eyes are smiling



Toro/PGA European Tour Student Greenkeeper of the Year Fintan Brennan, centre, flanked by, from left, Mark Hunter, Graham Dale, John Bachelor, Pat Murphy, Noel Greene and Neil Thomas

years," explained Fintan. "Peter Casbolt has sent a number of students to Elmwood and it is reckoned to be the top college in Europe so I was delighted to go there."

Peter Casbolt confirmed his admiration for Elmwood and explained that of the 10 students he had sent there six were now Head Greenkeepers.

"I only send my best students there because it is expensive but they seem to do better because I believe the standard of teaching is so good."

There is no doubt that Fintan qualifies as one of his best students and Peter is quite comfortable that his latest protege is "after his job".

"I teach Fintan how to do a job and then he teaches the next person down. That's how we work here," explained Peter, who will meet up with his Deputy at the GCSAA show in Las Vegas in February which Fintan will attend as part of the 10 week State-side trip which constitutes his prize.

Fintan, who plays golf to a mean handicap of 6, only began greenkeeping at the age of 29, having spent the first 14 years of his working life as a metal fabricator. Even then his work ethic and desire to improve himself shone through.

"I went back to night school to

do the equivalent of British "A" Levels and did all the qualifications which were available to me as a metal fabricator," explained Fintan.

This had been ingrained in him by his late father, Michael, who died last November.

"He was a big influence on me and told me that even if I was sweeping the floor I should do it to the best of my ability. I've always remembered that advice."

His involvement with the Bernhard Langer-designed PGA European Tour/IMG course at Portmarnock came when he was working as a site foreman with the company which got the contract to put a fence around the course site. That gave him the urge to get into greenkeeping and he took a job as a dumper driver with the constructors with the single aim of becoming a greenkeeper and, hopefully, going to college from that.

Being based in Scotland for the block release course gave him the opportunity to sample some of Scotland's finest golf courses and among those he played were Carnoustie and Turnberry where he spent a day during the '94 Open with George Brown.

"Twe been back to Turnberry three or four times and played the course with George and he has been a big help to me," he explained.

He is looking forward to his time in the States – if not the added time away from his wife Bernie and the two boys – where he will undertake a turf management course at the renowned Massachusetts University and visit the Toro Company's Headquarters in California and Minneapolis and the GCSAA Show in Las Vegas.

"The Americans are very well up in turf grass science and although the nutrients, the diseases and the climate are different the basic rules are the same and to study in America, where much of the forward movements are coming in greenkeeping and new grass species are being developed is wonderful."

Coming from a course with such a famous name as Portmarnock will also assist Fintan in integrating with the locals in America but although Portmarnock Hotel and Golf Links and its more illustrious namesake are only 100 yards apart they are in all other respects completely different.

"We're a pay and play course, our greens are fescue bent, while they are poa annua at Portmarnock and we are 100 years younger than Portmarnock which is 102 years old."

Fintan has been given great Mie

support on his way to the Toro/PGA European Tour Student of the Year title and not just by Peter Casbolt.

"The Chairman of our company Colin Maclaine was delighted that I'd reached the final and wished me the best of luck.

"Now having won I'm absolutely delighted and I just hope I can do the other seven finalists proud when I go to the States.

"To try and pick three of us out of the eight was a hard decision as each of the finalists had their own special qualities. The whole occasion has been really super and it was great to meet the other students and those on the interview panel as well."

The other two winners two whom Fintan referred were John Bachelor of Mendip Spring Golf Club and Cannington College and Noel Greene of Gay Hill Golf Club and the Warwickshire College who were runners-up winning a trip to the PGA European Tour Conference in Penina in December and the opportunity to work at two PGA European Tour venues on the 1997 Tour Schedule.

Both have strong BIGGA connections as John's boss at Mendip is Ian Harrison a former Premier Greenkeeper of the Year while Noel's Course Manager is Dean Cleaver, the current BIGGA National Chairman.

