FEBRUARY 1971 1/-

> The British Golf



Greenkeeper





The '73" cut' Junior Motor Triple is the latest addition to the Ransomes family of power-driven gang mowers. A compact weather-beater with ample power where you want it – at the cutting cylinders.

Low cost, high work-rate performance with a minimum of operator fatigue will appeal to any Authority responsible for the maintenance of small or medium grass areas.

Power driven cylinders take the 'drag' out of mowing. Wet or dry, you can go gang mowing.

Keep a step ahead with Ransomes, pioneers of power-driven gang mowing

Ransomes Sims & Jefferies Ltd., Ipswich

Car type steerin Easy-to-reach

Cutters may be raised or lowered into work while moving.

All 3 curters

RANSOMES





The NEW ten-bladed 20" HAYTER AMBASSADOR PROFESSIONAL, giving 145 cuts per yard, now brings a quality mower at an attractive price to meet the requirements of parks and sportsgrounds.



FEATURES

- · Quietness of operation
- Hand or power driven mowing independent cylinder operation
- Single screw controls cuttingheight adjustment
- Simple adjustment of cutting cylinder
- Fine adjustment front roller levelling

HAYTERS LIMITED, 53, Spellbrook, Bishop's Stortford, Herts. Telephone: Sawbridgeworth 3444.

SPECIFICATION

The 20-inch cylinder has ten blades, giving 145 cuts per yard.

Height selection variable from $\frac{1}{8}$ " to $\frac{5}{8}$ ". Bed knife 7/64" thick.

Front roller levelling is achieved by individual fine adjustment on each side of the roller.

Hand clutch operates drive rollers; independent lever operates clutch to cylinder.

The Villiers F.12. engine of 119 c.c. develops 2.3 h.p. at 3,600 r.p.m. Fuel tank capacity is four pints, allowing approximately $3\frac{1}{2}$ hours work. Two easy-to-attach transport wheels are provided.



Hayter

THE BRITISH GOLF

GREENKEEPER

HON, EDITOR: F. W. HAWTREE



FOUNDED 1912

PUBLISHED MONTHLY FOR THE BENEFIT OF GREENKEEPERS, GREENKEEPING AND THE GAME OF GOLF BY THE BRITISH GOLF GREENKEEPERS' ASSOCIATION

> President: CARL BRETHERTON

Vice-Presidents:
SIR WILLIAM CARR
GORDON WRIGHT
F. W. HAWTREE
S. NORGATE
I. G. NICHOLLS
F. V. SOUTHGATE
P. HAZELL
W. KINSEY
P. MARSHALL
W. PAYNE

Chairman:
A. ROBERTSHAW
2 West View Avenue
Burley-in-Wharfedale
Yorks.

Vice-Chairman: J. CARRICK

Hon. Secretary & Treasurer: C. H. DIX Addington Court G.C. Featherbed Lane Addington, Croydon, Surrey CRO 9AA

Executive Committee:
Carl Bretherton (President)
G. Herrington
E. W. Folkes
S. Fretter
J. Parker
J. Simpson
A. A. Cockfield
H. Fry (Jun.)
P. Malia

Hon. Auditors:
Messrs Smallfield Rawlins and
Co., Candlewick House, 116/126
Cannon Street, London, E.C.4

Hon. Solicitors: HENRY DOWDING, LL.B. 203-205 High Street Orpington

The Association is affiliated to the English and Welsh Golf Unions.

No. 310 New Series

FEBRUARY 1971

FEBRUARY

CONTENTS

PAGE 3 TEE SHOTS

- 4 DRAINAGE AND THE USE OF CLAY TILES
- 8 THE GOLFING SUPERINTENDENT
- 11 SPECIAL OCCASIONS
- 12 SITUATIONS VACANT
- 13 TRADE NEWS
- 14 NEWS FROM SECTIONS

EDITORIAL AND ADVERTISEMENT OFFICES: Addington Court Golf Club, Featherbed Lane, Addington, Croydon, Surrey. Telephone: 01-657 0281. SUBSCRIPTION RATE: £1.25 for 12 issues post paid. Published during the first week of each month. LATEST COPY DATE: 8th of month prior to insertion. All rights reserved. Reproduction of original articles and photographs in whole or in part is prohibited. This Magazine shall not, without the written consent of the publishers first given, be re-sold, lent, hired out, or otherwise disposed of. Contributions and photographs of interest are invited.

TO INSERT A CLASSIFIED ADVERTISEMENT, write to the Advertisement Manager at the above address. The rate is 6d. per word (minimum 15 words). Remittance must be sent with order. Please state number of insertions required and write advertisement in block letters. Advertisements will be inserted in the first available issue.

LEYLAND 154 the 'PERFORMANCE' lightweight

Versatile, and economical in operation, the Leyland 154 is ideal for turf maintenance work. Its light weight is a great advantage when working on grass where heavy tractor wheel pressures are to be avoided. With 25 h.p., compact dimensions and the ability to manoeuvre in confined spaces, the 154 is the 'PERFORMANCE' lightweight tractor for work on golf courses, parks and sports grounds. Leyland 154 features include 9-speed gearbox with 3 reverse gears, independent hydraulics and 2-speed P.T.O. There's a wide range of optional extras and specialised equipment. Arrange a demonstration with your Leyland tractor distributor or write for information to:—

British Leyland Truck & Bus Division, Tractor Operations, Leyland Scotland Ltd., Bathgate, Scotland.







Minchinhampton Golf Club in the Cotswolds is proposing to purchase 130 acres for a second 18 holes. But the scheme envisages maintaining the present golf course, which is on common land and crossed by several roads. This would be kept open for those wanting an occasional round or to learn how to play the game. If the scheme goes through, Minchinhampton will be the first golf club in Gloucestershire to have 36 holes.

Wigtown and Bladnock Golf Club in Scotland have decided to buy their golf course, which is now owned by the Town Council. The Council is asking £3,750,

so it looks a good bargain.

