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BUNKERS AND OTHER FEATURES

Born in Scotland, 20 November 1924. Educated at Glasgow Academy and St Andrews University where he graduated BSc in maths and botany at the age of 19 — one of the younger graduates in the University’s 500 year old history. Played both golf and tennis for the University. Served in the war on Operations Research with RAF Bomber Command where he soon led his own section.

In 1945 entered the golf and sports ground construction company which had been founded by his father John R. Strutt in 1919. Studied civil engineering and surveying at Strathclyde University and for the next 15 or so years, first based in Scotland then in Poole, Dorset, was responsible for the execution of many major golf and sports ground construction contracts throughout Great Britain and Ireland. Regard his early years spent travelling and working on golf course construction with some of the great golf architects of the day, people like James Braid, Philip Mackenzie-Ross and John Morrison, as being the best possible training for golf architecture.

Commenced designing over 30 years ago and gradually gave up the running of the family construction company to become a full-time golf course architect. Prefers to work on his own because of the greater freedom this gives to pick and choose commissions and for the satisfaction of following projects personally from beginning to end.

Has worked in all countries of the British Isles, France, Spain, Scandinavia and the Middle East. Speaks French, German, Spanish and Norwegian.

Founder member of the British Association of Golf Course Architects and current Chairman. Past Captain of Parkstone Golf Club, Lloyd’s underwriter. Member of the R & A and honorary member of several other golf clubs.

Those of you who have been patient enough to follow this series so far will, I hope, have realised that I regard it of prime importance that a golf course should possess natural beauty — that it should blend in and enhance the landscape and never jar on it with ugly, artificial looking features.

Nowhere is this more evident than in the design of bunkers, mounds and other man-made features.

Look around you the next time you play and see how many of the bunkers etc. on your course fulfil my three Golden Rules:—
1. Does it look completely natural?
2. Can a fair recovery shot always be played, or are there excessively steep turf banks etc. against which a ball is quite likely to be lost or unplayable?
3. Can the banks of bunker or mound be easily mown by triplex mower, or is expensive hand labour required?

A further important point is that the long, gentle slopes which I favour are equally as effective applied to mounds, green surrounds and other features as to bunkers.

Gentle slopes, although much more work initially, can be kept mown by triplex mower and enable man-made features to blend in with the surrounding ground so that it should be impossible to tell where the one begins and the other ends. In other words, if properly done, the whole feature should look completely natural.

June 1979
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The savings in labour costs over 18 holes, due to the progressive elimination of areas which have to be kept mown by hand (Flymo etc.) is considerable and must be given thought to if future costs of golf maintenance are to be kept within reasonable bounds. It is silly not to be able to take full advantage of the great benefits of modern, highly manoeuvrable triplex mowers because of unsuitable features.

Even if your golf course has not been designed initially with these concepts in mind — and it must be admitted that even the great golf architects of the past, men like Simpson, Colt, Alison, scarcely had to consider labour costs — there are probably a number of particularly bad spots which would benefit from modernisation for a start. Here is an example of improvements recently carried out on a well-known course:

Thought for today
Bunkers invariably get smaller and smaller each year due to the gradual creeping inwards of the surrounding turf. Have a close look at the bunkers on your course and you should, in many cases, be able to detect, by a difference in texture, the original turf edge when the bunker was first constructed.

Try opening out some of the bunkers to their original size — you will almost certainly be pleasantly surprised by the improvement in appearance of the holes concerned.

Most courses have too many bunkers

So far, we have been discussing the actual detailed shaping of bunkers and other features. Now let us look more closely at the philosophy of bunkers in general.

1. That most golf courses, whether new or old, have far too many bunkers.
2. That those bunkers retained should, as a general principle, normally be larger, fairer and with the sand faces clearly visible to the oncoming player.

Although time seldom permits me to accept more than three or four “Advice on Course Improvement” commissions each year, I always enjoy such visits and find them an excellent means of keeping in close touch with a wide variety of clubs and golfers, their current thoughts and aspirations.

One of the most striking of several factors which most courses have in common is the large number of completely superfluous bunkers. Bunkers which affect only the beginner or older golfer and can be completely ignored by the expert. Bunkers which are half hidden or which do not affect the strategy of the hole, yet require constant expensive and time consuming main-
The above diagram shows many of the common faults which occur, with an example of some of the more modern design concepts which I am introducing on my new golf courses. It is not for one moment suggested that all bunkers should be finished like this — variety should be an essential ingredient of golf. Considerable variation in bunker shape and form is, however, possible within these principles without breaking any of the 3 Golden Rules!
The name of T. Parker & Sons (Turf Management) Ltd must be known to every Greenkeeper and Groundsman in the country. What may not be so well known is the size and scope of the organization which has become one of the leading suppliers of sports ground and horticultural supplies in the South of England, or Sporticulturists as they term themselves. We recently paid a visit to Worcester Park to meet the management and staff and to see facilities that are available to all those engaged in maintaining turf.

alleged 400-year-old tree on the site. Approximately 70% of the site is used for storage, workshops and offices, where a staff of eighty offer a complete service of repair and maintenance. This includes 25 mechanics including apprentices, of which four mechanics are permanently available on call for outside breakdowns. Every year 3,500 mowers pass through the workshops for repair and overhaul where a staff of 5 storemen handle stocks of mower spares to the value of £75,000 in addition to tractor and machinery spares valued £60,000.

Parkers offer a wide range of equipment for golf courses. They have been exclusive London distributors for Leyland tractors since 1958, and have similar franchises for Nickerson Turf Machinery and Atco Mowers. They are exclusive main distributors for London and the Southern counties for Sisis and Mommersteeg International, a London distributor for Ransomes and Hayter and distributors for Ciba-Geigy, Fisons, May & Baker and Synchemicals. These help to contribute to a multi-million pound turnover supplying over 500 golf clubs in the home counties in addition to such well-known meccas of turf as The Oval, Lords, Wembley Stadium, The All England Club, Wimbledon and Twickenham. Private sports grounds who rely on Parkers for their supplies include Decca, Hoover, CAV, Rolls-Royce and Bank of England. Any of these can obtain virtually all their turf maintenance needs from grass seed to tractors from one source and requiring only one account. A staff of eight representatives service clubs in the area of their distributorships.

Soil tests can be carried out on request and in several cases complete soil programmes have been arranged at the request of golf clubs.

The business was founded in 1880 by T. Parker, a general trader, and has been actively involved with golf courses and sports grounds since the turn of the century with intense specialization in these areas since 1945. The present managing director, George Parker, is the son of T. Parker and has been in the business for fifty years. Carrying on the family tradition is J. C. Parker, nephew of George, who is currently assistant managing director. Helping them is G. P. Simpson, sales director, who has been with Parkers for 25 years and John Ryan, sales manager.

The business occupies a 5i-acre site at Worcester Park, Surrey, close by the railway station and main shopping centre. Part of a 400-year-old farmhouse serves as one of the buildings in daily use and there are the remains of an

June 1979
Contract spraying by Land-Rover is another service offered by Parkers.

Parker’s’ exhibition stand is a familiar sight to visitors to Motspur Park. They also attend The Institute of Parks Administration Conference, the Golf Club Secretaries Seminar at Sutton Coldfield and the Open. Regular field days and practical demonstrations are arranged in the Southern Counties by invitation to greenkeepers and grounds-men. By the time you are reading this *Golf Greenkeeping & Course Maintenance* will have visited a field day at the Neville Cricket Ground, Tunbridge Wells, Kent and a report will appear in a subsequent issue.