Each was thrilled by their achievement and at age 20 each is looking forward to an exciting year ahead

The judges Mark Gunter of Toro, Graham Dale of Lely UK, Richard Stillwell of the PGA European Tour, Pat Murphy Chairman of BIGGA's Education Sub Committee and Neil Thomas, BIGGA's Executive Director were impressed by the general standard of finalist in '96 and a case could have been made for each winning the main prize.

"It is a credit to the colleges and the golf clubs where the students work that the standards are now so high and the judges were given such a difficult task," said Pat Murphy.

The other finalists were Alasdair McLean, Karl Weston, John Donnelly, Stephen Privett and Michael Hartney. YOU SAY

Courses keep us all up to date

After attending your Management Course between 14-18 October, I felt I must put pen to paper and personally congratulate BIGGA on the way the course was organised. I would especially like to thank Brin Bendon on the way he presented the course.

My only disappointment was the fact that there were not more people attending.

I am a Course Manager and have been greenkeeping for 20 years and always willing to learn something new, and I certainly learnt something new on this recent course.

I think that if more people in my position attended these type of courses it would benefit them, and their golf club a great deal.

The golf industry is changing fast and we all have to change with it in order to become more professional in our trade. I feel that people who do not move with the times will be left behind, which is a shame as there are a lot of good managers in the industry who could lose out if they are not careful.

Mick Reece, Course Manager Kings Norton GC All this and Kenny Rogers too...

Through your magazine I wish to thank Ransomes UK for my recent trip to Georgia, USA which I won in a free prize draw, for having a demonstration of the E-plex greens machine. I was accompanied by Area Sales Manager, Paul Harling from Burrows, Leyland dealers for Ransomes. The trip involved attending a product training session organised by Ransomes America, similar to the training sessions recently held in Ipswich. I thought your readers would be interested to read how the American sessions compared.

The training sessions where held in the magnificent setting of Kenny Rogers' Beaver Dam Farm (yes Kenny Rogers the country and western singer). At Beaver Dam Farm, Kenny has his own 18 hole championship style golf course in his back garden, which must be one of the most picturesque courses I have ever seen, and with

I would like to thank BIGGA, Toro/Lely and the European Tour for their involvement in the Student greenkeeping award held at Aldwark Manor in October.

I hope that I can speak for all the

so few rounds played it must be any superintendent's dream.

The session was held over three days, its content was amazing, classroom sessions were held in Kenny's barn where each machine was described in detail, questions were received and a short test handed out just to make sure all candidates were paying attention. After each machine had been described we were then taken out onto the golf course where we had the opportunity to operate each piece of equipment. The thing I liked about the training session was the chance to operate all of the competitors' machines which were also there for comparisons.

A personal thanks goes to Dave Ferguson, the training coordinator, and all the territory managers particularly Dave Robson.

Paul McGrail, Course Manager Standish Court GC Wigan

candidates when I say what a wonderful time we had over the two days. The hospitality was fantastic and the weekend was a tremendous learning experience. Without sponsorship these awards would never be able to take place, so a big thanks to them.

From a personal point of view I am absolutely thrilled to finish runner-up in this award against such a high level of candidates. Without a push from my Course Manager, Ian Harrison, and my tutor, Huw Parry I would not have made it this far. John Bachelor

Mendip Spring GC

A great show

I would like to thank BIGGA staff for the great presentation of the BIGGA Roadshow at Sketchley Grange for the Midland Seminar. I am sure greenkeepers who attended are a lot more aware of the benefits available to them and how the Association is run.