Teignmouth Golf Club's professional, Leslie Dymond, received a little-known trophy last month. He is now the Plymouth Gin Professional of the Year. Mr Dymond has served the club for more than 40 years.

Berwick Town Council has accepted in principle a scheme to develop the

present Magdalene Fields Golf Course into 18 holes.

A West of Scotland golfer who has an artificial leg bought himself an electric buggy and got his club's permission to use it on the golf course. Unfortunately, a public road crosses the course and the buggy had to be licensed for the road at a cost of £10.

John Reece, writing in the Western Daily Press, described how one well-known Bristol golfer, Bob Williams of Knowle, recently surprised fellow members by announcing that he was going to clean his clubs. George Gunston did his best to dissaude him. "They'll fall apart, Bob," he said. Bob took all his iron clubs and disappeared in search of a bucket of water. When he returned he was excited. His clubs gleamed. "Look at this," he said, "the thing I have been using as a two-iron is really a five! Oh, watch me shake these chaps from now on."

Troon Old Golf Course has brought a new green into service as the first of a

series of improvements in readiness for the 1973 Open Championship.



DRAINAGE AND THE USE OF CLAY TILES

by A. L. TURNER

Land drainage is a very expensive business—it is worth while being particular about the details because the work is buried and out of sight and things that go wrong cause much additional expense and trouble. So I make no apology for commenting upon some matters which may appear trivial, viz. the gap between pipes and the "porosity" of land drains.

The gap between 12 in. lengths of agricultural land-tile-drain-pipes when laid as lateral drains. This has been the subject of a number of scientific studies and some of these are:—

"The Hydraulic Comparison of Land Drains and the Determination of Effective Diameters" by A. N. Ede in the Journal of Agricultural Engineering Research Vol. 3. No. 1—1958. Among other things this examined the "relative discharge data for variously gapped, spaced and perforated drains".

As to the effectiveness of drains laid with varying gaps he says "The gap width is only of material significance below widths of 1/20 in.; a tenfold increase to a gap of \(\frac{1}{2} \) in. leads only to a 10% increase in discharge," and he concludes "the size of the gaps between drains of normal length or longer has very little influence on performance and any gap of 1/20 in. is relatively good. For drains of ordinary roughness this infers, in effect, a butt joint." You will note the qualification " of ordinary roughness"-there may be tiles on the market which have been burnt so well and are so accurately manufactured as to produce almost a watertight butt joint, but these, I suspect, are unusual and conditions for getting a "perfect" joint in the ground would also be uncommon.

"Potential Flow into Circumferential Openings in Drain Tubes" by Don Kirkham, Journal of Applied Physics No. 21, 1950.

This paper gives a theoretical analysis of the effect of the spaces between drain tube units as used in artificial drainage of soils. The basic problem solved is that for axially symmetric flow from an external cylindrical boundary at constant potential to a series of equal, equally spaced openings at a lower potential, all located axially on, and comprising a part of, the otherwise impermeable drain tube. The analysis shows, for example, in the case of 6 in. diameter drain tubes having 1 ft. long impermeable sections and buried 4 ft. deep in uniformally permeable soil, increasing the openings from 1/32 in. width to $\frac{1}{4}$ in. will increase the flow 36%, while embedding the tubes in gravel to make the 1/32 in. openings of effectively infinite width will increase the flow 180%. The discussion in this paper further considers the effect of differences between widths of 1/64 in. to as much as $\frac{1}{4}$ in. and concludes that if the tubes are embedded in gravel the open spaces become effectively infinite—this is a consequence of the negligible loss of lead which results when water seeps through gravel as compared with water seeping through

"Drainage of Agricultural Lands" in the Section on Subsurface Drains by G.O. Schwabe, 1957.

Mr Schwabe concludes that for practical purposes data shows that doubling the crack width will increase the flow of approximately 10% and that for a $\frac{1}{8}$ in. crack width 50% of the total lead is dissipated within 1 in. of the crack opening; this effect indicates that permeability of the soil and shape of the soil near the crack will greatly influence the flow. Tests on crack width of $\frac{3}{8}$ in. $\frac{1}{8}$ in. and close (1/32 in.) and $\frac{1}{8}$ in. with gravel envelope indicated that $\frac{3}{8}$ in. gap was too wide, resulting

(Continued on page 6)

Our claims for S.A.I. Turf Foods are based on very good grounds.

Grounds like Trent Bridge, Murrayfield, Hampden Park. Plus some of the country's finest golf courses, race courses and bowling greens.



These unbeatable fertilisers are scientifically formulated to give the growth that hard working turf needs to look fresher, play better, stay stronger longer. S.A.I. Turf Foods' acidifying action discourages worms so turf stays cleaner as well as greener, and their granular form means easy handling and spreading with no drift. So where you put them they stay.

All enquiries to the manufacturers or to our accredited supplier for England and Wales: CHIPMAN CHEMICAL CO. LTD., Horsham, Sussex. Tel. Horsham 60341/5.



in a considerable inflow of soil. Drains with gravel envelopes were more effective in keeping out soil. He recommends $\frac{1}{8}$ in. to $\frac{1}{4}$ in. in stable soils and as close as possible in unstable soils. I would interpret these soils as heavy clay in the former and silts and sands in the latter.

It should be noted that tile drains laid automatically by machinery are invariably laid with close butt joints—the pipes touch each other; vast improvements of water intake occur when gravel surrounds the gaps in the drain, in heavy (clay) land tight butting is less critical than in silt on sandy land.

This is summed up in "Soil and Water Conservation Engineering", page 313: "It is important in laying tile to leave as large a crack width as is permissible as limited by the stability of the soil material." In case of doubt, butt tight.

Generally for average pipes butt joints will in effect leave an opening of

about 1/20 in. which is adequate.

