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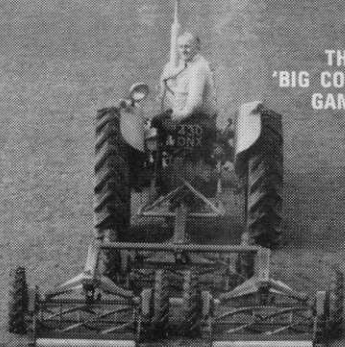
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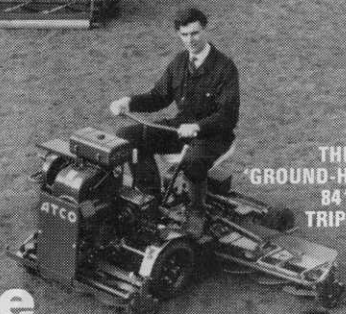
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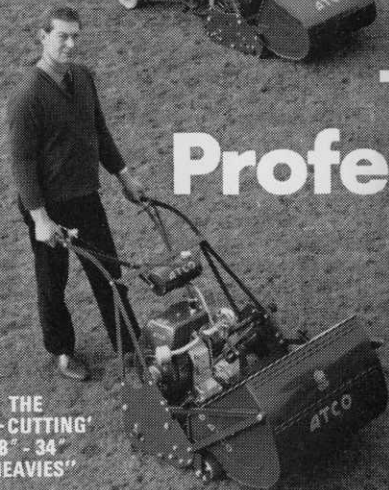


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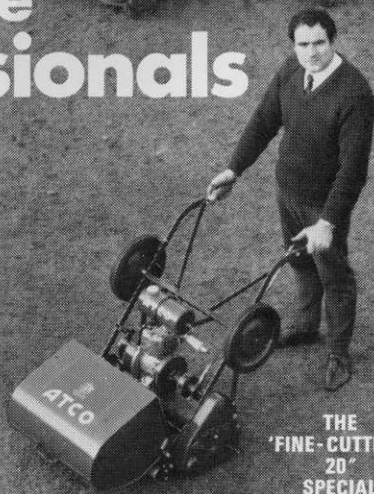


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HON. EDITOR: F. W. HAWTREE



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TEE SHOTS



by the Editor

The Balmore Golf Club near Glasgow has started debt actions against 18 members who have ignored repeated warnings to pay their annual subscriptions. The club's constitution, like many others, entitled them to recover subscriptions in the absence of proper notice of resignation but this is the first time that Balmore at least has gone to law.

* * * *

The usual processes of farmers turning their land into golf courses has been reversed in Galloway where the Newton Stewart golf course has to close because the owners are taking it back for farming purposes. The golf club hopes to acquire a site near Newton Stewart in order to continue. Farther north at Aberlour there was a modest 9-hole course before 1939 but it was ploughed up as part of the war effort. The books and funds have lain dormant in a local bank since then but last year a group of local residents reformed the club and arranged competitions on neighbouring courses and now they have plans for laying out their own course and building a clubhouse.

* * * *

A round of golf on one of the Bournemouth municipal courses will cost 75 new pence in the new currency. Although this sounds reasonable it represents a 50 per cent increase on the present charges: so that golfers do not bear the burden alone deck chairs in the gardens are going up from 6d. to 4 new pence and 4 new pence are said to be 9d.

* * * *

The Joint Council for Golf Greenkeeper Apprenticeship reports that over 170 sets of deeds have now been issued and 55 apprenticeships have been completed. The BGGGA can feel proud of its contribution towards ensuring the maintenance of its traditions and skills in the greenkeepers of the future. Several of the young men who have completed their apprenticeship have already got good jobs as assistants and we hope that in due course when they have a solid backing of experience they will be equally successful in the senior posts. One thing which still holds back many training schemes is the lack of educational facilities in some districts but generally it is possible to find some course of instruction which is closely related to this type of work.



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DRAINAGE AND SOIL

by A. LESLIE TURNER

Principal Assistant (Landscape), Kent County Estates Department

PART

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Design of Piped Subsoil Drainage

IN the costs of soft landscape works that of under-drainage can often be the most expensive single element; it must be desirable in these circumstances to be able to design within small limits and to be able to justify the costs with reference to some critical method and recognised criteria. Alas in this scientific age this is one area in which empiricism has not yet fully given way to scientific method. The design of field drainage systems is still considered more as an art than as an exact science, although there have been many attempts to give mathematical exactitude to it.

In 1934 J. L. Russell⁸ was saying "it must be concluded that the mathematical formulation of the movement of ground water to drains is of doubtful validity and that while it may have some practical application in homogeneous light soils it has none in heterogeneous or heavy soils."

In 1942 Nicholson⁴ confirmed this "because of the uncontrollable and erratic variables which influence the final result". As he said "given flat ground, a level water table, a soil uniformly permeable from surface to depth and rain falling at a steady rate it is possible to work out depth and distance apart, which will keep the water table from rising above a certain height midway between the drains".

And of course this was only a discussion of water table problems—in clay lands water tables do not exist and there is an entirely different set of variables to consider.

In more recent, 1959,⁹ American textbooks, the statement is made that "no method has been developed which is satisfactory for all areas". However, there are solutions for some specific conditions and a study of these textbooks^{3 9 11 15} and also in the few Russian translations some answers are given to enable mathematical solutions.

If you are seeking economic and/or optimum design the new textbook *Techniques of Landscape Architecture*,⁷ 1967, will not help very much. Tables of depth and distance are given there with ranges over very few soil types; for instance, "in clay—4 yards to 7 yards apart" that is 1,210 linear yards to 691 linear yards per acre, which costed at 10s. equals £605 to £345, a difference of £260 per acre. In "sand" the variation is 403 linear yards to 220 linear yards or £202 to £110 per acre, a difference of £92 per acre. Which then do you choose, and upon what basis—the upper or lower limits? Is there a landscape designer in the country who has dared to face his client with a bill for £605 per acre for lateral land drains, plus mains and outlet costs? It is clear to me that recommendations of this nature are not helpful in design as they are only based upon the roughest and vaguest classification of soil in terms of clay, sand and loam and can only lead to excessive and wasteful work.

