

Hidden depths

BY PATRICK SMARTT

ONE OR two instances that came my way when secretary to a club in the south of England, have led me to wonder how many of us know what lies below the ground we play over, and ravaged by divots.

It is possible, I would not put it higher than that, the average member knows, or cares whether the sub-soil is clay, chalk, or sandy as on a links. It has to be granted that those who play on South Down courses would know they were on chalk. From the modern tendency for lush fairways, the links might cause doubt.

On park courses, what we amateurs deem ordinary soil differs, and requires different treatment at different clubs.

There are but two people in a club who know these things—all depending, to verge on the scientific, on the pH of ground. In lay terms, that is the acid or alkali concentration in the soil. This can be measured by an indicator.

The couple are the Head Greenkeeper, and a secretary who (a) has a knowledge of the subject, (b) is permitted by the committee to run the course in conjunction with the Head man. The latter has generally graduated from the green staff. He has grown up in constant touch with the course; he can **feel** it in his bones. A good secretary can help.

The Green embraces the entire playing area, which is why the plural, Greens, is wrong. Club members are elected to the Green Committee. They come from all walks of life. Those who have well kept lawns, promptly assume they are experts. Never comparing the number of people who walk over their lawns, with those in **spiked** shoes who trample a golf putting green every day. The farmer and the agriculturist considers he understands earth and growing

from it. He does. A golf course is a different problem. For that matter, would you expect a greenkeeper to prepare a Test cricket wicket and vice versa?

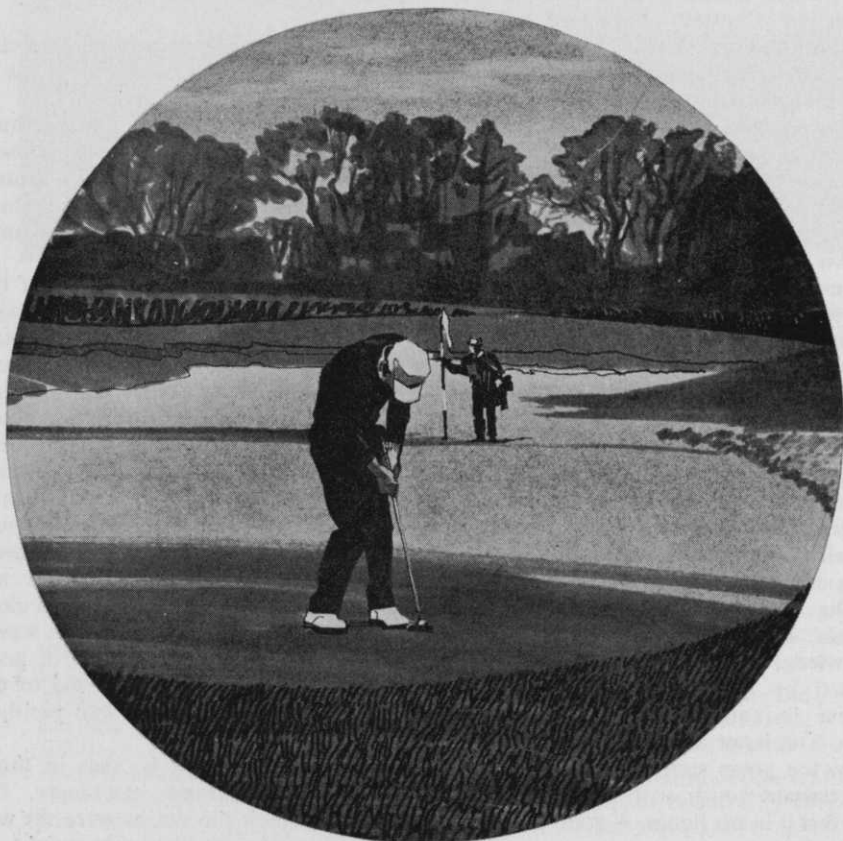
Perhaps the most frustrating is a clay base. Frustrating because clay has a habit of shifting its ground, and so altering the paths of underground streams. Here, I can claim experience. There was one hole, on a high course seldom affected by heavy rain, which ran downhill from the tee. It became, in racing terms, heavy to deep.