Questions have been raised, and in my opinion incorrectly answered, in connection with the "permeability" of tiles. The following comments may be of use. The qualities required of a tile are: (a) high strength (tested as in BSS.1196); (b) low absorption (of water); (c) high resistance to the action of frost; (d) accuracy as to length, cross section, shape, etc.—(these are tested as in BSS.1196).

The burning process by which clay tiles are made approximates to that of brick making. When very high temperatures are reached and when dense clays are used the result is towards complete vitrification—or fusing of the materials. Such tiles are virtually impermeable—that is no water in measurable quantities passes through the sides of the pipe at all. Pipes made of sandy clays, and if imperfectly burnt, will have high absorption and some permeability—and may well be much less frost resistant.

Tiles can be tested for absorption by standing them in a container of water having first placed some plastic or clay waterproof material in the base of the container—a dry tile is then stood on end on this and made watertight at the base. After filling the container and leaving for 48 hours or so, if there is any uptake of water over about 12-15% of the weight of the tile the absorption is high and if water freely passes through the tile is likely to have low strength and be defective. Frost resistance often follows inversely the water absorption trend.

It is essential to distinguish between land drains made of porous concrete and those made of clay (tiles). The former are indeed intended to permit water to pass through the wall of the pipe—tests for this are prescribed in BSS.1194. This is achieved by making them of an aggregate which is not dense and from which most of the fines have been eliminated. (Readers may know of course that tarmacadam tennis courts are designed on the same principles.) Pipes of this sort are called

"permeable wall" pipes.

In the literature on design of tile drain systems, nowhere can I find any suggestion that clay tiles should be porous—and therefore the comment by the consultant editor on page 36 of No. 6, Vol. 23 of "The Groundsman" must be regarded in my opinion as completely misleading. In good, sound, well-burnt clay tiles water will not penetrate through the "pores of the pipe" in any significant quantities. Pipes salvaged and covered in soil can be reused with every confidence—they should be cleaned off internally and externally and can be as good as new.

It is worthwhile to note as a summary of the discussion above the role of the new plastic drain tubes; both factors are involved—perviousness and gap. These tubes are made of completely impervious material with slots 1.19 mm. wide (about 1/20 of an inch).

Copyright A. L. Turner, March 1970

USED GOLF BALLS BOUGHT

Any quantity. Price 4s. per dozen. Solid and perished balls no value.

Sparkbrook Golf Ball Co. Ltd., 291 Highgate Road, Birmingham, 12. Under the guidance of users in the field and those responsible for professional fleet operation, we have re-examined in minute detail the requirements of mowers used specifically for the cutting of superfine turf. The result is ...



By Appointment to Her Majesty the Queen Manufacturers of Motor Mowers Charles H. Pugh Ltd.

The new 4 TCO 20" SPECIAL

the endurance-tested new features include:-

■ LARGER CAPACITY "POWER-TO-SPARE" ENGINE, WITH EXTRA LONG-LIFE SPECIFICATION

■ "LONG RANGE" 6 PINT FUEL TANK

■ PERFECT CONTROL THROUGH INSTANTLY
ADJUSTABLE TUBULAR HANDLES, WITH
THROTTLE AND CLUTCH CONTROLS
BEAUTIFULLY TO HAND ■ MAIN CLUTCH
ACTUATED BY TWIN BALL RACES FOR
DRAG-FREE PULL-BACK ■ TRANSPORTING

WHEELS WITH HEAVY DUTY TYRES AND REDESIGNED INTEGRAL FASTENERS FRONT
AND BACK ROLLERS WITH COMPOUND
RADIUSED ENDS FOR MINIMUM TURF
MARKING BUILT-IN ATTACHMENT

BRACKETS FOR OPTIONAL GRASS COMB

EASIER MAINTENANCE BY BALLBEARING MOUNTING OF FRONT

ROLLER AND IMPROVED
LUBRICATION OF BACK ROLLER

The ATCO 20" SPECIAL is the mower you designed; so ask your local Atco Branch for a field trial on your fine turf now

Free literature from

CHARLES H. PUGH LIMITED P.O. Box 256, Atco Works, Birmingham 9



THE GOLFING SUPERINTENDENT

by GEORGE J. CHARLESON Superintendent, Park Country Club, Buffalo, New York

It has often been said, and rightly so, "It isn't necessary to be a big league ball player to be a major league manager." Does this same axiom hold true regarding a golf course superintendent? e.g.: "One doesn't have to be a golfer in order to be a golf course superintendent." It may be to a certain degree. However, I feel it could be a great asset to be a "golfing superintendent". Now, before everyone retorts with one chorus of—"There are hundreds of turfmen all over the country who grow fine turf and have never hit a golf ball in their lives"—allow me to present my case for a "golfing superintendent".

It must be remembered that golf is a game and is governed by a set of rules. These particular rules are promulgated by the United States Golf Association and the Royal and Ancient Golf Club of St. Andrews, Scotland. Each superintendent should be aware of them, but the golfing superintendent is bound to become more familiar with them and the reasons behind them.

Of the many rules which come to mind, one often overlooked by a nongolfer is the teeing ground. This is defined as a rectangular area two club lengths in depth, the front and sides of which are defined by two markers. In other words, when placing the tee markers, prior to the start of a day's play, it is necessary to remember that a player has the right to use the area two club lengths behind the markers. Thus, it is important to remember that when placing the markers near the rear of the tee, enough room must be left for these two club lengths.

Another rule not familiar to many non-playing superintendents is, "In placing a cup, the liner should be set at least one inch below the putting green surface". The reason is fairly obvious. It allows a well-hit putt to drop into the hole, rather than strike the liner and bounce away. As a golfer, the superintendent becomes very conscious of this rule and is ready to correct any infractions on his 'own course. Having played shots to various parts of the greens, he becomes more aware of the most desirable pin locations. This awareness helps provide for a fairer, more interesting and enjoyable test of golf for his club members. It

also can serve as a means of more evenly directing the flow of traffic over the green.

