

THE VERTIRAKES

P.V.R. (*Pedestrian Vertirake*)

– for Golf greens, Bowling greens, Cricket pitches and Tennis courts.

J.V.R. (*Junior Vertirake*)

– for Golf course greens, Bowling turf, Fine lawns etc.

T.V.R. (*Tractor Vertirake*)

– for Golf course fairways, Municipal Parks, Sports pitches.



These three machines have been designed to remove all the thatch, thus stimulating recovery and growth of strong healthy grasses. You will find that each machine will clear the difficult, dead, matted, fibrous grass that is so often so difficult to get rid of.

We have a machine for every purpose from the small golf green to the largest Municipal playing fields. One great labour saving device we have fitted on our P.V.R. model is the very large glass fibre collecting box which saves an enormous amount of time and energy that would otherwise be wasted in sweeping up afterwards.

Start your New Year off well by writing for full information on VERTIRAKES to:

Pattisson

H. PATTISSON & CO. LTD.,
STANMORE HILL WORKS, STANMORE,
MIDDLESEX.



FOUNDED 1912

Published monthly for the benefit of greenkeepers, greenkeeping and the game of golf on behalf of 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

D. B. Hargreaves

P. Marshall

W. Payne

W. Mountain

Chairman:

E. R. James

49 Chatsworth Road

Parkestone

Poole, Dorset

Vice-Chairman:

V. W. Smith

Hon. Secretary & Treasurer:

C. H. Dix

Addington Court G.C.

Featherbed Lane

Addington, Croydon, Surrey

CRO 9AA

Executive Committee:

Carl Bretherton (President)

G. Herrington D. H. Major

V. Smith P. McCarron

W. Heeles J. Simpson

A. A. Cockfield H. M. Walsh

H. Fry (Jun.) E. James

Hon. Auditors:

Messrs. Smallfield Rawlins & 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

The British Golf Greenkeeper

CONTENTS

	Page
SAND SLITTING	5-7
WAGES GUIDE	11
THE GREENKEEPERS	17
NEWS	20-25
LEASING	25-29
SECTION NEWS	32-36
TESTING THE SEEDS	36-38

Front Cover Picture

Slitting turf on a golf course to cure water logging and improve drainage.

EDITORIAL ADVERTISEMENT AND SUBSCRIPTION OFFICES: Chilberton House, Doods Road, Reigate, Surrey. Telephone: Reigate 43521. SUBSCRIPTION RATE: £1.85 for 12 issues post paid. Published during the first week of each month. 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.

LATEST COPY DATE: 1st of month prior to insertion.

TO INSERT A CLASSIFIED ADVERTISEMENT, write to the Advertisement Manager at the above address. The rate is £3.00 per single column inch. 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.

Printed by Olivers Printing Works (Battle) Ltd.

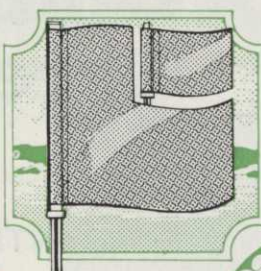
The final touch of pride on a fine course

Ransomes Golf Accessories



Flag Poles

Extra strong with tubular sleeve to allow flag to swivel freely. No pulling or fraying in high winds.

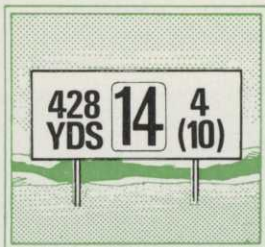


Quick Change Flags

For use with the Ransomes flag poles, simply unscrew top of pole and slip on the flag.

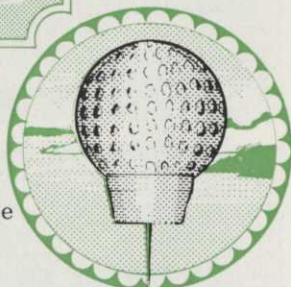
Tee Plaques

Crisp, clear lettering on sparkling white 'vistolite' background.



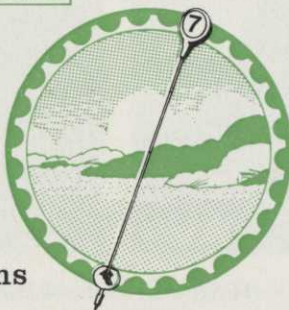
Large Tee Markers

Tough and long lasting with non-fade bright colours.



Direction and Rule Signs

Easy read black letters on brilliant white 'vistolite' background.



Putting Green Markers

Rust proof and guaranteed to last, in 'vistolite' and high strength aluminium. Ejector marker fitted with non-stoop ball pick up.