In addition to their role as distributors Parkers offer a range of their own branded equipment of which probably the best known is the Parker Spreader, sold throughout the United Kingdom by distributors and internationally in Europe by agents. The Spreader is available in two models, Standard offering a spread pattern of 5 feet feathering out to 8-10 feet at normal walking pace and the Master Model incorporating all the features of the Standard machine but with a large capacity hopper which holds sufficient fertilizer to treat one golf green without re-filling. Another Parker product well known to Greenkeepers is the Parkmatic Travelling Sprinkler which can water greens without interruption by careful laying of the hose. Using standard jets the machine applies ½” of water over the area of the green. Sprayers and golf course accessories are other “Parker” products well known to golf clubs throughout the country.

Parkers have always taken an active interest in the BGGA. G. P. Simpson and F. H. Brittam are both Vice-Presidents of the Southern Section and R. H. (Dick) Elliott, area manager for the outer north-west Thames area, has been appointed Vice-President of the newly formed Bucks, Berks & Oxon Section.

In 1978 Parkers sponsored a Greenkeepers Tournament at New Malden when 60 took part in an enjoyable day’s golf won by Gordon Paine (?) of Maidenhead GC. This year a similar event takes place on 13 June, also at New Malden. The name of Parkers is seldom off the list of prize donors at BGGA tournaments and in the past 12 months three challenge shields have been put up for competition by members.

We wish Parkers every success in their next 100 years.
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On my first visit to examine a golf course I often check to see if the Head Greenkeeper has two essential items of equipment— one is a stout knife to test aeration, the other is a notebook. (No one can remember everything in his head — I, certainly, am no exception.) It has often been said that there are two other essential items of equipment—a pair of deaf ears to cope with advice from the members and a thick skin to bear with complaints. Every Head Greenkeeper knows that he has 500 expert assistants and that the players’ opinion of the condition of any course depends almost entirely on how they played their last round.

But nothing daunts some members. They talk of nice green greens and even nice lush greens! All greenkeeping, and all greenkeepers, divide between those who go for fine, firm greens and wiry fairways with plenty of run on the ball; and the annual meadow grass school who confuse colour with quality and cater for those who want soft target greens into which they can pitch and stop and with plenty of grass on the fairways, giving lush lies.

The sad thing is that the latter school produces— inevitably— built-in disaster. Annual meadow grass greens can never be good every month of the twelve and today we play 365 days a year— or we would if we were allowed to!

Annual meadow grass greens may well be good for a few months in the summer when by dint of moving every day rapidly growing greens, forced on by water and fertilizer applied ad lib, any skilled greenkeeper with a good mower can produce fast true putting surfaces.

But annual meadow grass is the enemy of greenkeeping— perhaps one against which we never quite win the battle but which takes no second bidding to dominate if given the slightest encouragement.

It is a shallow rooting short-lived species and though under some circumstances it can survive for two years, its normal life span is 10 weeks. It suffers more from drought, disease, wear and winter kill than any other grass. It seeds prolifically in mid-spring, giving poor surfaces. It looks sickly and yellow at the end of a winter, especially one such as the last, thus encouraging the uninitiated to apply fertilizers too soon and too generously— in the hope of making greens look better, even if they do not play better! But worst of all, annual meadow grass and thatch go hand in hand and thatch is the worst thing that can happen to any green. Join the old-fashioned school, go for fescue and agrostis and never spare a thought what colour the greens are!

The swing to annual meadow grass greens so marked in the last decade or so has received a boost by a swing to misguided pseudo-scientific approaches to greenkeeping. Typical of what I mean is a phrase in the syllabus of a Greenkeeperers training scheme— “to teach young greenkeepers how to test the pH of a soil and so determine the amount of lime needed”. Quite apart from the fact that there is no direct relation between pH and lime requirement, most of the limiting and basic slacking that is applied on golf courses is advised on totally wrong, agricultural-based standards. In fact fine turf can and does thrive on soils with pH values ranging from the low 4s to the high 8s — but only if phosphates are low and the soils well aerated and drained.

There is, however, little hope for greenkeeper training in this country when one of those in charge of it announced to me that he did not care what I thought, but maintained there was a case for lime. His initial surprise when I agreed, changed to another emotion when I qualified the remark— that its place was on a farm. There is a good old greenkeeping adage— “ask a farmer what to do and go and do the exact opposite” which might be extended to include agriculturally-biased advisers!
Breeding Amenity Grasses and the Importance of Good Maintenance

Sir George Stapledon began breeding herbage grasses in Aberystwyth around 1920. Since that time grass breeding has become a major area for investment by both Government and by privately owned companies. The aim of breeding grasses, for whatever use, is to combine the “desirable” characteristics present in the varied genetic make-up within the natural environment into cultivars fitted for a specific role. Provided “desirable” characteristics can be defined and found the breeder can achieve by design that which Nature only achieves by chance and thus his efforts are bound to improve the range of quality grasses available for specific uses.

The “desirable” characteristics for agricultural grasses are in the main those of direct or indirect economic importance such as forage yield, seedling vigour, seasonality of growth and tolerance of, or resistance to, adverse environmental conditions. The breeding of potentially more productive cultivars allied to an increase in soil chemical fertility required to achieve this potential, have led to considerable increases in herbage production and a startling uprating of grass as a crop.

It is only of recent years that grass breeders have turned their attention to turfgrass for sport and amenity use. There have already been successes, particularly in the development of new cultivars of perennial ryegrass - however, there is a major need for turfgrasses which display a high degree of persistence in the competitive environment of some categories of amenity turf. An initial problem for turfgrass breeders used in a natural grassland has been a lack of understanding of a new set of “desirable” characteristics relevant to the different categories of turf for sport and amenity use. These are not only different from those for forage grasses but also differ very much between particular uses. Everyone will accept that there are differences between the prime qualities desirable in turfgrasses for a soccer pitch and those for a golf green. Possibly fewer will accept that the prime qualities of turfgrasses for a golf green differ substantially from those for an ornamental lawn. Furthermore, the odd situation arises in ornamental turf, quite different from agriculture, where an improvement in soil fertility may disadvantage the desirable grasses.

An appreciation of required characteristics is a vital part of a selection and breeding programme. Turfgrasses possessing valuable characteristics are likely to be found in circumstances similar to those which exist in the relevant maintenance system. Natural selection will have favoured their success in such an environment. Outstanding performance in a range of relevant sites can be selected for further investigation. Since all our main turfgrass species are outbreeders the initial selection from a given site will not be genetically uniform. The first step, therefore, is to reduce the genetic variability by selection from within the initial selection on the basis of uniformity and performance and then by breeding in isolation. Cultivars of sufficient potential may be produced solely by this procedure although the inbreeding involved usually results in loss of vigour.

The only way to produce genetically identical plants in an outbreeder is to multiply a single plant vegetatively. Having produced genotypes of sufficient homogeneity, new varieties are produced by controlled crossing between these genotypes. Since the species involved are generally self-sterile the interplanting of two genotypes will result in almost 100% hybrid seed. For example is produced from fields planted to three vegetatively propagated clones of creeping bent. Thus “Penncross” seed is a mixture of three possible crosses.

A breeding programme throws up many new cultivars, the vast majority of which must be discarded at an early stage. Only a few are likely to get to the stage of extensive trials. From these the best may be sent forward for registration on the National List which requires that each cultivar is “Distinct”, “Uniform” and “Stable”.

