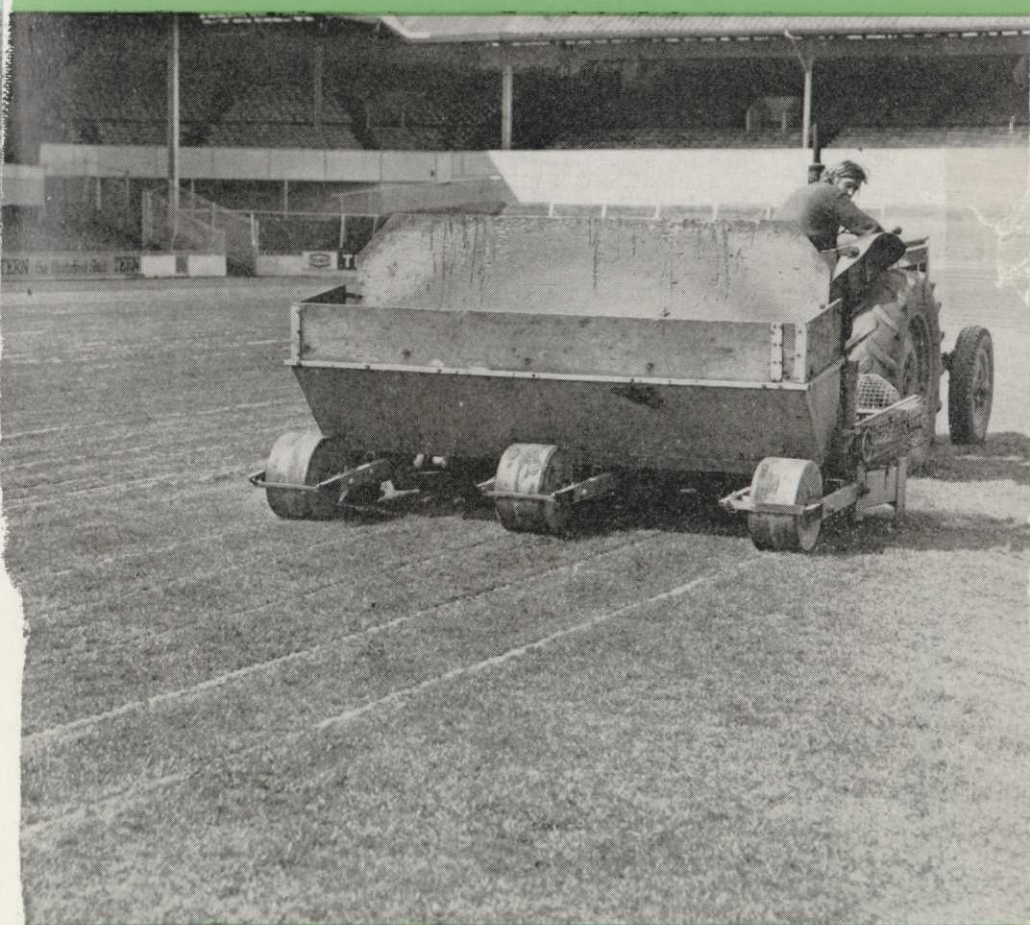


The British Golf Greenkeeper



January 1974

15p

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The British Golf Greenkeeper

HON. EDITOR: F. W. HAWTREE

No. 344 New Series JANUARY 1974

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Front Cover Picture

This month's cover shows Sand Injection being carried out by Cambridge Soil Services on a well-known First Division football pitch. With acknowledgements to
CAMBRIDGE SOIL SERVICES LTD.,
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Tee Shots

The British Association of Golf Course Architects had a serious discussion about the shortage of skilled greenkeepers when it met in December. The Architects see the problems especially because of that critical period between completion by the contractors and opening for play when maintenance has to be of a very high standard. Even more tricky is the period between completion by the contractors and acceptance by the client. Contractors, like everybody else, find it hard to get skilled men and, since considerable travel may be involved, their possibilities are even more limited than for a golf club.

It is clear that one fundamental difficulty lies in the organisation of golf itself. Responsibility is split between four national golf unions and a rule-making body. These five come together in a thing called CONGU which is neither a type of eel nor part of darkest Africa but a Council which apparently has no executive powers to act in the general interests of the game.

Nobody can blame the Greenkeepers Association for this situation

nor for failing to try to meet it. Ten years ago the Greenkeepers Association foreseeing the future started its Apprenticeship Scheme, the only trade in the country which trains apprentices with no help whatever from its employers.

In October, the British Golf Greenkeepers Association arranged a Turf-grass Symposium at considerable cost to itself and with the help only of two firms interested in supporting greenkeeping for its own sake. The only other conferences of this type are those (apparently rather select) organised by research bodies and weed control.