A golfing superintendent has one more distinct advantage and this is strictly defensive. On countless occasions he must listen to the various complaints of the golfing fraternity—"The greens are so fast,—so slow,—so hard, -so soft,-so long,-or so short." He may hear, "The ball sits on the green too low" or, "The fairways are cut too short and I can't hit a wood off such a tight lie". Undoubtedly these all sound too familiar to superintendents. (Remember, golfers are human beings and, as such, are quick to blame most anything, including the superintendent, for a poor game.) However, through personal experience as a golfer, the superintendent is able to evaluate the legitimacy of these complaints.

Perhaps the greens are slowing down, or a grain is beginning to creep in, or they are a bit too firm. As a golfer, he looks at the situation with the maintenance view of the superintendent and the "player" view of the golfer as well. Thus, a touchy situation can be remedied before the general membership starts to complain and he is able to stay one step ahead of another headache.

Golf is good business

It is a generally accepted fact that most large and successful companies place their executives and salesmen in country clubs throughout the States. One may ask why this is done. There

(Continued on page 10)

Are you green about grass?

Probably not. But establishing and maintaining a good turf is no easy matter, even for an experienced man. No matter if the game is golf, cricket, bowls, tennis, polo. football or hockey we have the right mixture of grasses.

But sometimes it is necessary to devise prescriptions to meet special conditions. And sometimes problems arise in turf management which call for specialist advice.

This is where Suttons unique experience comes in, experience gained by years of planting, growing, blending, experimenting. Our team of experts, headed by Bob Palin, will be delighted to help you.

Send today for Suttons 1971 Catalogue - "Your Grass Seeds

and Sports Turf Needs" for the full story, as well as lots of useful information and ideas. This is free and gives you a ready guide to the best range of grass seeds and turf dressings on the market. It is also a sound basis for your own turf care ideas.

Suttons Seeds

READING · BERKS · Tel: Reading 61151

			(277B 1971 gr	 ing. d catalogue.
NAME				
CLUB,	ORGANIS	ATION,	ETC	
ADDRE	SS			

are many answers to this question. However, it is felt that the golf course is regarded as an ideal place to entertain prospective clients, thus helping to promote good public relations. It is also felt that business may soar while relaxing in the pleasant surroundings of a golf course.

If big business thinks so highly of golf for promoting business and relations, shouldn't the golf course superintendent? He has the greatest access to the "place of business". The golfing, superintendent can make the golf course his meeting place for his green chairman and/or committee. He is able, during the course of a relaxing round of golf, to point out first-hand his needs in the maintenance of their golf course. It is amazing how much more understanding a committee can be when viewing problems "at the scene", as opposed to discussing them in the board room of the clubhouse. In addition, golf provides an opportunity for the superintendent to meet the committee on an equal basis, rather than the usual employer-employee basis.

" He just cuts grass . . ."

The golfing superintendent will become better known to the membership and a little more respected because of a common interest in the game. This may help to eliminate the feeling among many that anyone connected with golf course maintenance "just cuts grass". Another point to consider is the changing of the Green Committee Chairman. Every superintendent who has experienced this change realizes that each one may well be a frustrated golf course architect. Many have their own pet projects, such as redesigning a certain hole or trap or-perhapsthe entire golf course! A superintendent can explain the varied problems of maintenance connected with his proposals. However, as a golfer, he can view them from both angles and speak and act more intelligently regarding them. As a golfing superintendent, he shall approach any question with an open mind. This enables him to work

at his vocation and be looked upon by his chairman as a professional turf specialist.

This is not meant to imply good golf course superintendents now and in years gone by have not, or will not, play the game. However, it may be well to remember . . . "Maybe you are standing too close to the forest to see the trees". Golf can help develop a more versatile and well-rounded superintendent and it may promote more respect for his profession. This, in the long run, may help him to attain a higher professional and economic level.

Let me attest to the fact that golf most assuredly has aided me in my profession and also let me point out one more fact. You may possibly be the recipient of the Championship Trophy at a future GC AA Tournament—all because you made the game part of your job!

With acknowledgements to the "Golf Superintendent"

FOR FAST GREENS

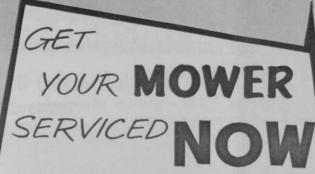


FIT A GRASS COMB TO YOUR MOWER

STEWART & CO., FINE TURF SPECIALISTS EDINBURGH. EH2 2AY



JANUARY 5th North-West Section Lecture. 6th Southern Section Lecture. 21st Sheffield Section Lecture. **FEBRUARY** 3rd Southern Section Lecture. 10th Northern Section Lecture. 13th East Midland Dinner Dance. 15th North-East Section Lecture. MARCH 19th Southern Section Annual Dinner. MAY 11th North-West Section Spring Tournament.



BY SPECIALISTS

MOWER OVERHAULS, REPAIRS AND SPARES ARE OUR ONLY BUSINESS

Ransomes

Repair Authorised service Repair Agents, Sales, Spares and

Authorised service Kepair Agents, Sales, Spares and Service. Main Agents and Distributors to Briggs & Stratton (Engine Manufacturers). Main agents and distributors for Clinton Engines. Spare parts and service exchange assemblies now available from stock.

Officially Appointed SERVICE DEPOT for



& Agricultural Industrial

HONDA AGENTS

RELF AND KENDALL

& BRIGHTON ROAD, SOUTH CROYDON, SURREY. CRO 0578 II STATION ROAD, NEW BARNET. BARNET 8228

> Official London Area Distributors to Ransomes, Sims & Jefferies for specialist machines. Agents for Dennis, Shanks. Greens, Atco, Lloyds and Allen motor scythes.