The table in *Soil and Water Conservation*,⁹ page 324, is more helpful because it adds another dimension, namely "relative permeability" which is a much more realistic measurement than a bald description of soil type.

In this connection I would draw attention to the table in *Code of Practice 2001* which lists the "Classification and Characteristics of Soils for Roads and Airfields",² not because the classification is of much use to us as it treats soil as an engineering material, but because it shows a column of "Drainage Characteristics" of some soils under divisions of "excellent, good, fair, poor and practically impervious", and I would particularly remark on the following list:

"Practically Impervious

—Well-graded gravel with small clay content.

—Gravel sand mixtures with excess of fines.

—Well-graded sand with small clay content.

—Sands with excess of fines.

—Clayey silts (inorganic).

—Organic clays of medium plasticity.

—Highly compressible micaceous or diatomaceous soils.

—Organic clay of high plasticity.”

Consider the “range”—from “well-graded gravels, etc., gravel-sands, sands with clay, sands with fines, clayey silts, organic clays, etc.” and compare these “practically impervious” soils with the bald classifications laid down in agricultural and landscape textbooks which recommend the spacings of drains under three or four headings based upon such impossible terms as clay, loam and sand with consequential expenditure varying from £100 to £600 per acre. By far the most difficult soils to drain are the “silts” and these are not distinguished sufficiently in *Techniques of Landscape Architecture*.

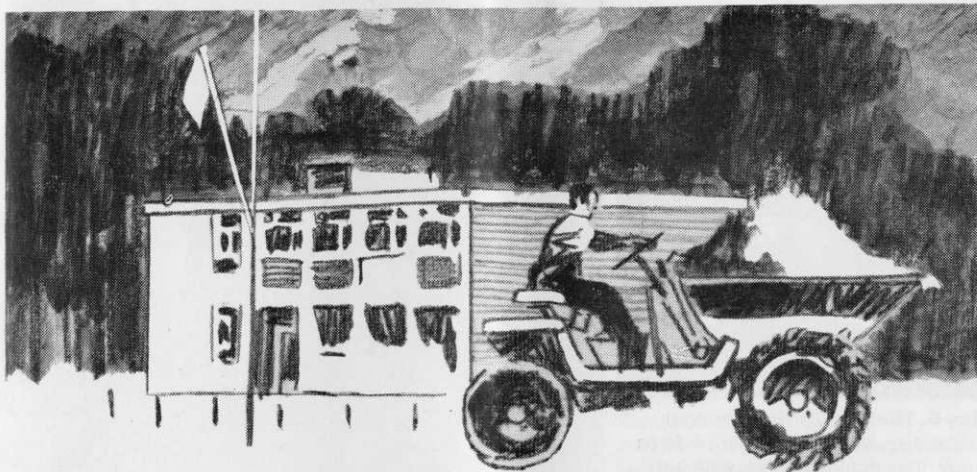
Such empirical tables are no substitute in drainage design for carrying through a

series of in situ investigations before making decisions as to depth and spacing

—firstly with the geological and soil maps available; secondly looking at a profile of the soil to identify its general drainage characteristics by cracks, colours and depth of roots; thirdly assessing permeability if necessary by laboratory tests; fourthly comparing the soil profile with some other known soil which has been drained (the Ministry of Agriculture’s drainage officers can often assist here); fifthly by finding out if the land has been previously drained and what has happened to them; sixthly finding out what is actually causing the condition of impeded or unsatisfactory drainage.

I must quote a remark made by R. A. Walpole (Drainage Officer for Yorkshire) who in a discussion at Askham Bryan Agricultural College in 1966 said: “For many years we have been aware of the main problem confronting us in the

(contd. on p. 12)



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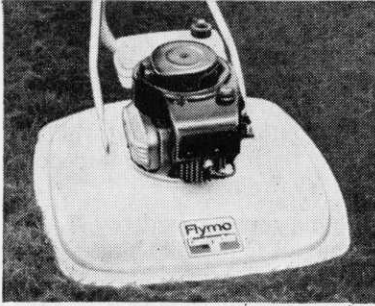
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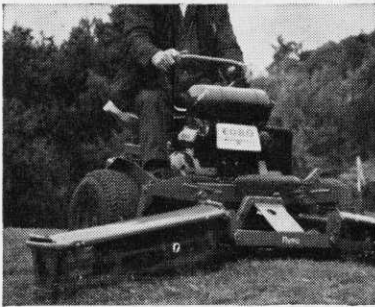
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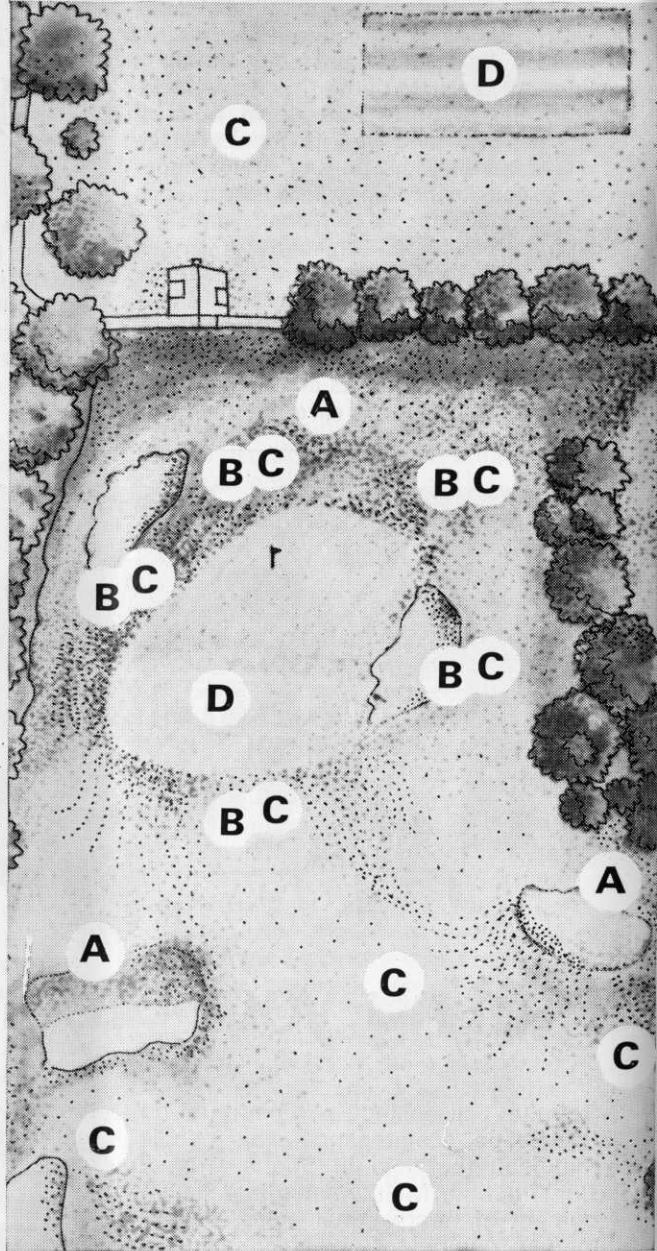


