

JANUARY/FEBRUARY 1983

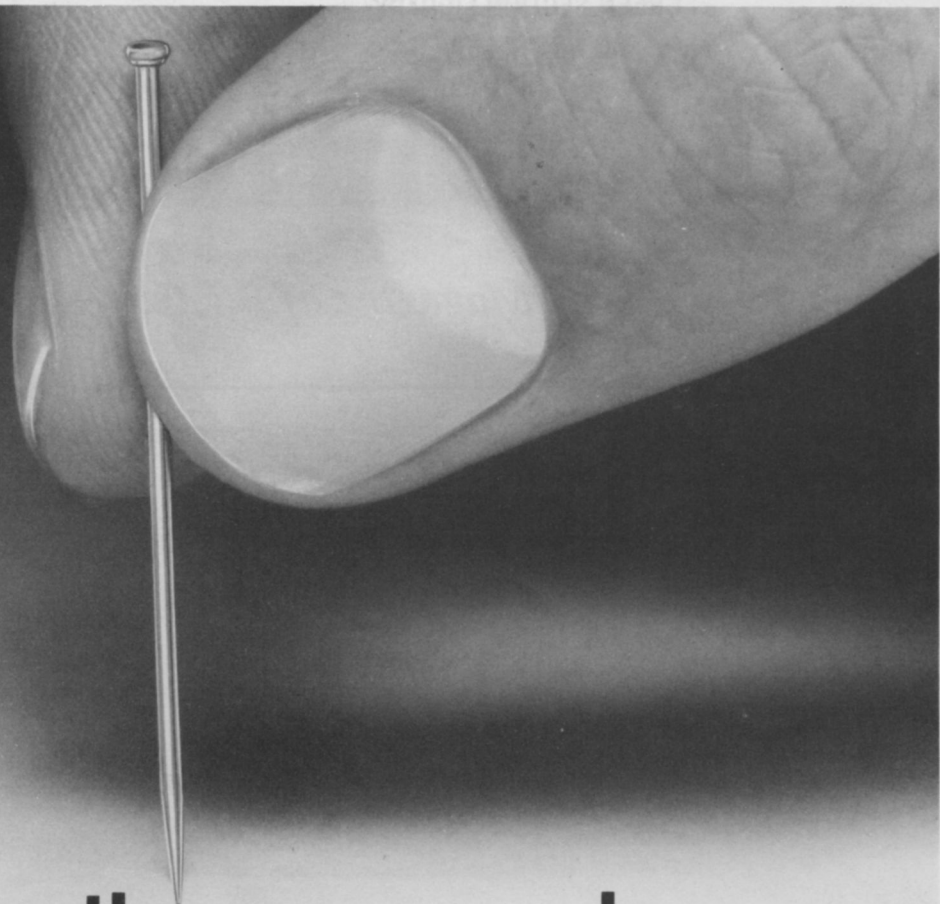
Greenkeeper



The Official Magazine of S.I.G.G.A. & E.I.G.G.A.



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This Issue

JANUARY/FEBRUARY 1983

Front Cover: The Stapleford Ultra Low Volume Sprayer is a recent development by Tavis Lodge of Stapleford, Cambridge. Tel: 0223 841995. A full description of the sprayer is included in the Notebook pages . . .

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Publisher: A. Quick & Co Ltd
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All advertising matter, editorial copy and correspondence should be sent to:
Greenkeeper, 121-123 High Street,
Dovercourt, Harwich, Essex CO12 3AP
Tel: 025 55 7526

Subscription rates:
UK — £10 Continent and USA — £15
Eire — IR£15

Greenkeeper is published ten times a year.
Printed in England by J.B. Offset, Marks Tey,
Colchester, Essex.
Copyright: A. Quick & Co Ltd 1983

EIGGA — the facts



Greenkeeper's publisher Michael Coffey replies to some recent Press comment . . .

MUCH has been written about this magazine's involvement with the launch of the English and International Golf Greenkeepers' Association. Unfortunately, a great deal of the comment has been ill-informed.

Many readers will have read in the December/January issue of *Golf Greenkeeping and Course Maintenance* a number of references to EIGGA and myself. I shall leave it to those best qualified to respond for EIGGA to do so elsewhere in the magazine. However, I would like to put the record straight on my own behalf.

First, Harry Herrington, chairman of the BGGGA, says that I approached the association in July. Not true! The BGGGA's secretary Walter Heeles and Colin Geddes, now an executive committee member, *approached me* at the IOG Exhibition at Lytham in the autumn of 1981. After lengthy discussions, which continued at Mr Gedde's home, I — at the request of Mr Heeles — put forward a proposition covering a publication for the BGGGA.

The offer made no progress. The members of the executive committee decided I should not address them, as had been suggested. Matters were rekindled when Hugh McGillivray, as a member of the BGGGA executive, contacted me in April 1982 and said he was preparing a plan for the future of the association.) *Greenkeeper* offered to produce within the magazine a BGGGA supplement over which members would have *total editorial control*. Further, and this is a point that seemed to be totally overlooked at the Worksop AGM last summer, *Greenkeeper* would cover the cost of postage of the magazine, currently paid by the association. On the basis of figures given by Mr Heeles, this would have put between £4,000 and £5,000 back into the association.

Mr Herrington continued to say that I had visited sections of the BGGGA. Quite true, Mr Herrington, as their *invited* guest (and I am prepared to go to any others who invite me). I went to put a case in which the magazine supports fully — that greenkeepers desire and deserve a more professional status. With EIGGA they have that opportunity. In fact, I can do no better than to quote from the BGGGA journal's Greenside Comment: 'No one could reasonably disagree with their (EIGGA) overall objectives — a body representing greenkeepers in the 1980s is certainly required. But greenkeepers already have a National Association — The British Golf Greenkeepers' Association, all it requires is bringing up to date.' The column goes on to state that the BGGGA rules were produced in the 1920s when the objectives of the members were vastly different from today . . .

Why, then, when there was an opportunity to do something about the rules at Worksop didn't they do so? And why all the fuss now about EIGGA when they have already rejected much of what EIGGA offers?

I have been fortunate to be involved with the executive of SIGGA, who have shown what can be done. They have performed profes-

**EIGGA — the facts continues on page 6 . . .
And turn to page 5 for EIGGA conference details.**

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IT RHYMES WITH POWER

The English And International Golf Greenkeepers' Association Annual Conference And Annual General Meeting April 15-17

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£60 for three days residential – £15 per day for daily attendance

The first annual conference of EIGGA is to be held at Brighton Polytechnic from Friday, April 15 to Sunday, April 17 and will incorporate the association's AGM on the Sunday afternoon.

Brighton was chosen as the venue because it is easily accessible by road and rail and offers a wide variety of interest for all. The polytechnic has a range of facilities suited to stage the conference, including a hall for lectures with seating for 200. Accommodation in the students' rooms overlooks the sea and is very comfortable without being luxurious. There are single, double and three-bedded rooms — some with their own bathroom. Accommodation for up to 100 has been reserved.

Catering is of a high standard and the conference package includes full English breakfast, morning coffee, three-course lunch, afternoon tea and three-course dinner. Bar facilities are not available, but there will be limited complimentary drinks prior to and after dinner.

Arrangements have also been made

for day attendance, which will include coffee, lunch, tea and dinner. Every effort has been made to offer the best possible value to attract the highest attendance. All members of the greenkeeping industry are welcome and there are facilities for spouses and families.

On the Friday, delegates will be required to register by 12.30 pm for lunch at 1 pm. In the afternoon, there will be a lecture on Budgeting, followed by Nick Rigden of Plumpton College on Education For Greenkeepers.

The Saturday commences with Wing Commander Bill McCrea, secretary of Walton Heath, lecturing on What I Expect From A Head Greenkeeper, which will be followed by Bob Surridge from J. D. Ward Insurance Brokers Ltd, on Insurance And Pensions. In the afternoon there will be a talk by Jim Arthur, agronomist to the R & A and PGA European Tour, on The Greenkeeper And The Agronomist. Afterwards there will be a question and answer session. Dinner will be followed by a talk by Dr Peter

Hayes, director of the Sports Turf Research Institute, Bingley.

Sunday morning opens with a lecture on Green Construction And Drainage given by Howard Swan, secretary of the British Association of Golf Course Constructors. Following on will be Jim Prusa, director of education for the Golf Course Superintendents Association of America, who will speak on Associations Present And Future.

The AGM of EIGGA will be held after lunch and will be open to members only. (Please note that nominations for president and two vice-presidents should be with the general administrator by February 16. Finally there will be an open forum with EIGGA's general administrator, board of management and trustees available to answer questions.

On the Monday, a golf tournament for all delegates will be held at Worthing Golf Club. There will be two 18-hole Stableford competitions (morning and afternoon).

BOOKING FORM

Please book me places for the Greenkeeper Conference at Brighton Polytechnic, April 15-17, 1983.

I wish to register for:—

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|----------------------|-------|--------------------------|-------------|
| (a) Residential | @ £60 | <input type="checkbox"/> | tick as |
| Single/Double Room | | | appropriate |
| (b) Daily Attendance | | | |
| Friday | @ £15 | <input type="checkbox"/> | |
| Saturday | @ £15 | <input type="checkbox"/> | |
| Sunday | @ £15 | <input type="checkbox"/> | |
| (c) Golf Tournament | @ £3 | <input type="checkbox"/> | |

A deposit minimum of £15 is required with the booking form. Settlement of final invoice to be received by April 1.

I enclose my cheque/PO payable to *Greenkeeper* for £..... being full payment/deposit.

Name

Address

Signed Date

Club Organisation Membership No.

Mail this form to: The Conference Organiser, Greenkeeper, 121/123 High Street, Dovercourt, Harwich, Essex.

It's All Been Happening

In the last issue of *Greenkeeper*, the English and International Golf Greenkeepers' Association announced what it had to offer. The association is now operational and it is the desire of the board of management to keep members and prospective members advised of all that is happening.

An open meeting was held in London on December 8. The meeting was chaired by David Craig and some 30 greenkeepers and trade representatives attended.

David Jones said several sections had confirmed they were joining EIGGA *en bloc* and that the association had drawn up, with the aid of Bill Hawthorn, a constitution, which would be sent to each member on receipt of his subscription. In the constitution book would be an order form for ties, sweaters and blazers, all to be embroidered with the EIGGA logo. He also confirmed that *Greenkeeper* had been adopted as the association's magazine and that 24-hour life cover would operate for each member.

Hugh McGillivray advised the meeting that the appointment of a full-time administrator was vital. He thought this would cost something in the region of £15,000 including expenses and to raise such a sum without calling on the trade would not be easy. Therefore it was agreed that two national raffles would run with members selling tickets from the end of January to the AGM in April when a draw would be made. Each raffle would have a major prize of a holiday for two and runners-up prizes would include custom-fitted golf clubs, car stereos, tournament golf bags, and magnums of champagne. Tickets would be 25p each and posters available to aid publicity.

The next item on the agenda was the location of a national headquarters. The present office at Malden Green Farm, Surrey, was temporary. There were suggestions for a permanent venue and further investigations on sites are to take place.

It was decided that a general administrator was required to run and promote the association until a full-time administrator could be appointed when funds allowed. It was proposed that Mrs Danielle Jones would carry out the general administrator's duties.

Donations had been received from: East Anglia £250; Southern £500; Kent £50; Surrey £500; Sussex £250 and Berks, Bucks and Oxon £150. A promise of a donation had also been

EIGGA — the facts... Continued.

sionally to the benefit of members and sponsors alike and I hope they together with the Golf Course Superintendents Association of America, will welcome the efforts EIGGA is making.

I am constantly told two things — that there are too many magazines in this particular market and what a marvellous opportunity greenkeepers have to make a fresh start.

To the first point, I reply: "I agree but, being commercial, you must advertise where you will reach the largest audience." *Greenkeeper* has the largest circulation and is read throughout the entire British Isles. There is, from an economic standpoint, room for only one successful magazine in the greenkeeping industry — *Greenkeeper's* future is assured, so I am pleased to learn that a joint BGG/IOG working party is looking into, among other things, producing a joint monthly magazine.

With regard to the second point, it is estimated that there are between 7,000 and 8,000 greenkeepers in the British Isles. In England and Wales, according to the last published figures, the BGG had 1,378 working greenkeeper members. The sections of Berks, Bucks and Oxon, East Anglia, North West, Kent, Sussex and Surrey have already joined EIGGA *en bloc* and many not in an association have applied for membership.

EIGGA is well on the way towards securing a more professional and successful future for greenkeepers everywhere!

received from the North West.

It was agreed that trade membership for a national company would be £100. Companies would be approached at the end of January when the number of members was known.

A provisional management board was then elected to hold office until the first AGM. The members are: East Anglia, Tom Watt; Kent, Peter Wisbey; Sussex, Clive Dryden; North West, Edwin Walsh; Southern, David McIndoe; Berks, Bucks and Oxon, Kevin Munt and Surrey, Alex Armitage. Michael Coffey, David Jones and Hugh McGillivray were elected as provisional trustees.

Nominations were requested for president and two vice-presidents. These are to be received prior to the AGM and in accordance with the constitution.