As mentioned earlier the key requirements for turfgrasses used in sport and amenity vary but all involve the following to some extent: tolerance of regular mowing, tolerance of and recovery from wear, and long-term persistence in a competitive environment. The first factor together with checks on disease resistance and seasonality of growth are now routine aspects of the testing of turfgrasses. Height and frequency of cut are extremely important and although the breeder knows where he stands with golf and bowling greens, both soccer and rugby pitch maintenance and the maintenance of domestic lawns are areas where there is a need for better breeder-user communication on the significance of height of cut. Wear tolerance is relevant in many situations although the type of wear inflicted differs. The more extensive wear testing which has occurred over the last few years is valuable although on different soils it is not a completely independent measure of a turfgrass property. Finally the third factor concerned with persistence is one I have found most interesting. I feel this is both the most important factor and the one where breeders have made the least impact. It has extra relevance in amenity turf for two reasons. The first is that we are concerned with permanent pasture or at least more permanent than the average agricultural ley. Secondly natural selection cannot act on any product of cross-breeding within a heterozygous population because seed setting is prevented (except Poa annua). Long-term persistence in competition is difficult and time-consuming to assess and it is greatly influenced by maintenance practices affecting soil conditions for example nutrient status, pH and water regime, in addition to cutting height and subjection to wear. This area is one in need of further enquiry but even now relevant information is available which is not being applied.

Turfgrass breeders are more aware now of the range of needs within the fields of sport and amenity turf and we should all recognise the critical importance of the maintenance programme in sustaining the grasses we desire. Feedback from research and performance testing has helped prune away many aspects which once constituted make-weight in seeds standards and these can be concentrated on cultivars of the few turfgrass species with something to offer.

This paper was first presented at a Symposium organized by British Seed Houses Ltd on 13 March 1979 and we are grateful to Jonathan Franks for his permission to reproduce it.

June 1979
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June 1979
A number of insect larvae feed upon the roots of grass and when large populations are present, considerable damage can occur. The damage, in most cases, is caused by the destruction of the plant's underground root system, or by the disruption of the lawn surface.

When grass is growing healthily it takes in water via its roots. If, for any reason, these are damaged, the plant is unable to remain turgid and it therefore wilts. When prolonged, wilting will cause the grass leaves to turn brown in colour, shrivel and eventually die, leaving bare patches in the sward.

Some animals such as earthworms and birds are also regarded as pests of turf because they affect the quality of the sward by their feeding habits. Worms do this by placing small heaps of soil on to the surface of the lawn (castings) and birds by pecking at the soil whilst looking for insect grubs.

Before a complete control of pests can be obtained, the groundsman and gardener must be able to recognise the symptoms and type of damage which a particular insect or animal will produce. He must also have some idea of its life-cycle, as applying chemicals at the wrong time of the year can be very wasteful and expensive.

LEATHERJACKETS (Tipula spp.)

Leatherjackets are the larvae or grubs of the insects which are commonly known as Crane Flies. The species which is most commonly found in grass is *Tipula paludosa* Meig. However, various other species can be found: *Tipula oleracea*, *Tipula vernalis* Meig, *Pales flavescens*, *Pales maculata* Meig. The larvae of the Crane Fly are most commonly found after damp periods in late summer or autumn. The symptoms of attack appear as areas of turf which wilt during sunny weather. The patches eventually turn a straw-brown colour and die, leaving bare sections of soil. For a positive identification to take place, it is recommended that the larvae should be found in the soil.

Life history

Although there are a number of Crane Fly species which attack the roots of turf, their damage and life-cycles are all very similar. The insect goes through 4 distinct stages during its life cycle — the adult (imago), egg, larva, and pupa. This type of life-cycle is one of complete metamorphosis, as compared to an incomplete metamorphosis where only 3 distinct stages occur i.e. adult, egg and nymph.

The adult Crane Flies are large with long legs, slim bodies and narrow translucent wings. They emerge from the soil during the summer and autumn months, emergence being later in the warmer regions than in the cooler areas.

Each female can lay in the region of 300 small, black, oval eggs, either directly into the soil or at the base of the grass stems. The eggs hatch after approximately 14 days to give small, grey, legless grubs which move to, and feed upon the grass roots. They feed during moist periods in autumn, winter and spring and when they are fully grown they are about 40 mm (1 in) in length, brownish-black in colour and have a tough skin. During the summer months they become fully fed and pupate in the soil emerging as adults from late summer onwards.

Control measures

Leatherjackets can infest areas in large numbers. It has been recorded that up to 1,000 larvae/m² can be found living under ornamental turf. A good indication of large infestations can be obtained when flocks of birds, such as rooks and starlings, are seen feeding on grassed areas. A more scientific method of assessment is to spray a number of small sites with a mixture of ortho-dichlorobenzene and cryslic acid (Jeyes Fluid). This acts as a repellent, bringing the larvae to the surface where they can be counted. If the numbers are greater than about 30/m² (30/sq yd), some control will be necessary.

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A limited amount of control can be obtained by "trapping" the larvae beneath sacking or tarpaulins, which are placed over the turf in the evenings. However, the most reliable method of control is by the application of insecticides such as lead arsenate, HCH (formerly BHC) and DDT. The uses of DDT have, of course been limited. It is therefore recommended that it should only be used where there is no other effective or less persistent alternative.

WIREWORMS (Agroites spp.)

Wireworms are very common, soil-inhabiting insects which are capable of causing severe damage to young turf. They are the larvae of the insects which are known as Click Beetles. It is interesting to note, for example, that it has been estimated that approximately 60 species of Click Beetle can be found in Britain. Fortunately, only a small percentage of these are classed as pests of turf. The commonest species found in lawns are *Agroites lineatus*, *A. Obscurus* and *A. spator*.

Damage

Severe symptoms and damage rarely occur in established turf, even though large numbers of feeding larvae may be present. The main problem arises when newly-sown lawns are produced on sites which have previously been covered with grass. If pastureland or areas of old turf are to be used for the establishment of a new lawn, it is essential that the seed is protected before sowing (see below). If this is not possible, then the soil should be treated with chemicals such as HCH. The damage is caused by the Wireworms eating the basal parts of the stem and roots. The symptoms on newly sown turf are similar to those of Leatherjackets, namely wilting of the leaves, browning of tissues and eventual death.

Life-cycle

The adult Click Beetles can be found in lawns between the months of April and July. They are approximately 12 mm (1 in) in length and are commonly shiny and very dark brown or black. They lay their eggs either singly or in small clusters just beneath the soil surface in spring. These hatch after approximately one month to produce small translucent, white larvae. The larvae are characterized by having distinct brown heads, strong biting jaws and three pairs of jointed legs which are located just behind the head. They feed sporadically for up to 4 or 5 years during which time they grow and turn a rich gold brown colour. When they are fully fed (July–August) they burrow lower down into the soil, pupate and emerge as adults 3–4 weeks later.

Control measures

Wireworms can be controlled by chemicals in two ways. The first being by seed dressings, the second by the incorporation of chemicals into the soil. Seed dressings of HCH (formerly

Golf Greenkeeping and Course Maintenance
BHC) may be applied by seed houses, however it is possible to carry out the operation oneself. It must be remembered that seed is a living thing and if the application is carried out badly the germination rate may be affected. To obtain the best results, only dress high quality seed, always mix the dressing thoroughly and sow the seed as soon as possible after the chemical has been applied. The second method is probably safer than seed dressing, but more chemical may have to be applied. It consists of working materials such as gamma HCH into the soil before seed sowing takes place. This treatment is relatively costly and should only be used where heavy infestations are present.