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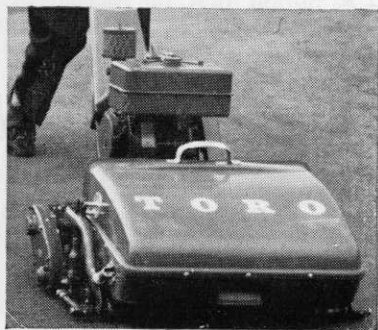
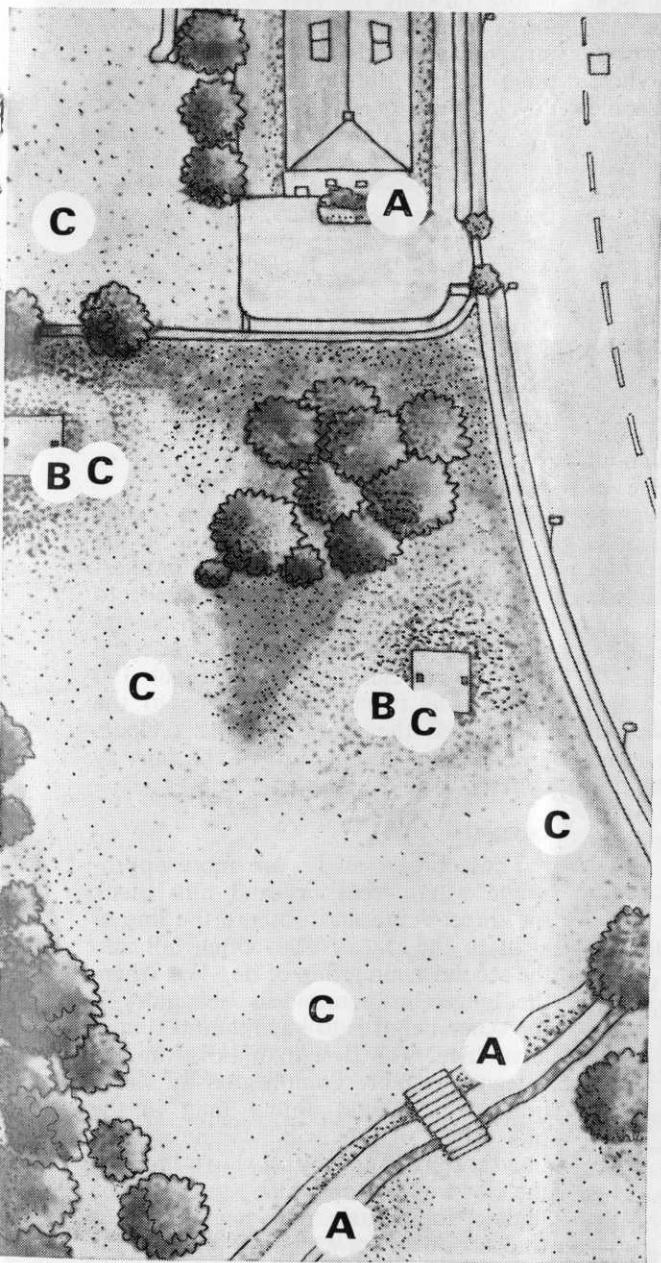
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EIGHTEEN HOLES WITH HAWTREE

NO 5 — THE DOG-LEG

by FRED HAWTREE

AT the 2nd hole we touched on the notion that the design of a hole undistinguished by special features will generally contain an element of "dog-leggedness" if the isolated shots required in playing it are to become related to each other and involve forward thinking. This forward thinking is fundamental to the highest skill in any sport and to human nature itself. It demands understanding of oneself, of one's abilities, of the problem to be met, and of the probable response by opposition. The best results then come from a compromise between brain and force and give twice the satisfaction gained from either element alone.

In the simplest form of dog-leg, this problem is put to the golfer without guile and if it has the advantage of being set by a strong natural feature we are on the way to a very good hole. This is the hole where, on the tee, you are invited to "bite off what you can chew". This can be done on flat ground if the extent of the danger to be carried is defined in three dimensions and there is prior knowledge or some indication of the outline of the hole. But it is more attractive when the tee looks down on the hole, as on a plan, so that the full trajectory and ultimate fate of the ball can be observed with pride or horror.

Angles?

The degree to which the hole is dog-legged round the obstacle will clearly vary the extent of carry feasible for any individual golfer. It will be at its maximum when the hole turns a right angle. But that angle can be used, if at all, only with great discretion. Unless the obstacle can be carried, there can be an element of potential silliness in a 90-degree turn. A good drive up the first part of the leg can be going farther from the green after it reaches the turning point—a bad one may have to be

followed by a chip shot up to the corner before tackling the rest of the hole. If the triangle between tee, green and turning point contains "out of bounds", there is the further risk of housing development or some other change of use involving danger to people outside the course. Then, however good the hole may be and however long it was there before your neighbours, the law will require you to change it.

Freak

Even when the contained triangle is open and free of all obstructions or legal tangles, the maximum dog-leg is still to be resisted; it risks becoming a freak unless it contains lake, beach, river or some obvious impediment to planning it any other way.