I'm sure all those members who attended this day must realise all the hard work that goes into the Association to run all of the events and tournaments that we as BIGGA have to offer the membership – not forgetting the everyday running of the Association. I feel myself that I have had many excellent days involved with BIGGA either educationally, socially or playing golf and the cost of membership really is worth every penny. At the end of the day the saying is the more you put in the more you get out. Antony Bindley

Midland Regional Chairman



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A building that really is fit for its purpose

A lthough keen not to hold up work on the new Eden Greenkeeping Centre, the two Head Greenkeepers responsible for the Eden, Balgove and Strathtyrum courses at St Andrews were delighted to be asked for their comments on the internal design of the new facility long before its completion in February 1996.

"One thing we noticed immediately on the plans was a shortage of power points," commented Gordon Moir, who has day to day responsibility for the complex in addition to his duties as Head Greenkeeper on the Eden and Balgove courses. Sharing the Head Greenkeepers' office is Roddy Barron, who looks after the Strathtyrum course, the golf practice centre and the turf nursery.

"One can never have too many electrical sockets," pointed out Gordon. "The architect took our advice and virtually doubled the number throughout the building, with particular emphasis on the machinery and handtools store."

Another aspect examined closely was the internal layout of the building, specifically the separation between the three different elements which would be using the facility. In addition to providing suitable areas for staff changing, washing and messing, and the storage and daily servicing of course equipment, the Eden Greenkeeping Centre facility also houses buggies used by the Course Rangers and orderlies and by golfers.

"The original layout had been altered early in the design stage to provide the optimum flow of machinery into and out of the building," commented Gordon. "With that done, the principal concern was that the facility should be big enough to accommodate present needs and future expansion. This involved sitting down and working out how much room was needed for all the machines while still allowing space to walk about and for additions to the equipment fleet."

With a total floor area of 1,000 sq metres (10,760 sq ft), Gordon Moir says that the building has more than sufficient room for today's and tomorrow's needs. "This has to be a plus point," he commented. "Furthermore, we



The staff changing room has individual secure lockers with adjacent toilet and shower areas

also have completely separate covered areas for the storage and preparation of top dressings and for fuel, oil and chemicals, as well as a dedicated wash bay. I believe this is essential in any new greenkeeping facility."

Good lighting was also considered most important. "We start work in complete or semi-darkness throughout the year," pointed out Gordon. "The interior of the building has excellent lights and there are also plenty of high output floodlights outside which come on automatically when it gets dark. This is also helpful for security."

With up to 30 different people using the centre during the day, building security was a point of particular concern. This has been answered by the use of electronic key cards with coded entry for the main personnel door into the building and the two internal doors leading into the principal equipment storage areas. The three powered roller-shutter doorways used by tractors, mowers and buggies can only be opened from the inside.

PLANNING A NEW GREENKEEPING FACILITY?

Ten important features recommended for any new greenkeeping facility by the greenkeeping staff at St Andrews:

 Ensure that the building is big enough for present and

future staff and machinery requirements.

Provide good vehicle movement to and from the facility as

well into and out of the building itself.Ensure that there is plenty of

lighting inside the building and around its perimeter.

■ Provide good ventilation through roof and wall vents, supported by extractor fans if machinery will be run inside for extended periods.

Install a suitably-sized washdown area for course machinery, ensuring that water can drain away quickly and all drains have suitable oil/fuel traps and grass/sediment filters. Provide proper changing rooms, wash and toilet facilities for staff, supported by a good-sized canteen area.

Ensure that the facility can be well secured at night or whenever it is unattended. Fire/smoke and intruder alarms are recommended.

Provide sufficient space for staff cars as well as for visitors. Room for turning will also be required by lorries and trailers.

■ A good electricity supply is essential. Insist on three phase if it is available and plenty of wall sockets.

■ Provide separate lockable areas for fuel, chemicals, handtools and other items which require checking in and out for safety, security or record-keeping purposes. In addition to coded access, the complete building is secured by individual door and room sensors. There are also smoke alarms linked to the local fire station. The whole system is monitored by one security company which additionally responds to the opening of any alarmed door outside preagreed hours. "The alarm has been set off by someone working late, but this is most unusual," commented Gordon.