Ireland, too, is beginning to feel the pinch and there are talks going on concerning the setting up of an instructional course at an Agricultural College near Dublin.

The Department of Employment is concerned at the situation and is thinking of setting up a pilot scheme for training young men just too old for apprenticeship.

Meanwhile, golfers happily go on playing, making more courses, putting up bigger prizes and organising more matches. Instead of blasting out of the bunker, golf is burying its head still more deeply in the sand.

THAT PARIS TRIP

Although the A.G.M. was favourable, so many Sections have since expressed no interest (one in fact, positive antagonism) that we have obviously been wasting time, postage, and print.



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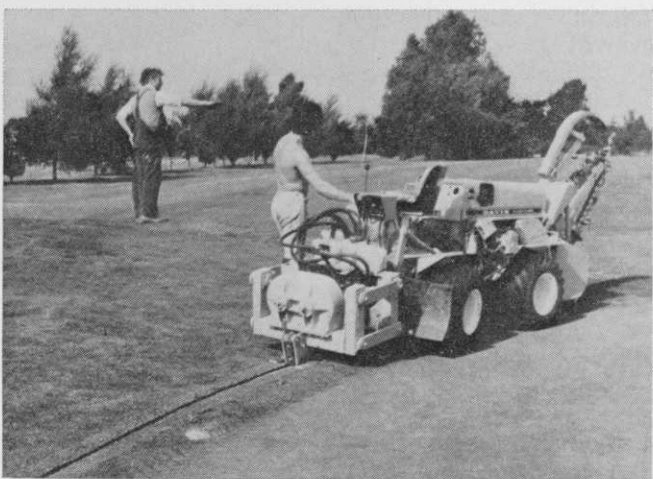
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SOIL WATER MOVEMENT

Dr. A. N. EDE

Land and Water Management

The Golf Course provides a microcosm of all the various conditions which are connected with the soil, including the principles of how water moves in the soil. On an average course you have an example of each of these conditions. When I am talking about the soil, I mean the soil profile, the soil in depth.

The Chairman has already mentioned two points that I wanted to pick on about how important it is going to be for us in the future to pay full attention to principles and I do not think we have always done so in the past. Firstly, he tells us that 500 courses are needed; 40 are being built. With the pressure on planning that there is to-day, it is inevitable that a large proportion of those courses will be on soils which are not ideal for the purpose. This is where a very thorough knowledge of how to manage those soils, how to improve the water management situation, is a vital prerequisite for a successful course as well as for a pleasant game. The second point from your introduction, Mr. Chairman, which I should like to pick on, is the question of maintenance. There is a lot of expertise available at present (some of it sitting in this hall) on how one can apply remedial action to the soil, so that the management of turf grass becomes simplified and the Greenkeeper's task facilitated. Maintenance, aeration of the fairways and greens can be improved a great deal and it is going to be essential in my view, to so simplify the task of those looking after a golf course, that they can attend to more routine duties.

The system overall must achieve better results. I shall now try and point out some of the principles.

First of all, a golf course, when you are speaking of greens and fairways, or for that matter any turfgrass, is affected in the same way as most other land in the country except we find modified water situations to our advantage. Our problem is the balance between the various quantities of water arriving at and leaving the site, the principal one of these being rainfall. It should be remembered that up to $\frac{2}{3}$ of the rainfall arriving at the surface of the ground can be lost by evaporation in the course of a season. Slightly less evaporation takes place on the Western side of Britain, but in general only $\frac{1}{3}$ of the rainfall has to be drained away.

It is rather like opening a current account in a bank. You open the account—that is the rainfall. Your wife has a cheque book and you look at the account at the end of the month and you find it has gone down. She has evaporated some of it and you don't get the benefit. The rest of it either passes into the plant system which is a vital part of the operation or passes into the ground which is a seasonal measure. It is taken into soil storage, and that storage goes on opening the top soil and the sub-soil. Later on some water may move away through seepage and work its way out of the system.

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is due to the fact that the infiltration rate which the ground is capable of withstanding is less than the arrival rate of rainfall. It is just the ratio of the two speeds. Clay soils, as you know, particularly when they have been heavily trafficked over, become less and less permeable. It is a useful thing to know that clay soils may have a permeability, (without relying on the soil structure—the cracks and crannies—or any artificial means such as sand slitting), one ten thousandth of the permeability of a well-constructed green.

This is the basic situation. You have rainfall arriving, evaporating—leaving, and some water penetrating. The question of how much depends on the soil and this is where the first stage of remedial action comes in. If you are not able to remove the water through the sub-soil naturally, and of course, many golf courses have this natural drainage in the form of chalk, then you have got to put in a drainage system. The real purpose of this is to modify the balance of the quantities of water arriving and departing and to create a new quantity. This will prevent the water table building up. This is satisfactory so long as the water can actually penetrate. There are charts to tell us how high the water table will rise above the drains in relation to the permeability of the soil and the distance between the drains.

