

Steep hills, rough ground,

tight quarters, wide open spaces — the revolutionary Worthington Model F Chief Tractor is at home in any kind of terrain.

With traction wheels in front under the engine, 75 percent of the Model F's weight is on the drive wheels. That's why this new Chief handles big gang mower loads on steep grades.

Front mounted gang mowers on the new Model F cut grass before the tractor wheels touch it — no more streaking due to compacted grass. Driver sees what he's doing without turning around. He gauges distance better, can cut down size of overlap.

For the full story on this smooth-working, cost-cutting tractor, write us or see your dealer today.

## WORTHINGTON MOWER COMPANY

Stroudsburg, Pennsylvania

Subsidiary of JACOBSEN MANUFACTURING COMPANY . RACINE, WISCONSIN

Country Club or any country club initiating a plan of permanent improvement and creating a program of work to follow in carrying out that plan makes a lasting contribution but doing the actual work, getting the job done, falls to the lot of another group, the greenkeeper and his ground crew. Too often these men are only a means to an end. It is therefore not surprising to learn that a committee that has been so thorough in its planning of a course improvement program would also be as concerned about the welfare of the men who are doing the work for them. The basic crew at Park Ridge consists of five men employed on a year round basis with three to five extra men being employed during the peak summer month The conditions under which they work a best told in the following letter written George Semple at the time he was cha man of the committee to the club presider

#### Dear Mr. Heckel:

Our permanent grounds crew consists of . men including the Greens Superintendent, Bertr. Rost, also our Mechanic Joe Wojciebowski. Ott. members and their duties are as follows:

Bill Guelzow, Tractors; Ed Schief, Trimm Paul Bloethner, Gardener; Ted Ody, Gree Mower and Night Sprinkler.

We wish to deal in this proposal with the i portance of the crew other than the Superinte

fairway sweeper

the Parker BEENS-GROOM

This triple-purpose unit affords efficient, quick means for giving putting greens a better appearance and playing surface with a minimum of time and labor.

A maintenance "must" - adds weeks to fall play and income. Economically collects and bails leaves, twigs, trash, etc. Promotes healthier, more abundant turf growth. Controls spread of

dandelion, buckhorn, and other obnoxious weeds. Useful every month of the year. Write for details.

dent and Mechanic. These men represent long years of service. Bill Guelzow having worked with us on our golf course for twenty years, Ed Schief seventeen years, Paul Bloethner thirteen years and Ted Ody one year minus. Over such long years of service these men have developed into duties of a highly specialized nature and this fact together with the long, loyal years of service plus economical advantages to our club, prompts me as Chair-man of the Grounds and Greens Committee to propose the following:

1. That we establish a vacation with pay for these old employees of one week. Time to be extended during the winter months and exact dates left to the discretion of the Greens Superintendent. 2. It is also proposed that we establish one week sick leave and the time not consumed as such be applied to the vacation period during the following year.

Insofar as our present crew is concerned the above applies this year to only three men as Ody bas not completed bis first year service.

I would very much appreciate your giving the above matter such consideration as you deem advisable and notify.

#### Yours very truly, Geo. E. Semple

Members of the Park Ridge committee and Bert and his men take pride in what has been accomplished in a comparatively short time. It is an economical operation that gets maximum results from a comprehensive maintenance program that avoids a hit or miss policy with no goal.



"The original name in lawn sweeping."

Golidom

## Drives in 1940 and 1949 National Opens Compared

#### By ROBERT TRENT JONES

(By arrangement with the USGA and Robert Trent Jones, golf architect, GOLFDOM presents this authoritative data on driving in National Open championships. It is one of the too few collections of fact to be submitted in the discussion about the length of the ball. -Editor)

In the spring issue of the United States Golf Association Journal, 1949, John D. Ames, Chairman of the USGA Implement and Ball committee, wrote an article on the present length of the ball as compared to its pre-war length, the comparison being made from the tests made by the Armour Institute at the request of the USGA in 1941 and again in 1948 with some six thousand balls at variable temperatures. These tests were made in order to help determine what should be the effective "freeze" of the ball length in order to retain the playing conditions at a standard and so eliminate the constant changing of golf courses in order to meet new or lengthened playing conditions.

It was Ames' conclusion that there might possibly be an increase in the length of the ball over its pre-war level and that this could be due to the use of improved or better materials. The manufacturers, however, felt that there had been no increase, and one manufacturer pointed out that the preparing of the mechanized unit used to make these tests by the Armour Institute might have had something to do with the variations shown between the tests before and after the war.