An annual conference is to be held

at Brighton Polytechnic from April 15-17 with the AGM of the association being held on the Sunday afternoon. A golf day will be held on the following Monday. Details and a booking form appear elsewhere in this issue.

Under any other business, it was suggested that a golf club making its entire staff members of EIGGA would be entitled to a ten per cent discount.

Finally, a vote of thanks, proposed by Peter Wisbey, was given to David Craig for his chairmanship and to the trustees for their organisation and hard work.

A board of management meeting was held later at which Kevin Munt was elected chairman. Various tasks were allocated to the members and a further meeting was arranged for January 12 at national headquarters.

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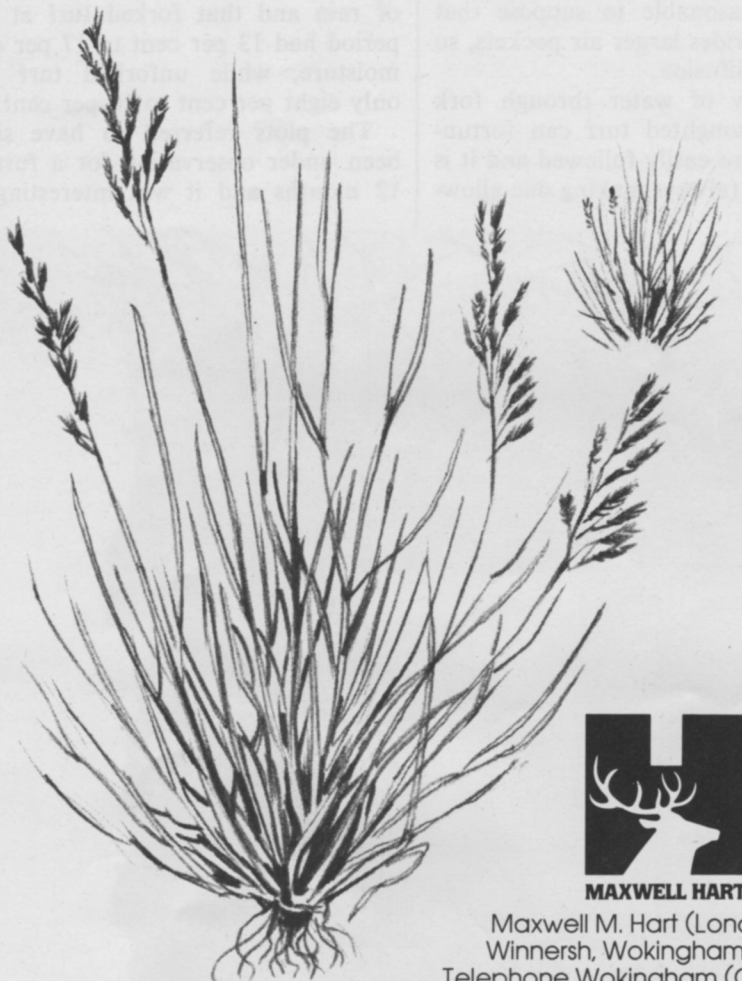
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GK/2/83

Forking as an aid to turf recovery after drought

This feature, by Mr R. B. Dawson, first appeared in a 1934 issue of the Journal of the Board of Greenkeeping Research.

An abridged version appeared in the journal a year later.

It is reproduced here in Greenkeeper by kind permission of The Sports Turf Research Institute, Bingley, West Yorkshire.

DURING recent years, the subject of turf aeration has received some recognition and forking, as well as pricking, has been extensively practised with very satisfactory results.

Although forking is popularly regarded solely as an aid to aeration, the more obvious effects are to relieve soil consolidation and to permit the freer entry of water from the surface.

There are certain less obvious advantages to be derived from forking, such as improvement of root development (so aiding drought resistance) and facilitating the uptake of minerals, the breaking of hard layers or pan in the soil, and possibly an influence on the nitrogen cycle in the soil.

Consolidation can undoubtedly be relieved most thoroughly by prising

up the turf during forking, but this procedure causes much interference with play and is rarely tolerated. Straight in and out forking is, therefore, usually adopted and fortunately even this has the effect of relieving consolidation.

Although it is generally assumed that the provision of holes in a turf allows air to penetrate, proof by means of figures is difficult to obtain. Diffusion of air among the soil particles is constantly taking place and it seems reasonable to suppose that forking provides larger air pockets, so aiding air diffusion.

The entry of water through fork holes on droughted turf can fortunately be more easily followed and it is not difficult (always making due allow-

ance for unavoidable sampling errors) to estimate the moisture content of the soil and any changes induced.

The special effects of forking as an aid to turf recovery after drought have been described and discussed fully in a previous issue of the *Journal of the Board of Greenkeeping Research*. To summarise, it was clearly shown in that article that on the break up of the dry weather in 1934, forking with either a Paul tubular fork or a Sisis solid fork, greatly facilitated the entry of rain and that forked turf at one period had 13 per cent to 17 per cent moisture, while unforked turf had only eight per cent to 10 per cent.

The plots referred to have since been under observation for a further 12 months and it was interesting to



New root development can be spotted down this hollow tine hole.

notice during the whole of that period, including very dry weather experienced in the summer, that the forked parts were greener and carried a denser sward than the unforked areas. These plots did, however, become burned and, therefore, the forking was repeated prior to the break up of the drought at the end of August.

The following results were obtained:

Plot No	Treatment	Moisture Content
M. 7-12	Paul forked	22.5 per cent.
M. 7-12	unforked	12.6 " "
P. 7-11	Sisis forked	20.3 " "
P. 7-11	unforked	15.9 " "

In both cases, it will be seen that there is an increase of moisture, presumably due to water being able to enter through the dried and caked surface.

The difference in the sets of figures from plots treated with the Paul and Sisis forks are not critical since there are slight differences in manurial treatment in these plots, but it was noticed this year that the recovery on the Paul forked plots was rather better than on the Sisis forked plots, and this may be due to the fact that the Paul fork makes a slightly larger hole.

During 1934, the rate of recovery of the plots, whether Paul or Sisis forked, was about equal.

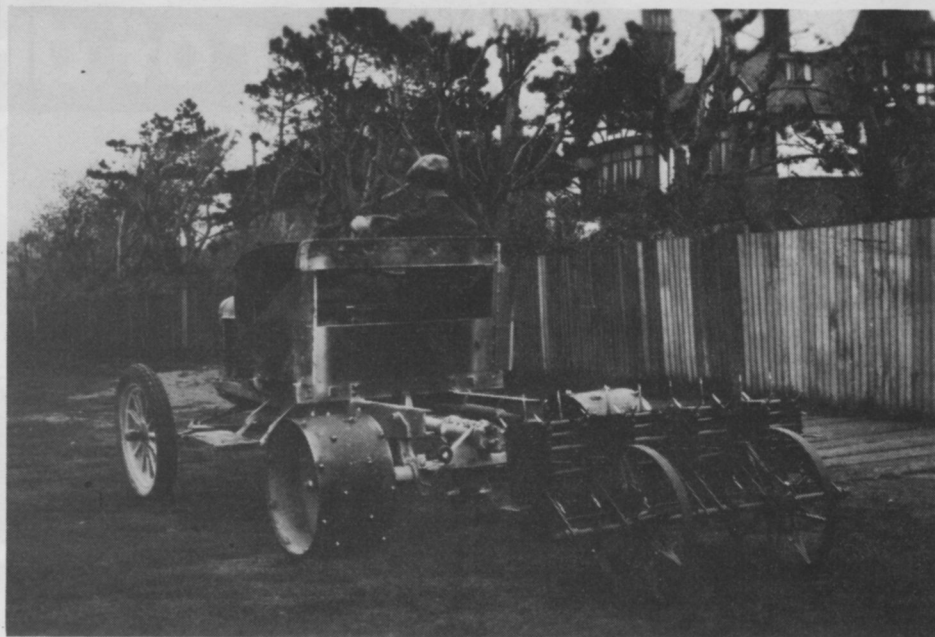
The Paul fork, which was first devised for use on bowling greens laid with seaside turf and containing a solid layer of silt, has been extensively used on bowling greens for the purpose of removing this undesirable material and very satisfactory results have been obtained.

In recent years, however, its use has been extended to golf courses, and it is of primary use in removing clay and matted soil, unsuitable for the development of roots.

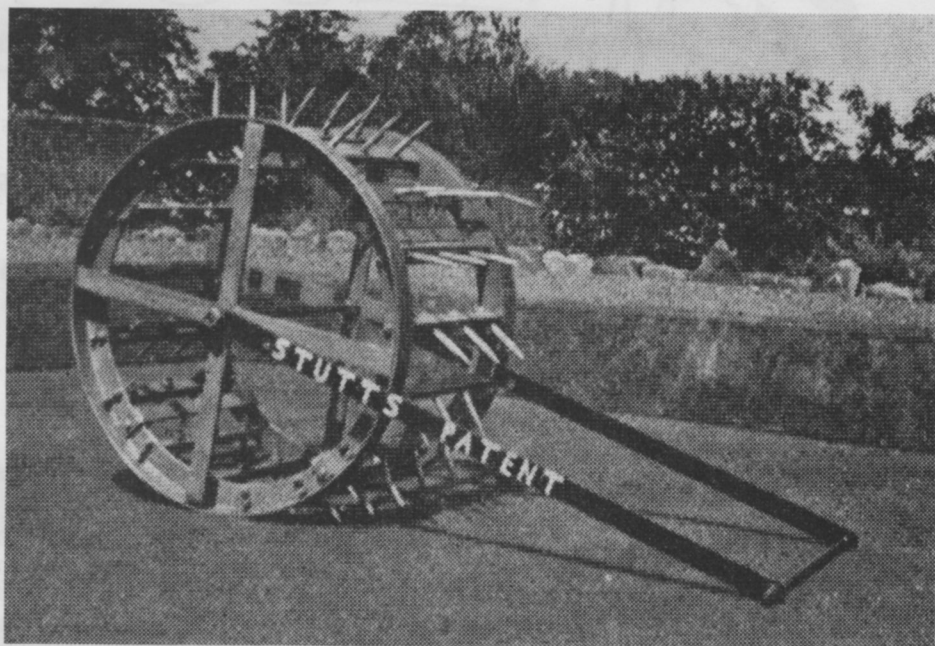
The figure accompanying this article illustrates a tubular fork hole in a turf made six months before the photo was taken.

It will be noted that new roots have formed and are running down the inside of the sod into the soil below the top dressings, which have been applied. This result has been noted in several cases and in dry weather it is a common experience to find the turf greener round such holes — presumably due to better root development.

A new type of fork which came on the market some 12 months ago has spiral tines, which remove a quarter or fifth of the material brought out by the Paul fork. This is rather easier to use, but as the soil removed is not in the form of a core it is more difficult



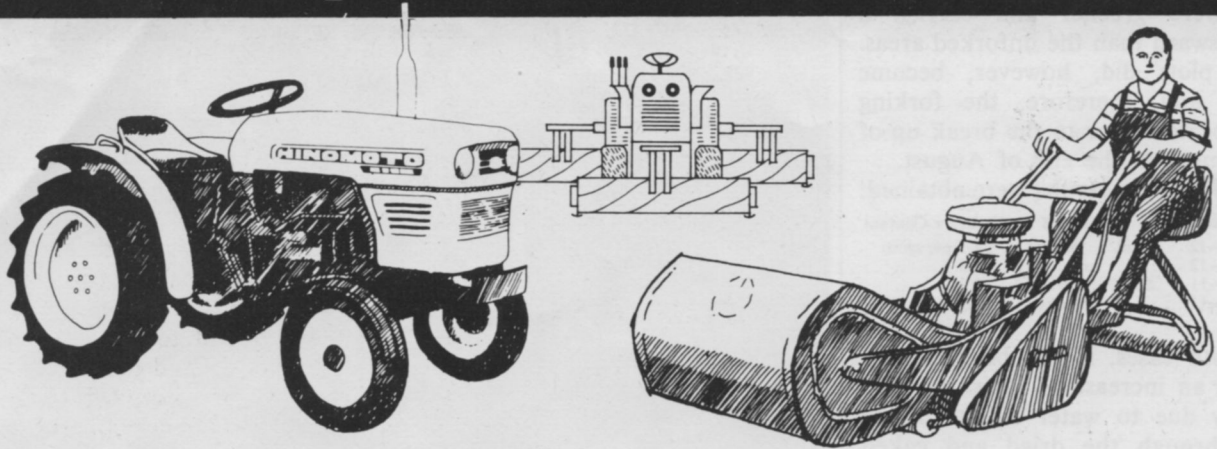
Aeration equipment as it used to be (in the good old days?).



Stutt's Patent Turf Piercing and Aerating Machine was made by the family of Hamilton Stutt — the golf course architect.

Continued on page 30 . . .

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The way ahead

It would be a bold man who would forecast the trends of the next decade in greenkeeping, but few would disagree with the contention that things will certainly not stand still. I will, however, venture to say that we will see much less of the American golf scene influence in Britain. For one thing, we cannot afford the astronomic budgets that the best American clubs regard as their right, and we certainly do not want to copy their worst courses. Not all American courses rank with Augusta!

A recent editorial in *Golf Illustrated* noted the tendency in this country to adopt so many things made popular in the States in golf, as well as in general matters. Some importations, it claimed, are good and some not so good — one of these being slow play. In my view, so many greenkeeping ideas are certainly not only 'not so good,' but totally irrelevant to UK golf and greenkeeping conditions.