These comments apply in some measure to greater angles. But if the dog-leg principle is applicable in bunkering at straight holes, it is difficult to determine how big the angle can be and the hole remain a dog-leg. For practical purposes it can be set at about 150 degrees—at twenty-five past or to the hour when the green is at 12 o'clock. Even then a lateral shift of the fairway could virtually straighten it up.

Longest Way

These bigger angles are more appropriate where trees or sand hills block the direct route and obscure the line of sight to the target. They often fall into the second main group of dog-legs where the longest way round is obligatory if the second shot is to have the maximum advantage. The design of holes in this category is more complicated by variation in individual ability than in the first group. If you will imagine a davit like those used to hoist a ship's lifeboat, the curve at the top which represents the limit of the feature to be negotiated has to describe an arc which will obscure the

(contd. on p. 10)

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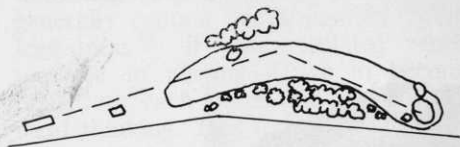
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(contd. from p. 8)

green from one side or even the centre of the fairway up to a given distance. The sharper the curve, the longer must be the drive to open up the green on a given line. Those unable to hit the ball so far must play farther and farther to one side the shorter their drive. It is



THE PERFECT HOLE?

No. 14 Royal Salisbury, Rhodesia

possible, therefore, that this type of hole may be better reserved for the longer lengths where the player unable to open up the green would, for the same reason, have been unable to reach it in two shots. If the theme is used at short par-4 dog-legs, the obstacle should not obscure the green but present the type of problem set on the tee in the first group of dog-legs—in other words, the optional carry.

The dog-leg formula is therefore very flexible, though mistakes are sometimes made where no proper basis for the dog-leg exists naturally. Sharp turns on flat featureless land are to be avoided, though some degree of angling holes will relieve layout monotony. It will also enable the ground to be more fully used, thus gaining length on small sites.

Danger

The general feeling is probably that a carry or sailing close to danger on the inside of the angle is the more agreeable. This is the side where forethought and ability, as we saw earlier, are likely to produce the richest satisfaction—where the penalty for over-reaching ability will lead to self criticism rather than condemnation of the design of the hole.

There is a right-to-left dog-leg at Mougins which if I remember aright comes about No. 16 where a spoon from the tee (for my type of golf at

least) sends the ball over a tall pine tree in the angle to reach a point considerably beyond that to which a drive with a lower trajectory could safely be aimed. This refinement, the choice of a shorter club to get farther, offers further subtle variations on the straightforward theme.

On the other hand, Mr Bobby Locke puts the 4th at Royal Salisbury Golf Club in his list of the best 18 holes in the world. Here the best line is round the outside of the curve. The hole is 495 yards long and its quality seems to reside only in the fact that its curve is exactly right. My own first impression of it was one of excitement and I have tried twice to work out the reason. It can only be that the trees along the right of the fairway follow a curve with a radius of approximately 365 yards. As there is no special contour interest, I can only conclude that here at last we have a simple formula for making a great hole. If only it were always as easy at that.

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(contd. from p. 5)

design of land drainage schemes; this is basically the lack of comprehensive investigations into design of schemes, their relation to results, and the degree of control of water obtained. There is a dire need for some standard pattern based upon statistical results."

I can see some light being shed on this subject in the not too distant future. Many soil researchers have been looking critically at what is called "the permeability" of the soil—using the term qualitatively "to represent the quality or state of a porous medium related to the readiness with which it conducts or transmits fluids". This can be measured by what is called "hydraulic conductivity" which is usually stated in cm./sec., in./hr. or ft./24hr. and which is abbreviated to "k" in much the same way as acidity or alkalinity can be indicated by "pH".

My studies of the literature of this has led me to the tentative conclusion that there is some hope in this direction. In 1954 Visser in the Netherlands proposed mathematical solutions for homogeneous soils using "hydraulic conductivity" as the basic measurement, and he produced some formulae for it. Others, notably O'Neal, Smith and Browning,¹⁰ have produced tables. And Luthin¹¹ in the latest American textbook 1965, *Drainage Engineering*, says "It is now possible to design drainage systems based upon measurable soil properties".

Mains and Outlets

It will not be necessary to spend so much time on the references to the design of mains and outfalls because the practices are well documented and mathematical solutions are well tried. CP 301 and 303¹² give formulae for rainfall and run-off and guides as to the factors to be taken into account in "areas of buildings, roads, paths and parks, gardens, lawns and wooded areas". Refinements can be found in Road Research Technical Paper No. 55¹³ which also lists many references.

For areas entirely soft landscape a good guide to sizes of outfalls and mains can be obtained from the table in "Land Drainage Notes No. 3"¹⁴ of the Ministry of Agriculture. Although here you will have to make decision as to the selection of the "Coefficient" or the amount of

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For some information as to the design of soakaways and boreholes there are some notes in "An outline of Field Drainage with special reference to the Drainage of Sports Fields",¹⁹ which I wrote for the N.A.G. in 1960.

Some Notes on Soil Types

I have mentioned above some of the pitfalls in designing inherent in the crude classifications of soils—which it would be well for landscape designers to be aware of. No study of this aspect would be complete without some reference to the sources of information on soil physical features. One of the simplest and in my opinion best books is *Good Soil* by

(contd. on p. 18)

