

# Improving on perfection at Shipley

John Lelean visits the Yorkshire Course where the staff rebuilt a green in thirty days

Only a few miles from the Sports Turf Research Institute at Bingley in the lovely Harden Valley, there is a golf course where the greenkeeping staff have accomplished a minor miracle. Under the direction of the head greenkeeper, they stripped, excavated and re-built their fifth green and had it ready for play in just a month!

Yes, you are reading it right, by careful pre-planning, the total commitment of the staff and the unre-served backing from club officials, the par five, re-shaped fifth green was ready for play and putting perfectly in 30 days.

It would have been less, but September if you remember was a wet month in Yorkshire.

The architect, organiser, motivator and principal workhorse for this project was Patrick Murphy, Head Greenkeeper at Shipley Beckfoot Golf Club, a parkland course with a touch of moorland on the residential outskirts of Bradford.

Shipley Beckfoot is one of two courses in the area, the other known as Shipley Northcliffe, is a little nearer Bradford and more exposed, giving extensive views towards the Yorkshire Moors.

Beckfoot has a pedigree, which in racing terms would put it into the thoroughbred class.

Because of increasing demand for membership from the affluent owners and managers of the thriving woollen industry, after the first world war, the club acquired 123 acres in the picturesque Harden Valley to build a new course and moved lock, stock and barrel from their 18 holes at nearby Moorhead in 1921, where the land proved difficult to maintain.

The controlling body at that time certainly knew what they were doing. Not only did they acquire a



Excavation starts on the fifth green. Lifted turf laid out on polythene sheeting on edge of the fairway.

superb tract of land, but capitalised on their good fortune by engaging Messrs Colt, Alison and Mackenzie with James Braid to design a course to be proud of.

Harry Colt was the master, Charles Alison and Alister Mackenzie his associates, though Alison went on to design courses in Spain and Japan, Mackenzie who has many Yorkshire courses to his credit found fame and fortune in the USA.

Colt's designs are legendary, Stoke Poges, St. George's Hill, the two courses at Wentworth and the New Course at Sunningdale as well

as the revision of both courses at Royal Portrush on the Antrim Coast.

My friend and mentor Fred Hawtree II, has said British golfers do not care who designed their course. If only those who sport designer golf wear with such pride would campaign for similar tributes for golf course architects, there would be at least a brass plaque at Shipley Beckfoot if not bronze statues at the entrance.

But to return to the subject of the exploits of Patrick Murphy, the Scotsman with the Irish name, here is a working head greenkeeper, who manages to perfection the balance

**Figure 1 Calculation table used at Shipley**

Area	6.35mm	12.7mm	25.4mm	50.8mm	76.2mm	101.6mm	152.4mm
sq.metres	.25ins	.5ins	1 inch	2 ins	3 ins	4 ins	6 ins
	cubic metres	cubic metres	cubic metres	cubic metres	cubic metres	cubic metres	cubic metres
100	0.7	1.4	2.5	5.0	7.8	10.1	15.1
200	1.4	2.5	5.0	10.1	15.1	20.1	30.6
300	2.1	3.9	7.8	15.1	22.9	30.6	45.7
500	3.2	6.4	12.8	25.6	38.4	50.8	76.4
1000	6.4	12.8	25.6	50.7	76.4	101.5	152.5
4047	25.6	51.2	102.8	205.7	308.5	411.4	617.0

*The above figures give the amounts of soil compost etc required to cover given areas to various depths (unconsolidated)*

## ON THE COURSE

between the administration, budgeted finance, management of staff and still performs a skilled working day out on the course.

His daily log lists all the activities performed by the greenstaff, notes the weather conditions, highlights any problems encountered and records means to overcome them.

**T**he fifth green as can be seen by referring to the log had been causing problems for some time. Thatch was building up despite regular spiking, slitting, hollow tining, verti-draining and even mole ploughing. The basic problem was bad drainage and compaction, so the decision was made to dig it up.