That is the first instrument of modification which is an essential one but it is not the only one that may be needed. You can get the situation where the surface of the soil requires a modification to allow water to enter quickly and so prevent considerable damage by poaching. Now the under-drainage situation with the water table is all laid down in calculations. You can modify it by putting gravel bands over the drains and so on; you can modify it by sub-soiling to improve permeability. We do not how-

ever, have a fully satisfactory method of calculation for removing water off the surface of the ground. It is not amenable at present to a proper calculation. One extreme of surface water drainage is ground covered with tarmac, like a carpark. What rate will the water have to be removed from that? There is no penetration at all, hardly any kind of evaporation. It has all got to run off by the surface and that rate is about 1" a day on average—one inch a day has to be taken off otherwise you are in serious trouble.

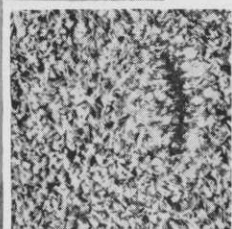
Now soils are not so severe situations as that, but we have got these arbitrary figures, one inch of water per day, the equivalent of one inch of rainfall coming onto the surface of the ground. Water which cannot penetrate has to be removed by surface drainage. In a peaty or sandy soil it may be a much lower figure, say 1/4" a day or even zero. But there are these arbitrary amounts which you have to cater for. Now, what has happened in more recent times is that instead of having to rely on the under-drainage with some sort of assistance to water penetration, there is now an instrument whereby one can insert vertical bands of sand at intervals through the top soil, which does enable one to achieve a new path for the water. When this rainfall arrives and you know it is not going to be evaporated off quickly enough and you don't want it hanging around, you can cut away about 3/4 or even 9/10 of that rainfall within a matter of a few seconds and you remove it from the surface of the ground. With the balance of the water totally upset, in your favour, you have then a much more favourable soil situation in which to deal with the tiny 1/8th part that is left. We have in fact got a very good basis for calculating this surface water removal operation. The sand slit itself is amenable to the same sort of calculating approach



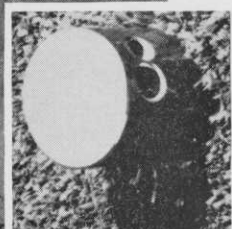
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that one can apply to the underdrainage situation. It is almost the same theory used again, the sand slits 10" deep 5/8" wide are emptied of water at intervals by connecting with tile or plastic drains, or by being connected with, in the case of a green, a total blanket of clinker or ashes which would be 9 or 10 inches below the surface. Calculations must ensure that the height to which the water rises in the sand slit while the water is passing through to the drain, does not get more than 2 or 3 inches from the base of it. The way in which we calculate the entry of water through a sand slit is to assume that all the in-between soil has zero permeability, like tarmac. That is, all the water must go through the sand which it does, by removing a foot, or even less than a foot naturally to the sand which is a permanent indestructible passage for the water, unlike spiking and other methods of aeration. There are tables to help with different sands of varying permeability, which are measured in the laboratory, and for different climatic situations like a heavy rainfall area or a light rainfall area. The tables indicate what spacing is required between the sand slits to achieve water removal at the rate we want. There is a different theory for the conditions where you have a total blanket of ashes underneath, as opposed to only having them at intervals, between the places where the water can drain through. Most sands are not graded by Zone 2 or or Zone 4 for this purpose, but are measured for hydraulic conductivity or permeability. We are then able to cope with any situation with sand slits 1, 2 or 4 feet apart almost regardless of sand type, although we naturally prefer the better ones.

Where you have the situation where water has to move laterally along the sand, then one has to be fairly careful and we will only allow the use of sand of a better permeability on a

fairway or green, because of the need to remove water laterally. Drought resistance by some golf courses is exceptionally good. We have seen some of it this year. Water can move upwards and that is one reason for not in some cases, putting a full ash blanket in what you might think to be a badly drained zone, simply because in fact, it prevents water moving upwards in times of drought. Now one can show examples of the amount of water stored in the soil from ground level down to about 3 ft. on differing sites at the same date. Each site will show different percentages of moisture, which are stored at this particular time. Cowbit Wash is a good example of a silt soil where some water is retained in the upper part but is much more saturated at, say, 2 feet deep. Another situation is where you have far too much water stored in the upper part of soil and then you would not be able to get a satisfactory turf. Now in a year, one can add up the quantities of rainfall on any particular site and you can account for all those other quantities that I mentioned, seepage, drainage, storage and you can build up a picture of a normal site, a wet site and a droughty site. A very typical situation is where a large quantity of water is removed from drainage during the winter and in summer all that stored water is given up and helps to keep the plants going without artificial watering.