Fire drills are carried out regularly as are health and safety updates for all the staff. The latter cover every aspect of operations on the Links and are provided by Elmwood College lecturer and consultant to St Andrews Links Trust, Douglas Shearer.

Of the 15 greenstaff working out of the Eden complex, around half are qualified first aiders although just one person is responsible for maintaining the first aid kit.

Within the building, the superb facilities have produced greater motivation and responsibility among the staff, "without any prompting from ourselves or the management," stressed Gordon Moir.

"There has been a certain amount of envy from the greenkeepers looking after the Old, New and Jubilee courses, but they will have a first-class new building from next spring."

In addition to a well-equipped canteen with microwave, the greenkeepers have separate clothes drying and changing rooms, the latter with individual lockers and adjacent toilets and showers. Although no female greenkeepers are employed yet at St Andrews, future provision has been made with a separate changing room, toilet and shower area.

After discussions, with staff, a no smoking policy has been put in place throughout the building. "This helps to maintain cleanliness and tidiness which are most important in a close working environment," said Gordon. "In the mess room, dishes and cutlery are washed and put away immediately by the person who has used them, a policy which extends right through to the course machinery and the washdown area."

Record keeping has always



A check list is maintained for every machine. Note the security cage for storage of hand tools

been an important element of the management of St Andrews Links and this has been carried through to the new building and its daily operation.

Although required principally by the course rangers and orderlies for the buggies, petrol usage is logged by every person refuelling a vehicle or piece of equipment. Keys for the fuel store are held only by the two head greenkeepers and must be returned to them immediately for their safekeeping.

A log sheet is also kept for every machine used on the



course, with each operator responsible for daily maintenance checks and noting service requirements and any problems. Regular services are carried out within the Eden Greenkeeping Centre by one of the mechanics based at the Jubilee Sheds. If there is a major service need or breakdown, the machine will be taken across to the main Jubilee workshop for attention.

"The new centre has instilled a strong feeling of pride among the staff and this is evident in their work output," pointed out Gordon Moir. "It is also pleasing to note

that the greenkeepers genuinely want to keep the place clean and tidy. Little prompting is needed if mud or grass need sweeping up and the wash bay is always cleaned and the filters checked after use.

"As a place of work and rest for greenkeepers, there can be very few equals to the new Eden Centre anywhere in the world. We are all delighted with the facility – it's a credit to St Andrews."

Electronic key entry cards are used for the main personnel door into the building The 12000 Groundsman Roller Mower Ideal for large grasslands, golf course rough and semi-roughparks, local authorities etc

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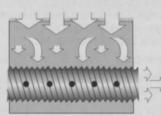
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The run-up to Christmas

This is a the first of three months when we work a shorter 35 hour week, which compensates for the 45 hour weeks of April, May and June. This shorter week, and the Christmas break, means we are busy right up to Christmas week, trying to complete the majority of course improvements.

Over the Christmas period, through to the New Year, a working rota will be in operation, with all staff working some mornings and getting a well earned rest on the other days. All the basic preparation work of cutting or switching greens, changing holes, raking bunkers, moving tee blocks, divoting tees, emptying bins and re-routing traffic is planned on the rota, but if it's like last Christmas, with heavy frosts, less work will be possible.

Greens Maintenance

On the sand based greens, biweekly surface aeration is carried out with a sorrel rollet, and weekly cutting at 6m with a hand mower helps keep smooth sur-



faces. With the greens not having been fed since August, the Winter feed on sand greens is the most important of the year and will see the greens through until Spring with good dense sward. This is applied at the start of December in the form of a slow release fertiliser 15-0-30 at 25gms/m². A contact fungicide will be applied mid month to protect against disease over the Christmas period.

Planning of Feeding Programme

Core samples were taken from the greens in November, when nutrient levels were low and were sent for testing from the results, a feeding programme will be planned for 1997.