Patrick went to the club committee with his proposals, well armed with a plan of campaign, backed by figures of the quantity of materials required, man hours to complete the job by direct labour, together with an estimate of the total cost.

Now this was not as difficult to produce as it may seem at first sight, once Patrick revealed his secret formula for the benefit of greenkeeper colleagues.

His table of quantities closely guarded over many years first appeared in a Sutton Seed Catalogue now yellowed with age but carefully preserved and this has proved invaluable. (See Fig 1.)

Together with the experience of rebuilding four other greens at Beckfoot, in previous years, each time learning pitfalls to avoid and methods to improve, he set out in the first week of September last year completely confident of completing the task on schedule.

The major problem that had to be overcome was where to store the massive piles of material needed to re-build the 486 square yards of green and the green surround. The only place without turning the course into a motorway construction site was the club car park and here, the Green Chairman Mr Fred Wilkinson, Patrick's greatest ally, paved the way to obtain Committee support.

With such a tight schedule to complete in a month all the material had to be deposited on site, despite turning the club environs into a builders yard. To fill the base he ordered 101.5 cubic metres of single



*Hard limestone used in the re-construction of the fifth green at Shipley.*

size large hard limestone about an inch and a half across. A type obtainable locally that has proved not to break up, which was laid to a depth of about 4 inches.

On top, small stone half inch size was laid to a depth of two inches and this required 50.7 cubic metres.

A similar quantity of sharp sand was ordered for the next layer also to a depth of two inches.

**F**inally a three to one sand/soil mix was needed for the growing medium laid at a depth of

## ON THE COURSE

nine inches. For the green construction, surrounds and other projects Patrick ordered 254 cubic metres.

To the calculated costs had to be added the cost of labour, 700 hours in all including overtime, plus the use of existing club equipment and fuel.

Polythene sheeting used to lay out the turf on banking above the green site was donated by one of the members, as were the stakes used for marking out.

The overall size of the existing green was 510 square yards, but it was decided to reduce this to 486 square yards (27 × 18), by taking seven yards from the front and adding four yards at the back.

A bunker on the right of the green was removed completely as it had proved difficult to maintain, the one on the left had the position changed and graded.

It was decided the new green would be built into the existing contours of the land, level from side with a 35 inch fall from the back to the front, carefully measured so the fall was five inches every 12 feet.

To overcome the previous water-logging a grid drainage system was introduced not only on the green area but extending into the green surround and then linked up to the existing fairway drains which ran on into a beck.

The bunker was also drained and drainage pipes extended well into the green approach area.

The method of operation was first to cut a temporary green in front of the work area so play could continue throughout September. Then all the turf was lifted and laid out on



Drains and stone carpet completed. Sharp sand laid to a depth of two inches, ready for the nine inches of top mix. Note the marker posts at 12 foot centres with coloured bands showing the level to be achieved. The flag post for the temporary green can be seen in front of the workings to allow play to continue throughout the month.

the polythene sheeting, grass side up on the bank overlooking the working area.

The plastic sheeting prevented roots growing down, but kept the turf moist and had it required watering it was easy to hose over.

Once the site was excavated the drains were installed covered by around half an inch of stone above and below. Marking stakes were put in exactly 12 feet apart to 12 foot centres, so working from back to front each stake was precisely 12 feet apart.

Here Patrick used another neat trick. Using coloured tape he marked each post to the depth each layer of material would be laid. The bottom mark was at 4 inches for

large stone, the second up 2 inches for small stone, the third up a further 2 inches for the sand layer and the fourth at 9 inches for the sand/soil growing medium. (Fig 2).

Each level allowing for the 5 inch fall every 12 feet, keeping the side to side measurements level. To achieve accuracy he placed the first stakes in the centre of the construction.

Once the two lateral drains were dug and laid, the method of operation was to divide the working area into four sections taking a line from the back of the green to the front. Starting at section one, the levels were built up from the drain to stone carpet, small stone, sand and then sand/soil mix. (Fig 3).