A word on water supply. Some people go to great lengths. I mean the Moors built canals to keep themselves going. There are easier ways these days, pop-up water systems where one simply presses a button and the water comes. Now we are modifying water on the surface of the ground to make up a deficit as opposed to draining. I would like to draw your attention to a new piece of equipment which is now available on the market. A moving

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Question Time

- Q. You spoke of the selected sands which you used in the slits. What are the gradations that you recommend?
- A. The gradations that we recommend don't, in fact, fit in with any of the existing types of zone, because we are primarily interested in one quality only, which the zone sands are not, in themselves, meant to fulfil.

We are interested in the hydraulic conductivity of the material, and we have found a wide range of sands which fulfil these conditions. We do have a measurement, in fact, which determines and gives each sand a figure. You can take a zone 2 or zone 4 sand, and they don't always have this high hydraulic conductivity, whereas a finer sand might have. Therefore, the people who have been doing this generally carry out a test with any sand with which they are unfamiliar, in order to make sure that they do get the right figure. What you are trying to achieve, in fact, under conditions in Britain, is certain minimum rates of water removal through the sand, and based on a 2 ft. spacing between sand slits which would be 5/8" wide. We would say a good sand should be capable of taking between 5 and 15 inches of water off the surface of the ground per day. So we allow for the width of a sand slit and an interval between the slits to achieve that, and we finish up with a figure for the hydraulic

conductivity of the sand, which is equivalent to that 5—15 inches. There are plenty of situations on the other hand, particularly where you are draining to a free draining layer, or to a naturally free-draining soil, where you have bad soil on top and the water can't get through. But with the moderately good soil underneath here a lower figure for conductivity is acceptable. It would be in the region of 2—5 inches per day and that is a lot of rain. We do not often get even 2" a day, and that is a design figure. As Engineers we specify for a course, particularly on a fairway, even more so on the greens, and we work to that by doing this test on the sand. I am afraid I cannot give it to you in fraction sizes, because there is an infinite number of combinations.

Q. Are most of those Loess sands?

A. Well, loess sand is particularly good because loess sand for the benefit of anybody who hasn't come across it, is a wind blown sand which is such as you would find round Thetford, the nearest place to here, but there are plenty of other deposits in Britain. A wind blown sand sorts itself out because the bigger particles go a short way and the smaller particles can go up to 150 miles. Therefore, we find a big zone with single small range particle sizes, and that is rather good. But it is not the only type you can use; a clean silt loam would do very well.

Q. How long can we expect a 5" wide slit filled with your sand to remain intact and not contaminated?

A. There is no evidence we have so far that this sand slit does in fact get any encroachment or illuviation from soil, but I would not rule it out as a possibility. A number of grounds one would perhaps sand slit 4 ft. apart and achieve a big measure of impro-

Continued on page 17

News

Emphasis on service and stores' activities is planned with the creation of Toro (London) Sales & Service to assist golf clubs and local authorities in London and the Home Counties solve their grasscutting problems.

The organisation has been created within Toro (U.K.) Sales & Service, a new division of Flymo Limited.

It will retail, service and repair the comprehensive range of high work-rate Toro grasscutting equipment now available in the United Kingdom.

A strong management team mainly recruited from within the Watford-based Toro (London) operation. These moves have been supported by expansion of workshop and servicing staff and facilities.

Announcing the new structure, Mr. B. C. Jennings, General Manager of Toro (U.K.) Sales & Service said there will also be continued development of the previous policy of appointing carefully-selected service dealers for field service and repair work further to complement the Watford-based operation.

John Andrew becomes Service Manager of the new London organisation, with David Berrow as Stores Controller. Tony Snaith continues as Field Service Supervisor, John Holding is appointed Sales Administration Officer, and Tim Pain becomes Service Administration Officer.

Hugh MacGillivray, former Course Manager of Rowlands Castle Golf



The advertisement features a black and white photograph of an ATCO lawnmower on a golf course. The mower is a walk-behind model with a large grass bag attached to the back. The bag and the seat area both have the 'ATCO' logo. In the background, a person is walking on the grass. To the left of the mower is a royal warrant logo, which includes the text: 'By Appointment to Her Majesty the Queen Manufacturers of Motor Mowers Charley H. Pugh Ltd. Birmingham'. To the right of the mower, the text 'It takes one professional' is written in a large, bold, sans-serif font.

Club, has been appointed Turf Care Specialist following the departure of Ivan Brown on an overseas' appointment.

In recently announcing their change of Company title, CHIPMAN LIMITED referred to their diversification into Turf Management products and Contract activities.