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terra Firma Specialists Marlow House, Kenley Lane, Kenley Surrey, CR8 5DD Tel: 0181 763 8993, Fax: 0181 763 2588 SPECIALISTS Agents for Perma-Soil cess. The feeding programme is based around slow release fertiliser which will not affect the pH too much. During l9gfi, feeding was carried out on a little and often basis with application rates as low as 12.3g/m² which is possible with quality mini granule fertilisers. This gave us a good even growth pattern, without any flushes, which also helped produce, a good consistent greens speed. This will be the policy for the next year, which will again see some liquid feeding during dry periods, and the use of liquid irons and some seaweed between feeds.

Routine Maintenance

Tees and approaches are slit tined and solid tined, also hand cut during good periods of weather. Weekly divoting of tees and divot buckets filled with rootzone material. Fairways and walkways are slit tined, again in suitable weather. Weekly divoting of fairways especially on the four water holes, as golfers are reluctant to retrieve their divots from the water (they use any excuse). Occasional mowing of fairways at 15m, mainly for presentation leading into the Christmas period.

Bunkers are kept clear of leaves and regularly raked with a final edging for the year in early December. Drop Zones and Gurs are kept clearly marked and water hazard posts checked once a week. As the Oak Trees finally drop their leaves, a final leaf collecting is carried out.

Staffing

My feelings on staff, echo Kerran Daly's views from last month's Greenkeeper's Diary, that staff are my biggest asset. They are well clothed for the Winter weather, and are treated, along with the rest of the company's staff, to a Christmas party. The annual staff appraisals are held the week before the Christmas break and the following years training needs discussed.

Machinery Planning

My mechanic and I plan the reno-



BY JOHN WELLS, COURSE MANAGER, BROCKET HALL

vation and repair of

machinery and order certain spare parts ready for January and February. All machinery passes through the workshop, where the well qualified mechanic, Philip Spencer inspects the machines, and with assistance of other staff members carries out the necessary work. This helps to teach staff more about the equipment and the care required in setting up and maintaining them.

Looking Forward to Harrogate

After receiving the Master Greenkeeper Certificate last year, Harrogate was a special week and I anticipate it will be similar this year, therefore my Deputy, John Moorehouse and I will be off to Harrogate at the National Conference/BTME show to learn more about the art of Greenkeeping, look at new products and look closely at the machinery on display.

Talking to other greenkeepers throughout the day and evening also helps in the learning experience, and meeting old friends is not to be missed. There may even be the chance of a snowball fight – weather permitting that is!

Finally, to all BIGGA members and staff, I wish a very Merry Christmas and an enjoyable year of work in 1997.



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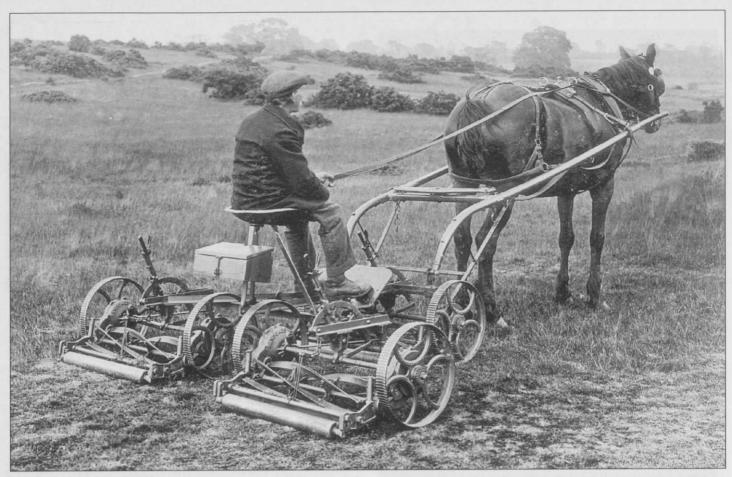
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GREENKEEPER INTERNATIONAL December 1996 17