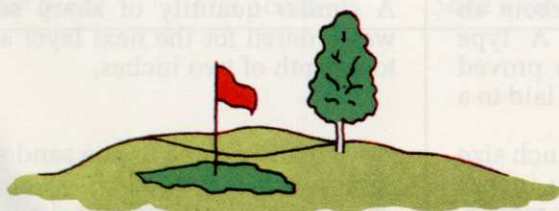
The nine inch layer of three parts sand and one part soil was mixed by

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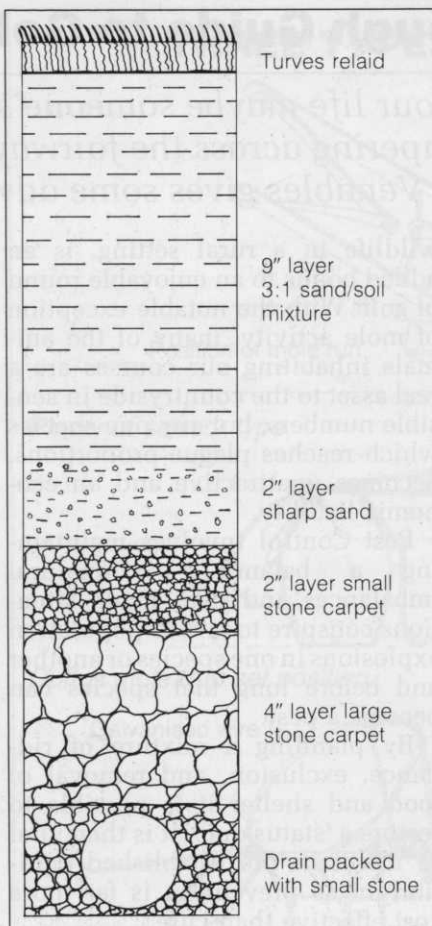
Pat Murphy using the bucket on the back of the McConnell digger. He built the mix up in layers, dropping three buckets of sand to one of soil and then turning them over until the consistency was right.

The reason behind this method of operation was to avoid machinery churning up the various levels whilst working on the next. It also avoided potential damage to the drains.

Finally the top layer was raked level, the marker posts removed and the turf relaid together with the additional turf bought to replace damaged or worn pieces.

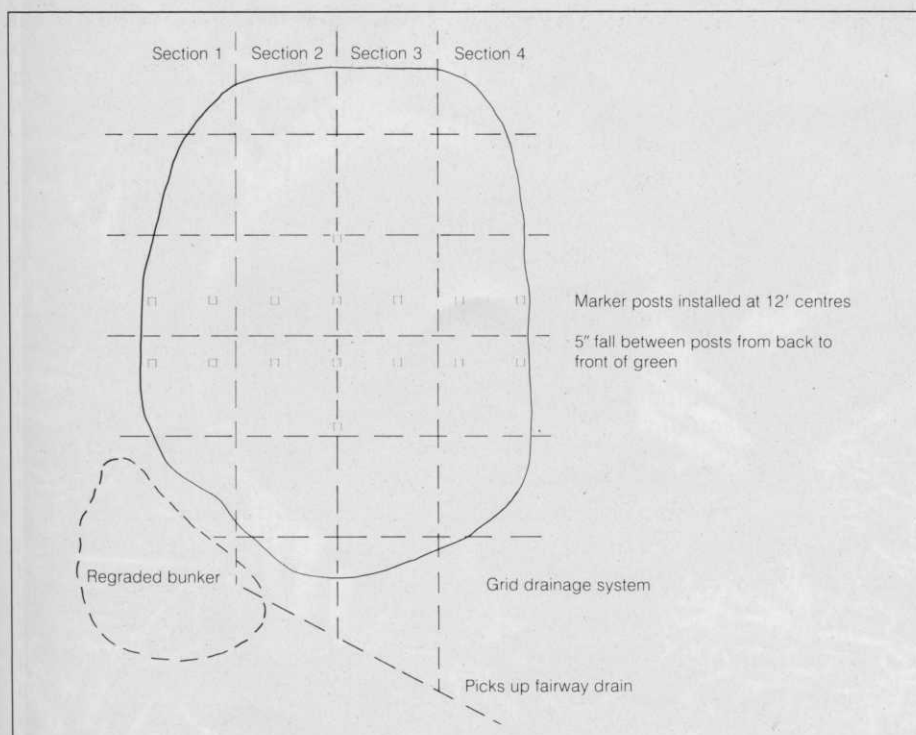
**T**he benefits have been considerable according to Green Chairman, Mr Fred Wilkin-son. He said the members now have a green playable throughout the year where in the past this original 1921 construction was wet through most of the winter and often unplayable after a heavy downpour during the Summer months.