Before the United States Open championship was held at Canterbury in 1940 I became interested in the idea of testing the length of the drives of the players in the field of the Open championship, in order to check my own interpretation of the length of the drives of the cream of the American golfers as a determining factor in the placing of traps and the design of greens in the building of our new golf courses. In order to do this, I consulted Joe Dey, the Executive Secretary of the USGA, and requested the privilege of making these tests during the tournament. Consent was readily given and it was pointed out that the USGA was also very much interested in the results of these tests.

We chose the fifth hole at Canterbury GC near Cleveland for the test, this being the most level hole on the course from the tee up to the 290 yard mark. At this point a slight hill made the hole run uphill; but since the majority of the drives were unable to reach the incline, the test was made under what we think were fairly normal conditions.

#### 253.4 Yards in 1940

An effort was made to keep an accurate tabulation of the wind direction and its approximate strength as a factor in aiding the drives during the various periods of the day. No attempt was made to do this with mechanized equipment for the accurate measurement of the wind velocity; it was done more by "feel" as to whether the wind was slight, medium or hard. The results of these tests showed that the average drive for the complete field during the second day of the championship at Canterbury was 253.4 yards.

We have recently again made a check of the complete field of the Open championship during the 1949 Open at the Medinah CC near Chicago. This check was made on the tenth hole of the course which is perfectly flat, and it so happened that a boundary fence along this hole made it possible to check accurately every ten feet of the drive. For this reason it was also possible to check the flight and roll of the ball, which was not done at Canterbury. The condition of the fairway turf was about the same as it was at Canterbury; though possibly it was a trifle harder. The wind on the tenth hole came constantly from one direction, from the back of the tee, therefore aiding the drive. The variation in the wind according to our best guess was five to 15 miles an hour; and it came sometimes in gusts. During the course of the day the survey was made there was a constant breeze aiding the tee shot.

#### 260.2 Yards in 1949

The average length of the drive for the whole field on the first day of the cham-

# what a big difference Tourney

Pro shop sales of the TOURNEY Golf Ball are way up!
Praised by home pro and touring pro alike, the trend definitely is toward the TOURNEY. It's got what it takes for accuracy, distance and durability. Recommend the TOURNEY to your club members and you'll find a big difference in repeat sales. Many pros are finding this recommendation means more profit. How about you?



"It's amazing the way golfers in this section of the country are turning to the new TOURNEY Golf Ball."

Leland Gibson Blue Hills Country Club Kansas City, Mo.

"Of all the golf balls today, I believe the TOURNEY is the standout."

Chick Rutan Lochmoor Club Grosse Pointe Woods, Mich.

"If your golf game needs a lift, I'd suggest a change to the MacGregor TOURNEY Ball. It's Great!"

Gene Marchi Miami Valley Country Club Dayton, Ohio

### IN PRO SHOP AFTER PRO SHOP TOURNEY GOLF BALL

# nakes !\*

"More and more of our club members are playing the TOURNEY ball."

> Johnny Thoren Myopia Hunt Club South Hamilton, Mass.

"The TOURNEY Golf Ball is built for low scoring. I like its crisp 'click' and its extra distance."

Latest major win accomplished with the TOURNEY ball (as this ad was being prepared) was by Louise Suggs in the 1949 Women's Western Open Golf Championship—her third Western crown. Louise plays MacGregor TOURNEY Golf Balls

and Clubs exclusively.

\*

Stanley Kertes Bryn Mawr Country Club Chicago, III.

## MACGREGOT THE GREATEST NAME IN GOLF

4861 SPRING GROVE AVE., CINCINNATI 32, OHIO

#### ALES ARE GOING UP FASTI

### 49th NATIONAL OPEN GOLF CHAMPIONSHIP OF U.S.G.A. MEDINAH COUNTRY CLUB NO. 3 COURSE, MEDINAH, ILL.

COMPARATIVE DISTANCES OF DRIVES - FIRST ROUND - JUNE 9, 1949 MEASURED ON 10TH HOLE

-: Roll -: C - Center of Fairway; RF - Right Fairway; LF - Left Legend - Carry -Fairway: RR - Right Rough: LR - Left Rough: TL - Trap on Left: T - Topped: Average Drive, 260.2 yds. ģ

BI. P.LAND

	190	200	210	220	220	240	280	260	270	280	290
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TA S PLEMMONS 75 T.STEPHENSO 80 M.EVANS	-	_	_	-	-			î.			

pionship at Medinah was 260.2 yards. The flight, for the field, of the ball was 231.9 yards. Shots that were under 215-220 yards were not counted, as these were not indicative of the normal tee shots of players of this caliber. Shots that split the center of the fairway averaged 263.5 yards; and the average flight of these drives was 233.9 yards.