**CHAFER GRUBS**

In the British Isles five species of chafer grub are occasionally found living under turf. A sixth species, the Japanese Beetle (*Papillia japonica* Newn.) is occasionally introduced from its normal region of North America. The chafer grubs are the larval stages of the May Bug (*Melolontha melolontha*), Garden Chafer (*Phyllopertha horticola*), Summer Chafer (*Amphimallon solstitialis*), Welsh Chafer (*Hoplia philanthus fiiess*), Brown Chafer (*Serica brunnea*).

**Damage**

The damage to turf is caused mainly by the larval stages, the adults feeding only on the leaves and stems of plants. It is quite possible to find large numbers of grubs living under neglected turf. When this occurs the roots can be so seriously damaged that the turf can be rolled up like a carpet. Severely damaged areas show clearly defined symptoms ranging from the complete death of small patches to areas which go brown during periods of dry weather. Birds can act as indicators by congregating on sites of high infestation, they can also cause serious damage by ripping up the turf in search for the grubs.

**Life-cycle**

Chafer beetles are active during the period of late spring to summer. The females lay their eggs just beneath the soil surface in areas of close plant cover. When the eggs hatch, small grubs are produced which have brown heads with strong biting mouth parts. The larvae feed on the grass roots at, or just beneath, the soil surface. When fully fed, some of the grubs may reach a length of up to 40 mm (1½ in). They can stay in the soil from between 9 months to 3 years depending upon the species, after which they pupate in special cells deep in the soil. The adult beetles can emerge in early autumn, but they usually remain in the soil until the following spring. The Garden Chafer is the smallest of the above mentioned species, the adult being only about 9 mm long (¾ in). It is the most widespread of the species and is probably the most troublesome. In Britain, the adults are on the wing from May to early July. After mating the females burrow into the soil and lay their eggs. The eggs hatch after approximately 5 weeks and small grubs emerge which feed on the grass roots until the late autumn. When fully fed they burrow into the soil and pupate, the adults emerging the following spring.

The Cockchafer is the largest of the species which attack turf. The adults are approximately 25 mm long (1 in) with a fawn coloured head and reddish-brown wing cases. The adults are on the wing from about May to June and after mating the females lay their eggs in the soil. The larvae hatch after 5–6 weeks and start to feed on grass roots. They continue to do so for up to 3 years after which they pupate in specially produced cells deep in the soil surface. The adults usually remain in the soil until the following spring.

The Summer, Welsh and Brown Chafer can cause damage to turf but attacks are usually localised and sporadic. However, if large infestations do occur they can be controlled in the same way as the Garden Chafer.

**Control measures**

Where necessary chafer grubs can be controlled by applying HCH dust either in early spring or late summer. A satisfactory control can also be achieved by applications of lead arsenate and DDT. It should be remembered that birds and other natural enemies will control large quantities of grubs but usually damage the turf in the process.

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**Cushman Turf Care System Cuts Costs**

Purchase the basic CUSHMAN TURF TRUCKSTER
18 H.P. Vehicle — then add as many of the modular accessories as you need for the work you have to be done. No need to buy another expensive vehicle. In minutes you can attach the module you need by using simple pins that slide in and out. No need for tools.

**TOP DRESSING**

1 Green accurately in 10 minutes.

Mounts on Truckster Chassis

**SPREADING**

Spreads 40’ wide

**SPRAYING.** 18 Greens in 2 hrs.

Precise spraying rates

**QUICK AERATING.** 18 Greens in half a day.

Deep slicing, coring, or open spoons.

**SPIKING.** 18 Greens in ½ hrs.

**GREENSAVER AERATOR**

with core collection. Ten times faster than other methods.

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**Huxleys GRASS MACHINERY**

22-26 Church Street, Staines, Middx. (Staines 51123)

The Dean, New Alresford, Hants. (Alresford 3222)

June 1979
The Rotary Dangerous

Much has been written about skate-board injuries yet a perennial villain, the rotary mower, which causes more accidents, gets hardly any mention. It has been said, however, "No single product holds such potential for human destruction as the power lawnmower with its whirling blade that can amputate fingers, toes, hands and feet; and hurl wire, rocks, glass, nails and all manner of debris at speeds approaching that of a bullet."

Lawnmowers are of two basic types. The more conventional is the reel or cylinder mower, which has a number of blades mounted on a reel or cylinder, rotating about a horizontal axis. These sharp blades shear the grass against a lower, fixed blade.

The rotary mower has a single horizontal blade mounted in the middle on a vertical axis rotating at speeds up to 4,000 rpm. The grass is cut not so much by the sharpness of the blade, but by the high speed at which it is struck. It has been calculated that the tip of the blade can reach speeds up to 230 mph.

The rotary mower has become very popular for three reasons. It is cheaper than the equivalent reel mower, it is capable of handling longer grass, and it is more manoeuvrable on slopes. For cutting larger areas of grass such as football pitches, rough, etc., either an operator mounted (or riding) mower is used, or a tractor is employed to pull a battery of grass cutting units. These introduce their own hazards when they tip over or when somebody falls underneath them.

Lawnmower injuries are of two basic sorts, direct and missile. All the reports say that 90-100% result from rotary mowers.

The victim is usually the operator, but may occasionally be an onlooker who stumbles into the path of the mower. Putting a hand under the protective canopy of the mower while it is still running may cause severe soft tissue injuries to the tips of the fingers or more seriously complete or partial amputation of the fingers. An unusual and less obvious way of injuring the hand arises when the blades of a petrol-powered mower are adjusted or cleaned. Even though the engine is switched off, if the spark plug is connected the engine may fire when the blade is flicked over, and the following blade may whip round sharply on to the fingers.

Foot injuries are more common than hand injuries, and many reports detail just how severe and crippling they can be. Certain definite situations promote such accidents; the most consistently hazardous is when the mower is used on a slope with the operator positioned above the machine. His foot slips under the machine and in falling he pulls the mower on to his toes. This is especially likely to happen if the ground is wet or even dew-damp, or made more slippery by the mulched grass cuttings.

Loss of the big toe alters the dynamic structure of the foot and may result in impaired balance, reduced walking distance and pain on prolonged walking or standing. The more powerful the machine the greater damage it can cause.

Any small hard objects are potential missiles in the presence of a rotary mower. These missiles can cause vicious injuries not only to the operator but also to innocent bystanders as far away as 50 feet.

Eye injuries from such missiles are not uncommon, and usually result in the loss of the affected eye. Injuries to the neck, thorax and abdomen have been reported. The operator of the mower may be injured when wire or other debris is wrapped around or thrust through his foot or leg. A further hazard arises when the blade of the mower strikes something hard and fragments. Pieces can be thrown out from under the protective canopy and produce a compound comminuted fracture of the tibia.

Apart from injuring people lawnmower missiles can cause expensive damage to property, especially to windows, car windscreens and glass-houses. Pets, too, may even be injured as a Dachshund found out when it suffered a most traumatic and unscheduled emasculation!

Operator-mounted mowers can overturn on slopes. Faulty repairs or modifications may cause malfunction, especially if the blade becomes unbalanced. Occasionally mild burns may result from handling machines still hot after use. Spilling fuel on to a hot engine or exhaust while refilling the tank may produce petrol burns.

Almost all lawnmower injuries can and should be prevented. The direct injuries usually occur in the field and the wounds are heavily contaminated with dirt and grass and bacterial spores. Wound toilet must be generous as the soft tissue has usually been repeatedly struck by the rotating blades.