Patrick is the first to pay tribute to his staff who were totally involved in the operation from the start. They each had a job to do in addition to maintaining the course during a busy period of play and were prepared to work through all the daylight hours, to finish the job on time.



**Fig. 2**

When completed the second section was treated in similar fashion and so on until all four areas were built up in similar fashion.



**Fig. 3**

One of his five greensmen is fully qualified with a City and Guilds Certificate, another has completed phase 2, two are on the first year course and in addition he has another assistant greenkeeper.

Facilities for the staff have been regarded as a priority at Shipley Beckfoot and when alterations to the club house were completed last year a new greenstaff complex was incorporated into the building.

Patrick has a small but adequate office, leading into a superb security chemical store. A tiled shower, with lockers for overalls and boots complete the section which has received high praise from the local environmental health inspectors.

## Figure 4 Costs for rebuilding

Sand	£2,033.00
Large stone	£639.00
Small stone	£319.00
Top soil	£350.00
Additional turf	£385.00
Drainage pipe	£150.00
Wooden sleepers	£320.00
(Required for supporting machinery on course)	
Hire of turf lifter	£100.00
Hire of JCB	£150.00

**Total £4,446.00**

The greenstaff have their own rest room at the end of the block with a microwave oven, refrigerator, radio, TV, dining table and chairs, a shower with hot and cold water, wash basins and toilet.