A seminar in January, organised by the British Association of Golf Course Constructors and held at the Writtle College of Agriculture, was addressed by American, as well as British, golf architects and agronomists. Never was there better proof of the total irrelevance of so much American practice to European conditions.

It would be unfair to single out such extreme examples as the use each autumn of 500 tonnes of perennial ryegrass seed to over-seed the Bermuda grass fairways of one 18-hole course or its million dollar per year maintenance budget; or even to quote the need to build expensive, purpose-designed buildings to dispense the 80 buggies another club hires out, which are over and above those owned privately by members.

We hear a lot about wall-to-wall irrigation, fertilising and mowing on US courses and now a little more about the change back to 'Scotch' greenkeeping (something to do with whisky?), even if it is enforced by reduced finances. Nevertheless, it was interesting to learn that of the 13,000 golf clubs in the States, less than half had a full 18 holes and many of these would not exactly win prizes for either architectural merit or course condition.

Too many American courses, other than the famous 'championship' ones,

By
Jim Arthur



appear to be featureless, with largely parallel fairways and literally golf in a field, or a mere focus for real estate to be built around their perimeters. American architects who think that they have discovered a new type of course should perhaps remember that we had them in this country 50 years and more ago, with notable examples in Surrey.

The general consensus of experienced opinion was that there was not a lot of point in doing something the hard and expensive way when the risks, as well as the costs, were dramatically increased. It was said that success depended on absolutely no mistakes being made and satisfactory results hinged on very high levels of managerial skills which, despite all the emphasis on training, is simply not generally available. Conventional methods give at least as good results for much less money.

It is, however, vital that adherence to tested principles should not be equated with a die-hard reluctance to check on all new ideas, nor should it be confused with the mumbo-jumbo of the muck and mystery approach, in which the good sense of some parts of this philosophy is negated by failure to relate it to the demands of more intensive use.

One of the penalties of advocating the use of time-proven methods in place of untried fads is that one is liable to be accused of wanting to go

back to horse-drawn gang mowing and literally hand-pushed mowing of greens.

Without poking the anthill of the 'sand green' argument too much, it was quite clear at the seminar that there is still too much confusion in terminology and the suggestion that a glossary be compiled to standardise terms and descriptions of techniques seemed one of the more constructive ideas to emerge in discussion. It would certainly stop, once and for all, the confusion between fibre and thatch, thus avoiding the use of lime by inexperienced advisers trying to get rid of thatch, which they had confused with acidity-induced fibre.

One greenkeeper was overheard on departing to say that, after all the discussion on sand greens, he was going to give all his greens a heavy sanding as this would obviously improve their drainage. Comment is superfluous.

Basically, the confusion over the USGA Greens Section specification for green construction seems to have arisen because it is assumed that it describes a method of construction, whereas it really specifies a root zone sand/soil mix with the emphasis on permeability.

It should never be thought that my philosophy implies a ban on the use of all fertilisers (or, for that matter, water). It has, however, always been to cut out phosphates and potash, as my reports of over 35 years ago prove.

It was, therefore, very interesting to see the figures produced by Bingley's director Dr Peter Hayes analysing the STRI's soil analyses figures over five years, which showed less than one per cent of samples with low phosphate levels (and that by standards I feel are high in relation to the limited needs of the fine grasses) and no less than 27 per cent: "So far off the scale that the greens could have been dug up and sold as fertilisers."

Even those greens that, under my guidance, have had no phosphate in fertiliser form for many years still show remarkably high levels of available phosphate.

Of course, in assessing the virtues and failings of new ideas, one tenet

Continued overleaf . . .

every adviser should hold is the need to consider that there just might be a grain of truth in the other man's heresies and that one's own advice is not necessarily invariably infallible!

One fact that impressed the American visitors was the availability in Britain of specialist advice, focussed exclusively on sports turf problems generally and on golf greenkeeping in particular. Agronomists in the States who are called in to advise on golf course problems are non-specialists recruited from agriculture — and you know what I think about farmers (well, some of them).

Training of superintendents in the States is more formalised, with obligatory refresher courses for trained superintendents, but again skills and standards vary (we were told), ranging from graduate course managers to those who (I quote): "Can barely sign their names," but presumably were no worse greenkeepers for that.

We can certainly envy the Golf Course Superintendents Association of America their professional and glossy publications and the training facilities available for the few — but I doubt whether there is a great deal that we can learn from them and perhaps with their swing back to more natural greenkeeping they may have more to learn from us. We could, perhaps, export our knowledge instead of seemingly always trying to import their ideas, both in course architecture and agronomy.

We are used to hearing how advanced the US is when it comes to greenkeeper training, yet, in fact, the GCSAA, which was set up in the 1920s, still has only 3,500 members from 13,000 courses. Membership of greenkeeping associations in this country (even excluding associate members from the trade), with only 1,600 courses in Scotland, England and Wales from which to recruit, represents a considerably higher percentage of the potential.

Certainly, the newly formed English and International Greenkeepers' Association, with its greater emphasis on purely greenkeeping matters in training and education, together with improving the professionalism of greenkeepers can, perhaps, be guided by better techniques in education; the use of video and emphasis on management as much as on purely technical skills, which is characteristic of the best US greenkeeper training.

Unlike the BGGGA City & Guilds-dominated scheme, but in line with the Scottish and International Greenkeepers' Association's Scotec-aligned syllabus, EIGGA will divorce its

scheme from horticultural and agricultural motivation. It is significant that the Greenkeepers' Training Committee said at its AGM that, while there were no problems reported from Scotland (or Ireland), "In England, however, problems remain."

Belatedly, they have now accepted what I have been trying to impress on them for years — that there is absolutely no future for a training scheme based on every local agricultural college and a day-release basis, with a syllabus full of agricultural heresies capable of being interpreted in diametrically opposite ways and with little or no provision for training the lecturers, some of whom know much less about greenkeeping than their pupils.

Train the trainers

One factor has certainly emerged, which could be the dominant theme of the next decade — namely, that there is now, as never before, a greater degree of unanimity of advice on greenkeeping matters, at least as far as principles are concerned, and it is vital to maintain this trend if training and advice are not to be confusing to the recipient. This does not mean that individuals should be denied their personal views, but we should certainly not set up opposed schools now that the agricultural influence of so much advice in the last 20 years has been exposed and reversed.

I am aware that I shall be attacked by those who can see no virtue save in things that are new, even if untried, and certainly if they have come from 'across the pond'. Others will, I know, describe me as out of touch and old fashioned, but all I can say to those who think thus is that the ideas I have assiduously propagated for over 30 years were not of my invention. They work, and work very well, and also meet the demands and pressures of ever-increasing play.

One of the biggest problems with badly trained or relatively inexperienced staff is the old problem of correct observation, but wrong deduction. I often think that there is much common ground between bird watching (the feathered variety!) and greenkeeping.

Both attract dedicated enthusiasts and both demand highly developed skills of observation. It is, however, one thing to observe and another to draw the correct deductions and the

latter can only come with experience. A keen young ornithologist may correctly observe some common bird in moult plumage, rush to his books and come up with the exultant identification that it is a 'double-breasted overcoat' of similar rarity. Whereas, the more experienced watcher has seen it all before and knows that it is nothing more exciting than a 'spuggie' in aberrant plumage.

I know because over 50 years ago, when I first became hooked, I was quite capable of making the same mistake!

It does emphasise how important it is that all new — or not so new, but resurrected — ideas are carefully vetted. Trials are essential, of course, but they need not necessarily delay introductions of new machines or new techniques of obvious promise, provided they are introduced as trials and not as some Messianic miracle cure.

There is a great deal wrong with many new, as well as established, British courses. Far too many are closed for far too long because of poor drainage. In a recent survey by the STRI of their clubs, no less than 30 per cent were closed for more than ten days in the year and a staggering six per cent in excess of 35 days a year because of waterlogged greens.

Criticisms were levelled at so many new courses having to be drained at vast expense or at greens having to be rebuilt (incidentally, on both sides of the Atlantic!), shortly after construction. All I can say is that a proper specification, properly supervised by the architect or his consultant, should — and does — make this unnecessary. In my view, the bill for such corrective work should be presented to the architect — as it would be in the case of a new building erected, say, without a staircase because it was not included in the plans.

Perhaps the Architects' Association has a lot more to learn than the Constructors' Association, if only because, in my book, there are no bad constructors, only bad architects, since the bad constructors either improve or go under if they are properly supervised and working to a sensible specification.

One of the most gratifying facts that has emerged from studying the pattern of literally hundreds of applications to join EIGGA is not only the nationwide coverage, with as many coming from the north as the south, but the number of greenkeepers joining who were not members of other

Continued on page 26 . . .

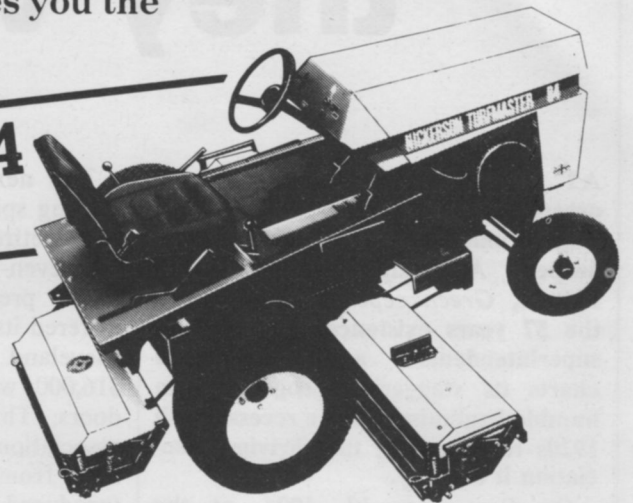
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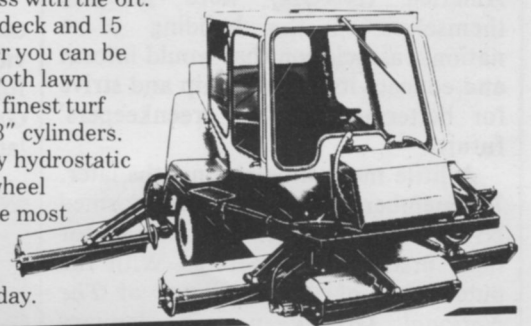
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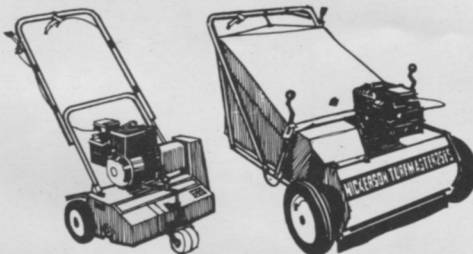


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United they've stood!

AT a time when an exciting new organisation with fresh ideas — the English and International Golf Greenkeepers' Association — is born in Britain, *Greenkeeper* looks back at the 57 years existence of America's superintendents' association and charts its staggering progress from humble beginnings in the recession-hit 1920s to becoming the thriving association it is today.

On September 13, 1926, at the Sylvania Country Club (Toledo, Ohio) came the beginnings of what is known today as the Golf Course Superintendents Association of America.

The 60 greenkeepers who got together that day to form the National Association of Greenkeepers of America (NAGA) were pledging themselves to the building of a national association that would inform and educate its membership and strive for betterment of the greenkeepers' future.

A little more than six months later, 75 members of the newly formed NAGA got together in Chicago for their first annual meeting. With the publication of the first issue of *The National Greenkeeper* in January 1927, the group had shown it was prepared to act on things rather than just talk about them.

This became evident when plans for an annual educational presentation became a reality in 1928, with 14 turf-grass experts addressing the 350 registrants. This was also the year NAGA had its own equipment display, with 27 exhibitors showing the latest maintenance equipment.

NAGA survived the Depression, which followed the Wall Street crash of 1929, even though greenkeepers were suffering the effects of drastically cut maintenance budgets and layoffs.

In 1931, came formal recognition of the greenkeepers' status when five greenkeepers and pro-greenkeepers were appointed to the advisory committee of the USGA Green Section.

The next year, John Morley, the moving spirit behind NAGA's formation, retired and brought an end to his seven-year term as the association's president. In 1933, NAGA suffered its first real setback when the Cleveland bank — where NAGA's \$16,000 was deposited — closed its doors. This came at a time when the association had been planning to break away from *The National Greenkeeper* (produced until then by a professional publisher) and start its own magazine.

Various groups provided loans to the association

But members would not let the concept die, and various groups provided loans to the national association for what appeared in July 1933 as *The Greenkeepers' Bulletin*. (A month later the name was changed to *The*

Greenkeepers' Reporter.)

For the association itself, the year 1938 brought a name change — NAGA, then over 500 strong, would be known as the Greenkeeping Superintendents Association (GSA). This was also the first year that the tradition of an annual golf tournament was started.

The year 1942 brought about the creation of an associate member category for people in turf-related fields, but it also brought about the announcement from the exhibitors that the show that year would be the last. The effects of World War II were making themselves felt.

The educational conference for 1943 had to be cancelled, along with sectional meetings, the annual tournament and even the issuance of membership certificates. All that held GSA together during those times was *The Greenkeepers' Reporter*.