A one horsepower mower in 1923

Roland Taylor looks back at a piece of machinery which is a vital part of every greenkeeper's working life.

he year was 1828 and an event was about to take place that would dramatically change all sports played on grass, especially golf. Until this time, keeping turf short enough to play on was often down to the rabbit population and courses such as St Andrews relied on them to keep of the courses grazed. Documents dating back to the mid 17th century reveal that the city council allowed the Archbishop to keep rabbits on part of the links. This may have seemed a good idea at the time, but the golfers clearly found the scraps and burrows created by the rabbit population were a problem. When the next applicant applied for grazing rights 70 years later there was a clause in the agreement that stated the links were not to be spoilt where golf was played. How they expected the owner of the rabbits to keep them under control is not explained.

By the turn of the century the course was one large rabbit warren and players were naturally very unhappy. Eventually the problem was resolved, but not before the case was finally taken to the House of Lords.

Sheep were also used in the early 1900s one greenkeeper said that his first job was keeping fairways mown with horse drawn mower and a flock of 300 of ewes.

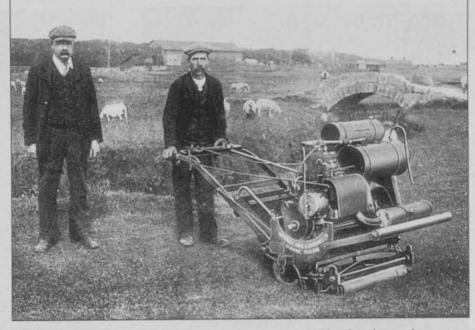
In the Gloucestershire town of Stroud the Industrial Revolution was at its height and the local mills were busy turning out cloth for the British Army. Cost effective methods of production were constantly being sought and one process, shearing the nap of cloth, was very time consuming and required considerable skill.

One man went to mow: 160 years ago

Edwin Beard Budding was a 35 year-old, carpenter, engineer and inventor. One of his jobs was to install a mechanical nap trimmer at a local mill. This machine consisted of a series of blades that rotated against a static blade. Why he should relate this to mowing grass is conjecture. Maybe the mill owner had asked him to look for an alternative away of keeping his lawns mown. Whatever the stimulus, Budding set to work and came up with a system that has stood the test of time and still remains the basic principle of all modern cylinder mowers.

Like most inventors, Budding had to find someone interested in manufacturing and what is more important put up the money for his new invention. John Farrabee who owned the Phoenix Foundry at Thrupp Mill, near Brinscombe had the ideal set-up and financial backing. The two men formed a partnership in August of 1830 and a British patent for the world's first lawnmower was granted to them on October 5 of that year. The Budding Farrabee company manufactured over 5000 units in the period until 1863 when it ceased production. Farrabee saw the benefit of issuing manufacturing licences to other companies and one of these was J R & A Ransomes of Ipswich, who began making and selling machines in 1832. Another company to take up the licence was Thomas Green of Leeds.

Budding's patent did not cover Scotland and



Alexander Shanks of Arbroath took full advantage of this by registering his design and in doing so moved mower technology forward. Shank's machine was horse drawn. It was quickly followed by models from other manufacturers, and a variety of larger machines up to 40 inches became available. These could be pulled by horses, ponies and donkeys. Leather shoes were fitted over the hoofs to stop them damaging the turf.

The wind blew in young James Sumner's face as he sped through the highways and byways of Lancashire. There was very little traffic about – only the odd steam wagon, horse and cart or rider. The local police were not amused with Sumner's new invention, a steam-driven tricycle. As a result it is reputed he was fined for travelling too fast!