HEAD GREENKEEPER

This post becomes vacant in January, 1971. Salary by negotiation, not less than £1,350 per annum. Free unfurnished bungalow adjoining the course.

- Three Courses (a) Dunluce Championship Course 6,850 yds.
 - (b) Valley Course 6,250 yds.
 - (c) 9 hole Course 1,350 yds.

This is an opportunity for a first-class man to improve his status. Assistance may be given with removals.

Applications in writing with references and full details of experience to:

The Secretary/Manager, ROYAL PORTRUSH GOLF CLUB. Portrush, Co. Antrim, Northern Ireland. Tel. Portrush 2311.

THE DEPARTMENT OF THE ENVIRONMENT

has a vacancy for an

ASSISTANT SUPERINTENDENT

at Richmond Park, Surrey

Salary: £1432 (rising to £1718) + £52 availability allowance. Rented accommodation available.

Appointment temporary with opportunities for permanency.

The duties involve, under the direction of the superintendent, the upkeep and maintenance of two public 18-hole golf courses and a number of football pitches and a polo ground. Applicants must therefore have good practical knowledge of turf maintenance and greenkeeping, preferably with some experience of control of a public golf course and/or park.

Apply in writing for application forms to ED2b Room 311, Department of the Environment, Lambeth Bridge House, Albert Embankment, S.E.1, before 27th January 1971.

TRADE NEWS

FAST GRASS-CUTTERS SOLVE COUNCIL'S MAINTENANCE **PROBLEMS**

A major investment in fast-cutting grass mowing machines was one of the immediate actions of the County Borough of Northampton following the recent organisation of departmental responsibilities

For at Northampton the changes have meant a large inheritance of grass verges increasing the Estates Department's grass maintenance responsibility to over

1.500 acres.

In the past four months, the County Borough of Northampton have been meeting the challenge with five Toro 50 in. Trojans, in which they have invested to keep the Council's informal grass areas in short trim.

Supplied by the Institutional Division of Flymo Limited of Watford, through local distributors, Messrs. Garden

Machines Limited of Northampton, the Trojans are being used on housing estates, road verges and park areas where speed and versatility are desirable.

A spokesman for the Estates Department said: "We acquired the Trojans because they are the best machine for the job we want to do. They are a good size and with a good operator

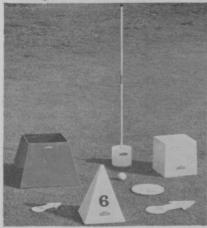
they cover plenty of ground."

Special features of the riding rotary machine include three overlapping 18 in. whirlwind blades driven by a 12.5 h.p. engine with a choice of three cutting speeds for varying types of conditions. The Trojan is capable of maintaining an output of more than 12 acres per day under most types of conditions found in council work.

Driver comfort and power steering provide easy operation on tricky slopes while maximum manoeuvrability enables the Trojan to cut close to trees and other obstacles to prevent time wasting by largely doing away with the necessity of using additional smaller machines with further operators.



Golf Course Equipment in Fibreglass



FOR ALL GOLF **COURSE EQUIPMENT**

Suppliers to the world since 1896

The range comprises:-TEE LITTER BINS Colours: Red, White or Yellow. TEE PYRAMID MARKERS Colours: Red, White or Yellow. TEE CUBES Colours: Red, White or Yellow. TEE ARROWS Colour: White. TEE DISCS Colour: White. Complimentary to the above are the existing items, such as Polythene Tee Balls in red, white and yellow; Bogeytype Hole Cup in nylon (one-piece moulding); and the Fibreglass Flagstaffs, as listed in our current Golf Catalogue. WRITE TO US FOR PRICE LIST AND LATEST CATALOGUE

H. PATTISSON & CO. LTD. STANMORE, MIDDLESEX 01-954 4171

News



from the Sections

SOUTHERN

By F. W. Ford

Chairman: C. A. Moore (Stanmore) Hon. Secretary: 68 Salcombe Gardens Mill Hill, N.W.7 Tel: 01-959 2847

December Lecture

In his talk on "Aeration and Drainage," Peter Wyatt, supported by Ken Hemmingway, commenced by telling us how Pattissons was started in 1896 by Arthur Cole. The first self-propelled spiker, Model T Mk. 1, made its appearance in 1946-47 and the Turf Master in 1967.

Mr Wyatt said that he had observed that slit tines were being used in preference to the solid tines, presumably owing to their root-pruning action. He then continued on with Mole Draining and then offered to try and answer any questions

and answer any questions.

Transport of the S.P. from green to green was the question uppermost in most members' minds, for unless a separate power unit is used to tow it, making it a two-man job, considerable wear and tear on the machine resulted, particularly on some courses.

Mr Hemmingway assured us that although it was a problem, they were working on it at Stanmore, and it would be sorted out in the near future, possibly in time for a demonstration at Motspur Park.

Bringing the meeting to a close, our Chairman thanked Mr Wyatt for coming and said how nice it was to see Mr Hemmingway again. As it was the last meeting of 1970, he hoped everyone would have a Merry Christmas and said there were sandwiches and reircshments upstairs, with the compliments of Pattissons.

Annual Dinner

The 1971 annual dinner will be held at the Wanstead Golf Club, Overton Drive, London, E.11, on Friday, 19th March 1971. Nearest stations Wanstead (tube), half-mile, and Snaresbrook, one mile.

The price of the tickets have been raised to £2 to ensure a first-class meal suitable for the occasion and are available from me either by writing or collecting at the Stirling Castle on lecture evenings.

Members and guests wishing to play in the four-ball better-ball Stableford in the after-noon must arrange their own partners and record the best net score. A 5/- sweepstake will be collected from each competitor. Anyone requiring lunch or sandwiches please contact the steward on arrival.

New Members

A warm welcome to the following new members:—M. Boardman (Thorpe Hall), J. Thompson (Flempton), E. J. Huxley, B. M. Huxley and G. R. Brooks of "Huxleys Garden Machinery"; H. H. Bowpitt (John Jacobs), H. Brown (Home Park), and T. C. Talbot (Upminster).