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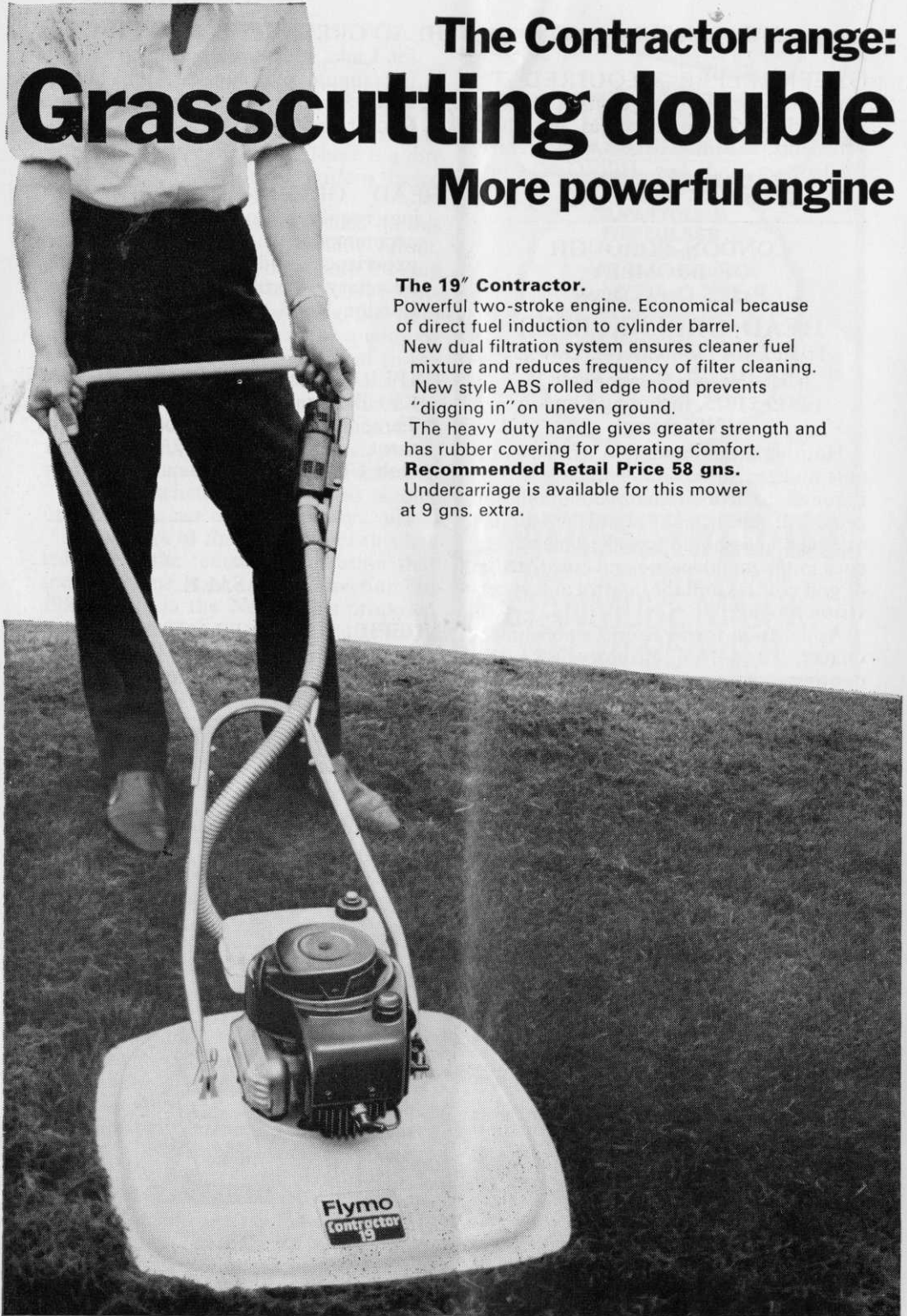
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THOSE WHO SERVE

Number two in the series of Profiles by Brigadier C. W. Morton, M.C.



FRANCIS GORDON SMITH
late of the S.T.R.I., Bingley

Frank Smith first became a greenkeeper in 1913 at Cruden Bay Golf Club. But the First World War broke out in 1914, and Mr Smith joined the Hawke Battalion of the 63rd Royal Naval Division, serving on both the Western and the Eastern Fronts. In 1919, he returned to Cruden Bay Golf Club as their head greenkeeper where he remained for 14 years. He later went to the Wilmslow Golf Club, Cheshire, for five years as head greenkeeper. Finally, he spent 26 years at the Sports Turf Research Institute, Bingley, as a ground superintendent until he retired in 1964, after completing 46 years' total service in greenkeeping. During his service, he attended a course of instruction after the First World War, at Walton Heath—that lasted three months. He is now aged 74 and if it had not been for his war service, he would have probably completed 51 years greenkeeping service. A fine record of service. Our greenkeepers not only live to a ripe old age but also work to a ripe old age. It must be the

open air life. Whatever it is, congratulations Mr Smith.

THOMAS ARTHUR HULLAH
late of Leeds Golf Club

Thomas first became a greenkeeper in 1921 at the Leeds Golf Club, where he has been up to the date of his retirement in 1966—a total of 46 years' service, all at one club. He became a head greenkeeper in 1955. He attended a Greenkeeping Course of Instruction at the Sports Turf Research Institute, Bingley, in 1957. He was a member of the Northern Section of the British Golf Greenkeepers' Association. Later he served on the section's committee for a number of years, became vice-chairman for three years, and finally chairman for a further four years. On his



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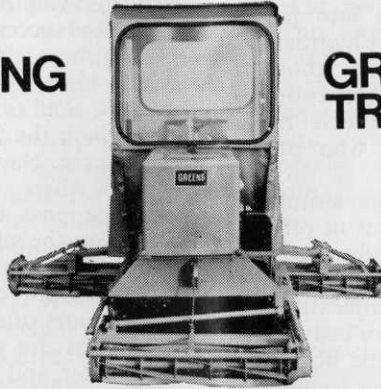
retirement, after completing his 46 years' service at the Leeds Golf Club, the club committee organised a special Open Competition for his benefit one Sunday. There was a record entry. On its conclusion, the president of the club presented him with a cheque (he does not tell us how much) and the club vice-president presented him with a clock and watch. The above photograph shows the presentation and his proud wife. Altogether a fine record of steady, loyal service to one golf club throughout his lifetime career of greenkeeping. Congratulations, Mr Hullah. We hope you are enjoying a well-earned retirement. Still young at 68!

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(contd. from p. 12)

Brade-Birks. He reminds us that classification can be made in soil series (general) soil types (species) and soil phases (varieties) and also that for the general purpose of recognition of texture he lists 18 classes. We need now a further classification of these phases into permeability classes with figures for hydraulic conductivity. As I mentioned above, engineers have already attempted this, but their general classification is not altogether helpful for those who deal with soil as a living material.