They now confirm that following successful negotiations with Cambridge Soil Services Ltd., they will be featuring in their Turf Drainage Services the Cambridge Triple Sand Injection machine which recently secured the Gold Medal "Best Introduction of the Year" award at Motpur Park. These machines will be exclusively available to CHIPMAN for use on Government and Local Authority Contracts, also for deployment by both them and Cambridge Soil Services Ltd., on Golf Courses and private Sports Grounds.

The contract service CHIPMAN

intend offering will incorporate a full range of turf maintenance activities aided by experienced technical representation, the latest recommendations relative to the nutritional requirements of turf and the more recent discoveries arising from the scientific analysis of soils. These will include the application of herbicides, insecticides, fungicides, wormkillers, fertilisers, lawn sand and top dressings, the undertaking of hollow tining and scarifying, and the carrying out of surface and sub-surface drainage on established turf.

The 29th International Groundsmen's Exhibition for 1974 will be moved forward by one week. The three-day Show, which attracted just on 40,000 visitors in 1973, will now run from September 10th to 12th, 1974. In order to cater for the larger attendance expected there is a possibility that the opening hours will be extended.

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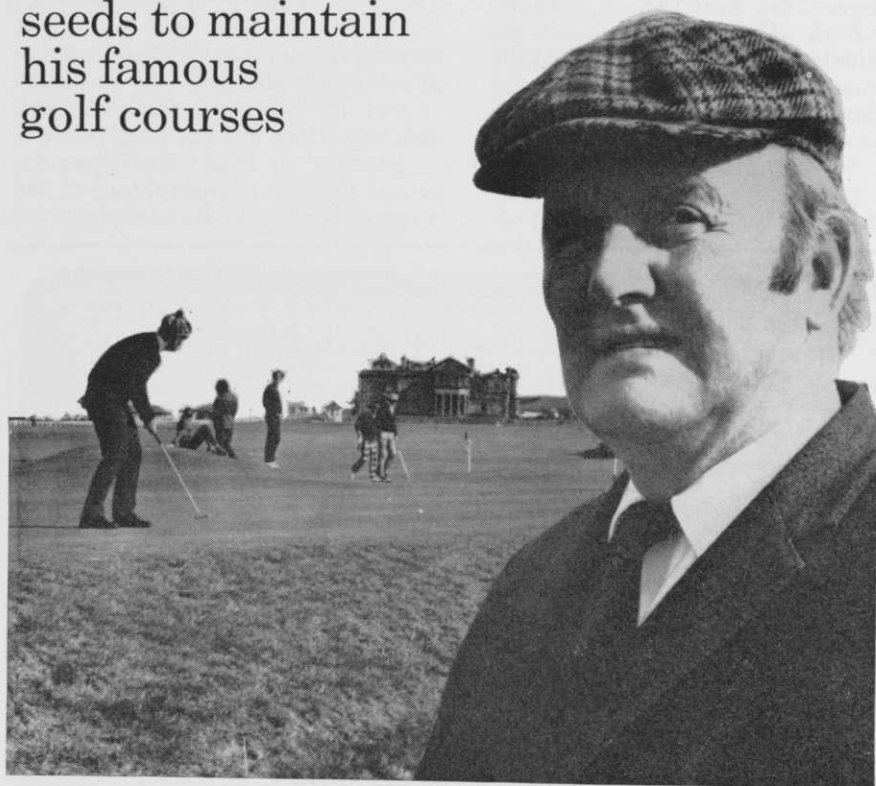
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The British Golf Greenkeeper

vement but one could have a second go-through at 2 ft. apart. This isn't because we have experienced failures or evidence of encroachment. I would, in fact, say the opposite is the case. We cannot find any evidence of encroachment. The 5/8" width is tremendously tolerant of what is actually needed. We are letting through vastly greater quantities of water than are actually needed to be passed, and there is no evidence of soil encroachment, physical movement in, or alluviation, which is washing in by water.

Q. We find that when we make slit trenches in the United States any cultivation of the soil, or covering over the slit trench itself with dirt, actually seals off the sand layer, or the pea gravel layers that we use predominantly, and this makes the slit itself useless in a short period of time. Do you find that true?

A. Yes, it is absolutely true. As little as 1/4" or an 1/8" of the wrong sort of soil—it often comes in with turf or some sort of traffic which has moved over the ground—can be enough to seal it. But there is no need to have any soil on top of the sand slit because the mechanism is that the turf grows into the sand and bridges over the top in a matter of weeks, you won't see the band and there is no need to add soil or do anything—it is damaging, and not necessary.

Q. Dr. Ede, Have you done any research into the long-term effectiveness of PVC drains as opposed to tile drains? I'm thinking particularly of the silting up of the small slits in the PVC drains and to combat that I have always used porous fill above PVC drains.