New Appointments

Our best wishes go to the following:—R. Booth, who is now head greenkeeper at South Beds, D. J. Jones (Hendon), J. H. Sargent (North Middlesex), and G. J. Goodall (Finchley).

February Lecture

There will be a visit by Philip Marshall, representing Ransomes Sims & Jefferies.

Retirement

A long and happy retirement to Mr C. Chamberlain of Addington Court Golf Club, who has retired after 43 years with the club and now lives at Herne Bay, Kent. We are hoping to see him at our annual dinners for many years to come. He has handed over the reins to W. Machin. Our very best wishes to you, Bill.

NORTH-EAST

By G. Jeffrics

Chairman:
J. SIMPSON

Hon. Secretary: 55 Brackenfield Road, Framwell Gate Moor, Durham.

November Lecture

On Thursday, 19th November, Mr R. Morris of Fisons Ltd., gave a very good lecture at the Polytechnic, Elsdon Place, Newcastle, the lecture was given on behalf of the North-East (Newcastle) Branch Groundsmens Association, and the (North-East) Section Greenkeepers. Mr Morris gave a very interesting talk on grass growth, and soil conditions, with the aid of slides. He invited members to ask their questions, and some very enlightening answers were produced. The Chairman closed the lecture with a vote of thanks to Mr Morris.

Flymo Lecture

On Monday, 15th February 1971 we have a lecture by Flymo Limited, this will take place in The Bridge Hotel, Newcastle, commencing approximately 7 p.m., refreshments will be served.

Appointments

T. Green who was Head Greenkeeper at Ravesworth Golf Club has now taken up the post of Head Greenkeeper at Heworth, we wish him well in this new appointment.

D. Snowdon, assistant at Hartlepool Golf Club has been appointed Head Greenkeeper of the Hartlepool Golf Club, and I am sure we all wish him every success in his new position.

NORTHERN

A. ROBERTSHAW

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

November Lecture

Twenty-five members attended this lecture held on Tuesday, 17th November, in the Queen's Head, Bingley. The speaker on this occasion was Mr Bob Morris of Fisons Ltd., who took for his subject "Turf Management". Illustrating his talk with a series of slides, he put over in quite simple terms the main principles involved. Many and varied quesions were put to Bob, who was able to deal with them to the questioners' satisfaction. A vote of thanks was proposed by our Chairman, Mr A. Robertshaw, and heartily endorsed by all members present.

December Lecture

This was held on 9th December at our usual meeting-place, Horsforth Golf Club. Thirty-five members turned out, despite black-out risks, to hear for the first time Mr J. P. Shildrick, B.A., Assistant Director of the S.T.R.I. His subject was "Grass Varieties." He dealt with the work and investigations in progress at the Station into a large number of varieties of various turf grass species, bringing out points with colour slide illustrations. Members found this most interesting and enlightening. I think there will be many waiting to pay a visit in the coming years to see this work in progress. After a long series of questions, a vote of thanks was proposed by our Chairman, Mr A. Robertshaw.

Lectures

The following dates have been fixed at Hosforth Golf Club for lectures in the new year:—13th January, 10th February, and 10th March. Make a note of these.

New Member

We welcome to the section Mr G. Hinchcliffe, 31 Thick Hollins, Meltham, Huddersfield, who has taken up an apprenticeship with the Meltham G.C.

SHEFFIELD

By H. Gillespie

Hon. Secretary: Chairman: 63 Langsett Avenue, Sheffield, S6 4AA. (Lindrick)

President Retires

At the meeting on 19th November 1970 our President, Mr A. Shardlow, announced his retirement from the Presidency. Having severed his connections with Sheffield and now residing in Walton-on-Thames, Surrey, he feels he cannot give the section the support he desires. Mr Shardlow has been President of the Sheffield Section since 1959, except for a short period in 1967 when he stood down, but was re-elected when his successor left the district. He has always shown a very great interest in the welfare of greenkeepers and has done a tremendous amount towards improving the status of the greenkeeper.

All members of the Sheffield Section join in wishing Mr and Mrs Shardlow a long

and happy retirement.

Mr A Shardlow proposed and Chairman G. Herrington seconded that Alderman S. K. Arnold, Chairman of the Green Committee

R. C. CRAIG

AND CO. LTD.

SPECIALISTS IN THE REPAIR AND MAINTENANCE OF ALL TYPES OF MOWERS

* Agents for: RANSOMES SIMS & JEFFERIES Ltd.

LLOYDS & Co. Ltd. WEBBS LAWN MOWERS

* Distributors: DENNIS BROS Ltd. GANG MOWERS FOR HIRE We will gladly call on you to advise on your grass cutting equipment or arrange demonstrations. Ring us now.

153 Arch Stamford Brook Station, LONDON, W.6.

RIVERSIDE 5415

at Abbeydale Golf Club, be invited to be President. This was unanimously agreed. Mr Arnold, being present, accepted the position and promised his full support.

Lecture

The lecture on 19th November 1970 was by Mr W. N. S. Bissett of S.T.R.I., who took for his subject "Aeration," and this was well received by the 38 members present.

The lecture on 21st January 1971 is by Mr D. N. H. Hicken of David Miln (Seeds-

men) Ltd., and the subject will be "Top Dressing.

New Member

We welcome to the section S. Hobson of Abbeydale Golf Club and hope he will benefit from membership of the Association.

MIDLAND

Chairman: G. HART (Gay Hill) By R. Goodwin Hon. Secretary: Burton Old Road, Streethay, Lichfield, Staffs.

Prince Philip Award to Mr Bretherton

Mr Bretherton was recently presented with a special certificate by the Duke of Edinburgh Buckingham Palace.

Mr Bretherton received the President's Certificate, which is awarded for special contributions to the work and aims of the National Playing Fields Association.