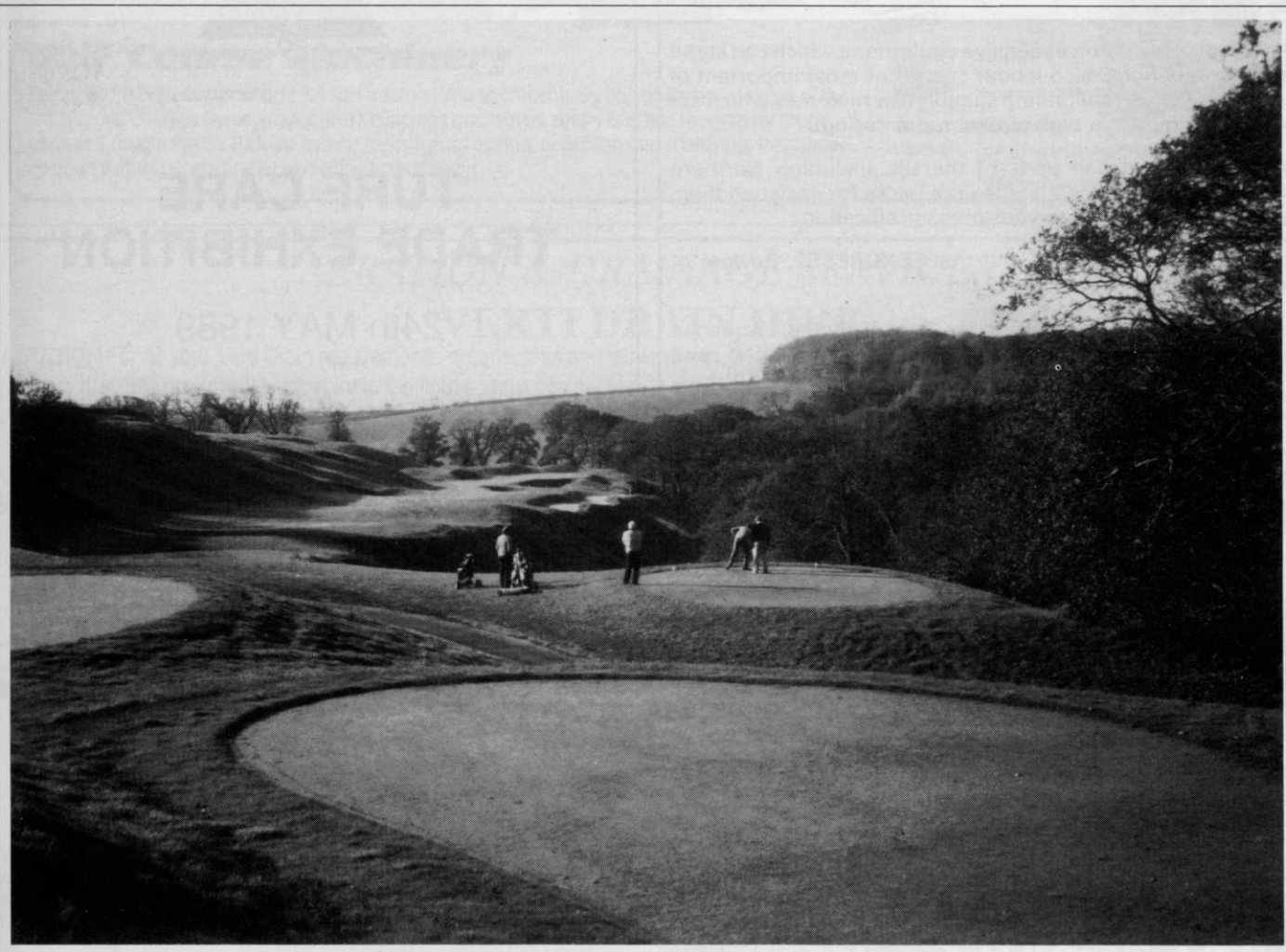
Down one side of the room there are built-in padded benches used by all of the staff who sleep on the premises on Friday nights so they are able to start work at crack of dawn on Saturday morning, cutting greens, raking bunkers putting out the tee markers and generally ensuring the course is in perfect condition for the weekend competitions.

The early start suits everyone. The course is ready for play when the first golfer arrives at 7.30am and the staff have finished their morning's work well before breakfast.

Patrick Murphy has been the Head Greenkeeper at Shipley Beckfoot Golf Club for 19 years. He moved down from Scotland to take the job in February 1970, relinquishing a similar position at West Linton Golf Club in Peebleshire.

# Courses with top pedigrees

John Campbell reports on three new Golf projects using seed imported by BSH



*There is a good choice of tee positions at every hole on the Jack Nicklaus International Course.*

**H**aving heard and read much about the Nicklaus International Course at St. Mellion, Cornwall, it was interesting to visit the complex recently to tour the layout and facilities by courtesy of Herman Bond, co-owner of the club with his brother, Martin. When I arrived there the place was a seething hive of activity in the morning sunshine, the car park full, a golf school in progress on the practice ground and an enthusiastic group of society golfers preparing to go out on the course. On a pleasant hillside location overlooking the golf scene, earthmoving machinery was busy preparing a site for building luxury homes as part of the complex - it seemed a superb setting.

Commanding views of the surrounding countryside from the

clubhouse and parts of the course are a scenic feature. Although there is a fall of 200 feet from the clubhouse to the lowest point of the course, by dint of extensive earth movement most of the fairways have been constructed on the level. The course layout has been designed to accommodate special routes for golf buggies and other traffic flow, also with big events in mind there are many natural vantage points to present ideal viewing facilities for spectators.

While the course was specially designed to offer a challenging test for professionals and low handicap players it also caters for the ordinary golfer by a choice of tee positions at each hole. The contemporary style of green design gives the course a good degree of character, the

mounds and traps around the putting areas are well balanced to provide contrast, depth perception and blend well with the surroundings. Water is also an attractive feature and good use has been made of lakes and streams to enhance the playing strategy.