A. The answer to the first part of

the question—yes, I have done research. We did have PVC drains introduced to the country which passed various tests we set up in relation to field trials. We specified a formula for these PVC drains that means they do not require any special treatment, because the widths of the slits and the size of the perforations of PVC drains, and this is unique to a factory product, are built into the product before they leave the works, and there is a British Standard now emerging from the provisional standard which we had six years ago. You need a surround of gravel or clinker on drains but not for the reason which you put forward. It is to do with the particular soil profile that you are working in, and there are at least three, or possibly more, different situations where you need it. One is to prevent hydraulic resistance in the soil near the drains so you keep soil further back.

The second one is to act as a filter, which is a different matter in fine sandy soils where you need a surround to keep the sand from flowing towards the drain. The third, and by far the most common one, is to put a band of permeable material above the drain and extending up as far as needed. I cannot tell you more than that but it is anywhere from ground level to say 10 or 12 inches below so that you provide a path for the water that cannot be destroyed. That path has to connect with something, it may be connecting with more permeable top-soil, it may be connecting with an ash or clinker blanket, or it may be connecting with a periodic operation on your part by means of an aeration tool which achieves temporary con-

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ductivity for water through the upper layers, but it must be there to conduct water down from whatever layer in which you have got the water available and freely moving, even if you have to make that layer yourself.

Q. Dr. Ede, What is the most common type of tile being used in Britain right now? Is it still the clay tile?

A. The position on Sports fields, I was saying, is that it is about 50/50 in the usage. That is between PVC of either the corrugated type that is coilable, or the more rigid type which is straight tube. About 50/50 with tile drains. A good drain makes no difference, as long as the design is correct, whether it is one or the other. There are a few situations where you have to choose between one or the other for special reasons, but in general, it makes no difference. Over the country as a whole, it is doubtful whether the PVC market has penetrated further than 15% but in certain areas, for instance in Scotland, where it is obviously not very convenient carting tiles over difficult ground, the penetration is over 50% and there is no difference in the effectiveness when properly used.

Q. Do you think there is any future in wetting agents for improving hydraulic conductivity?

A. I do not think a wetting agent, straight, is going to be of consequence but there are various admixtures, more of the physical type. It is a physical, biological activity to improve soil conductivity. It is not just the stuff you put in but the fact that the root growth is improved, worms become more active and they help conductivity. Other biological actions come into play often as

a result of an admixture. We are testing quite a number of different substances in addition to purely physical compositions of profile, so that you make up a soil or a profile to your own specification on an engineering basis.

Q. Thinking of sand slits on a putting surface, will it not affect the texture and growth on the putting surface during periods of perhaps, dry weather. Will these slits be more obvious than at other times?

A. To deal with the dry weather aspect first, once the turf has grown across the sand and it only has to go in a matter of 1/4" so it isn't a very big bridging it has to do, we generally get a stronger growth of turf, perceptible to the eye rather than to the lawnmower along that line. The reason is that the turf there has got deeper roots than in the soil on either side. Therefore, once that turf is established on the sand slit it does not become more droughty, for instance, than the turf either side because of the deeper rooted system.

Secondly, the sand slitting equipment that is available; it works on a vibrating basis in the main, has different widths of blade that you can use, and the compromise that one always has to make is between achieving a whacking great slit and a very narrow one, but one generally tends to err on the larger side to be safe. In fact, in the case of a putting green you want an extremely narrow slit, in order to get minimum soil disturbance. Each sand-slitting blade has a spring-loaded roller, which presses down the immediate disturbance it caused. You might in the case of a putting green have to do some remedial

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Closing date 1st February, 1974.

E. C. RAY

Chief Executive Officer

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The British Golf Greenkeeper

action as well, to get it quite plane but I think a putting green is something similar to a hockey pitch. The job is acceptable on a hockey pitch virtually as it is done, provided you have got the right width of blade, and generally if you need a narrower blade, all you have to do is to put the same quantity of sand in a greater number of slits; disturbance is minimized and the greenkeeper has then very little to do.

Q. Dr. Ede. Don't you think that as soon as you start top dressing your greens, you are starting to eliminate your slits on a putting surface? We have a regular programme in the States which I

presume you have in this country, of top dressing greens, perhaps twice a year. This would seal off that tiny slit, wouldn't it?

A. I think there is a lot of scope for getting the right top dressing and the question is, we don't always keep doing the same things year in year out without question. We have a new instrument of attack on a severe problem which arises on very many courses, and we may need to take a second look at our existing practices and modify them. A little less Kettering silt perhaps.

Mr. McPartlin thanked Dr. Ede on behalf of the Panel and Audience for his excellent paper and the interest it provoked.



Charles Bramall, Chairman Flymo Group of Companies, watched by a group including the Lord Mayor of Sheffield Ald. S. K. Arnold, plants a tree at a Conference at Sheffield to mark the 10th Anniversary of the Flymo Hovermower. Third from left is Henry Gillespie, Sheffield Branch Secretary BGG.A.