A course born before the turn of the century, there were no drainage maps. Those splendid men on the green-staff set about it in the customary method. Lifting sections of the turf, and rodding the spaces in between. Time and again the rod came up against an immovable object. It was herring-bone pattern, leading into the main channels. All had been laid a few inches under the surface. We lifted over 3,000 pipes, mostly askew of the line. Two reasons are presented. A wartime bomb struck close to that fairway, the ground shock-waves sufficient to jerk the pipes out of position. There is today a memorial to the Canadians, camped there, who perished on that day.

The second reason is, that in those days of horse-drawn machinery, the depth at which the drains were set was insufficient to withstand the weight of the tractors of modern times. A quantity of those pipes had to be replaced. Although there were maps of the course from its early days, none showed the draining system. One of the older members of the De Le Warr Artisan club, came to our rescue by pointing out where the original 1st green had been. It was now overgrown, but we dug and unearthed sufficient pipes to fulfil our needs.

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We never did discover the source of a stream that ran diagonally across that fairway, but one of the staff found a golf ball some four inches below the surface. It had bramble markings—that is 'pimples', for the benefit of latter-day golfers. Obviously very old, and therefore interesting. What was left of the paint was grey, and the name, in a circular form, indecipherable. I have a smooth gutta, and a moulded one of that ilk. The ball is beside me, as I write, and reference to a book: "A HISTORY OF GOLF IN BRITAIN." Plates that follow page 81, (for those interested) leave me in no doubt it is a Haskell. The first rubber-cored ball. It was imported from America in small numbers, and contributed largely to Sandy Herd's winning of the Open in 1902.

A further example of our lack of knowledge of conditions underground, came to light when a green looked unhappy. In this, it will be observed only by those close to nature. Again we had to excavate, in the hope of finding the cause. Turf after turf was laid aside, until the surface was bare. This, in the early autumn because it was essential to replace the slices of turf, and let them knit before the frosts.

Finally, after going deeper we surprised a stream. The green was sloped downhill towards the player. There was no drainage, and the water ran too fast to favour the top-soil and the growth of fine grass to putt over. Some years before, when I first saw that green there was nothing wrong with it. Another instance of the clay changing a water course.

Further afield, there is a course on which a Roman road traverses one of the fairways. So far as I know, the club has been spared from archeologists, but one wonders what other historical gems may lie below.

The most unexpected of all, is that beneath the 18th hole of a famous

Sussex links was stored the supply, and pipes leading from it, of the oil supplied to the invading armies when they crossed the channel on D. day. The name "Pluto." will revive memories to many.

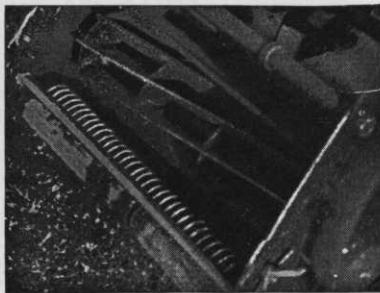
It can be argued that if a golfer plays a round, with his mind on such extraneous matters, his concentration will be poor. That may, however, ease matters for the Head Greenkeeper and the secretary. They will not be bombarded with complaints about a dandelion on the 11th, badly cut holes, and rough too long—all traceable as excuses for a poor round.

Postscript

Within two days of completing this piece I learned of one of the green staff, searching for drains under the fairway of one of two holes built about sixteen years ago, when the course was altered. This course of my home club is on clay. After a long search, and no drains, he struck rock, not clay! Which goes to show, one never knows.

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Turfgrass research

by J. Escritt, Director, Sports Turf Research Institute

Research may be defined as "careful search or enquiry after or for something" or alternatively, "endeavour to discover facts by scientific study of a subject". The word is used rather carelessly by some people who say they have carried out research if they have merely looked something up in an obvious reference book such as a dictionary!