Do not be in a hurry to close the wound; attempts to re-attach lost toes are unnecessarily heroic except for the big toe, because this is curtong tetanus.

Lawnmower injuries must receive full tetanus cover.

Manufacturers are constantly searching for ways to make lawnmowers safer but sadly safety has never been a selling factor of much worth. However safe a mower is made it remains a powerful cutting machine and certain rules will still apply.

Robust shoes or boots, preferably with steel toe caps, should be worn; if fitted with spikes so much the better especially if the machine is going to be used on slopes.

DAVID HANNAM NORTHERN SECTION BGGA

It's Playable because it is the best Smooth Stalked Meadow Grass!

BenSun [A-34] is a product of Warren's Turf Nursery, Inc. research, Palos Hills, Illinois 60465, U.S.A.

BenSun (A-34] is available from: HURST GUNSUN COOPER TABER, LTD.
Witham, Essex CM6 2DX - Phone: Witham 516600 (STD Code 0376)

BenSun [A-34] was rated first (out of 43 studied) for quality and density. Out of 18 grasses tested for wear tolerance it was the only one to receive an excellent rating.

BenSun [A-34] grows vigorously in up to 60% shade and is high in disease resistance. It thrives in varying soil and climatic conditions and withstands short mowing down to $\frac{1}{2}$ inch.

One pound of BenSun [A-34] sows 2,000 square feet (over 1,000 seeds per square foot) producing a dense green sward of turf.

It is the only smooth stalked meadow grass that will do the job best for all sport activities.
THE Parker Spreader
MASTER MODEL
for the professional user.

PRICE
£85.00
PLUS £6.80 VAT

The Master Model gives fast, even distribution of fertilisers, grass seed, etc., providing a spread pattern of 5 feet feathering out to 8-10 feet. It has a unique sector control provided by a special stainless steel cut-off, enabling operator to spread to one side only. The hopper is corrosion resistant and holds sufficient fertiliser to treat one green without refilling.

June 1979
Are you doing enough?

In my last letter I asked you if you were doing enough for your club. Today I would like to ask the clubs, are you doing enough for your greenkeeper? I hope the clubs will read this letter, and ask themselves what can we do for our greenkeeper?

Here are a few suggestions.
1) Encourage him to attend as many meetings and lectures, where turf is discussed, as possible.
2) Encourage him to subscribe to as many magazines devoted to turf as possible.
3) Invite him to participate on committee meetings, where improvements or the conditions of the course are discussed, and listen to his views.
4) Let him get on with the job. I know of no other profession where every second golfer understands the job better than the greenkeeper.

Having said that let us get down to the job of greenkeeping. Worms. It is getting more and more difficult to obtain wormkillers (most are being or are forbidden), at the present moment most wormkillers are based on Carbaryl, some firms are now supplying Mowrah meal, but none of them have the long residual effects of the old wormkillers. What is to be done, firstly those of you who still have a fairly worm-free turf, watch it as soon as you see any sign of worms, get rid of them. It could be that your turf is worm-free, because you have a low pH. Keep it that way, unless you have a problem with the growth of the grass.

If you have a very muddy turf from worms, you could try lowering the pH by applying elementary Sulphur. “Bingley” write that the height of cut can affect the earthworm population, i.e. the higher the cut the more casts.

It is also a good idea not to use fertilizers containing organic material, in the old days Permanganate of Potash and Iron Vitriol were used to eradicate earthworms, but both systems are messy and rather complicated, but still better than an excess of worms.

Sulphur is playing a big part in modern fertilization, some of the specialised firms are including up to 10% of Sulphur in their fertilizer mixtures.

There is still a lot of damage being done to fine turf by overwatering, turf requirements and what the player wishes are not always the same thing. Try to give your grass the exact amount of water it requires to live, and your golfer who wishes a rather soft surface to hold the ball (even a bad shot) try not to do it with overwatering, but by increased aerating and top dressing. In the light of recent research it is not advisory to mix more than 20% good soil with 80% sand for your top dressing, and if you have the men top dress lightly but often. All over Europe there are a lot of so-called dry spots on the greens, even on those which have the same uniform mixture throughout. Recent experiments carried out by Messrs J. Michael and Jack L. Paul have shown that on these dry spots, water penetrated the thatch in one second, but required two hours to penetrate the sand soil mixture below the thatch.

Donald Harradine Caslano, Switzerland

This month’s front cover

Ransomes Tournament Triplex seen here on the 18th at Royal Lytham & St Annes with Superintendent Jim McDonald at the controls prepares for the forthcoming British Open in July. This complete greens management system has quickly attachable units for precision mowing of greens and general purpose cutting of surrounds and tees as well as units for verticutting and spiking. The basic vehicle, which carries the units, has a powerful 12 hp engine. Foot controls give forward and reverse movement and lifting and lowering of units. Low centre of gravity, short wheel base and rear wheel drive gives excellent stability and traction on slopes. Variable ground and engine speeds allow the operator to select the frequency of cut. The Triplex will give a championship look to any course.

This month we invite readers to supply a caption for this cartoon. The one adjudged by the Editor to be the best will earn a prize of £5. Closing date: 1 July.
AIRLETTER TRIBUTE TO ST ANDREW'S

Golf is the theme of a new Post Office airletter which went on sale recently, with the world-famous club at St Andrew's its prominent feature.

The airletter — the tenth in the Scottish pictorial series — is priced 12p and went on sale on Wednesday 25 April at post offices in Scotland and at Philatelic counters throughout the UK. It may also be ordered from the Philatelic Bureau, 124 Lothian House, Lothian Road, Edinburgh EH3 9BB.

Forming the main pictorial panel is arguably the most recognisable sight in golf — the 18th green and clubhouse of the Royal and Ancient Golf Club of St Andrew's.

Entertainers Bob Hope and the late Bing Crosby, who as golfing enthusiasts have had a long association with St Andrew's, are featured in cartoon form on the airletter. And a third panel illustrates the Open Championship Trophy.

The airletter was designed by Ruari McLean Associates Ltd of Dollar with drawings by artist William Rodger of Kirkintilloch, and it was printed by McCorquodale Ltd.

NEW CARBRA "TWIN" HEDGE CUTTER CHAINSAW ATTACHMENT

Glanfield Lawrence Concessions of Victoria Road, Portslade, Brighton, Sussex announce a new version of the CARBRA Hedgecutter Chainsaw Attachment.

Named the CARBRA "Twin", this attachment fits in place of the chainsaw sprocket cover and takes its drive direct from the centrifugal clutch/drive sprocket.

With a blade length of 20", it is slightly smaller than the older Model 1600 chain driven attachment, but the "Twin" is primarily designed for small saws of 30-40 cc and is equipped with a double sided cutter blade.

Production of the Carbra 1600 attachment will also continue.

DUTCH RECOMMENDED LIST — 1979

For the first time the Dutch Recommended List has separated those varieties of perennial ryegrass suitable for sports turf use from those suitable for lawns.

A number of well-known varieties are only included in one of the sections which means that in future their use will be limited. For example some varieties, such as Ensporta, Hunter and Loretta, are only recommended for use in lawn seed mixtures.

However, two of the highly recommended varieties for lawns are also the top varieties on the Sports turf list — Majestic and Sprinter. Of these Majestic has a higher turf density, a lower growth, is slightly finer leaved and has a similar wear resistance.

ROLAWN NEW APPOINTMENT

Rolawn (Turf Growers) Ltd, Elvington, York, announce the appointment to the Board of Directors of Mr Derek Edwards.