Certain players obtained a much longer

MZ J. CASPIO 83 C. BELJAN S. BOLESTA -A. HUTCH R. BOHD E. MONTI O. GREINER \*\* RB C. GREINER BD E. VINES SO L. GIBSOH 91 E. SUSALLA 92 R. HASRELL 83 N. PETROPO 94 C HARMON FURGEL 95 E. 96 T STRANA 97 A 98 0 99 1 -BERRY ICO S. ISLNER 101 NoT MAL OF DOUGLAS 102 0 IOS H SPEARS DWYER HARPER FOULIS 105 0 106 1 107. 4 THOMPS -----110 0 HEATHER 111 & BROSCH 12 J THOMSO 113 W.WANSA -LA M. MINTER BARATEN . 116 3 DEWARET IT M WARD IED J PATRON -----122 M.HALL 123 J NOVICH 124 P MODRE 125 2 ROBINSON ----109 A LOCKE 130 G WEBH 151 J HILWARD ISS B. HAWILTON ISA J.PLATTE IST J BARNUN 136 4.4015 ISN J. BURKE 140 W CAMPBELL 141 D SHUTE 142 B NELSON 143 8 SCHNEIT --------186 J PRISING 147 H TODO 148 R .GULDAHL 149 8 8180 ISO J HYAN 103 J. WASHER 154 J. STAHL 155 R. HACKETT IDE I MANTIN 157 J. OLVER -----180 LYONS -----

roll than others but the type of swing of these players had a bearing upon the carry and roll. For example the long hitters Jimmy Thomson, Chick Harbert and Skip Alexander all have swings of the type that get a high trajectory, and their shots have very little roll. Players with swings of the type of Claude Harmon's, having more upright swings of the closedface school, obtained longer rolls.

The accompanying chart will give a clear idea as to the number of hooks and slices and the number of trapped balls that went into the trap on this hole at the 230-240 yard mark from the tec.

According to our statistics there is a difference of seven yards in the average drive between the test made in 1940 at Canterbury and the test made in 1949 at Medinah.

#### Variable Factors Considered

The machine tests made for the USGA indicate a slight increase in the ball which could account for this difference. There are other variables that might have a bearing on the difference such as the slight differences that might have been brought about by the velocity of the wind. This was pointed up the second day of the 1949 tournament when, during a dead calm, a check was made on 20 players who had played the day before. During this period with no wind, the drop in yardage was about eight yards per player. This of course would not account for the difference between the Canterbury check and the Medinah check for in both cases there was an aiding wind. The length of the cut of the grass and the hardness of the ground could also be variable factors, but from the appearance and feel of the turf it is our opinion that this variation was very slight.

It may be possible that the longer hitters are now qualifying for the championship in the various sections of the country; although this theory should not be given too much credence. The design of the hole might tend to offset this difference slightly, although it is our opinion that with these two particular holes that this is not the case, as both holes adapted themselves to free lusty swings. The trap on the left at Medinah was more effectively placed, but we doubt that this had any bearing on the results of the survey.

It was interesting to note that as far as the low scering players and the name golfers of the country are concerned, they are all in the big-hit category, as can be seen by the accompanying graph.

#### Professionals Acclaim Golf Equipment Inventory Form

Golf Equipment Inventory forms prepared by the National Golf Foundation for club professionals have met with popular acclaim from all who have used them. According to the many letters received the forms make possible a record of the member's playing equipment which has long been needed. Al Braak, professional, Elmwood CC, Marshalltown, Iowa, writes:

"Your Golf Equipment Inventory sheets have made a hit with my members and with several insurance men also. They have followed up with a letter to their policy holders advising them to have me make a valuation at this time and file it with their insurance papers. Several large Country Club fires in Des Moines the past few years have made all members of Country Clubs in this area insurance wise."

The form enables the professional to provide members with information on the extent and condition of equipment.

The sheets are made up in pads of 50 at 75 cents each or 3 pads for \$2.00 and may be obtained by writing to the National Golf Foundation, 407 S. Dearborn, Chicago 5, Ill.

#### PREVENTING BENT DAMAGE

(Continued from page 33)

watering on hot days to prevent the young grass from withering and dying. Watering once a day is not enough.

Many clubs would have been wise to close the course for play for a half day when rain on Friday or Saturday made the surfaces excessively wet. In some instances rain stopped at nine in the morning and then players came in droves. No wonder there was no grass around the cups.

Bare ground on some collars or the outside edge of the putting green was due to the bruising action of the power-driven drum on the mower. Damage occurred from mowing when the grass was wilting



Many greens which suffered severe damage two years ago showed no signs of injury this year. This is attributed to a regular schedule of cultivating. This sample shows long grass roots in holes made by drilling green with turferator.

and from making a quick turn. Several greenkeepers stopped their men from mowing when the grass was wilting and were wise in doing so. Several blame corrugations on the drum. They may be bad in the odd spell of severe weather.