Things did not begin their return



to normal until 1946, with the 17th annual conference and show and revival of the annual golf tournament. In 1947, the USGA did something very special for GSA; it started awarding USGA medals to winners of GSA tournaments — another step forward for the greenkeepers' association.

By 1948, GSA had become increasingly powerful on the golfing scene, and the association added a word to its name and became the National Greenkeeping Superintendents' Association (NGSA). This name was to stay until 1951 when the membership adopted the organization's present name, the Golf Course Superintendents' Association of America.

It was also at this time that the greenkeepers, in an attempt to find a name descriptive of their enlarged function on the golf course, decided they would now call themselves golf course 'superintendents.'

Membership, ever on the increase, crossed the 1,000-member goal in early 1957, and the GCSAA published its first educational pamphlet.

A year later, the GCSAA took its place in the history of golf when Morley's presidential gavel was placed in the USGA museum. The GCSAA also got its first executive director, and the national headquarters, so long in Illinois, moved to Jacksonville Beach, Florida.

The tone for the '60s was set when the S&R Fund received a \$7,500 contribution from the National Golf Foundation, which has remained a generous contributor through the years. Membership continued its climb and the conference and show got stronger each year.

In 1961, it became the International Turfgrass Conference and Show, drawing 1,750 registrants.

The Greenkeepers' Reporter increased its issues per year to ten and was, by 1962, able to boast of a circulation close to 10,000.

By 1965, the S&R Fund had completed a decade of existence, and the national headquarters office had moved from Florida to Chicago.

The association's magazine was renamed *The Golf Course Superintendent* in 1966 and now boasted a four-colour cover and a new logo.

The position of director of education was created three years later. The GCSAA was bolstered by a staff of nine and an annual income of \$380,000.

By the turn of the decade, the magazine had begun to use colour for the insides as befitted a publication put out by an association now 3,000

members strong and still growing.

A voluntary certification programme was instituted in 1971, enabling superintendents to take a test on their expertise as turf professionals and to earn the title CGCS (Certified Golf Course Superintendent).

The educational programme, in general, was also being strengthened by the addition of various seminars. Each conference and show, in the meantime, had been reflecting increasing enthusiasm for the GCSAA, from both the golf course superintendents and from the turfgrass industry. In 1972, there were 390 stands in Cincinnati and over 4,000 attended.

The association purchased its own building

One of the big milestones in the history of the GCSAA was the purchase, in 1973, by the association of its own building in Lawrence, Kansas, right on the edge of the Alvamar Golf Course.

Now, the association's magazine, renamed *Golf Course Management* in 1979, is a four-colour, glossy, 100-page monthly publication, which offers technical articles, news and profusely illustrated features that provide good reading to its readership of about 15,000.

The assets of the association are in excess of \$1,000,000 and it transacts over \$2,000,000 worth of business each year.

Membership stands at more than 5,500 and it can safely be said the Golf Course Superintendents' Association of America is in robust health.

The GCSAA's annual International Turfgrass Conference and Show is regarded as the premier event of the turfgrass industry, boasting 220 exhibitors and a turnstile count in 1982 of nearly 20,000 for the week.

Where the association is headed may best be gauged by the 1981/82 message sent on behalf of the executive committee in America to all GCSAA members.

Noting that golf in America is a business involving nearly 13,000 courses and capital investments adding up to \$5,000,000,000, this message addressed the need for a farsighted, realistic and revitalized approach toward further boosting the industry in general and the association in particular.

Education being the charter purpose of the GCSAA's existence, the mes-

sage called for an education programme that would reach the entire membership at each person's place of employment. It would also begin to address areas beyond turf management, per se, moving gradually into computer technology, communications, club operations, golf course design and financial planning.

New goals were also set for the certification programme. Among these was the determination to test more than 'book' knowledge and to update and streamline the certification process overall.

The message also committed itself to a membership increase that would seek to double the existing membership over the years, reaching out to the public sector as well as the private.

The association leadership also promised its membership further development of the annual conference and show, hailed over the years as the biggest and best of its kind. They went on to pledge the GCSAA's efforts toward expanding its marketing services and building the superintendent's image.

Of the two other significant goals set, one was that the GCSAA work closely with allied associations in golf for the common good of the industry. The other was to devote energy and effort toward research in turfgrass management, a field facing multiplying challenges, such as water and energy crises and soaring maintenance costs.

Obvious from all of these stated objectives is the GCSAA's commitment to anticipating challenges in the years ahead and meeting them head on — rather than waiting for crises to thrust themselves upon members of the profession.

Also obvious is the spirit of farsightedness and the awareness that computers and new technology offer the association, and others in the industry, the tools with which to make unprecedented strides toward what might once have been considered overly ambitious goals.

The GCSAA today is anything but an association resting on its laurels and basking in the glory of how far it has come since 1926.

It is vibrant and moving to keep up with a fast-changing world. It is dedicated to the industry and the game, but, above all, its dedication is to the golf course superintendents.

● *This article, which appeared originally in Golf Course Management, is reproduced with the permission of the Golf Course Superintendents of America, publishers of the magazine.*

The New Association Has Been Criticised Unfairly

As many readers of this magazine will now be aware, a new greenkeepers' association was launched at the beginning of 1983. I am delighted to report that just two weeks later membership forms are flooding in and the English and International Golf Greenkeepers' Association looks set to become a success story.

From the outset of this venture, EIGGA has come in for a great deal of criticism, chiefly from people who haven't taken the trouble to find out what it's about. As was expected, most of that criticism has found its way on to the pages of the BGGAs December/January journal. Under no circumstances does EIGGA intend to become involved in a battle of words with the BGGAs, but now is the time to put the record straight.

On the front page of its journal, the BGGAs described those who started EIGGA as a 'Breakaway Group'. In fact, two individual BGGAs members, from different sections, became increasingly dissatisfied with what membership of the BGGAs had to offer. After attempting to suggest that there was room for improvement and finding that any suggestions were blocked, myself and Hugh McGillivray resolved to resign from the BGGAs and start a new association.

The front page of the BGGAs journal also implies that we have been guilty of 'poaching' members from the BGGAs. This is totally untrue. Visits were made to interested sections at their request and not by suggestion from EIGGA. At the time of the visits, the section members were told of our aims and left to make their own decisions. There was no recruitment drive at any time.

We have also been taken to task over our intention to provide a wage structure recognised by the National Wages Council and Secretaries Association. Unfortunately, this is one item we cannot finalise at present.

The Secretaries Association advised that, as employees like ourselves, they are not in a position to represent our employers in any wage negotiation. As it is in all greenkeepers' interests to have a recognised wages structure, we shall continue to explore ways of registering one with the National Wages Council.

When it was decided that EIGGA could be a viable proposition, Hugh

McGillivray and I felt that, in order to be fair to the BGGAs, we should meet with its representatives to explain what we intended to do and why. In a telephone conversation, BGGAs secretary Walter Heeles suggested an evening meeting at Worksop. We felt that a meeting at a point between Ipswich and Worksop was more appropriate. This was rejected by Walter Heeles, who commented that he really couldn't see the point in our holding any meeting.

So, contrary to a statement made by Harry Herrington in the BGGAs journal that we accused him of a lack of interest in hearing our views, the indifference was purely on the part of the secretary of the BGGAs.

Harry also said he was informed that Hugh McGillivray was unaware that a halfway venue for the meeting had been suggested, which implies that I took it upon myself to make all the decisions concerning this venture. I am afraid, Harry, that, once again, you were either misinformed, or Walter was misunderstood.

Since the inception of EIGGA, Hugh McGillivray and I have worked together to make this association a democratic one. To this end, we have declined to sit on the executive committee and are trustees, together with the publisher of this magazine Michael Coffey.

So, all I can say to the BGGAs is that we are not a bunch of 'power-seekers' heading for oblivion. Another comment aimed at us! We have not set up in opposition to the BGGAs, but are offering an alternative. After all, anyone who wishes can be a member of both associations!

We are very proud of our new venture and hope that all those who choose to join us will be proud to be members of EIGGA. We extend a warm welcome to those of you who have already joined and to all future members.

David Jones, Trustee, English and International Golf Greenkeepers' Association.



Jim's Right, I Tell You!

I recently wrote to Jim Arthur to thank and congratulate him on the consistent and expert advice he advocates. It is his experience and sound knowledge of golf course maintenance that has put me on the right tracks, against all the odds.

I think young greenkeepers like myself who have been born into an era where Americanised greenkeeping and instant success from the fertilizer bag, coupled with the inadequacies of the City and Guilds syllabus, have yielded a somewhat confused generation of greenkeepers.

The answer lies in correct training. If all golf clubs were encouraged to allow their staff to attend block-release courses, which had a syllabus of pure greenkeeping methods, both practical and technical using tried and proven methods, there would be a vast improvement in the standard of greenkeeping today. It would also serve to prevent the very costly mistakes golf clubs are led into making by commercially motivated and inexperienced advice.

*S. Richardson,
Assistant Greenkeeper,
Burhill Golf Club,
Walton-on-Thames,
Surrey.*

Now There's Hope For The Future

I have been in greenkeeping for 20 years — the last 15 as a head greenkeeper. For the last 12 years, I have been employed in this capacity at Wrexham Golf Club.

I resigned from the BGGAs in 1972, disillusioned with the way the organisation was going.

Hopefully, with the founding of EIGGA, greenkeepers will have a strong voice to speak out on our behalf. I am pleased that *Greenkeeper* has been adopted as the official journal of the new association. Since its inception, the magazine has done more to raise the status of greenkeepers than any other. Obviously, it is closely in touch with the everyday problems encountered in greenkeeping.

Keith Holmes, Wrexham, Clwyd.

Advice For Amateurs . . .

While I yield to nobody in my admiration of *Greenkeeper*, may I ask you for some much-needed help for one section of readers, who are more numerous than you might suspect — the amateur greenkeepers.

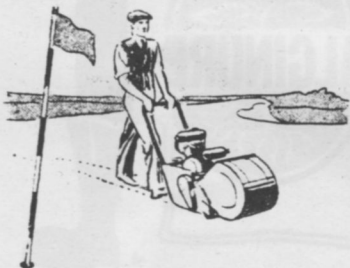
Obviously, your main concern is advice by professionals for professionals and this is couched on a large scale. However, there are a vast number of amateurs who, as a hobby, maintain domestic 'greens' not for their decorative appearance as lawns, but for practical purposes as a putting green or croquet lawn.

We, too, want a fast true surface; we want bents and fescues and our bugbears are meadow grass and thatch, together with all the other ailments from which greens suffer. It might be imagined that, because we have to deal with one small area only, our task is relatively simple. The exact reverse is the case.

First, all the mechanical devices necessary are made, quite rightly, on a large scale for use over large areas. I don't think there is one eight or ten bladed electric mower, with an effective height-regulating mechanism, on the British market. Those of us who are fortunate to own an old Ransomes Certes, now obsolete, find, for some obscure reason, that with each passing year, it becomes more difficult to push!

And then there is the matter of fertilisers. We are all familiar with Jim Arthur's views about incorrect fertilising and over-feeding. But we don't want vast quantities and we are mainly dependent on the local garden centre, whose products are all designed to grow nice, green, lush grass (as well as the maximum amount of thatch). Where can I buy a ten kilo — or even a 20 kilo — bag of equal parts of ammonia, blood, hoof and horn and iron?

J. R. Armstrong, Ruislip, Middlesex.



Editor: *Greenkeeper* is ever-mindful of all sections of the 'greenkeeping' community and is aware that many people around the country take great pride in their playing surfaces, which may be little more than 30ft x 30ft and surrounded by the wife's roses . . .

As you appear to be a devotee of Jim Arthur, I passed your letter on to him for comment. Here is Jim's reply:

I fully agree with Mr Armstrong that there are a number of problems in trying to produce a putting green in a house garden. Chiefly, these are the small scale of the operation, with the result that it is quite uneconomic to invest in the necessary equipment on par with a golf green.

For example, there is little or no change out of £1,000 for a first-class 'hand' (powered) mower and you get what you pay for in this world. Nothing has more influence on putting surfaces than the mower and not many enthusiasts are willing to spend this sort of money to deal with, say, 200 to 300 sq yds of lawn, however cossetted!

Furthermore, frequency of mowing is more important than closeness of cut and, again, would even the most devoted enthusiast find the time to mow his putting green six or seven times a week, as are the best greens?

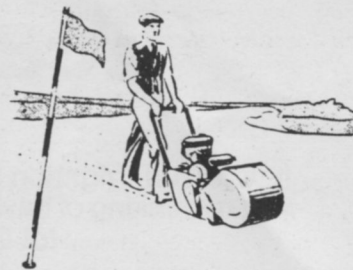
I agree that an old, but beautifully engineered, hand (pushed) Certes or the equivalent can be used. I had one myself until lack of time and energy forced me on to using less precise, powered mowers, but the finish is not the same.

To think that hand-pushed mowers were the norm for all golf greens until the Auto-Certes was introduced in 1950!

Manufacturers cannot be blamed for failing to provide specialist equipment for what is a very small market. There are, however, some good mini scarifiers on the market, capable of giving almost the same effect as verticutting — not the same as deep scarification, which is what most garden power-rakes do. In addition to the Black & Decker Lawnrake, there is the Sisis Fiba-mow.