We at Bingley do carry out a certain amount of research related to the first definition, i.e., we study reports of other people's work. Obviously in the second meaning, i.e., the scientific study of our subject. Scientific research can be of more than one kind—so-called **pure re-**

search is aimed at elucidating the facts of science and the reasons for them, whilst **applied research** is aimed at providing solutions to practical problems. As regards turf production and management, most of the research throughout the world (including our own) is obviously of the applied kind. Indeed for many years our emphasis (in keeping with the times) was on the maintenance of existing turf areas rather than on the construction of new ones.

The earliest known research on turfgrass was in the U.S.A., plot trials having commenced in Connecticut in

[Continued facing page]

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1885 and at Rhode Island in 1890. The Sports Turf Research Institute in Bingley was not set up until 1929!! In much more recent years important turfgrass research centres have been established in Western Germany and in Holland.

There is, of course, a New Zealand Institute for Turf Culture, an Australian Turfgrass Research Institute and a South African Turf Research Association.

A marked interest in turf research has now developed in Canada, Japan, Russia, Austria, France, Switzerland, Sweden and to some extent, in Denmark. By far the greatest amount of turfgrass research work has, however, been carried out in the U.S.A., where most of the research is now carried out at the Universities.

Several British Universities are now taking an active interest in some aspect or other of amenity turf, fre-

quently related to the ecology of various situations other than sports turf. In the Botany Department of Liverpool University, Professor Bradshaw has several workers concerned with turf work, an outstanding interest being reclamation of derelict land including selection of grasses suitable for land with mining waste contaminated with lead for example. The soil department of Aberystwyth University is doing very useful work on soil, on sports turf drainage and, I believe, some work on sports turf grasses.

We must not forget, of course, the contribution made by commercial research. Much of this may be of more value to the firm concerned than to users in general but this is by no means always true.

The Sports Turf Research Institute at Bingley has, however, long been

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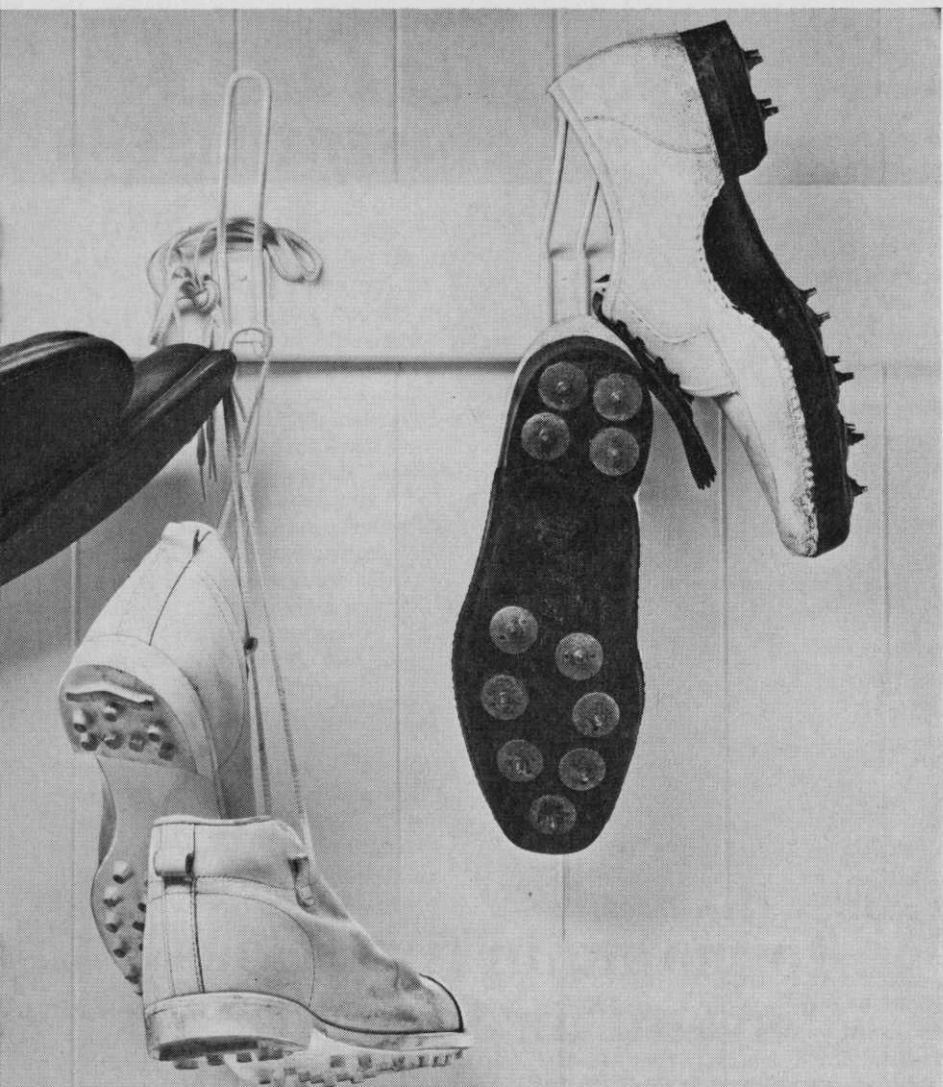
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recognised as the main centre for amenity and sports turf investigations in the British Isles.