Mr Edwards trained in horticulture and is a qualified Irrigation Engineer. He has had several years experience, both at home and abroad, in these fields and moved to Elvington to join Rolawn from the South of England with his wife and twin sons in 1977.

MARSHALL OPEN DAY

Marshall Concessionaires Ltd, distributors of Jacobsen, Ryan, Bunton and Parker golf course equipment, recently held an Open Day at Beaulieu House in the New Forest.

The most important announcement was the launch of the Jacobsen Turfcat Rotary Mower available with either a 50" or 60" deck and powered by an 18 hp overhead valve Kohler engine. The Turfcat demonstrated the extreme manoeuvrability of its 3-wheel design and hydrostatic drive. Cutting is adjusted from 1" to 4".

Dealers and distributors had the opportunity of inspecting and testing a wide range of Ryan and Jacobsen equipment and were told of the substantial investment that had been made to provide necessary spares and service support. We learnt that Marshalls now have in excess of £250,000 worth of spares for their equipment and are now able to offer between 92% and 94% of all spares required to maintain a full range of machinery.
Huxley's
Open Day

For several years Huxleys Grass Machinery have held Open Days for grounds men, greenkeepers and golf club management. This year's event took place at the Meon Valley Golf and Country Club at Shedfield, Southampton, on Tuesday, 3 April. As before it was held in conjunction with Roffey Bros Ltd and took as its theme "Modern Golf Course Maintenance in Action".

Over 100 visitors arrived for the day and saw demonstrations of turf management using the Cushman Turf Care System. One interesting development being demonstrated was a Cushman in use which, by means of a new attachment manufactured by Huxleys, was able to tow a set of Ransomes JS Triple Trailing Gang Mowers. Advice was available on aeration, fertilizers and top dressing and trial plots were prepared for exhibition.

In addition to Huxleys and Roffey Bros own demonstrations displays were also mounted and staffed by Cannock, Ciba-Geigy, Fisons, Hayters, Johnsons, May and Baker, Ransomes, Synchemicals.

In the afternoon a programme of papers was presented, the first of which was entitled "The Place of Chemicals in Weed Control" and was given by Peter Bowen of Fisons Levington Research Station.

Paul Huxley presented an interesting paper on the planned replacement of machinery and we are happy to be able to print the basis of his presentation in next month's issue.

Cushman Turf Truckster fitted with topdresser attachment

Cushman in use with new attachment using Ransomes JS triple trailed gangmowers

FOR SALE

These announcements are free to members of the BGGA


To be sold. Tractor driven acre soil shredder. Good condition. Can be seen working. £150 or near offer. New price £350. Tel: Southport 67169, The Secretary, Hillside Golf Club Ltd.


Machinery enthusiast wishes to acquire purely for restoration rose progger, verticut or any early piece of professional turf maintenance equipment. Write D. Hannam, 10 Brooklands Crescent, Yeadon, Leeds.

Early greenkeeping tackle wanted: Rose Progger, Rose Verticut, Overgreen Equipment. Anything considered. — David Hannam, 10 Brooklands Crescent, Yeadon, W. Yorks. Tel Rawdon 507912.

Wanted. Rake attachment for overgreen. Parts for Paladin, Pegasus, Auto Certes, old engines, etc., anything of greenkeeping interest. A. Robertshaw, 8 Inglewood Drive, Otley, West Yorkshire. Tel 3936.

RYAN JACOBSEN
HIRE

We hire a complete range of professional equipment...

AERATORS
TURF CUTTERS
TRIPLE MOWERS
LARGE AND SMALL ROTARY MOWERS
etc., etc.

You cannot hire a better piece of equipment

For further details contact
Marshall Concessionaires (Retail) Ltd.
Winchester Hill
Romsey, Hants

Golf Greenkeeping and Course Maintenance
The annual general meeting of the Sussex Greenkeepers Association, held on Wednesday, 18 April 1979 at The Ugly Duckling PH, Haywards Heath was attended by 23 members.

A vote of thanks was given to Mr B. Piggott, retiring chairman and founder member of the association, who did not seek re-election due to pressure of work.

The newly elected Chairman is Mr D. Ayling, Head Greenkeeper. The newly elected Secretary is Mr R. Jobson, 10 Blenheim Road, Horsham, Sussex. Tel: Horsham 60525. The retiring Hon Secretary, Mr K. Palmer, who also did not seek re-election, is now Vice-Chairman.

The newly elected Golf Committee are:— Mr Andre Cornhill, Greenkeeper Pyecombe GC, Mr Brian Berry, Greenkeeper Pyecombe GC, and Mr Victor Cook, Greenkeeper, Worthing GC.

The next venue for the association will be held on Wednesday, 13 June, at Ifield Golf Club, Rusper Road, Crawley. Tee off 4 pm. Entrance fee £1.00 plus meal.

A competition has also been arranged at East Brighton Golf Club on 19 July, at 4 pm.

The Golf Tournament held on Wednesday, 25 April at Banstead Golf Club, attracted 19 members plus three guests.

The Denyer Cup (morning round) won by Alan Butrymowicz, runner-up Barry Robinson. The Jacobsen Shield (afternoon round) also won by Alan Butrymowicz, runner-up Barry Robinson — the others did play!

The prizes were presented by:—
- Golf Bag — Hugh Page Ltd.
- Golf Balls — Parkers Ltd.
- Golf Balls — Roger Bacon, Professional Worthing Golf Club, and Whisky — Mr B. Piggott, immediate past Chairman of the Association.

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The newly elected Chairman is Mr D. Ayling, Head Greenkeeper. The newly elected Secretary is Mr R. Jobson, 10 Blenheim Road, Horsham, Sussex. Tel: Horsham 60525. The retiring Hon Secretary, Mr K. Palmer, who also did not seek re-election, is now Vice-Chairman. The newly elected Golf Committee are:— Mr Andre Cornhill, Greenkeeper Pyecombe GC, Mr Brian Berry, Greenkeeper Pyecombe GC, and Mr Victor Cook, Greenkeeper, Worthing GC.

The next venue for the association will be held on Wednesday, 13 June, at Ifield Golf Club, Rusper Road, Crawley. Tee off 4 pm. Entrance fee £1.00 plus meal.

A competition has also been arranged at East Brighton Golf Club on 19 July, at 4 pm.

The Golf Tournament held on Wednesday, 25 April at Banstead Golf Club, attracted 19 members plus three guests.

The Denyer Cup (morning round) won by Alan Butrymowicz, runner-up Barry Robinson. The Jacobsen Shield (afternoon round) also won by Alan Butrymowicz, runner-up Barry Robinson — the others did play!

The prizes were presented by:—
- Golf Bag — Hugh Page Ltd.
- Golf Balls — Parkers Ltd.
- Golf Balls — Roger Bacon, Professional Worthing Golf Club, and Whisky — Mr B. Piggott, immediate past Chairman of the Association.
were bound to be sour grapes from someone who had just lost a marvellous salver on countback, but you're wrong, Mr Noye. Mr Wash has not got more jam than Hartleys, and next tournament he will be bringing along his birth certificate. Needless to say that with all the pre-match challenges Mr Fuller was laying down he walked away with the guest prize. So it's our thanks to David Rushbrook for presenting the trophy and also Brian Richardson from Fisons and John Moyce from Kings for donating to the draw and for the meal, nay feast, we must thank Kay and her helpers. Once again, thank you all. Welcome to Barry James Salmond, a new member from St Ives.