British Seed Houses supplied all the grass seed for the course construction. Their A12 fairway mixture - 35 per cent Frida/Checker chewings fescue, 45 per cent Boreal creeping red fescue, 10 per cent Julia smooth stalked meadowgrass, 10 per cent Highland browntop bent, is an ideal blend of species now well established on all the fairways to make a good playing surface. It allows the ball to sit up well and is a boost to the golfers confidence for the next shot to the

## ON THE COURSE



Water is an attractive feature of the course at St Mellion.



Good use has been made of water at the 18th hole of the Johnny Miller course at Collingtree Golf & Country Club.

green.

Penncross was used on the tees and the green where it has provided a smooth resilient surface for putting. I was also impressed by the colour and density of cover achieved. The remarkable vigour and strong stoloniferous habit of this bent grass seems to keep annual

meadow grass at bay and is extremely hard wearing. It has the advantage of rapid establishment and can cope with intensive play.

Because it has such vigorous growth it has to be carefully managed, frequent scarification or verticutting is needed to reduce thatch accumulation it also requires nitro-

gen at low rates every six weeks in the form of sulphate of ammonia. It will make excellent root growth on sand greens or those constructed on a soil peat and sand mixture. Penncross has been successfully used on as many as 50 golf courses in this country.

I have also seen the new Johnny Miller course at Collingtree Golf Village, Northampton owned by International Resort Holdings. Plans for the new complex include low density housing, 180 residences, private nursing clinic and retirement homes along the fringe of the playing areas.

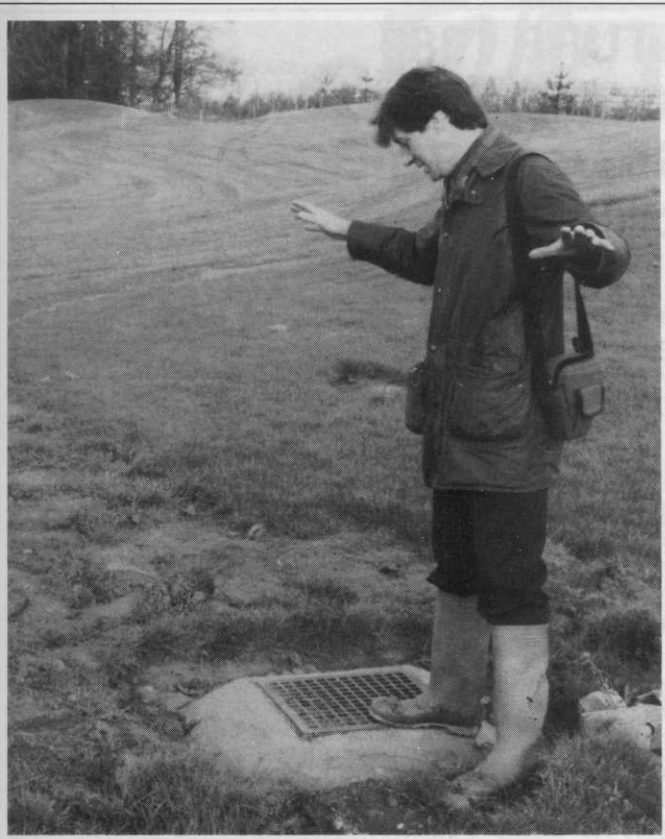
The original site for the course, a flat area of land has been skilfully transformed by earthmoving techniques to create a gently undulating landscape ideal for golf. Excavation work for lakes and swales has enabled thousands of cubic yards of soil to be moved around for the construction of mounds, greens, tees and bunkers that now look as though they had been there from time immemorial. The golf course architect has obviously considered ease and economy of course upkeep by thoughtfully providing gentle grades for machinery maintenance which will allow the work to proceed smoothly and quickly.

Peter Jones, course manager at Collingtree is full of enthusiasm for the project and working hard with his staff to get the course completed for the opening date in 1990. Their modern equipment building and staff quarters has all the facilities and is centrally situated for easy access to most parts of the course.