Bretherton's contribution has been made through the Warwickshire Playing Fields Association, in whose work he has taken an active part since the war.

Mr Bretherton has done much work for the provision of children's playgrounds and was Chairman of the County Playing Fields Association's Executive Committee 1958 to 1967.

I am sure all greenkeepers will wish to join me in congratulating our President on this very fine award.

NORTH-WEST

BRENNAN (Royal Birkdale)

By H. M. Walsh Hon. Secretary: Horrobin Cottage, Old Links Golf Club, Montserrat, Bolton, Lancs.

Season's Greetings

May I wish all members of the North-West Section my sincere best wishes for the Christ-mas season and a very happy New Year. On behalf of the North-West Section I would like to send the season's greetings to our President, Mr Bretherton; the Editor, Mr Hawtree; our Secretary, Mr Dix; to greenkeepers and their families everywhere, and may the Association prosper.

Lecture

Our thanks to Mr Wyatt of H. Pattissons & Co. for the very interesting talk and for showing us their new range of equipment, also for the refreshments provided.

The January talk will be given by a representative of Chipman Chemicals Ltd., and the February talk will be given by Mr Cogan of Flymo Ltd. on 8th February. I ask for your continued attendance, gentlemen.

Spring Tournament

I have pleasure in informing members that due to the kindness of the Captain and Council of the Romily Golf Club, we will be holding our Spring Meeting on the said club's course on Tuesday, 11th May 1971. Further details nearer the date.

EAST MIDLAND

By S. Fretter Hon. Secretary:

Chairman: J. CARRICK

4 Queens Drive, Leicester Forest East, Leicester.

Film Show

A film show was held at Birstall Golf Club on Wednesday, 18th November 1970. The film show was given by Leicester Horticultural Engineering Ltd. and Ransome Sims & Jefferies. Thet attendance was very good. It was a very interesting evening and enjoyed by everyone there. Our thanks to Mr G. Lee, Mr R. Bailey and Mr Sharp of Leicester Horticultural and to Mr K. Buckledee and Mr Ramsey of Ransomes. It was a film show that could be recommended for any section of the greenkeepers. Once again many thanks to all concerned.

New Members

We would like to welcome to this Section the following greenkeepers: G. D. Wilford, Esq., 34 Carter Avenue, Broughton, near Kettering (Kettering Golf Club); L. Bowley, Warwick Avenue, Quorn, Leics. (Charnwood Golf Club).

N.B. The dinner dance will be held on Saturday, 13th February 1971, and not the 16th, as published in the January Journal. We apologise for the error.

FOR HIRE

SISIS AUTOTURFMAN AERATOR, £25 per week — do it yourself. For contract prices telephone Burnell, Eaglescliffe 3647.

RYAN TURF CUTTER with operator. For competitive prices telephone Bunting, Coventry 68653.

BUYERS' GUIDE

CLINKER, ETC.
T. PARKER & SONS, Worcester Park, Surrey.

CONTRACTORS

GILLIAM & CO. Ltd., Purley, Surrey. MAXWELL M. HART, Ltd., Winnersh, Wokingham, Berkshire.

STUTT, Ltd., Potterhill, Paisley, also at Poole, Dorset.

EQUIPMENT SERVICING

R. C. CRAIG, Ltd., 30 Aylmer Rd., London, W.12. GROSVENOR ENGINEERING CO., Manningham,

RELF & KENDALL, 406 Brighton Rd., S. Croydon,

Surrey.
T. PARKER & SONS, Worcester Park, Surrey.

FERTILISERS

CANNOCK AGRICULTURAL CO., Ltd., Cannock,

CARTERS' TESTED SEEDS, Ltd., Raynes Park, London, S.W.20.

FISON Ltd. AGROCHEMICAL DIV., Recreational and Industrial Dept., Chemical Works, Paper Mill Lane, Bamford.

MAXWELL M. HART, Ltd., Winnersh, Wokingham,

T. PARKER & SONS, Worcester Park, Surrey. STEWART & CO., Seedsmen Ltd., Edinburgh, 2. SUTTON & SONS. Ltd., Reading.

FUNGUS CONTROL

CANNOCK AGRICULTURAL CO., Ltd., Cannock, CARTERS' TESTED SEEDS, Ltd., Raynes Park,

CARTERS' TESTED SEEDS, Ltd., Rayles London, S.W.20.
MAY & BAKER, Ltd., Dagenham, Essex.
T. PARKER & SONS, Worcester Park, Surrey.
SUTTON & SONS, Ltd., Reading.

GOLF TEE MATS

UNIVERSAL MAT CO., Ltd., Tileyard Road, London, N.7.

GRASS SEEDS

CANNOCK AGRICULTURAL CO., Ltd., Cannock,

CARTERS' TESTED SEEDS, Ltd., Raynes Park, London, S.W.20. MAXWELL M. HART, Ltd., Winnersh, Wokingham,

Berkshire.
T. PARKER & SONS, Worcester Park, Surrey.
STEWART & CO., Seedsmen Ltd., Edinburgh, 2.
SUTTON & SONS, Ltd., Reading.

GREENKEEPERS' TOOLS & COURSE EQUIPMENT

H. C. CRAIG, Ltd., 30 Aylmer Road, London, W.12.
H. PATTISSON & CO., Ltd., Stanmore, Middlesex.
T. PARKER & SONS, Worcester Park, Surrey.
"SISIS" Equipment (Macclesfield) Ltd., Hurdsfield,
Macclesfield, Cheshire.
STEWART & CO., Seedsmen Ltd., Edinburgh, 2.

INSECTICIDES

CANNOCK AGRICULTURAL CO., Ltd., Cannock, WORM KILLER Staffs

T. PARKER & SONS, Worcester Park, Surrey.

F. KEEP, Ltd., 82-84 North End, Croydon, Surrey. T. PARKER & SONS, Worcester Park, Surrey.

LOAMS & MANURES

T. PARKER & SONS, Worcester Park, Surrey.

MOWER ENGINEERS

RELF & KENDALL, 406 Brighton Road, S. Croydon Surrey.
T. PARKER & SONS, Worcester Park, Surrey.