**Midlands**

**Chairman:**
V. W. SMITH

**Hon. Secretary:**
A. KITE

**Midlands**

Chairman:
V. W. SMITH

Hon. Secretary:
A. KITE

17 Squires Croft

Walmley

Sutton Coldfield

W. Midlands

The Annual General Meeting and Summer Tournament are to be held at the Habberley Golf Club near Kidderminster on Monday, 9 July 1979 by the courtesy of the Captain and members of the club. Anyone wishing to put forward a motion to be brought before the AGM must let me know in writing at least 21 days before the meeting. The closing date for the tournament is strictly the last day of June.

Will the members who have not yet paid their subs, please do so as soon as possible?

Will members who have experienced delay in receiving their monthly journal for reasons of change of address, etc., please let me know immediately and I will do my best to rectify the situation?

**North West**

**Chairman:**
G. E. LLOYD

7 Shaftesbury Avenue

Birkdale

Southport, Merseyside

(Tel: 0704 69509)

**Hon. Secretary/Treasurer:**
D. F. GOLDING

36 The Grove, Flixton

Manchester M31 2JH

(Tel: 061-748 8592)

**Sensis Tournament**

My thanks go to the Directors and staff of Sensis Equipment on behalf of the Section for the very enjoyable day we had on 3 April at Macclesfield Golf Club.

For once I am lost for something to say regarding the winner. I think what I had better do is just to print the results.

1st D. F. Golding, 35 points (CPO)
2nd A. W. Dawson, 35 points
3rd E. Walsh, 32 points

Best score on the four short holes:

N. J. Bennett

**Visitors Section**:

1st E. Armit (Captain Macclesfield GC)

E. Staniforth (Our President)

2nd C. Palin

C. Geddes (National Chairman)

Finally our thanks to the Captain and council of Macclesfield Golf Club for allowing us to play over their course, and our congratulations to Richard Sharrock on his appointment as Head Greenkeeper at Macclesfield.

**National Tournament 1979**

A reminder to members that we play host this year for the BGGA National Tournament. Entries must be returned to me before 30 June with £5 deposit.

Royal Birkdale is the venue on 20, 21 and 22 August so let us have a show of strength this year.

**Presentation**

It is very nice when a club honours its Head Greenkeeper. Bill Harley has over 25 years experience in greenkeeping. Most of this time has been spent at Disley Golf Club and when the club celebrated the opening of their new clubhouse they honoured Bill by presenting him with a clock. Well done, Bill, keep up the good work.

**New Members**

May I welcome the following new members to our section:

J. McDermid — Sale GC

C. D. Hulme — Disley GC

G. M. Broome — Sissis Equipment

J. H. Broome — Pleasington GC

R. Brown — Duxbury Park GC

L. Paulister — Brookdale GC

T. Glover — Eastham Lodge GC

R. Campoy — Widnes GC

K. Sheridan — Horwich GC

L. Kernot — Widnes GC

**SOUTH WEST**

**President:**
J. WILCOX

**Hon. Secretary:**
I. F. SCOONES

Failand

Failand

Near Bristol

On 5 April we held our Spring Meeting and AGM at Saltford GC and despite the weather there was quite a good attendance.

The following officers were elected:

**President:** Mr Bill Payne

**Hon. Secretary:** Mr Ivor Scoones

**Chairman:** Mr Bob Gates

**Vice-Chairman:** Mr Ian McPharlane

**Match and Handicap Secretary:** Mr Peter Cox

**Match Captain:** Mr Derek Cheetham

Assistants to the above:

Mr Rob Russ, Mr Barry Carlin

The Secretary reads the statement of accounts and it seems that we are quite solvent!

There is a Sec v HGK at Long Ashton GC 6 June. Those required to play will be informed. The annual 36-hole meeting will be at Chipping Sodbury GC 28 June and our next meeting will be at Westborn GC and is an Amateur/Greenkeeper match with tea at the Angel, Sherston after.

The meeting closed with a vote of thanks to Mrs Ivor Scoones for her help and it was suggested that a gift be sent to her, i.e. box of chocolates.

I would like to thank on behalf of all of us Mr Willcocks, Secretary of Saltford GC, for his hospitality and for his kindness in providing one of the prizes. I hope he will pass on our thanks to the Members of the Club, the catering staff and Mr Ian McPharlane, HGK, and his staff.

The results of the Medal Match were as follows:

1st C. Downey, net 70 (Clevendon GC)
2nd R. P. Russ, net 70 (Ullenwood GC)
3rd M. Gray, net 72 (Long Ashton GC)

**Wales**

**Chairman:**
ARTHUR PRICE

**Hon. Secretary:**
W. JONES

**Assistant Secretary:**
Golf Bungalow

Ogmore-by-Sea

Bridgend

Mid Glamorgan

CF35 5BY

In my last report, I specially mentioned Apathy amongst our members, since then I have had this forcibly thrust upon me. Meetings and lectures are arranged but the response is so poor that it is embarrassing. I certainly do not intend to keep a room and write to people to come and talk to us and then find we have no support. You know! even to chat to each other over a pint must leave one with a feeling of having learned about his fellow men and even about his course and problems. We also have the added attraction of hearing from people who travel the country.

Another great day for our Spring Meeting; it seems incredible that amidst all this rain and hail we should be given such a fine day. We were given special treatment by the members of Dinas Powis GC and its staff. Thank you Col Jackson (Mr Secretary) for your help in the planning of our day's golf, you left very little for us to do. We also thank the Chairman of the green committee, for the way he attended to our wants and also for presenting the prizes.

Despite heavy rain the days before, the greens staff did a grand job and gave us a very good course, thank you for your efforts. We did achieve one thing, we were able to rope the Head Greenkeeper in to become a member of the Section committee, for the way he attended to our wants and also for presenting the prizes.

The meals provided by the indoor staff were excellent and I do believe, far too much to play golf on. Thank you, indoor staff.

Mr Henry Fry, our deputy Chairman, made a short speech to open up the prize giving ceremony — and the prizes were presented by Mr T. Collins, Dinas Powis GC.
We were very fortunate to have Mr. John Shaw, of Hugh Page Ltd — the local Toro dealer, come along to our April meeting and give a most interesting talk on his recent trip to the USA. John illustrated this talk with some well-chosen slides which went down very well with our members. First of all we saw some shots of the Toro factory and some local Toro dealers. What a difference to the usual dealer set-up in the UK! Then we had the pleasure of seeing some nice slides of typical Stateside golf courses, and this made us all very envious. Their courses look as if someone has gone around with a pair of scissors to make sure not a blade of grass is out of place! But when you see the amount of staff and equipment that they have it's not really so surprising that they can keep them that way. John finished off with some shots of Disneyland; I'm sure that we would all have a wonderful time if we could somehow be set free in that place. It reminded me a bit of Margate's Dreamland — I don't think! Many thanks John for a most interesting evening.

NORTHERN
Chairman: COLIN GIDDES
Moor Allerton Golf Club
Hon. Secretary: W. HEELLES
7 Tentergate Close
Knaresborough, Yorks
(Tel: 0423 863851)

Obituary
It is with regret that we announce the death of one of our senior Life Members, Mr Jack Temple.

Mr Temple, 83, was a member of the Association for 25 years spending that time working on the old Moor Allerton course. He retired in 1961.

Although an active member in his earlier years Mr Temple was seldom seen at Section events but his presence was always welcomed at our annual dinners.

On course
Northern Section member Mr E. D. Hardcastle attended one of the Spring STRI week-long courses.

Spare parts
How often have you almost given up because spares were unavailable on enquiry or your badly awaited order was taking weeks to come through.