I doubt whether it is worth going into home production of top dressing on such a small scale when first-class top dressings can be purchased bagged from a number of sources.

If many golf clubs opt for buying-in instead of home production of top dressing, on the grounds that the high cost of mechanisation and difficulty in finding the right ingredients makes purchase more economic, then it must be even more true for the small user.



Banks sell Fendress in 56lb bags, as does Parkers of Worcester Park, Surrey among others.

There are no satisfactory small aerators, but the difference between a private putting green and a golf green is largely one of intensity of use. On the whole, the best greens are those subject to least play (within reason) and I doubt if more than an occasional deep forking by hand of locally worn or compacted areas is necessary on the small green in a domestic garden.

As for fertilisers, the main error of the individual enthusiast is to kill their lawns with kindness. It is certainly possible to buy the standard ammonia, blood, hoof and horn and iron mix (with a carrier to aid even distribution) from many specialist fertiliser firms (for example, Supaturf, Rigby Taylor, and Maxwell Hart) with an analysis of 8.0 : 0.5 : 0.5.

This is sold in 25k packs and one bag will provide all that is needed for the year for a 200 to 250sq yd putting green — especially if you start the year with a very light dressing of lawn sand from your local garden centre. This is best applied in the false spring in March, which often precedes the easterlies that bring back winter with a vengeance in April and even May.

Perhaps the one thing that does emerge from the intensive effort needed to produce something equivalent to our better, fine fescue and bent (*Agrostis*) putting greens is an appreciation of just how much skilled work is involved and how many problems of fungal disease, earthworm activity, thatch, annual meadow grass invasion, etc, have to be solved.

Remember, the greenkeeping staff solve all these, often in anticipation, so the problem is never seen by their members and greenkeepers have to cope with the effects of tremendous compaction due to ever-increasing traffic, as well as trying to keep ahead of impatient golfers — even though

Continued on page 19 . . .

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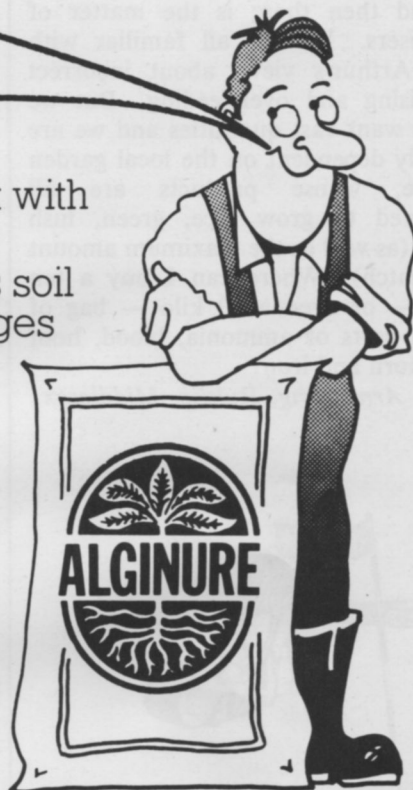
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Open Fairway — Continued . . .

this may mean starting at dawn in peak periods.

The best advice I can give enthusiasts like Mr Armstrong is to mow their mini-putting greens as often as possible, but not to scalp them and to keep fertilisers and water to a minimum. Fine fescue greens may bleach with disease (*Corticium*), but if you chase colour you will lose texture.

Traffic, if spread, and within reason, helps to firm turf and the average small private green rarely gets enough to demand routine aeration, except perhaps on heavy soils.

If worms are controlled, then weeds will be a minor problem, save perhaps clover. Aerosols (such as Synchemicals 450) used for spot treatment are often all that is needed. If you keep fertilisers to a minimum, it should never be necessary to treat for *Fusarium* and *Corticium* can be ignored.

Finally, do as I say, not as I do! I have inherited a lawn with as much moss as fine grasses, which is smothered in slime mould and since I spend 90 per cent of my time on advisory visits, I think it is going to have to cure itself.

I can only console myself with the thought that at least I have only to cope with fine-textured, slow-growing lawns with no ryegrass and I shall not be tempted to create a rod for my own back and risk losing these fine grasses by feeding them!

Money Matters

Would it be possible to publish an article in *Greenkeeper* on wages and conditions for greenkeepers?

I am sure this subject would be of great interest to many greenkeepers and that the BGGGA — along with other associations — would be willing to publish these recommendations. C. P. Nicholson, Head Greenkeeper, Mid Herts GC, Wheathampstead, Herts.

Editor: The executive committee of the English and International Golf Greenkeepers' Association aims to lay down guidelines for terms and conditions in the near future and these details will be published in the earliest edition of *Greenkeeper*.

SISIS Going Strong Out In Hong Kong

Hardly had I stepped off the plane on returning from a business trip to Hong Kong when I read the article by Gordon Whitaker in October's *Greenkeeper*. Much of what he says is, of course, a very accurate account of conditions and practices in Hong Kong, but I do take issue with his final statement that: "The opportunity for the sale of British equipment being overlooked by UK manufacturers."

SISIS salesmen and myself have been regular visitors to Hong Kong for the past eight years and we boast a good success record.

For example, while Gordon Whitaker points out that the greens of the Royal Hong Kong Golf Club are cut with Jacobsen machines, he omits to mention that the fairways of the three courses are cut with three SISIS Powagangs. Similar units are used by the Royal Hong Kong Jockey Club, the Sheko golf course, Kai Tak Airport, etc.

There has been wide acceptance in Hong Kong of the SISIS Auto-Trac and Aeromain equipment for maintaining all-weather soccer pitches and these will now be supplemented with the Hydromain System, which has been used at the new Jubilee Centre, both for turf applications and applying sand to the Omniturf soccer pitch.

The SISIS Veemo and other SISIS units are used with some regularity on the race course at Shatin and, elsewhere, Contravators, Auto-Turfman,

Rotorakes and several other SISIS turf maintenance machines are in use.

SISIS is well represented in Hong Kong by distributors who know and have confidence in their products and have an awareness of all current trends.

We beg to be excluded, therefore, from the general statement that "British salesmen of quality machinery are noticeable by their absence."

As Mr Whitaker will well know, there are expatriates in Hong Kong who are doing their best to recommend and sell non-British machines!

A. Harrison, Sales Director,
SISIS Equipment (Macclesfield),
Shoresclough Works, Cheshire.

Take A Letter

The editor welcomes all contributions to Open Fairway, Section News and news in general.

Write briefly to *Greenkeeper*,
121/123 High Street,
Dovercourt, Harwich,
Essex CO12 3AP



The SISIS Hydromain Fourteen in use at the Jubilee Centre in Hong Kong.

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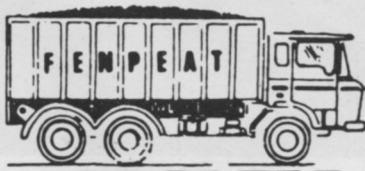
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Turfgrass Seeds Brochure

Johnsons Seeds has issued a new eight-page catalogue covering the standard J range of turfgrass mixtures and Master blends for 1983.

Easy-to-follow headings cover recommended purposes, sowing rates, mowing heights, compositions, which are tabulated and show how tolerance to mowing and trampling changes progressively across the range.

A second table sets out alphabetically, a list of 50 different turfgrass areas and shows the recommended J mixture or Master blend.

Two other sections are headed Merlin and Low Maintenance. Merlin red fescue is the commercially unique selection of dwarf red fescue, which is tolerant of heavy metals, poverty and

drought and is a first choice grass for reclamation areas.

Under the section Low Maintenance, the use of white clover with J range mixture is recommended and the many benefits listed for both sportsturf and amenity use.

The J range is formulated with leading cultivars prominently featured in the merit lists issued by the Sports-turf Research Institute — a copy of which can be obtained either direct from the STRI or Johnsons, priced 30p.

Free copies of the Turfgrass Seeds Brochure can be obtained from Johnsons Seeds, London Road, Boston, Lincs.

Two Dates For Elmwood College

Last year's head greenkeepers supervisory management course at the Elmwood Agricultural and Technical College, the first of its kind, proved extremely popular and was, in fact, oversubscribed. The course will run again this year — from March 9-11 — incorporating some minor changes recommended by last year's participants. One request was for a written examination at the end of the course and this will be included in 1983.

And following the success of last year's greenkeepers' conference and machinery exhibition, the event is to be repeated on Wednesday, March 23. After the college was criticised for not circulating details of the 1982 conference, notices will appear in *Greenkeeper* asking interested participants to write or phone for details. A mailing list of over 350 Scottish golf clubs has been established and they will receive information automatically.

Full details on these activities can be obtained from Mr M. Taylor, Head of Horticultural Department, Elmwood Agricultural and Technical College, Carslogie Road, Cupar, Fife. Tel: Cupar (0334) 52781.

Courses On Turf Management

The Sports Turf Research Institute will hold three one-week courses in the spring on the theory and practice of turf construction and management.

The courses, starting Monday morning and finishing on Friday afternoon, last for five days. They will cover soils, grasses, turf diseases and pests, drainage, watering, fertilisers and machinery. Starting on February 28, March 7 and March 14, the fees are £80 for members and £95 for non-members (plus VAT). Further details from the Secretary, Sports Turf Research Institute, Bingley, West Yorkshire. Tel: Bradford (0274) 565131.

More Holes For Hoylake

The Metropolitan Borough of Wirral Council is inviting tenders for leasing its 18-hole course, clubhouse and car park at Hoylake. Located within a quarter of a mile of Royal Liverpool, the links-like terrain is served by good roads and provides excellent scope for development.

What's New At SISIS ?

Pictured is the first batch of SISIS Hydromain Seventeens in production at the company's Macclesfield works.



Salary Scales For Groundsmen

The 1983 salary scales published by the Institute of Groundsmanship recommend an increase of six per cent.

The new scales are: head groundsman—£6,545; deputy head groundsman — £5,724; assistant groundsman — £4,908; assistant groundsman (unskilled)—£4,086; junior groundsman (age 17)—£3,684; junior groundsman (age 16)—£3,270.

Additional increments for institute qualifications include: national diploma of turf culture (NDT)—£758; national intermediate diploma—£477; national technical certificate—£318; national practical certificate—£122.

All About People

Richard Tigwell, 29, has been appointed marketing manager for special products by Maxwell M. Hart (London). He will be responsible for marketing the company's range of synthetic sports and leisure surfaces.



Richard Tigwell.

May and Baker environmental products department has appointed Mike Smith to the newly created position of marketing services manager. He is 31.

Graham Paul fills the new position of technical services manager. Formerly involved with product research and development at the company's Ongar Research Station, he will now use his specialist knowledge to provide M&B's customers with increased technical service information.

Departmental manager Richard Fry said: "May and Baker is expanding in the environmental products market, as the company's recent record of new product introductions shows. Ambitious market and product development programmes need highly skilled professionals to support them."



Mike Smith.



Stan O'Donnell.

Stan O'Donnell, previously northern regional manager for Chipman, has been promoted to company field sales manager. John Collins, moves up from marketing manager of the construction and turfcare division to company marketing manager. Both have over 20 years' experience with the company. Their new appointments are intended to co-ordinate the work of Chipman's chemical, construction and turfcare and timber products divisions.



John Collins.

Keith Mackenzie, R&A secretary, retires after the club's next annual dinner in September. He succeeded Brigadier Eric Brickman in 1967.

IOG Reports Scotsturf Success

More than 150 delegates attended the health and safety seminar organised by the IOG at Scotsturf 82.

Over 50 trade exhibitors took part in the one-day exhibition, attended by 2,000 professionals from all over the UK.

Southern Section

Notes by David Craig

Stanley Ledger died recently after a heart attack. He was 56.

Stan was born in Chobham, Surrey, and spent all his working life in the area. His first post was at Sunningdale where he stayed for 24 years. Although never head greenkeeper, he was known to top golfers from all over the world. Stan encouraged many young men who have since gone on to become greenkeepers at first-class courses.

He served in the army air corps as a sergeant and worked with gliders. After the war, Stan was one of the youngest greenkeepers to attend a course at Bingley and Dr Dawson was most impressed with the young man's skill and knowledge.

For the past 19 years, Stan was head greenkeeper at East Berks, where he was well liked and a hard working member of the staff. The captain, three past captains and two committee members acted as pallbearers at the Downshire Crematorium ceremony. The club flag was lowered to half mast and the course closed for the day.

The section extends its sympathies to Joyce Ledger and family.

St Andrews Launches Membership Scheme

Visitors to St Andrews are to be offered membership of the four links courses, together with free accommodation at the Rusack's Marine Hotel.

The scheme has been masterminded by the St Andrews Links Trust and packaged under the name 300-Club denoting the maximum number of members permitted.

In essence, the club guarantees members seven rounds of golf on St Andrews' links — the Old, New, Eden and Jubilee Courses.

For £4,000, the 300-Club member effectively reserves the right to play a week's golf every year for five years on all four St Andrews courses and to stay free, including breakfast and dinner at the incomparably sited Rusack's Marine Hotel. The deal includes two persons.

Unlike timeshare, 300-Club members will be requested each autumn to select the week (excepting times when championships are being staged) they wish to come to St Andrews the following year.

