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:

H. PATTISSON & CO. LTD.,
STANMORE HILL WORKS, STANMORE,
MIDDLESEX. 01-954 4171
The British Golf Greenkeeper

HON. EDITOR: F. W. HAWTREED
No. 345 New Series FEBRUARY 1974

CONTENTS

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEE SHOTS</td>
<td>5</td>
</tr>
<tr>
<td>TANA GRASS.</td>
<td>7</td>
</tr>
<tr>
<td>C. Goodall, Plantagenet Seeds Ltd.</td>
<td></td>
</tr>
<tr>
<td>LETTERS</td>
<td>11</td>
</tr>
<tr>
<td>FIRST BRITISH TURFGRASS SYMPOSIUM—Pictures</td>
<td>12</td>
</tr>
<tr>
<td>INTRODUCTION TO AUTOMATIC WATERING. R. W. Sitwell</td>
<td>13</td>
</tr>
<tr>
<td>Watermation</td>
<td></td>
</tr>
<tr>
<td>NEWS</td>
<td>20</td>
</tr>
<tr>
<td>SITUATIONS VACANT</td>
<td>27</td>
</tr>
<tr>
<td>NEWS FROM THE SECTIONS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28</td>
</tr>
</tbody>
</table>

Front Cover Picture

Significant savings in labour and water consumption have resulted from the installation of a fully automatic irrigation system at Aspley Guise and Woburn Sands Golf Club. The installation was designed by Rober Sandow (Calf Glade Ltd), Beadlow Manor, Beds., using Rain Bird equipment supplied by Plastic Tube and Conduit Company Limited.
The latest automatic grinders
The most up-to-the-minute machinery
The most experienced craftsmen repairers
The nation's finest mower repair department
For Ransomes - Sisis - Hayter - Dennis - Atco - Webb - Flymo - Allen
Large spares stockholding
Main distributors for M.A.G. and ASPERA

T. PARKER & SONS (Turf Management) LTD
Worcester Park, Surrey KT4 7NF
Tel: 01-337 7791 — 01-337 0861 (10 lines)

The independent family firm with the personal service
A new star has arisen on the golf architectural horizon in California. 14 year old Woody Richardson has started the world's first magazine devoted to golf course architecture. Vol. No. 1.01 appeared in December.

To give you an impression both of Woody and a glimpse of the future, we reprint his front page article. We wish him all success and look forward to seeing results when he finally takes up the job.

"McCormick Ranch

Nestled between the gentle slopes of Scottsdale, Ariz., is a Kaiser Aetna development; McCormick Ranch. And within that development are 2 championship golf courses which are challenging every player who plays them.

The golf course architect is Desmond Muirhead and along with his usual unusual tees, greens, lakes, and fairways, a new idea has been introduced; TransGlide Co., a division of Dahlberg Industries has designed a system that will move players around the golf course on a track. The principle is somewhat like that of a top slot car track, but in this case the players will be able to operate the 'cart'.

The 'carts' will look similar to a regular electric golf cart, as they move on a 2” wide track. They will run down the middle of the fairway connecting tees with greens, and greens with tees. The 'carts' will operate on 220 volts, this will come directly from the track, thus enabling possible heaters, coolers, ball warmers, and more. The possibility of the golf ball hitting, falling into, or obstructed by the track is "O", a zipper-like network of flaps will open as the 'cart' moves along the track, and drop as it continues on.

A trial system will be installed soon at McCormick Ranch. It will be just North-east of the Palms Course on the Pines Course.

For more information we suggest you contact:
Mr. Ron Jashowski; TransGlide Co.,
14601 North Scottsdale Road,
Scottsdale, Arizona 85253"

(With grateful acknowledgements to "The Golf Designer")

Work is now proceeding on the new Birmingham Municipal Golf Course and Sports Centre at Hilltop. The site lies alongside the Handsworth Golf Club where the President is also our President and Vic Smith, a well-known Midland member, has charge of the course. Vic has been an Honorary Member of his club for some years now.

It looks as though restrictions on Government spending via Local Authorities is bound to hit new golf course building. Greenkeepers can look forward to crowded courses and difficult maintenance conditions for some years to come. Happy New Year.
Putting PERFECTION

-grass to bring out the best in modern golfing

Pencross Creeping Bentgrass for the production of high quality golf greens, makes rapid establishment and a hard wearing close-knit sward that gives an excellent uniform putting surface.

Please send for further details of specially bred varieties of sports and amenity grasses.

Twyford Seeds

TWYFORD SEEDS LIMITED
Sports Turf Division
Adderbury, Banbury, Oxon.
Tel: Adderbury 281 (8 lines)
Telex: 83361
The gratifying world-wide interest in Tana Grass shown since its introduction just over two years ago, is now being accompanied by a sober appraisal of it under a number of widely differing climates and circumstances in various countries. In the United Kingdom it may now be viewed on recreational and residential sites including a completed nine hole golf course and a recently laid bowling green. Tana Grass may also be seen at the Sports Turf Research Institute, Bingley, alongside grass maintained to the highest standards.