In most cases nowadays machines are built of standard issue bits and pieces which makes it all the more infuriating when you find yourself waiting ages for something like a chain or belt.

One local firm, Chevin Transmission of Otley, are able to supply small orders of items like ball, oilite and roller bearings, chain and sprockets, oil seals, 'O' rings, circlips, belts and pulleys. The service given is friendly with same-day delivery: oil seals, 'O' rings, circlips, belts and pulleys. The service given is friendly with same-day delivery:

NEW MEMBER
Mr Raymond Simms, an assistant at Hornsea Golf Club, is now on our list. Welcome to the Northern Section, Raymond. We hope your association with us will be long and profitable.

SPRING TOURNAMENT
Our first golfing event of the year took place on 23 April at West Bowling Golf Club. Apparently the day went well with rain in the morning. Details of scores, etc. will appear next month.

Things have been quiet on the Section front this month (April) thus enabling your Hon Sec an opportunity to do some spring cleaning and gardening!

Roffey Bros and Huxley Garden Machinery held a joint Open Day at Alresford Golf Club on Tuesday, 3 April, and several members took the opportunity to persuade their club officials to attend the machinery demonstrations, etc. . . . all to good avail I hope! Sisis Ltd also held an Open Day at Southampton University on Tuesday, 10 April, thus affording members a further opportunity of window shopping.

On Wednesday, 11 April, your Chairman and I attended a meeting of County Liaison Officers and Greenkeepers Representatives at the offices of the Sports Council, London, with regard to the content of the City and Guilds Greenkeeping Course. There was an exchange of views with the Secretary of the Greenkeeper Training Committee, Mr N. Bisset, and no doubt he will be writing an article for the journal, following his further meeting with the City and Guilds representatives.

I trust you have all submitted your entries for the Summer Tournament at Stoneham Golf Club on Monday, 25 June 1979?

At an Extraordinary General Meeting of the BGGHA held at Moor Allerton Golf Club on 9 May 1979, a resolution to increase membership subscriptions from 1 May 1979 as detailed in April issue of Golf Greenkeeping and Course Maintenance was considered and approved by the executive committee.
Golf Course Equipment and Services

Artificial Grass

The Greensward Company, The Old Hall, Langham, Oakham, Rutland, Leicestershire LE15 7JE. Tel: Oakham (0572) 2923 & 56031. Telex: 34362 Grecco G.

Bunker Rakes

"AJAX" brand bunker rakes, also traditional wooden grass and leaf rakes. From your local supplier, or T. Parker, or contact Whelnetham Woodwork Ltd, Bury St Edmunds (028482) 612344.

Complete Golf Course Supply

T. Parker & Sons (Turf Management) Ltd, Worcester Park, Surrey. Tel: 01-337 7791. Contact: R. F. Cook.

Compost Top Dressings


Compost/Peat Products

Fisons Limited, Horticulture Division, Paper Mill Lane, Bramford, Ipswich, Suffolk IP8 4BZ. Tel: Ipswich (0473) 830492. Contact: Recreational and Industrial Department.

Drainage Tube and Pipes

Lamflex PVC Flexible — 52mm, 60mm, 80mm, 110mm in 100-200mm lengths. Manfd by Crittleby Bros Ltd, Brimscombe, Stroud, Glos. Brimscombe 2451.

Fertilizers

Joseph Bentley Ltd, Barrow-on-Humber, South Humberside. Tel: Barrow-on-Humber (0469) 30501. Can-nock Fertilizers Ltd, Cannock, Staffs. WS11 3LW. Tel: Cannock 2727.

Humber Manures Ltd, PO Box 27, Stoneferry, Hull HU8 8DQ. Tel: 0423 870370. Perlite, Turf Dressings, and Composts.

Golf Course Accessories

Autoturfcare Ltd, Sales: 2 Ladyemead, Guildford GU1 1DL. Tel: 0438 38444. Ransomes Grass Machinery (Scotland) Ltd, St Ninian’s Road, Cumbernauld, Edinburgh EH12 8AN. Tel: 031-334 2261.

Golf Course Architects

Members British Association of Golf Course Architects.


Golf Landscapes Ltd, Ashwellis Bentley, Brentwood, Essex. Tel: Coatix Green 73720.

Land Unit Construction, Camden House, Kewstoke, Wraxall, Nr. Bristol (0926) 59241; also at Milton Keynes 51041, 587182. Contact Bob Blathy.

Leisure Golf Developments Ltd, Stockton House, Stockton, Rugby, Warks CV3 2BL. Tel: Southam 4626.

Stewart Landscapes Ltd, Carmunnock Nurseries, Penmyre Lane, Carmunnock, Glasgow G76 9EL. Tel: 041-644 3522 (3 lines).

Grass Cutting Equipment

Sisis Equipment (Macclesfield) Ltd, Shores-clough Works, Hulley Road, Macclesfield, Cheshire SK10 2LZ. Tel: Macclesfield 26363. Contact: Mr G. R. Lackford.

Sisis Centre in Scotland: 52/58 Causewayside, Edinburgh EH2 2PY. Tel: 031-667 0689.

Grass Management Equipment

Autoturfcare Ltd, Sales 2 Ladyemead, Guildford GU1 1DL. Tel: 0438 38444. Ransomes Grass Machinery (Scotland) Ltd, St Ninian’s Road, Cumbernauld, Edinburgh EH12 8AN. Tel: 031-334 2261.

Grass Seed

British Seed Houses Ltd, Bexley Industrial Estate, Pitt Street, Warrington WA5 5LE. Tel: Warrington (0925) 54411. Order and Enquiries Contact: Mr. R. Saunders.

British Seed Houses Ltd, 37 Five Mile Drive, Oxford, Oxon. Tel: Oxford (0865) 50702. Advisory Service and Enquiries Contact: Mr J. H. Franks.

Cannock Fertilizers Ltd, Cannock, Staffs. WS11 3LW. Tel: Cannock 2727.

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

Contact: Frank Gerson.

Fisons Limited, Horticulture Division, Paper Mill Lane, Bramford, Ipswich, Suffolk IP8 4BZ. Tel: Ipswich (0473) 830492. Contact: Recreational and Industrial Department.

Hurst Gunson Cooper Taber Ltd, Avenue Road, Witham, Essex CM8 2DX. Tel: Witham 0376-516600, Avenham 02752-3106, Glasgow 041427-4917, Lincoln 0522-63852, Warrington 0925-37321, Wetherby 0937-842976, London 01-205 8681. Tel: 842976.


Miln Marsters Group Ltd, Chester, Tel: 223245. King’s Lynn. Tel: King’s Lynn 3911.

Mommestaa International, Station Road, Finedom, Wellingborough, Northants NN9 5NT. Tel: Wellingborough (0303) 680674. Telex: 311234.

Ribgy Taylor Ltd, Victoria Works, Garside Street, Bolton BL1 4AE. Tel: Bolton 389888.

Goldsmith Brothers Ltd, Bury St Edmunds. Tel: 3401. Sole UK agents for Barenbrug Grasses.

Peter Alliss, Dave Thomas Ltd, “Downings”, Ashley Road, Ashley, Cheshire.

Coles & Dyer, Watermead House, Church Street, Ipsom, Surrey. Tel: Ipsom (03727) 60994, Cheltenham (0242) 23789.

Grass Maintenance Equipment


Golf Course Construction

Contec (UK) Ltd, Leywood House, Groombridge, Tunbridge Wells, Kent. Tel: Groombridge (089276) 581 or 722.

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