"It may be objected that such a multiplicity would be confusing, but in other sciences no one attempts to reduce complexity by calling two substances by the same name to reduce the complexity of the diversity. In entomology, for instance, there are 3,000 species of beetle but not one would suggest that in order to avoid confusion in speaking of them, three or four species should be combined and called by the same name."¹⁵

Proper Description

One of the most important hurdles yet to be overcome in the sphere of field drainage design is the inability of those who talk about their soil, to properly describe it so that accurate comparisons can be made of the effects of various techniques. There is, for example, a general impression that permeability progresses from good to bad as one goes from coarse sand, to fine sand, to very fine sand, to loamy sandy loam, sandy loam, loam, to silty loam, silt loam, silty clay loam, clay loam, clay; this is just not so and I showed above how engineers have shown that the characteristic known as "practically impervious" relates sometimes to "well-graded sand with small clay content", "sands with excess of fines", "clayey silts", "organic clays", etc. In my experience the worst soils in Kent to drain for sportsground purposes are not the clays at all, but the silts. Indeed one of the most intractable of all is miscalled by the geologists "Tunbridge Wells Sand" (part of the Divisions of the Hastings Beds), in which the silt fraction is of the order of 65 per cent., and clay 20 per cent.—it is by Brade-Birks' scale a silty clay loam, with a permeability of 10⁻⁷ cm./sec., which

borders on the "practically impervious" range.

A further factor also intervenes to confuse the issue in drainage design criteria for such a soil. It is well known that certain clays, which Nicholson⁴ lists, some of the Boulder, London, Gault, Kimeridge, Ampthill, Oxford, Weald, etc., can be successfully mole drained especially where the textures lie in the regions of 45 per cent. clay and less than 20 per cent. sand (and even some success is likely where the fractions are between 35-45 per cent. clay and 20-45 per cent. sand). Now where such clays can be mole drained the cost of the operations is very low, but the silts cannot be so mole drained at all and the costs of tile draining them are highest of all because piped drains are most often essential and what is worse, silts are easily transported by running water and the life of the piped system is often short.

I am supported in my thesis here by a comment by E. Crompton of Kings College, Newcastle on Tyne. He says,¹⁷ "In the matter of soil physical properties clays are not the most difficult. Soils with a high proportion of silt can be much worse; the small hard particles, often platy in character, can pack closely together leaving only very small spaces. A small amount of clay may be sufficient to bind the particles very tightly when dry and may effectively prevent aeration when wet. The most striking example of this problem can be seen in the Dombes region of France where a soil with almost 70 per cent. silt and only 13 per cent. clay appears to have defeated all attempts at orthodox management—it is cropped for a year or two and then flooded for use as a fish pond, after which another year or two of cropping is possible in the residues on the lake floor."

The point I am making I hope is that in the present state of our knowledge some silts cannot be successfully drained and we should not pretend to do so.

In this connection see pages 355-356 of Russel's *Soil Conditions and Plant Growth* for a description of silty soils which cannot be said to possess a "field capacity".

Materials and Mechanisation

If we have sufficient time I will con-

clude my talk by a reference to the strides which have been taken in new material and machines recently. Here the developments are tangible. In the last five to seven years we have seen a number of new pipes made of p.v.c. plastics, pitch and bituminous fibre, and so on. Early hopes that these might drastically reduce prices of finished work have not been realised, but they have helped to stabilise. Prices for drainage work have not risen very much in recent years.

The new pipes have many advantages mainly on account of their light weight and ease of handling and laying; additionally they are useful in difficult ground conditions such as running sand and peat, because they are made in long lengths of between 20 ft. and 660 ft.; they are as little as 1/30th of the weight of clay tiles.

Some of these pipes are:

(i) 2 in. and 4 in. "Lamflex" of p.v.c.; 660 ft. of 2 in. weighs 84 lb., and can be laid by a modified mole plough and D7 tractor.

(ii) 2 in. "Carag" of polythene in 20 ft. lengths—less than 4 lb. weight per length; also in 3½ in. size. Can be laid like tile.

(iii) 2 in. "Landcoil" of polythene in 660 ft. lengths weighing 1½ cwt. per coil. Needs special machinery to lay it. Also available in 2¼ in. size.

In considering design of schemes with these pipes, reference should be made to the *Notes and Codes of Practice* issued by the Ministry of Agriculture Land Drainage Division,²⁰ which lists permissible lengths of laterals, methods of laying, materials for gravel envelopes and so on. In my opinion the days of the clay tile are numbered.

In the sphere of mechanisation the development of such new machines as the latest Allen heavy Drainer costing £6,000 reaching a speed of 40 ft./min. (half a mile an hour) with automatic placing and laying drains down to 54 in. Such machines are specialist contractors' tools, and when used with hopper feeding for gravel backfill and envelopes, new light pipes and trained men, costs will be kept level for some time to come.

In the lighter machines for small schemes and for maintenance such implements as the "Ditch Witch", "Trench Devil" and less exotic-named

Davis T66, cutting about 10 ft./min. are most economic. The great advantage of these machines is their ability to cut narrow trenches for the new narrower pipes and so show considerable savings on labour and more particularly when gravel backfill is used, trenches of 3 in. to 4 in. give substantial economies.

The introduction of the McConnell-Thornton-Garnett pipe feeding mole-plough may revolutionise under-drainage of new and established sports fields in the future, when the principles can be properly evaluated and ancillary gravel feeding equipment can be brought into use.

Reference to Textbooks and Papers referred to in the Text:

The second and concluding part of a talk given to the Architectural Association for Advanced Studies in Environment, May, 1968.

¹⁰ "Relation between Soil and Water," ed. T. J. Marshall, *Technical Communication No. 50*, Commonwealth Bureau of Soils.

¹¹ *Drainage Engineering*, ed. J. N. Luthin—American Society of Agronomy.

¹² *British Standard Codes of Practice Nos. 301 and 303.*

¹³ "The Design of Urban Sewer Systems," Road Research Technical Paper No. 55, H.M.S.O.

¹⁴ "Monograph of Discharge Curves for Drain Tile", Ministry of Agriculture, Fisheries and Food.

¹⁵ *Principles of Underdrainage Design in the Belorussian SSR*, pub. American Natural Science Foundation.

¹⁶ *Good Soil*, S. Graham Brade-Birks, Hodder & Stoughton.