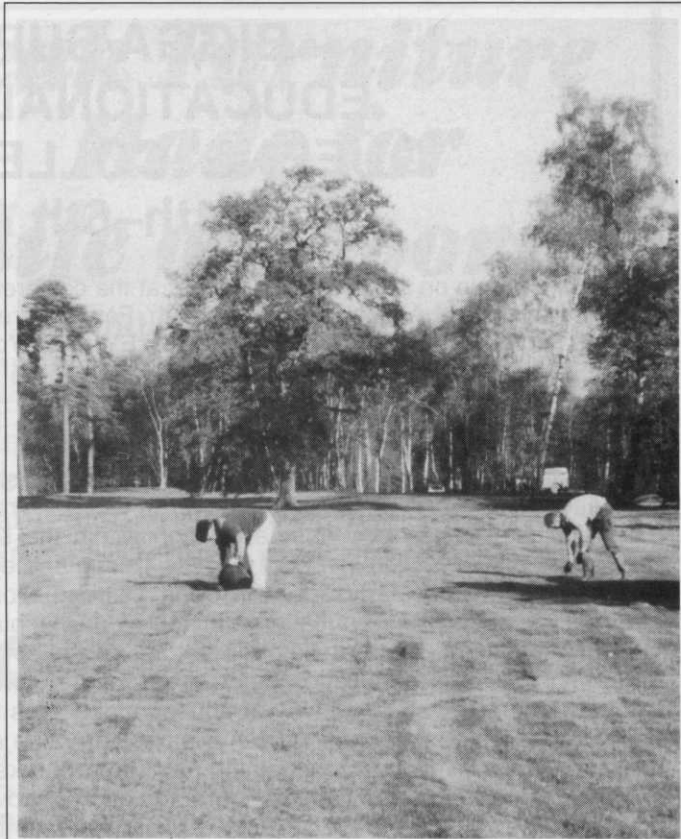
Stone paths to take golf buggies around the course are also being installed to absorb some of the wear and tear that results from this traffic movement. Storm water drains in catchment areas on the fairways are designed to discharge high volumes of water through a network of large bore pipes to adjacent lakes on the course which will also be used for irrigation.

British Seed Houses supplied all the grass seed for the 27 hole golf complex. The Penncross Bent chosen for the greens and tees has rapidly established within a short period and Peter Jones was pleased with the progress of these important surfaces. The fairway seed has also germinated satisfactorily at this stage and some fairways sown

## ON THE COURSE



Peter Jones, Course Manager at Collingtree Golf & Country Club explains how the storm water drains in the catchment areas are designed to work.



Stone picking on one of the fairways on the new South Course at Wentworth.

earlier look good enough for play already. The mixture - 20 per cent Frida chewings, 25 per cent Checker chewings, 20 per cent Boreal creeping red fescue, 10 per cent Logro slender creeping red fescue, 10 per cent Highland bent and 5 per cent Julia smooth stalked meadowgrass.

All the Surrey heathland courses are popular venues for golf enthusiasts, particularly Wentworth where the completion of the new South Course to add a third course to the complex is a significant landmark in the history of this famous Club.

This is no ordinary layout - par 72, 7,100 yards - it is planned to present a real test of championship golf amid heath, heather and tree lined surroundings - a golfer's dream. The construction work was undertaken by Golf Landscapes to a design specification by John Jacobs Associates. With the contractors work completed the important phase of grooming and getting the course ready for play is a priority for Michael Hunter, clerk of works and the greenkeeping staff who are looking forward to the task they have

ahead. It is anticipated the new course will be open for play in the spring of 1990.

The above average size greens have been laid with turf from Inturf Ltd on a sand base to a specification by the Sports Turf Research Institute. British Seed Houses A12 fairway mixture has been used on the fairways which along with the greens are already looking in good shape. The amount of growth and density of cover should provide an ideal playing surface to cope with all the wear and tear of play.

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