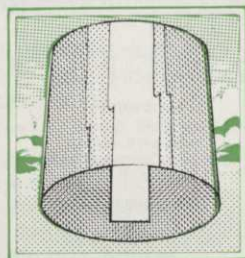


Individual Club Designs

Personalised flags cost very little more than plain ones. Contact us for details.

Putting Cups

Non corrosive heavy duty galvanised steel cups. Keeps pole rigid even in high winds.



RANSOMES

Ransomes Grass Machinery
(Scotland) Limited

St. Ninians Road, Corstorphine,
Edinburgh EH12 8AN. Tel. 031-334 2261.

Cut and dried

OF THE many novel ideas which find their way into the news columns of sportsturf magazines few will ultimately end up as standard turf management practices. So often the rigours of practical use under severe conditions in the field identify weaknesses in an initially hopeful and promising proposition. One idea, however, which appears to be gaining popularity and standing the test of time is "sand slitting"—a technique for dealing with waterlogging in turf.

To describe it as a new theory would perhaps be inaccurate for it is said that the Romans did it—and who knows where they got the idea? However with an intervening gap of almost two thousand years credit must be given to those who latterly have built around the idea a sound scientific basis of design and established the sophisticated technology necessary to make the technique widely available for sportsturf application.

An early installation in this country, reported in the Journal of the Sports Turf Research Institute No. 46, 1970 was carried out at Twickenham by Mr. H. E. Clark in 1966. Research into the design and functioning of vertical drainage channels, or slits and the development of scientifically based systems for sportsturf use has been assiduously conducted to the great benefit of all concerned with turf management, by Dr. Victor S. Stewart, Head of the Soil Science Unit, University College of Wales, Aberystwyth. He, with his colleague Dr. W. A. Adams has led the vanguard of opinion and development in this new field. Early successful work completed at Cardiff Arms Park and elsewhere attracted the attention of Chipman Ltd., of Horsham, Sussex, a firm already offering products and services to the sportsturf market, who were keen to develop these ideas commercially. This firm is now providing a comprehensive contract service in turf drainage based on the new principles established, and prominently featuring schemes for golf courses.

Basically the object is to overcome

waterlogging in soils so finely textured or lacking in structure that they are incapable of transmitting water at an acceptable rate to the drains. If water cannot be removed through the soil itself some means must be provided to shed it from the surface. Here is where the sand slits come into play by intercepting excess water at the surface as it falls and conveying it laterally to the drains. Obviously it is important that the sand slits should intersect clean backfill over the drains so that they can discharge the collected water rapidly and a continuously permeable link can exist between the surface and the drain-pipe. From a knowledge of the hydraulic conductivity, or water flow rate, of the materials used in backfilling a target design rate for the whole scheme can be arrived at. This is part of the technical service which Chipman are giving. They survey the site, checking levels and the condition of existing drains, sample soils for detailed mechanical and chemical analysis, and then prepare a comprehensive report and proposals. Slit dimensions, layout and intensity are all calculated in relation to materials employed and drain spacing to quantify the potential discharge rate suiting rainfall conditions and frequency of use.

Having the right machine for the job is vital and Chipman own the exclusive U.K. rights to a patent pending on the technique of "sand injection", developed initially by Cambridge Soil Services Ltd., by which a number of

[Turn to Page 7]

new!



TURFCARE

Eliminates the guesswork!



Single Blade Sand Injector operating on a Golf Green

Scientific analysis of your soil enables us to:—

Eliminate Waterlogging

Improve soil structure



By the New Deep
Penetrating
SAND INJECTION
technique.

**Establish precise fertilizer requirements and Provide
YOU with the complete prescriptive Turfcare Service.**

CHIPMAN TURFCARE

Chipman Limited, Horsham, Sussex, RH12 2NR. Telephone Horsham 60341/5
and at Royal Chambers, Station Parade, Harrogate, Yorkshire HG1 1EP. Telephone Harrogate 68658
Wincanton Close, Ascot Drive, Derby DE2 8ST. Telephone Derby 364271/4

[Sand Slitting from Page 5]

sand slits are "injected" simultaneously into the turf, without the need for spoil removal, and with minimal disturbance of the turf surface. They operate nationally with teams carrying out installations by contract in all parts of the country and many first class professional soccer clubs have taken advantage of the service. Machinery for use on the fine turf of golf greens is already available, and many greens, as well as fairways, have been successfully drained.

Chipman stress the importance of sand slitting as part of an integrated system of drainage consisting of "cut-off" drains where necessary to isolate the site from extraneous water, an intensive pipe system with correctly selected grades and depths of permeable backfill, and the slits giving the final close grid of interception channels at the surface. Sand slits can only be used alone where the subsoil is sufficiently permeable to function as an effective soakaway—a condition rarely encountered, or if they can reach through to a permeable raft featured in construction.