MOWERS

BRADLEY'S, Leeds Rd., West Ardley, nr. Wake-

eld, Yorks. GREEN & SON, Ltd., Smithfield Ironworks,

GROSVENOR ENGINEERING CO., Manningham,

LLOYDS & CO., Ltd., Pennsylvania Works, Letch-

T. PARKER & SONS, Worcester Park, Surrey. H. PATTISSON & CO., Ltd., Stanmore, Middlesex. C. H. PUGH, Ltd., P.O. Box 256, Atco Works,

Birmingham, 9.
RANSOMES SIMS & JEFFERIES, Ltd., Ipswich,

HAYTERS (SALES) Ltd., 34 Spellbrook Lane, Bishop's Stortford, Herts. E. THOMAS & CO. (Oswestry) Ltd. (Dept. S.6).

Whittington Rd., Oswestry, Shropshire.

SEA SAND

T. PARKER & SONS, Worcester Park, Surrey.

SPRAY EQUIPMENT

T. PARKER & SONS, Worcester Park, Surrey.
PRESSURE JET MARKERS Ltd., 152 The Arches,
Stamford Brook, London, W.6.
B.O.I.L. RAIN SYSTEMS, Upper Halliford, Shepper-

ton, Middlesex.

F. W. BERK & CO., Ltd., Berk House, 8 Baker Street, London, W.1.

TRACTORS

T. GREEN & SON, Ltd., Smithfield Ironworks, Leeds, 2.

T. PARKER & SONS, Worcester Park, Surrey.
H. PATTISSON & CO., Ltd., Stanmore, Middlesex.
"SISIS" Equipment (Macclesfield) Ltd., Hurdsfield, Macclesfield, Cheshire

TURF AERATING APPLIANCES

T. PARKER & SONS, Worcester Park, Surrey.
H. PATTISSON & CO., Ltd., Stanmore, Middlesex.
"SISIS" Equipment (Macclesfield) Ltd., Hurdsfield, Macclesfield, Cheshire.

WEED CONTROL

MAXWELL M. HART, Ltd., Winnersh, Wokingham, Berkshire.
MAY & BAKER, Ltd., Dagenham, Essex.
T. PARKER & SONS, Worcester Park, Surrey.

WEED CONTROL SPRAYING

T. PARKER & SONS, Worcester Park, Surrey.

CARTERS' TESTED SEEDS, Ltd., Raynes Park London, S.W.20.

MAXWELL M. HART, Ltd., Winnersh, Wokingham,

Berkshire.
T. PARKER & SONS, Worcester Park, Surrey SUTTON & SONS, Ltd., Reading.

ENQUIRY BUREAU.—The Editor desires to point out that he will be pleased to answer enquiries from our readers, and forward to them the name and address of the manufacturer or supplier of any particular proprietary article or product used in the construction, maintenance and upkeep of a golf course. Enquiries are coming in from greenkeepers asking for such information. They may, for example, know the trade name of the article or product they wish to purchase, but may not be conversant with the name and address of the actual manufacturer or supplier. The Enquiry Bureau will gladly supply this information, and thus enable the greenkeeper to contact the manufacturer or supplier direct.

TO MANUFACTURERS.—In order that our information may be kept constantly up to date, manufacturers or suppliers are requested to forward their latest trade lists, catalogues, and any other confidential information regarding their products. By so doing the Bureau will be able to function to the mutual benefit of all concerned.

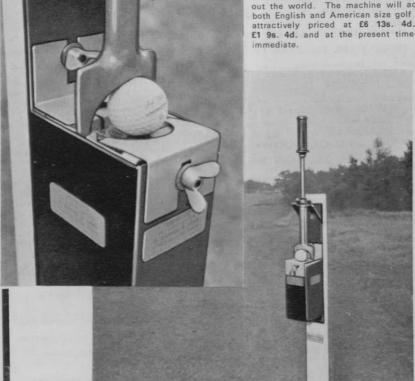
TRADE REVIEWS.—The Editor will be pleased to arrange to devote space in our editorial columns to a review of our advertisers' products, etc. Will advertisers please forward details for this purpose.

INTRODUCE THEIR NEW

Technical Advantages

All moving parts are made from non-ferrous metals and the main body is constructed from 16-gauge mild steel which is sheradised and then stove enamelled. The top bearing is made of nylon and may easily be replaced, and the plunger is made of brass. The brushes are reversible and easily replaceable and the brush retainers are made of high-quality anodised aluminum. Pressure on the brushes is effected by aluminium. Pressure on the brushes is effected by sorbo-rubber pads which have the advantage of absorbing the contraction and expansion of ice and thereby preventing damage to the container during bad weather.

Parker & Sons, the manufacturers of Perfecto Golf Equipment, have pleasure in reporting that their new Perfecto Ball Scrubber has proved to be an outstanding success. Originally the Company had prototypes located on selected sites to ascertain the effects of frost on the Ball Scrubber, and from regular examination of these it was evident that the new design enabled them to withstand the hardest of conditions without the slightest risk of damage. Very favourable reports have been received from the many courses who now use Perfecto Ball Scrubbers and the great tolerance to frost, coupled with the fact that the equipment is constructed entirely from non-rust materials, will undoubtedly ensure its continued success with golf courses throughout the world. The machine will accommodate both English and American size golf balls. It is attractively priced at £6 13s. 4d. plus P.T. £1 9s. 4d. and at the present time delivery is immediate.



T. PARKER & SONS (Turf Management) LTD.

The Independent Family Firm with the Personal Service WORCESTER PARK, SURREY. Tel. 01-337 7791, 01-337 0861 (10 lines)