Every Drop Counts . . .

RENS Services of Nottingham is marketing a new rain gauge. Called Rain-O-Matic, the rain collector is placed in the open, away from trees and houses. Its cable is buried in the ground leading back to the greenkeeper's hut where a control box can be conveniently sited.

After each mm of rain, the collector sends a signal to the control box, which then keeps a running total of rainfall in its memory. Powered by a battery, which is switched off automatically, the rain collector empties itself, making it maintenance free.

A reading can be taken at any time and there is a zero switch facility, allowing readings to be obtained over set periods. Readings can be taken indoors and can also be linked to a computer.

The price of £39 includes VAT and delivery, but excludes the battery. Full details from: RENS Services, 21 Chestnut Grove, Gelding, Nottingham. Tel: 0602 611903.

In Recognition . . .

On a recent visit to Ransomes, *Greenkeeper's* publisher Michael Coffey spotted a fascinating piece of company history. Dated 1880, this congratulatory address was presented



to Robert Charles Ransome from the employees of the Orwell Works, Ipswich, on his return from a voyage to Egypt, Australia, New Zealand, the United States and Canada.

It reads: 'We the undersigned, employees of the Orwell Works, feeling that, after an absence of nearly nine months, during which period you have travelled many thousands of miles, and been exposed to perils both by land and sea, a merely formal welcome would not afford an adequate expression of the pleasure and gratitude with which we hail your safe return, have ventured to offer for your acceptance this tangible record of our respect and esteem.'

Mr Ransome had apparently undertaken the journey for health reasons and, in modern parlance, had taken the chance to combine business with pleasure.

£12 Million Golf And Leisure Park

Miller Buckley Golf Services is developing a new golf course and integrated housing scheme at Redditch, Worcestershire. The golf course and leisure park is a joint venture between Miller Buckley and Redditch Development Corporation. The overall cost of the development will be some £12 million.

Abbey Park Golf Club will be sited on 250 acres of wooded countryside in the Bordesley Lodge area, north of Redditch. It will comprise an 18-hole course with practice areas, clubhouse, equestrian centre and fishing lakes close to the nearby River Arrow, surrounding a landscaped 30 acre housing development.

Phased construction started in November, followed by the earthworks, formation of the lakes and tree planting. Abbey Park Golf Course is due to open in the summer of 1985.

Miller Buckley Golf Services, part of the Miller Buckley Group based at Rugby, has designed the golf course and surrounding amenities in conjunction with its golf architect subsidiary, Cotton (CK) Pennink, Lawrie & Partners. A site of special scientific interest, containing important flora and fauna, has been fully retained and protected by the course layout.

Donald Steel laid out the 6,500 yard, par-71 course.

Inroads Into Japan

Two containers of Ransomes grass machinery worth £85,000 recently left the company's Ipswich factory for Japan. These, together with previous shipments during last year, meant Ransomes increased its trade with Japan by nearly 500 per cent compared to 1981.

Unlike Britain, Japan does not have local authorities with large public amenity grass areas to maintain and business for the commercial type grass cutting machinery is restricted mainly to golf courses where the company is up against Japanese equipment and imports from the United States.

Included in the last machinery sent were 20 Motor 180 self-propelled triple mowers which, because of their floating cutting heads, are particularly suitable for the undulating nature of Japanese golf courses built in the hills.

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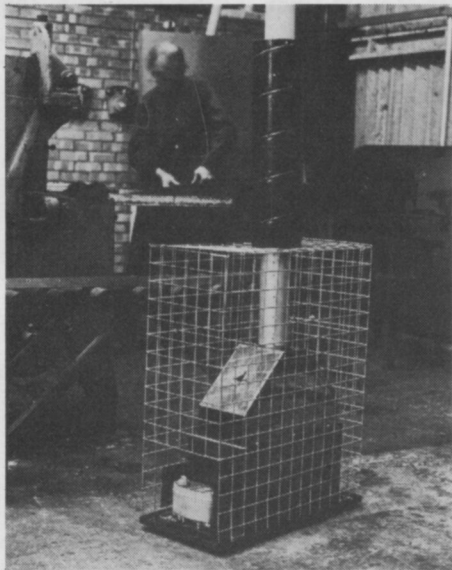
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Hot Air



The diesel hotbox was adapted for use in the South Atlantic.

Rowland Spencer Products of Haddenham, Bucks is now marketing a gas hotbox. The heater is thermostatically controlled and burns propane or natural gas. It is free-standing and measures 28in x 8½in x 36in high. With a maximum output of 11.5kW per hour down to pilot setting (which costs under 1p per hour to run), the heater is very efficient as the exhaust gases do not have to be flued to the outside.



This gas hotbox can cost as little as 1p an hour to run.

A de-luxe version of this heater is also available with a woodgrain finish. Prices are £154.70 for the standard and £197.80 for the de-luxe model.

Another heater—the diesel hotbox, which can burn diesel, gas, oil, kerosene, paraffin, or domestic burning oil — was adapted for 'service' by troops in the South Atlantic.

With a maximum output of 16kW per hour, the heater needs no electricity and is easily installed. It is

manually controlled, silent in operation, free-standing and the fuel supply can be kept away from the heater for safety.

The diesel hotbox measures 26½in x 12½in x 31in high, requires only annual maintenance and costs £197.80. (All prices plus VAT).

For further information, contact Rowland Spencer Products, 57a Townside, Haddenham, Aylesbury, Bucks. Tel: 0844 291144.

Howard Rotavator Now Has . . .

To meet the demand of matched equipment to low horsepower, compact tractors, Howard Rotavator offers a range of equipment for grading, rotavating and grass cutting.

Complementing the Howard Lee-ford range of rotary brushes, dozer blades and grader blades, a five foot wide mulegrader is introduced for use with tractors of 15hp to 30hp. Optional extras include a squeegee rubber edge kit, side retaining shields and scarifier kit.

A new model range of compact rotavators, the HR10 Series with widths of 40, 50 and 60 inches for tractors of 12 to 40hp, is also introduced.

Fitted with safety clutch and Howard blades, the depth control is obtained by skids or optional extra

front mounted depth control wheels. Mounting brackets are adjustable, enabling the operator to offset the machine.

Along with the Rollamowa for fine grass cutting on golf courses and the Rollascythe for use in dead loss cutting, a new mini Rotascythe for trac-

tors of 12 to 40hp is now available. Fitted with two swing back crank blades, the cutting widths are 35in, 47in and 59in. Height control is obtained by skid adjustment.

Further information from: Howard Rotavator, Mendham Lane, Harleston, Norfolk. Tel: 0379 852111.

SAI Awards £50 Prize To Plantsman

SAI had over 400 entrants to a competition run on its stand at Scotsturf 82. They were asked to identify and answer questions relating to control and prevention of Red-thread and damping-off diseases on turf.

The winner was Henry Hepburn of H & E Hepburn Plantsmen, Brae Cottage, Methlick, Aberdeenshire, who runs an office and garden landscaping contracting business, as well as offering an amenity and garden consultancy.

Key Quantity And Measurement Guide

Steeley Minerals' Key Range department has produced a wallchart showing the quantities of grass seed and fertiliser required for a wide range of sporting facilities, including golf greens, hockey, rugby and soccer pitches, croquet lawns, cricket tables, bowling greens and tennis courts.

Copies are available free-of-charge from Steeley Minerals, Liverpool Road North, Burscough, Ormskirk, Lancashire. Tel: Burscough (0704) 893311.

Another Croft Original

Smooth, clutchless gearchanges are a feature of the new Yanmar YM 186 compact tractor that incorporates 'Powershift' transmission. The tractor is available in two or four-wheel form.

Other features of the YM 186 include a live two-speed PTO, tight turning circle, robust construction and high performance hydraulics. A safety roll bar is included in the standard specification.

The YM 186 has an 18hp, three-cylinder, water-cooled diesel engine and a nine forward, three reverse speed gearbox. The nine forward gears are available in three speed ranges, which are mechanically selected. Within each range, are a further three gears selected by the Powershift lever — the gears are controlled hydraulically and clutch disengagement is not required.

Traction and manoeuvrability benefit from a good steering lock, greater all-up weight, which aids traction, a differential lock and the high torque characteristics of the engine.

Other features of the Yanmar are sliding axles for the rear wheels, full lighting, oil pressure and water temperature indicators and a tractor hour meter. A fuel gauge is incorporated in the fuel filler cap.

Optional equipment includes a linkage mounted drawbar, front and rear wheel and front end weights, a front end PTO and a safety roll bar for which weather cladding is also available. The tractor can be fitted with grassland or agricultural tyres.

Prices range from £3,535 for the two-wheel drive model and from £3,935 for the four-wheel drive version.

Full details from: John Croft Machinery, Roall, Kellington, near Goole, North Yorkshire. Tel: Whitley Bridge (0977) 661700.



Parnell Lang Enters Amenity Market

Established in 1844, Parnell Lang traditionally traded mainly in the south-west of England from its base in Exeter. However, it was acquired by the Blandford and Webb group of companies in 1979 — a move that enabled expansion throughout the whole of southern England.

Now, David Smart, as general manager, is to maximise the vast grass seed production capacity of the B&W group and develop further international relationships with breeders and producers.

Although Parnell Lang has specialised in herbage and root seeds, bird and pet seeds, it has entered the sports turf and recreational market.

There are 12 blends in the series, including special mixtures for golf and bowling greens, football pitches, cricket squares, playing fields and ornamental areas. In addition, there are two special perennial ryegrass blends.

The mixtures contain leading cultivars including Biljart hard fescue; Checker chewings fescue; Ensylva creeping red fescue; Highland brown-top; Parade smooth stalked meadow grass; and Hunter, Manhattan, Score and Sprinter perennial ryegrasses.

Further information may be obtained from David Smart, Parnell Lang, Higher Shaftesbury Road, Blandford Forum, Dorset.

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A Peach Of A Mower!

Victa was founded in 1952 by Victor Richardson, who put together his first prototype powered rotary mower in Sydney. It was called The Peach Tin Mower and made from scrap metal with a peach tin for a petrol tank. Since those early days, Victa powered rotary grass cutters and lawnmowers are now used around the world.

A modern Sydney plant manufactures over 300,000 machines a year and employs some 800 people.

The Victa 125cc two-stroke engine was the first specifically developed for the lawnmower; this was later superseded by the first-ever twin cylinder rotary mower. Today, most Victa mowers and grass cutters are powered by 160cc Victa two-stroke Hi-torque engines.

Victa (UK) has been operative since 1962 and in 1981, became a member of the Wilkinson Sword Group. The professional range of grass cutters will continue to be sold under the Victa label only through appointed dealers.

The Professional 460 is a heavy duty machine that is light and easy to handle. It has a 160cc Victa Hi-torque two-stroke engine with electronic ignition, a fuel tank with a 2.25 litres (4 pints) capacity and a protective blade/disc assembly, which gives a 460mm (18in) cut. This mower has a pressed steel baseplate and folding handle with eight height adjustments. Recommended retail price — £247.25.

The Professional de Luxe — a dual-role mower with either a grassbox or fixed rear discharge chute — includes a 160cc Victa two-stroke engine with electronic ignition, a protective blade/



Victa's Professional 550 — ideal for wide verges or slope work . . .

disc assembly giving a 460mm (18in) cut, plus a high arch baseplate for efficient grass collection. Ten height adjustments are possible. RRP — £262.20.

Victa's Professional 550 rear wheel driven heavy duty model is ideal for wide verges or slope work. Self-propelled, using the 'dead man's lever' system, it has a 160cc Victa Hi-torque two-stroke engine with a 5.4 litre fuel tank. The protective blade/disc assembly provides a 550mm (21.65in) cut and the machine can be adjusted to ten height positions. RRP — £456.55.

The 600mm (24in) Victa Super 600 is superbly balanced for easy handling.

The Way Ahead — Continued . . .

greenkeeping associations. Most gave the reason that they wanted more than a golfing society; a commitment to better training; more emphasis on leaders leading; more independence from the trade and, above all, an upgrading of the standing, even more than the pay, of greenkeepers.

We do, however, desperately need more young brains in the profession and it is vital that these young men are properly trained. The experience of first-class older head greenkeepers must be more widely tapped. There are many cases where youngsters attended an agricultural college and return with their heads full of agricultural nonsense. In some cases — too few, alas — this has resulted in the head greenkeeper guiding the lecturer, but in too many it results in confusion, disillusionment and even the loss of young men unwilling to enter a profession where there seems to be no co-ordination or agreement on principles.

All concerned in the changing face of greenkeeping have the responsibility for seeing that these young men have worthwhile, respected and well-paid professional careers ahead of them and do not start with the tarnish of being labelled as 'Americanised' and, thus, unable to see virtue in traditional greenkeeping.

The way ahead must lie with the setting up of a proper training structure which, in turn, depends on training the trainers, concentrating training in a few centres on a block release basis and, above all, in the specification of a sound syllabus divorced from horticulture and with the agricultural

It has a 2.1 belt drive ratio, which makes stalling virtually impossible. The 160cc Victa Hi-torque two-stroke engine has electronic ignition, a 5.4 litre fuel tank and a protective blade/disc assembly. Other features include eight height positions plus an adjustable handle. RRP — £515.20.

