

We extend a cordial welcome to Mr T Jenkinson, of Oldham Golf Club, to the Section and hope to see him at some of our future functions.

NORTHERN

By J. Parker

Chairman:
D. ROBERTS
(West Bowling G.C.)

Hon. Secretary:
Bingley, Yorks.

Handican

THE FOLLOWING CHANGES IN handicaps have been made: A Robertshaw, 15 to 14; D Roberts, 8 to 7; J Scott, 13 to 15; A Cox, 14 to 15; G Bennison, 16 to 13; and C Ramsden, 24 to 22.

New Members

We welcome to the Section the following new members: K Daggers of Keighley Golf Club and I S Smith of West Bradford Golf Club.

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ONE RANSOMES OVERGREEN with three 16-in Certes Mowers and Grass Boxes complete. Price £50. Apply Heswall Golf Club, Wirral, Cheshire.

EAST MIDLAND

Chairman: F. FROST (Derby G.C.) By S. Fretter
Hon. Secretary:
20 Woodcote Road
Kingsway
Narborough Road South
Leicester

Spring Tournament

THE ANNUAL SPRING TOURNAment will now be held at the Leicestershire Golf Club on Monday, 8th May 1967. Details of this will appear in a later Journal.

Subscriptions

Will members and Vice-Presidents who have not already paid their subscriptions, please do so now as they are OVERDUE. Please send them direct to our Treasurer.

Monthy Journals

Will Head Greenkeepers please notify me if any of their staff are not receiving their Journals.

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.

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Mrs Greenkeeper's Own Corner

with Ann Mawson

This is the month when lemons should be at their best. To keep them, place the lemons in a basin of water and cover with a plate to keep them submerged. Change the water every fourth day. Lemons will keep like this for a considerable time.

Lemon Biscuits

1 egg, $\frac{1}{2}$ teaspoonful of baking powder, grated rind and juice of 1 lemon, salt, 4 oz sugar, $\frac{1}{2}$ lb flour, 1 oz lard, 2 oz margarine, milk if necessary.

Cut the fat up and rub into the flour, add the sugar, salt, grated lemon rind and baking powder. Next beat the egg, add the lemon juice, add to the mixture with a little milk if necessary to make a stiff consistency. Roll out to desired thickness, cut into mounds or fancy shapes, bake on a greased tin for about 20 min, depending on the thickness.

Lemon Curd

3 large eggs, 7 oz sugar, $2\frac{1}{2}$ oz butter, 3 lemons.

Wash and dry the lemons, grate the rind finely and place in a double pan, with the strained lemon juice, butter and sugar. Stir over heat until the sugar has dissolved; remove from the heat and pour slowly on to the beaten eggs, stirring vigorously. Return the pan to the heat and keep the water just simmering; stir constantly until the mixture coats

the back of the spoon slightly. Pour into jars and cover.

Lemon Mousse

4 oz sugar, 2 eggs, ½ pint of cream, 2 lemons, ¼ oz gelatine, a few nuts for decoration, 4 tablespoonfuls of water.

Whisk the egg yolks, sugar, and the rind and juice of the lemons in a basin over hot water until thick and creamy. Allow to cool. Whip the cream slightly and fold into the mixture. Whip the whites of the eggs stiffly and fold into the mixture. Lastly stir in the gelatine (which has been dissolved in the water). Pour into fruit dishes, and when set, decorate with chopped nuts. To serve four people.

Lemon Peel Candied

3 lemons, ³/₄ lb sugar, ¹/₄ pint of water. Cut the lemons into six portions, and take away the pulp. Wash the rinds, cover with cold water, bring to the boil and simmer until the skins are tender. Boil the sugar and water for seven minutes, put in the lemon peel (which has been well drained), allow to cook for three minutes. Lift out the peel and place on a rack which has a sheet of wax paper on it; dry in a very slow oven. Any sugar syrup left over can be used for sweetening puddings and sauces.

-Until March . . .

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