The reaction of many commentators who have visited us—according to their articles—has been one of some scepticism of claims they had heard, followed by conviction from the evidence presented to them. We intend therefore to proliferate demonstration areas so that these will eventually be in easy reach of all potentially interested bodies, of whom we hope there are some in the readership of this magazine! In the meantime I hope you will find this article informative and that it will serve as an avenue of communication for those wishing to obtain further information.

Tana Grass enters at the point where all the hard groundwork of construction or renovation has reached a point where the normal question posed would be of whether to seed or turf the area prepared. All this preliminary work remains unaffected and the better it is done the better, of course, will be the long term results.

Ease of laying is followed by speed of establishment, slashing the amount of maintenance work before the green or tee is ready for play. The carpet-like texture of Tana literally folds over all contours. It evens out minor obstructions and thus greatly reduces the amount of top dressing required to achieve a smooth surface. The rapid root strike provides growth to continue with practically no check and within a week to ten days the sward is firmly anchored in, a process that starts in a matter of days from laying. This accelerates the whole programme of maintenance prior to the green or tee being ready for play. The established canopy of grasses resists intrusion from unwanted grasses such as Poa Annua.

Watering essential

The treatment of Tana is basically the same as for any other grass surface. Maintenance in the early days is however very important. Watering should be carried out at least once a day for a week to ten days during which Tana should not be allowed to dry out. Prior to laying, the application of a complete basal fertilizer dressing, preferably including slow release nitrogen, is recommended. A worm dressing should also be applied as birds, particularly blackbirds, can prove a nuisance in the early days if worms are to be found. After laying, a light dressing of fertilizer should be applied, most conveniently as a foliar feed. Thereafter repeated light dressings should be given according to normal practice. A fungicide could be applied with the foliar feed or separately, and we advise preventive fungicide dressings to maintain healthy growth. Cutting may commence within two to three weeks of laying, and should be progressively lowered from 1" to the appropriate height some weeks before being brought into play. Top dressings of peat/soil/sand composts should also be applied early in its establishment with repeated light doses until the
Time for **TEXTURF**

...a fine product for fine turf!

Texturf cuts down time and labour by providing for immediate use a carefully blended and balanced winter dressing for golf and bowling greens, and fine lawns.

It incorporates superfine peat, wood charcoal, Leighton Buzzard special sand and Winterfeed Fertiliser.

You'll be delighted with the greatly improved grass growth and colour in the Spring.

Apply at 2 lbs. per square yard during the Autumn and Winter months.

**ANNOCK**

**TEXTURF**

Packed in 1 cwt. heavy gauge polythene bags

Another super quality product from CANNOCK FERTILISERS LTD, CANNOCK, STAFFS WS11 3LW

The British Golf Greenkeeper
surface is considered to be satisfactory.

A pure sward of true colour and texture is the distinctive quality and hallmark of Tana Grass, which gives us great pleasure and this we hope will be shared by others. The process now resides in a patent which for the U.K. is No. 1313121 and is covered by the Trade Mark 'Tana' Registration No. 979144.

It is generally agreed when weighing up the pros and cons, that seed scores in providing the ideal mixture of varieties, but that it is slow to establish a strong turf and is attendant with the frustration of seeing thousands of weeds flourishing in the perfect seed bed. Turf, on the other hand, accelerates establishment of the sward, but is rarely of acceptable standard. Moreover, with the roots shorn off in its lifting, turf has to rejuvenate and much time and care is needed while it settles in and grows fresh roots. So what of Tana?

**Water-borne**

Tana Grass is the product of a new discovery which brought 'growth flotation' to the science of hydroponics, and the grass is in fact grown on water in a series of shallow lagoons. A rich carpet of grass is produced in record time by making full use of water and sunlight—the two prime energy sources of growth. A mixture of compost materials are spread on the lagoons and these level off to give a constant thickness. Polyurethane foam covers these materials and acts as a platform for the seed which is sown on top. Any mixture of grasses can be sown. The readily available moisture results in rapid and even germination and soon the roots strike through the carrier sheet into the
A regular thrashing has taught us all we know.

During our 160 years in the grass seed business, we've been thrashed about by a lot of different players on a lot of different courses.

For instance, we're always being cut up at Royal St. George's and Sunningdale, both of which were sown with our seeds at the turn of the century.

And we're getting hacked about all the time at Vilamoura in Portugal, Puerto di Hierro in Spain and Walton Heath.

Which isn't exactly playing the game, but it all helps with our education.

To take advantage of all that the years have taught us, write to us at Reading RG6 1AB.

We'll offer you an extensive range of grass seeds for tees, fairways, greens and the rough, plus some pretty sound advice.

Advice based on 160 years of experience learnt the hard way.

Suttons Seeds
We've been thrashed around for 160 years.