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Special Occasions

- Jan. 13 North West Lecture K. Vertigan, Esq. SISIS.
 15 Midland Lecture/Film Toro Equipment Flymo—Kidderminster G.C. 2 p.m.
- Feb. 6 Southern Lecture.
 7 Sheffield Lecture.
 20 Midland Lecture. Blackwell G.C. Bromsgrove 2 p.m.
 Modern Drainage—S.T.R.I.
- Mar. 15 Midland Annual Dinner/Dance
 Park House Restaurant, Sutton Park, Sutton Coldfield. 6.45 p.m.—12.30 a.m. Tickets £2.

South Coast Section

Chairman: I. GREENFIELD
Acting Secretary: MRS. J. STIMSON

CONDENSED REPORT of a Committee Meeting held on 22nd November, 1973 at Ampfield Par Three Golf Club.

The Chairman reported that Mr. H. MacGillivray has resigned as Secretary, and the Committee agreed to accept the offer of Mrs. J. Stimson to act as Secretary until the next Annual General Meeting to be held in April, 1974.

The Committee decided to invite Mr. D. Green to become a co-opted member of the Committee in view of his willingness to organise the Spring and Autumn Meetings, and also two of the four lectures held during the winter months.

It was proposed and agreed that every effort should be made to ensure that regular reports and details of forthcoming events appear in the Journal and that members should be reminded that their subscriptions for the year 1973/74 are well overdue and should be paid in by the beginning of February 1974; that the Acting Secretary compile a new list of members based on the receipt of such subscriptions.

No interest was shown in the submitted details relating to the trip to Paris from 10th—14th August, 1974.

I. Greenfield,
 Chairman.

A warm welcome is extended to:—

D. A. Carter Burley Golf Club
 S. F. Beech and P. Lucas
 Gosport & Stokes Bay Golf Club.

East-Midland Section

Chairman: J. CARRICK
Hon. Secretary: S. FRETTER
 4 Queens Drive,
 Leicester Forest East,
 Leicester.

Annual Dinner/Dance

The Annual Dinner/Dance was held at the Empire Hotel, Leicester on Saturday October 27th 1973. A very nice evening was had by all.

Forthcoming Events for the New Year—1974

Film Show by Ransomes.
Quiz.

Annual Spring Golf Tournament at Longcliffe Golf Club. Details to follow.

New Vice President

I would like to welcome to this section Mr. J. Lord, 114, Carisbrooke Road, Leicester, as new Vice President.

I would like to wish all the members of this Section a very happy New Year.

Midlands Section

Chairman:

G. HART
(Gay Hill)

Hon. Secretary:

R. GOODWIN
2, Greenkeepers Cottage,
Ashridge Golf Club,
Ashridge Park,
Berkhampstead, Herts.

Seasonal Greetings

I would like to extend my best wishes to our President, all Members and Trade Representatives for Christmas and the New Year.

January Lecture

The January Lecture and Film will be given by "Flymo" at Kidderminster Golf Club on Tuesday 15th January at 2 p.m.

February Lecture

A Lecture will take place at Blackwell Golf Club, Bromsgrove on Wednesday 20th February at 2 p.m. Modern Drainage will be the topic, and the Speaker will be provided by the Sports Turf Research Institute.

Annual Dinner

The Annual Dinner and Dance will be held at "The Park House Restaurant" Sutton Park, Sutton Coldfield on Friday 15th March, 6.45 p.m.

until 12.30 a.m. Tickets will be £2.00 and can be obtained from myself, Mr. F. Cashmore, Vic Smith and all Committee Members.

Spring Tournament

The Annual Spring Tournament will be held at Robin Hood Golf Club on Thursday 2nd May, by kind permission of the Captain and Committee.

Southern Section

Chairman:
C. A. MOORE
(Stanmore)

Hon. Secretary:
F. W. FORD
68 Salcombe Gardens
Mill Hill, N.W.7.
Tel: 01-959 2847

Happy New Year to Members of the B.G.G.A. everywhere.

November Lecture

Over forty members enjoyed a very educational evening at the GEORGE with Mr. J. D. Joss from the S.T.R.I. Subject—Drainage. Aided by slides, Mr. Joss conducted us expertly through the process of making a golf green, re-draining existing greens and sand slitting.

Making a golf green. Site cleared in preparation for the surface to be right, aiming at a 70% pin space. Trenched and pipes laid (land drain in plastic) at 15—18 ft. centres. Trenches topped up with shingle 3/8—3/4 single size and the whole of surface to depth of 6". After blinding in with 2" layer of suitable material such as sand, ashes etc., the soil, sand and peat mixture to depth of 12" to be put on. A suitable soil mix for medium heavy clay soils (not to be used as a yard stick for all soils, says Mr. Joss) is 3 parts lime free sand, 1 part soil and 1 part. Recommended sand .5 m.m. and .25 Medium fine. 12" to 10" subsidence and after returning the green height will be approximately 8" above normal. Surrounds to be adjusted.