Unlike so many traditional drainage systems based largely on agricultural principles unsuited to compacted soils under turf, these schemes appear to really work. Maintenance has to be directed to keep the slits open to the surface, that is not capped by soil, and so receive water swiftly. Two ways are suggested: The first is to top-dress annually with fine sand, and the second is being worked on by Chipman at the moment; that is a device to instal a very close series of shallow "mini-slits" at right angles to the main slit system so as to remake the contact between the slit and the surface when renovating worn areas.

This is one new idea which may well earn itself a permanent place in golf course management techniques.

Warren's A-34

BLUEGRASS (*Poa Pratensis*)

A Smooth Stalked Meadowgrass!

The Bluegrass that bounces back!

- RECOVERS QUICKLY FROM INJURY.
- Highly disease resistance.
- Withstands shade (up to 65%).
- Thrives in open sunlight and varying soil conditions.
- Withstands short mowing, down to ½ inch.
- Produces a dense green sward of turf.

Warren's A-34 Seed
cost less . . .

1 Pound Sows
2,000 Sq. Ft.

(Over 1,000 seeds per sq. ft.)

AVAILABLE AS SEED AND TURF

FOR SEED CONTACT:

**HURST GUNSON
COOPER TABER LTD.**

Witham, Essex, CM8 2DX

Phone: Witham 3451

FOR TURF CONTACT:

**EASTERN CULTIVATED
TURF FARMS LTD.**

Cranley Nursery, Cranley Gardens

Muswell Hill, London, N10-3AR

Phone: (01) 883-5880

MELDRUM NURSERIES

Montrose Road, Silverwells

Arbroath, Angus, Scotland

Phone: Arbroath 2286

Quick-change artist

The Ransomes-Hahn Tournament Triplex is a remarkable machine — so remarkable that we call it the world's first Greens Management System. The Tournament Triplex is a 12hp vehicle with hydrostatic drive, which powers four separate turf maintaining operations.

Each conversion, from superb greensmowing to utility mowing, to Verti-Cutting, to spiking takes less than a minute — and no spanner!

Greens Units A full 67" cut. Each 23", nine-bladed cylinder can be lifted individually.

Utility Units Heavy-duty cutting cylinders and bottom blades for approach and tee mowing. Grass catchers provided with all units.

Verti-cut Units Patented twin offset blades remove 'thatch', keep greens in play even in difficult conditions.

Vibra-Spiker Now spiking takes even less time than greensmowing. High-frequency vibration penetrates to a depth of 1½" with a minimum of compaction. The combination of this unique quick-change unit feature, full 67" swath for every operation, variable-speed units and individual unit lifts make the Tournament Triplex an investment which no club can ignore. Your local Distributor is keen to impress you with a demonstration. Give him a call.

Ransomes Sims & Jefferies Ltd., Ipswich.

RANSOMES



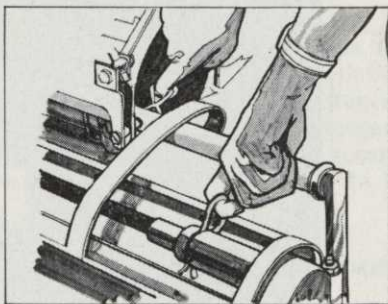
Ransomes-Hahn Tournament Triplex



BUY OR
LEASE

Ransomes-Hahn Tournament Triplex

When an advertiser tells you that a conversion is quick it's customary to take it with a pinch of salt. But *this* time take it as fact. Trying is believing, and you can try it for yourself at your local Ransomes dealer! You simply pull the connecting pin and quick-couple cable, remove the existing unit, and slip the selected unit into place. It takes less than a minute! Honest!



Tournament Triplex Greens Unit

A full 67" of cutting width with the exclusive features of variable speed cylinder drive, giving you a cylinder speed completely independent of ground speed. Units may be operated one-down, two-down or all-down.

Tournament Triplex Utility/Tee Units

Triplex utility units use same seven-blade design as greens reels, but have heavier fairway blades to withstand approach and tee mowing. These units are ideal for approach maintenance and the precision cutting of tailored tees, and can be adjusted down to $\frac{1}{8}$ " for greens-mowing after top-dressing.