¹⁷ "Problems of Assessing Soil Structure", E. Crompton, Kings College, Newcastle on Tyne: paper read by British Grassland Society, Dec. 1960.

¹⁸ "Recent Developments in the Techniques of Land Drainage", Paper by R. A. Walpole to 7th Askham Bryan Horticultural Technical Conference, E.F.P.P.

¹⁹ *An Outline of Field Drainage with special reference to the Drainage of Sports Fields*, A. L. Turner, pub. by National Association of Grounds men, 1960.

²⁰ "Ministry of Agriculture—Technical Paper No. 209" and "Notes for the guidance of applicants for grants for Field Drainage," etc.

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News



from the Sections

NORTH-EAST

By D. Earsman

Chairman:
J. SIMPSON
(Ponteland G.C.)

Hon. Secretary:
1 Chesterhill,
Cramlington,
Northumberland.

Spring Tournament

OUR SPRING COMPETITION WILL BE held on Thursday, 24th April, at the Ravensworth Golf Club, with the kind permission of the captain and committee.

This will be an 18-hole Medal event, commencing at 12.30 p.m.

Here is a letter which I received from the wife of our old friend, Tom Auld, who was chairman of our section for many years. Tom does not get out much now and is unable to come to our meetings, but we never forget the work he has done for the section.

Dear Mr Earsman,

On behalf of Tom and myself, I would like to thank you and all the members of the North-East Section of the British Golf Greenkeepers Association for the kind gift which we received. Tom wishes to be remembered to all, and he asked me to convey his gratitude and best wishes.

Yours sincerely,

L. AULD.

New Member

We would like to welcome to this section Mr Henry Brown, Class A, of Newbiggin Golf Club.

NORTHERN

By J. Parker

Chairman:
A. ROBERTSHAW

Hon. Secretary:
8 Goit Stock Terr., Harden,
Bingley, Yorks.

February Lecture

THIS WAS HELD IN THE CLUBHOUSE of the Horsforth Golf Club on Wednesday, 26th February, when 35 members attended. The speaker was Mr D. J. Joss, of the Sports Turf Research Institute, who took for his subject "Construction Work" which was illustrated with slides. He went through the whole processes done to various areas in the making of a new course and the many snags that have to be overcome. Members found this most interesting and ably put over. Many questions were fired at the speaker who capably replied. A vote of thanks was proposed by our chairman, Mr G. Robertshaw, and heartily endorsed by members for a most interesting talk.

Mr G. Farmery

After 43 years' service on the staff of Bessacarr Golf Club, Doncaster, George Farmery recently retired. I am sure all members will join me in wishing him a long and happy retirement.

Handicaps

The following adjustments of handicaps have been made:—

E. Paley 14 to 12, A. Robertshaw 11 to 9, G. Bennison 11 to 9, M. Barrett 10 to 9, D. Spurden 16 to 14, W. Wilkinson 17 to 15, K. Young 16 to 14 and F. Cox 18 to 20.

New Members

We welcome to the section the following new members: B. Richardson, 42 Morrison Drive, Rossington, Doncaster (Bessacarr Golf Club); and J. Woodford, 118 Halifax Road, Odsal, Bradford (West Bowling Golf Club).

Mrs W. Paley

It is with deep regret that I inform members of the death of Mrs Walter Paley, wife of one of our oldest members. I have written to Walter expressing our condolences at his sad loss.

MISCELLANEOUS

PROFESSIONALS AND GREENKEEPERS having stocks of used golf balls contact Sparkbrook Golf Ball Co., 295 Highgate Road, Stoney Lane, Birmingham, with a view to filling export orders.

EAST MIDLAND

By S. Fretter

Hon. Secretary:

4 Queens Drive,
Leicester Forest East,
Leicester.

Chairman:
G. ARNOLD

Annual Spring Tournament

THE ANNUAL SPRING TOURNAMENT is being held at the Kettering Golf Club on Wednesday, 14th May 1969. First tee 12.45 p.m. Will members wishing to play and have a meal please let me know by the 7th May 1969.

New Members

We wish to welcome to this section R. F. Kempster and F. A. Kempster of Glen Gorse Golf Club.

Will all head greenkeepers please notify me when any of their staff leave, as this will be a great help to myself and Head Office.

MIDLAND

By R. Goodwin

Hon. Secretary:

167 Birmingham Road,
Lichfield, Staffs.

Chairman:
G. HART
(Gay Hill)

Spring Tournament

WILL ALL MEMBERS WISHING TO play in the Spring Tournament at the Coventry Golf Club, Finham Park, on Wednesday, 7th May, please send me their names by Friday, 25th April.

President's Match

The annual match at Handsworth Golf Club, against the President's Team, will be on the 26th June 1969.

SOUTHERN

By F. W. Ford

Hon. Secretary:

68 Salcombe Gardens
Mill Hill, N.W.7
Tel: 01-959 2847

Chairman:
J. K. GLASS
(Thorpe Hall)

March Lecture

THE SOUTHERN SECTION SHOWED their appreciation of W. H. Bartle's last visit by turning up in larger numbers than ever to hear him talk on "Greenkeeping in General". Over 60 members managed to squeeze into the Stirling

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Castle, a considerable number of them being from the younger end, which is always most encouraging. Directed mainly at the younger members Mr Bartle's talk began with a good head greenkeeper's requirements and then he proceeded on subjects generally from tee to green. Referring to the problem of winter play on golf greens and tees he said that he believed the day would come when there would be a course within a course. Another point he made regarding tees was that they should have an area of at least 300 sq. yds. and that by doubling the width the usable surface could be almost trebled. During question time a certain writer in *Golf Illustrated* came under the hammer; too much solid tines spiking of greens cannot be done, soil samples should be sent to the Research Station every third year and automatic sprinklers can encourage over-watering. Several members had to leave to catch trains but Mr Bartle kindly consented to continue answering questions. The meeting finally closed at 8.30 p.m. with a vote of thanks to the speaker.

Spring Tournament

A new cup has been presented to the section by our president, J. Wallis-Arthur. He will present the President's Cup each year for the best combined score of the spring and autumn tournaments. Please note that the closing date for the spring tournament will be Monday, 21st April, and also that no entries will be accepted from members who are in arrears with their subscriptions (Rule 7 (c)).