A 600 sq. yd. Green requires approximately 200 cubic yds. of soil mix.

Draining Existing Green Lift turf and with sub-soil on, lift and shatter sub-soil to release compaction. Trench and lay in pipes. Top up with shingle and return.

Sand Slitting To help solve very wet surface conditions and to enable more rapid removal of water to piped drains below. The machine slits and inserts sand vertically to depth of 7-8 inches and a width which will not disturb the surface unduly.

Following Question Time, Mr. Joss was thanked from the chair for a very interesting lecture and for making the long journey from Yorkshire to be with us. The meeting then closed with a benevolent fund draw. Hugh Brown the winner and proceeds of £5.

January Lecture

On Wednesday January 2nd at 6.30 p.m. Mr. Pat Moran will be giving another talk at THE GEORGE on "Trees" and on Wednesday 6th February, Mr. Colin Head of Chipman Chemicals Limited will visit the Section.

New Members

A warm welcome is extended to all the new members whose names are listed below, with the hope that they will all be taking part in the activities of the Section in the near future.

K. Barrett (ALDEBURGH) K. J. Cooper (KINGSWOOD) S. P. Rouse (SITTINGBOURNE) A. L. Humphries (P. PARKER & SONS) M. J. Meen and J. G. Serl (BUNGAY & WAVENEY VALLEY) I. English (ADDINGTON PALACE) J. W. Barnard (WEST ESSEX) G. S. Martin and I. D. Seaman (THORPE HALL) F. Baxter (CORP. LOND) R. Barham, J. R. Carey and M. J.

Peters (ALDEBURGH) M. P. Kirham (VERULAM) G. W. Wyatt (CLASS E) N. T. Moat (SHOREHAM) D. Croucher (FLACKWELL HEATH) and B. D. Robertson of (MANNINGS HEATH).

Annual Dinner

One of the fine courses at Walton Heath will again be at our disposal on the afternoon prior to the Annual Dinner. This has been arranged by your Chairman and Committee and by courtesy of the Walton Heath Golf Club. The enlargement to the dining room should be completed by that date, but nevertheless, no tickets will be issued before payment.

To avoid disappointment which we had last year, some members had money returned. Members are advised to take note of the above and order their tickets early. Obtainable from me by post or on Lecture evenings. Price £3.00.

I have been promised a good meal for that amount and the Bar WILL remain open after the dinner.

North East Section

Chairman:
MR. J. SIMPSON

Hon. Secretary:
G. JEFFRIES
55 Brackenfield Road,
Framwell Gate Moor,
Durham

Greetings

On behalf of the members of the North East Section, may I take this opportunity to wish all Members of the Association and the many Golf Clubs and Firms who so kindly support us throughout the year a Happy and Prosperous New Year.

Sheffield Section

Chairman: Hon. Secretary/Treasurer:
G. HERRINGTON H. GILLESPIE
(Lindrick) 63 Langsett Avenue,
Sheffield 4AA

Mr. R. L. Morris of Fisons Ltd., opened the winter lecture season at Abbeydale Golf Club on the 1st November and 21 members were present to hear him talk on Composts and Top Dressings, a very relevant subject at that particular time of year.

25 Members assembled on the 6th December to hear Mr. R. G. Rossiter of Joseph Bentley Ltd., who after outlining his company's activities, led an open discussion on turf maintenance problems and this was very popular.

The lecture on February 7th has now been arranged and will be given by SISIS Ltd., at our venue, i.e., Abbeydale Golf Club.

George Herrington retired from Lindrick Golf Club at Christmas and his son Harry, Head Greenkeeper at Rotherham Golf Club, has taken over from him. Best wishes George for a long and happy retirement and to Harry in his new position.

Eddie Peniston has been promoted from first assistant to take charge at Rotherham Golf Club.

Neill Maltby has moved from Sherwood Forest to Wheatley Golf Club as Head Greenkeeper.

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Letters

The Secretary,
B.G.G.A.
Addington Court Golf Club,
Featherbed Lane,
Croydon.

Dear Sir,

Just a line to say how much I enjoyed the Symposium at Ipswich in October and that I found the Papers most interesting, especially the one given by Mr. Tom Mascaro. I would be very interested to have news of any further Conferences you may have planned, whether local or National.

In passing I would like to mention that I have some slide lectures that I give to Branches of the National Association of Groundsmen local branches, and if any of the Secretaries of the local Branches of your Association in Eastern and South East England are interested perhaps you would put them in touch with me, at my home address shown below, and I would be only too pleased to assist them.

Yours sincerely,
P. J. Faulkner.

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