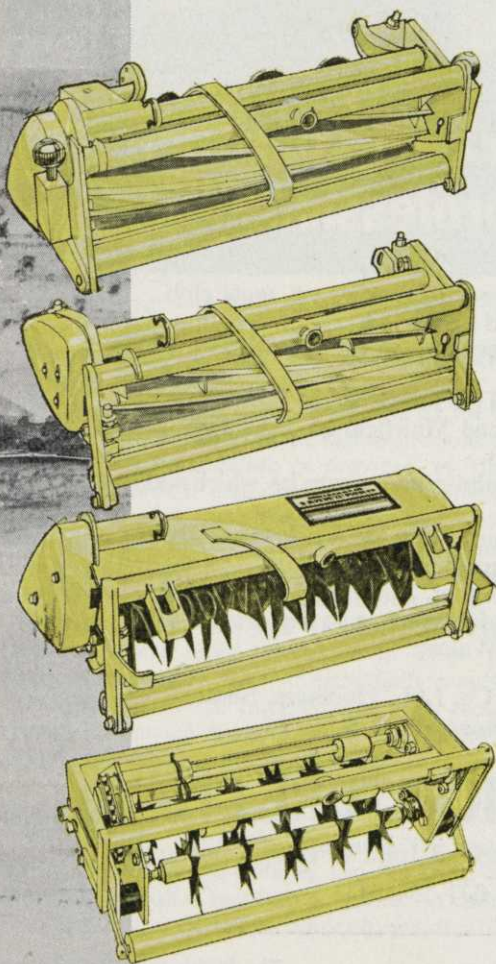
Tournament Triplex Verti-Cut Units

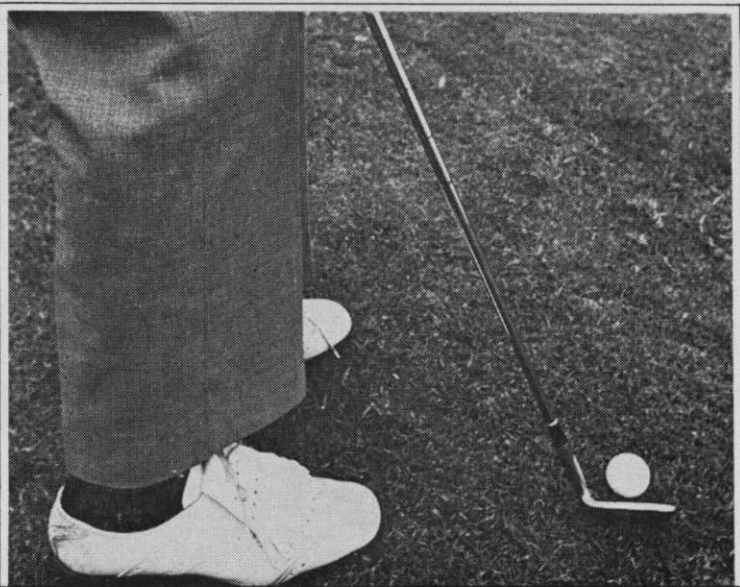
Verti-Cut units use durable, yet thin offset blades to remove thatch and grain as they begin to form. With 67" of cut (the Verti-Cut units are the same width, work at the same speed, and use the same grass catchers as the greens and utility units) and a riding vehicle, these attachments are ideal for preventing the development of thatch etc., lessening the need to take greens out of play for renovation. Variable-speed cylinder drives provide high tip-velocity even at low forward speeds.

Tournament Triplex Vibra-Spiker

Vibra-Spiker reels use gentle high-frequency vibration to achieve deep penetration, without excessive weight, even when ground is hard and dry. Spiking (summer aeration) provides root pruning and moisture absorption, relieves surface compaction, and conserves fertilizers and fungicides by getting them immediately to the root zone. Full 67" swath and Triplex speed make spiking a task that now takes even less time than greensmowing. Spiker penetrates to depth of $1\frac{1}{2}$ ".

**Ransomes-Hahn
Tournament Triplex
- the world's first Greens
Management System.**





Just like your club, your turf needs a professional.

For expert help and advice with their game, most club members have a professional to turn to.

But who can a green keeper turn to for help in keeping his turf up to par?

His own professional: SAI TURF FOOD

Courses like Carnoustie and Muirfield use SAI Turf Foods. It works wonders with grass.

It comes in the form of mini-crumb granules which makes it easy to spread.

It also stays where it's put, releasing its goodness slowly into the soil to strengthen grass growth.

For stronger, greener, cleaner, healthier turf, try SAI.

All enquiries to the manufacturers or to our accredited suppliers for England and Wales:

Chipman Chemical Co. Ltd., Horsham, Sussex.
Telephone 60341/5



HORTICULTURE LTD.

Hortus House, 3 John's Place, Edinburgh.
Telephone: 031-554 5451