Sumners's family business had been built up from a smithy at the time of the Napoleonic Wars to an iron foundry capable of forging castings of up to half-a-ton. When James inherited the company it was heavily in debt and to help resolve this problem he adapted his tricycle engine to fit a lawnmower. Unlike conventional steam engines, the Sumner model was powered by paraffin and a hand pump pressurised the water tank to enable the unit to raise steam within ten minutes. Two sizes were available, a 25" and 30". One of the first steam driven lawn mowers was sold to Rugby School. On one demonstration it is reported that the mower was being operated by the gardener. He opened the throttle too much and was seen disappearing into an ornamental lake, shouting "Whoa!" Other manufacturers including Shanks and Greens produced their versions of a steam-driven mower including a ride-on model. All were heavy, noisy and difficult to control.

Meanwhile, back at Ipswich, James Edward Ransome was about to make another breakthrough that was to take grass cutting technology forward in leaps and bounds. The company took out a patent in 1902 on a petrol-driven mower and went into manufacture immediately. Cadbury Bros of Bourneville were one of the first companies to invest in this new model for mowing their sports grounds.

Trials were arranged between Sumner's and Green's steam mowers and a Ransomes petrol machine. The result was the death knell of steam power. This was confirmed when King Edward VII arranged a demonstration on the lawns of Buckingham Palace, and gave the mower his full approval. He was quickly followed by the W G Grace who had experienced the machine in operation at the London County Cricket Ground.

The petrol-powered range offered by Ransomes at this time consisted of a 36" and 42" ride-on, a 30" pedestrian operated mower which was said to be designed for golf links plus a 24" model for ornamental lawns.

The development of the cylinder mower was not confined to the UK. A Mr Worthington, from Shawnee in the United States, introduced a new machine that was to change golf course turf maintenance considerably – the gang mower. His company later was to be taken over by the Jacobsen Corporation. By 1921 Ransomes were manufacturing Worthington gangmowers under licence here in the UK. They were very soon found on golf courses throughout this country. Other wellknown names like Greens and Lloyds had also entered the gangmower market. Tractors and cars eventually replaced the horse, speeding up the cutting operation considerably.

With all this activity in raising the standards of the course, players began to demand a better finish on greens. The larger petrol powered



unit was considered to be too heavy, so a range of hand-propelled rear-roller mowers with a multi-bladed cylinder were introduced. These included the Ransomes 'Certes', Greens 'Silens Deluxe' and Shanks' 'Golf Lynx'. Lloyds of Letchworth introduced the Pegasus, this had 1hp engine that only drove the cylinder. It was constructed from aluminium alloy to keep the weight down and there was a choice of five-, seven- or eight-bladed cylinders.

One of first triple mowers for greens was the Overgreen. This came from the Worthington stable and consisted of power unit with large tyres to avoid marking the greens. It pulled three Certes cutters and was said to be able to mow eighteen greens in a day. In later years rear roller driven models began to appear and included the Auto Certes and Paladin – they quickly became popular.

The early 1970s saw the introduction of triple ride-on greens machines and hydraulically driven gangmowers. Diesel power followed and gradually the tractor is being replaced by self-propelled units and utility vehicles that act as a power source for a host of operations.

Today's machinery may incorporate computer controlled units, but one thing that has changed very little over the last 160 years is the design of the actual cutting system.

Budding's invention had a profound affect on not only sports areas, but also garden design. Its introduction on golf courses lead to the development of a host of other equipment for turf management. A whole new industry evolved in turf culture that included seed and turf production, chemicals and fertiliser. The level of play was dramatically affected and this led to the development of new clubs, balls and other accessories. There is very little doubt that had Budding not invented the lawnmower someone else would have devised a system. He received very little for his invention and sadly, died 16 years after the patent was granted.

Next time you are aboard your all-singing, all-dancing, computer controlled and satellite navigated mower, think for a minute! Had Budding been an ordinary carpenter cum engineer you could today be either sweating buckets swinging a scythe, chasing rabbits off the course or shepherding a flock of sheep! Thank you Edwin Beard Budding!





MANUFACTURE DESIGN INSTALLATION MAINTENANCE

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