Finally, the Tilt-a-Cut Edger makes and cuts turf edges and when set on tilt it can cut grass into walls or against fences. It has a vertical and 15 degree tilt and is powered by a 160cc Victa two-stroke engine. The heavy duty guarded blade incorporates an eight position height setting and a guide line for straight cutting. RRP — £274.85. (Prices include VAT).

heresies exorcised. This is the task entrusted now to EIGGA, which has been so efficiently carried out by SIGGA in Scotland, where, as is so often the case, in greenkeeping matters and other factors, they have a very long start.

Meanwhile, the swing back to the old-established basic principles continues and, hopefully, as there is greater understanding that greenkeeping is essentially a study of botany (and men) and not about soil chemistry, then there will be less risk of a return to the old heresies of over-feeding and over-watering, which ruined so many of our courses in the last decade and that have cost so much to reverse and restore.

Hopefully, we shall also be able to resist the siren voices of those, misled by their own enthusiasm, for whom the latest American publication is the gospel according to St Andrew! One thing is certain in the next decade, there will be more golf, but not necessarily more golf courses proportionately and there will be more golfers, but not necessarily higher budgets. Similarly, no one will be able to waste money, especially on gimmicks, which are so widely divorced from British conditions.

Above all else, we need better trained, better skilled and better respected greenkeepers but, as with the game itself, the solution to all our problems lies within the industry and is certainly not going to be presented to us on a platter.

The first battle over bad greenkeeping methods really does seem about to be won. The next is the battle for better greenkeepers. This has many aspects, but perhaps the first is to project a professional image and away from that of being a member of an artisan golfing society.

From Stapleford A Safety Sprayer

The lightweight Ultra Low Volume Sprayer has been developed by Tavis-lodge, Middlefield Farm, Stapleford, Cambridge. It costs £221 (plus VAT) and is effectively three sprayers in one, as the two micron battery powered units, mounted on the wheeled unit, can be detached and used individually for treating weed problems.

In twin unit form, it is capable of spraying up to two acres per hour. Marker chains indicate areas treated and it applies pre-mixed BP Zennapron at the rate of approximately three litres per acre depending upon the density of the weed problem.

There is no mixing of chemicals, no returning to water source and minimal drift as the oil-based materials are broken up into 250 micron droplet size.

A similar unit was used at the Rugby Football Union Headquarters, Twickenham, in 1982, as well as Wentworth and Sunningdale. The sprayer is battery powered and has

approximately 50 hours spraying life with one set of HP 2 batteries.

This new spray concept neatly controls the size and weight of droplets, adding precision and accuracy to a job that often disturbs environmentalists worried about the hazards of spray drift. This feature also makes the sprayer ideally suited to use on golf courses.



A trailed six metre sprayer on low ground pressure tyres is also available for spraying larger areas, such as fairways and rough. Machines can be leased or purchased through Tavis-lodge.

Other herbicide formulations from BP Oil are available for total weed

control on paths, car parks, tree surrounds, which increase the versatility of the machine. Another advantage is that it can be used in any ground conditions. Local distributors and operator training schemes are available.

Further details from A. R. Wheeler, Tavis-lodge, Middlefield Farm, Stapleford, Cambridge CB2 5AN. Tel: 0223 841995.

First President Elected For ILAM

As a result of the amalgamation of the Association of Recreation Managers, the Institute of Recreation Management, Institute of Park and Recreation Administration and the Institute of Municipal Entertainment, an entirely new professional body, the Institute of Leisure and Amenity Management (ILAM) was founded on January 1st. The council elect of the new institute voted Alec Collins as president.

Alec Collins, who is the chief administrative officer for the borough of Macclesfield, was formerly that authority's chief amenities and recreation officer. With the anticipated initial membership of 2,500, Alec Collins said: "For far too long, the profession has been too fragmented with insufficient recognition of the common element of effective management. The growing acceptance of the importance of leisure pursuits demands that capital intensive resources are managed in the most productive, cost effective and socially valuable ways. The new institute will seek to play a major role and exert a strong voice in these matters."

The headquarters of the institute is at Lower Basildon, Reading, Berkshire. Tel: 0491 873558.

See About Seed

British Seed Houses has published a *Turfgrass Manual*, written by Jeremy Howarth, with a foreword by Dr Vic Stewart of the Soil Science Unit at the University College of Wales, Aberystwyth. The manual has been written for professional people and students who are involved with the design, specification and maintenance of sports grounds and amenity areas.

There are sections covering many aspects of turf management, including seed certification, grass species, turf diseases and technical bulletins for all kinds of turf management.

Copies are available from: British Seed Houses, Bewsey Industrial Estate, Pitt Street, Warrington. Price—£1.50.

A Lengthier Operation For Leach Lewis Plant

Since the opening of its new Croydon, Surrey, depot last year, Leach Lewis Plant has added further leading agencies to its network.

These include Baromix mixers, Bosch electric tools, Norsaw portable woodworking sawbenches and Wacker compaction equipment.

Full details of Leach Lewis products and services are now available in a new 22-page *Buyers' Guide*, obtainable free of charge from the Marketing Department, Leach Lewis Plant, Victoria House, Britannia Road, Waltham Cross, Herts EN8 7NU.

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Buyers' Guide

ARTIFICIAL GRASS

Greensward Company, The Old Hall, Langham, Oakham, Rutland, Leicester, LE15 7JE Tel: (0572) 2923.
Contact: S. C. Abel-Smith.

BARK & BARK BASED PRODUCTS

Camland Products Ltd., 36 Regent Street, Cambridge, CB2 1DB Tel: (0223) 68780 Telex: 81254.

BRITISH ASSOCIATION OF GOLF COURSE ARCHITECTS

Cotton (CK), Pennick, Lawrie & Partners Ltd., Marlow Place, Station Road, Marlow, Bucks, SL7 1NB. Tel: Marlow 72555 Telex: 31121.

Hawtree & Son, 5, Oxford Street, Woodstock, Oxford, OX7 1TQ. Tel: Woodstock (0993) 811976

Hamilton Stutt & Co., 12, Bingham Avenue, Poole, Dorset, BH14 8NE. Tel: (0202) 708406.

Contact: J. Hamilton Stutt.

T. J. A. McAuley BSc FICE, 7, Donegal Square West, Belfast, N. Ireland, BT1 6JF. Tel: (0232) 26981.

BRITISH ASSOCIATION OF GOLF COURSE CONSTRUCTORS

Golf Landscapes Ltd., Ashwells Road, Bentley, Brentwood, Essex, CM15 9SR. Tel: 0277 73720.

Land Unit Construction Ltd., Folly Farm, Hanslope, Milton Keynes, Bucks. MK19 7BX. Tel: 0908 510414

Brian D. Pierson (Contractors) Ltd., 27, Vicarage Road, Verwood, Wimbourne, Dorset, BH21 6DR. Tel: 0202 822372.

Southern Golf & Landscapes Ltd., 85, West Street, Warwick, Tel: 0926 492898.

Chipman Ltd., Horsham, Sussex, RH12 2NR Tel: 0403 60341

CONSTRUCTION

Charles Lambert (Lawns) Ltd., Dudley Court, Cramlington, Northumberland. Tel: Cramlington 714121.
Contact: D. M. I. Emmerson

DESIGN, PLAY & WEAR CONTROL

John Stobbs, "Roona", Brown Spring, Little Potter End, Berkhamsted, Tel: 04427 2927.

DRAINAGE

Lamflex P.V.C. corrugated coiled drainage pipe **Critchley Bros. Ltd.**, Brimscombe, Stroud, Glos. Tel: 045 3882451.

FERTILISERS & TOP DRESSINGS

Cannock Fertilisers, Supaturf Products Ltd., Oxney Road, Peterborough, PE1 5YZ. Tel: (0733) 68384.

Supaturf Products Ltd., Oxney Road, Peterborough, PE1 5YZ. Tel: (0733) 68384.

C. H. Binder Ltd., Moreton, Ongar, Essex, CM5 0HY. Tel: (027 783) 246 & 320.
Contact: F. Binder.

A. W. Maskell & Sons Ltd., Stephenson Street, London, E16 4SA. Tel: 01-476-6321.

GOLF COURSE ACCESSORIES

Bridges Pennants, 68, Southchurch Avenue, Southend-on-Sea, Essex SS1 2RR. Tel: 0702 612344.
Contact: Mr. Elvin.

Supaturf Products Ltd., Oxney Road, Peterborough, PE1 5YZ. Tel: (0733) 68384.

H. Pattison & Co. Ltd., Stanmore Hill Works, Stanmore, Middlesex, HA7 3HD. Tel: 01-954 4171.
Contact: Peter Dell.

GOLF COURSE AND BOWLING GREEN CONSULTANT

John Campbell, 121/123 High Street, Dovercourt, Harwich, Essex. Tel: 02555 7526.

GOLF COURSE CONSTRUCTION

J. S. Bishop & Co. Ltd., Bishop House, Bath Road, Taplow, Maidenhead, Berks, SL6 0NY.

GOLF COURSE CONSULTANTS

John Souter Esq., Cunningham Road, Stirling, Scotland. Tel: Stirling 2141.

GRASS CUTTING EQUIPMENT

Ransomes, Sims & Jefferies PLC., Nacton Works, Nacton Road, Ipswich, Suffolk, IP3 9QG. Tel: (0473) 712222.
Contact: J. F. R. Wilson/T. J. Knight.

GRASS MAINTENANCE EQUIPMENT

Turners of Wheatley Ltd., 64, London Road, Wheatley, Oxfordshire, OX9 1YB. Tel: 08677-2349.

Professional Grass Machinery Ltd., Unit 5, Oaklands Industrial Estate, Cannock, Staffordshire, Tel: 05438 77866.
Contact: Vicky Stevens.

GRASS SEED

Gerson Grass Seed, Grove Lane, Smethwick, Warley, West Midlands, B66 2SE. Tel: 021-558 3551.
Contact: Frank Gerson.

Mommersteeg International, Station Road, Findon, Wellingborough, Northamptonshire. Tel: Wellingborough (0933) 680674.
Contact: Michael Perkins.

Supaturf Products Ltd., Oxney Road, Peterborough, PE1 5YZ. Tel: Peterborough (0733) 68384.

Suttons Seeds Ltd., Hele Road, Torquay, Devon, TQ2 7QJ. Tel: (0803) 62011.
Contact: R. W. Palin.

Hurst Gunson Cooper Taber Ltd., Avenue Road, Witham, Essex CMB 2DX. Tel: Witham (0376) 516600.
Contact: Mr. K. Potter or Mr. C. Martin.

Carters Tested Seeds, Supaturf Products Ltd., Oxney Road, Peterborough, PE1 5YZ. Tel: (0733) 68384.

GREEN/TEE CONSTRUCTION

J. S. Bishop & Co. Ltd., Bishop House, Bath Road, Taplow, Maidenhead, Berks, SL6 0NY.

IRRIGATION

Perrot Irrigation Ltd., 38, High Street, Rowhedge, Colchester, Essex, CO5 7ET. Tel: Colchester (0206) 867624.

IRRIGATION EQUIPMENT

British Overhead Irrigation Ltd., The Green, Upper Halliford, Shepperton, Middlesex, TW17 8RY. Tel: 09327 88301 Telex: 928767.
Contact: Sales Department.

Sports Ground Irrigation, 'Hereward Lodge', Paget Road, Lubenham, Market Harborough, Leics, Tel: 0858 63153.

Toro Irrigation Limited Unit 7, Millstream Trading Estate, Ringwood, Hampshire BH24 3SD Tel: Ringwood 6261.

Watermation Ltd., Monument Way E., Woking Surrey, GU21 5LY. Tel: Woking 70303 Telex: 859224.

LANDSCAPE CONTRACTORS

J. S. Bishop & Co Ltd., Bishop House,

Bath Road, Taplow, Maidenhead, Berks SL6 0NY.

LIQUID ORGANIC FERTILISER

Farmura Ltd., Stone Hill, Egerton, Nr. Ashford, Kent. Tel: Egerton (023376) 241.

LITTER BINS

Green Brothers (Geebro) Ltd., (Lister Teak Products) Summerheath Road, Hailsham, East Sussex, BN27 3DT. Tel: (0323) 840771 Telex: 87676.

MOWERS

Brouwer P.T.O. Gang Mowers, (U.K. Concessionaires), Watmore's Turfland, Redhouse Farm, Preston Brook, Warrington, Cheshire. Tel: Aston (Runcorn) 09286 336.

Morrison Precision Lawnmowers

16, Byward Street, London, EC3R 5BQ Tel: 01-481 4851 Telex: 885476.
Contact: Tim Chapman.

MOWERS - ROTARY

Lawnboy Farm Services Ltd., Railway Road, Downham Market, Norfolk. Main agents for Lawnboy Rotary Mowers.
Contact: Nick Brett.

PLAQUES AND NAMEPLATES

Thos. A. Ingram & Co. Ltd., P.O. Box 305, Birmingham, B19 1BB. Tel: 021 554 4576. (brochure available)

POP-UP SPRINKLER SYSTEMS

RIS Cameron Irrigation Systems Ltd., Harwood Industrial Estate, Littlehampton, West Sussex, BN17 7BA. Tel: 09064 3985.
Contact: Sports Division.