Visit to Atcos

A coach will be laid on for members wishing to visit the Atcos Works at Birmingham on Thursday, 25th September. On arrival there will be a tour of the works followed by lunch. If weather permits this will be followed by a field demonstration of machines in the afternoon, leaving plenty of time for discussion. These trips in the past have proved most interesting and enjoyable so please let me know those wishing to take advantage of the opportunity. This will enable me to get cracking with the final arrangements.

Match in October

The Southern Section Greenkeepers versus Southern Section Secretaries 12-a-side match will be on Wednesday, 15th October, at Beaconsfield Golf Club. Members wishing to be included in the team please let me know together with the name of club and handicap.

New Member

We welcome Brian Piggott of Henley Golf Club to the section.

Subscriptions

May I remind members that subscriptions for 1969-70 are due on 1st May, and I would appreciate your cheques or postal orders at your earliest convenience.

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Annual Draw

The Annual Draw tickets will soon be in my hands again and I hope you will all help to ensure the financial success of the draw by selling the four books which I will be sending to each member and returning the counterfoils to me. I would also appreciate the return of the books if you cannot sell to enable me to send to members who require more.

Thank you.

Annual Dinner

The Annual Dinner at Finchley Golf Club was once again a great success with 84 members and guests sitting down to an excellent meal. The seating room was a little on the tight side but the cheerfulness, helpfulness and friendliness of all the staff more than made up for this. Our president, Mr J. Wallis-Arthur, read out apologies for absence from Mr Carl Bretherton, president of the B.G.G.A. and Mr F. W. Hawtree, editor of the B.G.G. Journal, and then presented the prizes for the afternoon's golf. Despite the weather and a misunderstanding with some of the would-be golfers, there was an entry of 30 competitors. First prize was won by Tony Moore (Finchley) and David Page (South Herts) with 47 points. The runners-up with 40 points were Mr R. H. Davies and Stan Kilby (South Herts). A very grateful thanks to John Field for collecting and organising the sweep money

etc. Mr M. Abbey, captain of the Finchley Golf Club, proposed the toast to the Association and told some very amusing stories to get everyone in the right mood and in this he succeeded admirably. The reply came from Mr G. Herrington, chairman of the B.G.G.A. who, after apologising for being late due to the bad weather conditions and the dimness of the local inhabitants of Finchley, talked about the apprenticeship scheme. "The Guests" this year was proposed by David Craig who welcomed them and mentioned some by name by way of introduction to the assembly. The captain and secretary of the London Golf Captains, Mr McGregor and Mr John Fisher, captain of the Essex Golf Captains Mr Benton, the captain and chairman of the Finchley Golf Club, Mr M. Abbey and Mr Cranshaw, the secretary of the B.G.G.A. Mr Dix, Dai Rees, Tony Moore, Bill and Tom Mason. On behalf of the guests Dai Rees replied saying how much he had enjoyed the day and being among the Southern Section at their Annual Dinner and hoped it would be a forerunner to many more such invitations. In concluding the dinner Mr J Wallis-Arthur said he hoped we would all meet again in the bar and thanked everyone who had helped to make the event such a success.

NORTH-WEST

By H. M. Walsh

Chairman:
O. P. JONES

Hon. Secretary:
78 Hadfield Street,
Oldham, Lancs.

Lectures

OUR THANKS TO MR WHYATT OF Messrs Pattison & Co. Ltd. for the very interesting talk which he gave on "Equipment and Requisites for Golf Courses", also for the refreshments provided by the company. This talk was the last in the present series of winter lectures and it was perhaps fitting that we should have had a very good attendance — in fact the best turnout of the series. Thank you, gentlemen. I would like to thank, on behalf of the members, all the speakers who gave their valuable time etc to come and speak to us, in some cases in really vile weather.

Spring Meeting

This as stated in previous journals will take place on Tuesday, 13th May at the Southport and Ainsdale Golf Club, teeing off from 9 a.m. All members are allowed to bring one visitor. Visitors competition will be over 18 holes in the afternoon. Members competition will be 27 holes, 9 in the morning and 18 in the afternoon, followed by the A.G.M. I must stress over again that it is important that you inform me if you are intending to be present so that the catering arrangements can be made before the event.

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Salad Dressing to Store

1 tin of condensed milk, 3 hard-boiled eggs, 1 tablespoonful of oil, salt, mustard, pepper, 1 small teacupful of vinegar.

With the seasonings, place the three hard-boiled eggs in a basin, pound with a wooden spoon until the mixture is very smooth; add the oil and vinegar slowly, mixing well; stir in the condensed milk last. Pour into a glass jar and cork tightly. When required for use add sufficient water to make the required consistency.

Mayonnaise

1½ cups of milk, ½ cup of vinegar, 2 oz. butter, 1 tablespoonful of cornflour, 2

tablespoonfuls of sugar, 1 level teaspoonful of salt, 2 teaspoonfuls mustard.

Mix all dry ingredients; add milk gradually, and butter. Stir over a low heat; add vinegar when the mixture is hot. This may curdle, but keep stirring and it will be smooth when it boils. Bottle immediately in warm jars.

Tartare Sauce

¼ pint of mayonnaise, 1 level dessertspoonful of olives, 1 dessertspoonful of white cocktail onions, 1 level dessertspoonful of capers, teaspoonful of parsley.

Mince the parsley, capers, onions (I use spring onions when they are in season), olives; mix well with the ¼ pint of mayonnaise.

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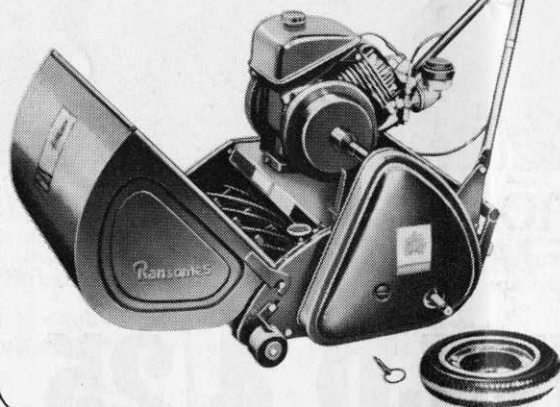
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