The Institute

The Sports Turf Research Institute was started up by golf (as the Board of Greenkeeping Research) in 1929 but since 1951 it has had its present title and has been managed by a Board representing all the major sports. By far the greatest part of the income of the Institute is derived from subscriptions and fees from individual clubs, local authorities and other organisations using our advisory services. The difference between what the various organisations pay and what it costs to provide the advisory service to them has had to provide the main financial support for the research work and this is supplemented to some degree by contributions from the research fund, by some support from the Trade in general and by contributions from various firms interested in any particular research we are doing. Lack of money for research is, and always has been, a limiting factor at Bingley—it has been difficult or impossible to get people to understand the scale of expenditure required. Of this, more later.

One trouble with research is, of course, that it is never finished. When one has investigated a subject fairly fully at any given time it is not long before changing circumstances make it necessary to look into the whole thing again. I have studied past Journals and Reports of the Institute and you may be interested in a catalogue (not complete) of work that has been done. You will see that much of it needs to be repeated from time to time, not necessarily because the work was inadequate but because circumstances have changed. In this connection, of course, it has to be appreciated that the general approach

to production and maintenance of turf is much different from what it used to be. At one time people's ideas of the cost of a new playing field, for example, were tuned to the idea of a few pounds to mow down a farmer's field. Nowadays costs of up to £2,000 per acre for playing field construction are accepted as normal and an eighteen hole golf course may cost £50,000—£100,000. People are also prepared to face much higher costs on maintenance in order to achieve higher standards and make possible the increased use which extra leisure time brings about.

Most of our results have been obtained at Bingley but from time to time there have been trials at outside centres, i.e. on practical sites.

[Research trials and findings at Bingley will be described in future issues].

NEWS

ONE of the largest educational conferences and shows in the golf profession will officially open its doors on February 16, 1975 at The Rivergate in New Orleans. The Golf Course Superintendents' Association of America's (GCSAA) 46th Annual International Turfgrass Conference and Show will offer superintendents, club officials, golf professionals and any one else interested in the profession an inside view of new developments through a combination of educational assemblies and an industrial exhibition.

Although the annual activities of this golf turf management profession will actually begin February 13 in Pensacola, Florida, with the GCSAA Championship Golf Tournament, followed by Pre-Conference seminars on pesticide usage and financial management in New Orleans, February 15 and 16, the conference will officially begin on Sunday, February 16 and run through Friday, February 21.

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