RANSOMES DISTRIBUTORS

Henton & Chattell Ltd., London Road, Nottingham. Tel: Nottingham 862161
Contact: Christopher Bryden.

W. Mountain & Son Ltd., Jackson Lane Works, Bank Avenue, Morley, Leeds, LS27 9JE. Tel: Morley (0532) 531201 Telex: 557067.
Contact: A. C. Mountain.

Wilcocks, Walker Street, Preston, Lancs. Tel: Preston 53068.

SAND

George Garside (Sand) Ltd., 39 Hockliffe Street, Leighton Buzzard, Beds. Dry and Semi-dry sands for Golf Courses, Sports Greens & Grounds. Tel: 0525 372201
Contact: Mr. M. R. Adams

SEATS

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SEAWEED FERTILISERS

Seamac Agricultural Ltd., Foundry Lane, Chippenham, Wilts.

SEAWEED PRODUCTS

Alginure Products Ltd., Leyswood House, Groombridge, Tunbridge Wells, Kent Tel: Groombridge (089276) 782
Contact: Bill Visser or Ben Simpson

SEMI-MATURE TREES

Eastcote Nurseries (Solihull) Ltd., Wood Lane, Barston, Solihull, West Midlands, B92 0JL. Tel: 06755 2033/4
Contact: Stephen or Michael Fisher.

SEMI-MATURE TREE PLANTING

Eastcote Nurseries (Solihull) Ltd., Wood Lane, Barston, Solihull, West Midlands, B92 0JL. Tel: 06755 2033/4.
Contact: Stephen or Michael Fisher.

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Contact: Bill Visser or Ben Simpson.

SPRAYING EQUIPMENT

Evers & Wall Ltd., Hardi Division, St. George's Way, Bermuda Industrial Estate, Nuneaton, CV10 7QT. Tel: Bondgate 020364 2054 Telex: 312426.
Contact: Mr. W. Hayward.

TEE MATS

(Synthetic Grass Backed Rubber)
The Charles Lawrence Group Ltd., 153a Farndon Road, Newark, NG24 4SP. Tel: 0636 76218.

(Heavy Duty)
Clan Marketing Company, Milton House, Loddington, Kettering, Northants NN14 1JZ. Tel: 0536 710328

TOP SOIL

Haverling Landscape Supply Co Ltd., Haverling House, Thornwood Common, Epping, Essex, CM16 6LT. Tel: Epping 76161
Contact: P. J. Furner.

TRACTORS

Lally Iseki Tractors, Crosshall Works, Gt. North Road, Eaton Ford, St. Neots, Huntingdon, Cambs. Tel: 0480 76971 Telex: 32523.
Contact: C. Gregory.

TREES & SHRUBS

Eastcote Nurseries (Solihull) Ltd., Wood Lane, Barston, Solihull, West Midlands, B92 0JL. Tel: 06755 2033/4.
Contact: Stephen or Michael Fisher.

Nottcutts Nurseries Ltd., Woodbridge, Suffolk, IP1 2 4AF. Tel: 03943 3344.

TREES TIES & TREE GUARDS

Green Brothers (Geebro) Ltd., (Rainbow Products), Summerheath Road, Hailsham, East Sussex, BN27 3DT. Tel: (0323) 840771 Telex: 87676.

TRENCHING MACHINES

A. F. Trenchers Ltd., Gosbeck Road, Colchester, Essex, CO2 9JS. Tel: 0206 44411.
Contact: W. D. Baker.

TURF

Rolawn (Turf Growers) Ltd., Elvington, York, YO4 5AA. Tel: (0904) 85406.

Watmore's Turfland, (Purpose Grown), Redhouse Farm, Preston Brook, Warrington, Cheshire, Tel: Aston (Runcorn) 09286 336.

TURF CARE PRODUCTS

John K. King & Sons Ltd., Coggeshall, Colchester, Essex. Tel: 0376 61543.
Contact: Mary Ann Hanik.

TURF DRESSING COMPOST

E. A. Goundrey & Son Ltd., The Nurseries, Duns Tew, Oxford, OX5 4JR. Tel: (0869) 40224.

TURF DRESSING & FERTILISER

Suttons Seeds Ltd., Hele Road, Torquay, Devon, TQ2 7QJ. Tel: (0803) 62011
Contact: R. W. Palin.

SURFACE SOIL AMENDMENT

Supaturf Products Ltd., Oxney Road, Peterborough, PE1 5YZ. Tel: (0733) 68384.

TURF (SPECIALITY)

Watmore's Turfland (Purpose Grown), Redhouse Farm, Preston Brook, Warrington, Cheshire, Tel: Aston (Runcorn) 336.

WATER & LIQUID STORAGE

British Overhead Irrigation Ltd., The Green, Upper Halliford, Shepperton, Middlesex, TW17 8RY. Tel: 09327 88301 Telex: 928767
Contact: Sales Department.

TO HAVE YOUR COMPANY INCLUDED IN THIS GUIDE

Phone Kay Moss (02555) 7526

Forking As An Aid — Continued . . .

to sweep it up. In the event of such soil being of an unsuitable nature, it might inadvertently be spread on the surface, so doing more harm than good.

It would seem, therefore, that a spiral fork would be best used on soils that are satisfactory, but merely require churning up and relieving by a series of holes.

Unfortunately, tubular forking requires a great deal of time and for this reason most golf clubs are unwill-

ing to treat their greens annually with this implement.

Solid forking with the Sisis fork can be carried out rapidly for the purpose of relieving consolidation, but does not provide the opportunity of removing undesirable soil and substituting better.

Where it is necessary to use a tubular fork, a good system is to treat a series of the greens each year on a rotational system, the remainder being forked by means of solid or Sisis forks, or better by means of one of the new machines now on the market.

At the Research Station, a series of comparative trials using separate plots

has been in progress for two years, comparing the effects of aerating *Agrostis* turf with solid forks, tubular forks, spiral forks, a spike roller, Hargreaves aerator, and a spiked harrow.

In addition, plots receiving surface cultivation with a broom, lawn comb and chain mat are included.

The optimum number of holes per square yard, as well as the optimum depth for both improving a sward and aiding drought recovery, is very difficult to determine, though tests are in progress, but the indications are that numerous shallow holes with less frequent holes some four to six inches deep may prove to be the ideal.

A Potted History Of The Paul Fork

The sole originator of the Paul fork process was the late William Paul of Paisley, an ex-president of the Scottish Bowling Association, who had made the study of turf his life-long hobby.

He experimented with and advocated his process of turf rejuvenation for many years before he was allowed to put it into operation on a big scale in 1919 (for the first time by anyone on any piece of turf) on the greens of Abercorn Bowling Club, Paisley, where the treatment has been repeated in succeeding years with surprisingly beneficial results.

Despite the immediate and permanent success of 'Paul's Process' on these greens in 1919, the bowling fraternity as a whole looked askance at such drastic treatment and Mr Paul's claims were treated with a certain amount of scepticism.

For some years, various clubs experimented with Paul's Process in a dubious sort of way, but they were quick to realise its great benefit, even when applied to turf of first-class texture and health. It has proved most beneficial, however, on those turfs that were 'going back,' where surfaces were greasy, easily skinned, inclined to moss and cold and sodden after rain. The explanation of this will follow.

Mr Paul claimed for his Process, and his claim has been amply substantiated in every case throughout the intervening years, that it thoroughly aerates the turf, transforming in time even a clay or peat turf to a healthy compost; it breaks up any caking of the



The Paul fork — circa 1919.

subsoil; ensures perfect surface drainage and, by pruning the roots, encourages a stronger growth by creating new and healthy cells in which the roots rejuvenate.

It was written at the time: 'Too much should not be expected from one year's treatment of a clayey turf. It is only possible to remove with Mr Paul's fork wads of turf half-an-inch in diameter, leaving between the holes thus created a four-inch square of sodden clay for future treatment. But wonderful work is done through these holes in draining quickly the entire turf and each succeeding treatment tends to further improve and keep the turf in its transformed and healthy condition.'

'Paul's Process of cutting out clean cut holes through which coarse sand is introduced to the body of the turf is the only reliable process by which these clay greens

may be saved. This operation should be done prior to top-dressing, as the wads may be good healthy compost and may be broken up with the flat rake as they lie and mixed with the feeding and a lesser quantity of the sand. If there is any sign of clay at the bottom of the little wads, they should be removed from the surface and not broken up for top-dressing. The top-dressing should be spread evenly over the turf. A long flat rake or straight-edge, six feet or so wide, assures even application of the sand and fills up the smaller irregularities.

'In the application of Paul's Process nothing is to be gained by leaving the holes open on a clayey turf. After the removal of the wads, the piercing can be immediately followed up by brushing in a top-dressing. This will allow the pruned roots to get something to strike their new growths into, and they will thus gain all the advantage of the late autumnal growth.'

It is rather interesting to compare the early days of the Paul fork and the horse-drawn solid tine aerator with the present systems used widely on golf courses (for example, the Cushman system with its 6in slitter and hollow tiner, or the Sisis Hydromain system with its 6in or 8in slitter and hollow tiner) and to compare the amount of work that can be done by hand with the old Paul fork, with the Ryan Greensaire machine, which will hollow tine to 3in depths at 2in centres, thus removing some 19 per cent of the surface of a golf green.

Appointments

**Edinburgh-based
FULLY QUALIFIED GREENKEEPER**
ATTENDED ELMWOOD COLLEGE OF
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Possesses sound knowledge of all modern turf machinery and automatic watering systems.

Looking for further employment as Head Greenkeeper or First Man.

Willing to travel.

For further information, write to:
P.O. Box 101, Greenkeeper,
121/123 High Street, Dovercourt, Harwich,
Essex.

**LONDON BOROUGH OF EALING
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HEAD GREENKEEPER
BRENT VALLEY GOLF COURSE**

Average weekly wage for 39-hour 5-day week, including bonus and in-charge rate, varies between £109 to £112. Enhanced rate for weekend working.

A high standard of work required to maintain an 18-hole Golf Course. Applicants must be experienced in all aspects of course maintenance and knowledge of modern machinery essential. Would be required to work week-ends.

Please quote reference M.75GP. Closing date 11.2.83.

Application forms available from Personnel Office, Uxbridge Road, Ealing W5 2BP. Telephone 01-579 2424, ext. 3302. Out of hours answer service on 840 1995.

TRENTHAM GOLF CLUB
require a

HEAD GREENKEEPER

Applicants must have a sound knowledge of all aspects of greenkeeping and experience in modern golf course management techniques.

A practical working knowledge of the use and maintenance of modern greenkeeping machinery, with the ability to motivate and lead staff.

The salary is negotiable. There is no accommodation available.

Please apply in writing, giving age, qualifications, and full career experience, to:— The Secretary, Trentham Golf Club, 14 Barlaston Old Road, Trentham, Stoke-on-Trent, ST4 8HB.

KNARESBOROUGH GOLF CLUB
require a

HEAD GREENKEEPER

Applicants must be fully experienced in all aspects of course management, development, machinery maintenance and staff control.

Salary negotiable, no accommodation available.

Applications (in confidence), in writing, giving full details of career to date and qualifications, to:— The Secretary, Knaresborough Golf Club, Boroughbridge Road, Knaresborough, North Yorkshire.

WEAR SIDE GOLF CLUB
Sunderland

The position of

HEAD GREENKEEPER

has arisen for this premier golf club.

Apply in writing for form of application, to:

**THE SECRETARY, WEAR SIDE GOLF CLUB,
COXGREEN, SUNDERLAND, TYNE & WEAR**

WHITBY GOLF CLUB
require

HEAD GREENKEEPER

Applicants must possess a sound knowledge of turf management and maintenance of machinery.

Apply in writing, with full details of age, experience and current position, to:—

**THE SECRETARY, WHITBY GOLF CLUB,
WHITBY, N. YORKS.**

Amenities & Recreation Department

AREA PARKS SUPERINTENDENT


AP4 £6873 - £7545 p.a. WINSFORD

The successful applicant will be responsible to the Parks Manager for the maintenance of sports grounds, housing open spaces, highway verges, landscaping schemes and tree pruning operations.

Applicants must have proven supervisory ability and the ability to plan work within a work study based incentive scheme.

Applicants should have a sound knowledge of turf culture and be experienced in the management of cricket squares, a 9 hole golf course (possibly increasing to 18), bowling greens, tennis courts, athletic facilities and winter pitches to a high standard and be familiar with the operations of a busy local Authority Recreation Department.

CLOSING DATE: 28th February, 1983.

Application forms from:
The Personnel Section . Whitehall . Hartford
Northwich . Cheshire CW8 1PJ (0606 74477)
 VALE ROYAL DISTRICT COUNCIL

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It's not surprising that our user list reads like a "Who's Who" of British Golf Clubs — from prestigious Open Championship venues to smaller 9 Hole Courses.

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In fact that's one place you'll rarely see a Cushman Truckster because, unlike other turf maintenance equipment, it's designed to work hard all day, every day.

Transporting, hauling, tipping, towing — you've got a rugged and reliable 2 Seater Workhorse that'll save you time and money all year round.

Ask to see the Cushman Turf Care System. It's a system that really *WORKS*, and that's why to hundreds of British Greenkeepers *IT'S THE ONLY SYSTEM*.