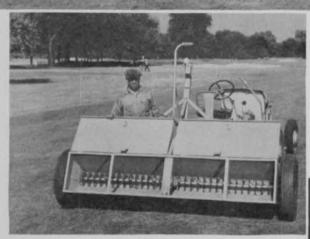
Chlordane has been very effective in controlling cutworms and sod webworms.

## **NOW!** Fertilizing, Seeding by the Revolutionary **EZEE FLOV**

FLOW

Patents Pending

EZEE DOES IT! ... at scores of America's leading courses and parks such as Chicago's Tam O'Shanter, Owentsia, Olympia Fields and the famous Central Park, New York, where four EZEE FLOWS are in constant use.



#### PERFECT FILM DISTRIBUTION

... assured by EXCLUSIVE AGITATOR ACTION which pulverizes lumpy, wet, hardened or "out of condition" material ... mixes hopper contents and force-feeds even flow through 32 hopper openings (8 ft. model). Cams, rotating through slots in hopper bottom, push material out accurately at rates regulated by shutter dial. Agitator case-hardened against wear or bending.

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ALSO AVAILABLE IN OLYMPIA "55 5 FT. MODEL FOR "IN AND AROUND WORK. Gets in and around traps, trap rough and over narrow bridges with ama ing nimbleness. Full 5 ft., 20 port spread because wheels are behind the hoppe Track-on-track spreading automaticall avoids "misses" or overlaps. NO MATH RIAL CAN ENTER BEARING ASSEMBLY A rugged little beauty that will give a lift time of precision performance. Hopper hold up to 500 lbs.



## Chemical Applications MADE EASY SPREADER & SEEDER

### AGAIN AVAILABLE!

## he ONLY Spreader Guaranteed to do All these Jobs:

Assures perfect FILM DISTRIBUTION of any and all fertilizers and seeds. MIXES, SPREADS any material regardless of condition—WITHOUT CLOGGING.

ACCURATELY spreads even high-analysis fertilizers from 50 lbs. per acre and up.

SOWS GRASSES at seeding rates adjustable in ranges of 5 pounds or less.

UNIFORMLY, SAFELY distributes light or heavy spreads of any material at any desired degree.

## FOR GOLF COURSES, PARKS, ESTATES, CEMETERIES AND ALL TURFED AREAS

Yes, again available—EZEE FLOW—the greatest machine you've ever seen for handling your spreading and seeding jobs with a minimum of time, effort and supervision!

Thousands of farm-type EZEE FLOW Spreaders are doing the job for American Agriculture-approved and endorsed by fertilizer manufacturers, seed growers, soil conservationists, farm management services and leading grain companies.

### WHAT EZEE FLOW WILL DO

... cover 15 to 20 acres per hour at speeds up to 12 m.p.h. with uniform applications of 0 lbs. to 2,000 lbs. of fertilizer—or as little as 3 to 4 lbs. of grass seed per acre.

. . . give trouble-free, one-man operation, with shutters of the 32 ports adjustable from the driver's seat for heavy or light spread, making film distribution simple, sure and easy.

... put material where you want it, accusately and uniformly, thanks to instantaneous form on and cut off.

... pulls, with special tractor hitch, trailer, harrow, perforator, etc. Saves labor and loading time.

... gives positive protection against "over" or "under" application, due to precise control of flow. . . . doesn't damage turf. Weighs less than 500 lbs., mounts on 6:00 x 6:16 tires.

. . . is ideal for dusting chemicals, mixing and applying powdered weed-killers, spreading road chemicals, etc.

EZEE FLOW is rugged, "automobile-precision" construction throughout-full floating axle-welded-steel hopper with moistureproof, loss-proof cover-beautifully finished in gleaming baked enamel.

The EZEE FLOW comes to you 85% assembled . . . sets up in less than 15 minutes . . . is greased and ready to go! With 24 hour service, you need stock no parts.

No other machine offers the tested and proved features and performance of the EZEE FLOW. Act now to get its benefits working for you.

full information and delivered
V SPREADERS.
(Nome)

## 100% PERFORMANCE GUARANTEED Over 20,000 Satisfied Users...The EZEE FLOW Makes Good—Or We Do!

Distributed in Illinois by

GEO. A. DAVIS, INC., 5440 Northwest Highway, CHICAGO 30, ILL. A Few Choice Distributorships Open in Other States...Write for Details It does a job on ants, also. Chlordane is safer in hot weather than lead arsenate. There were several instances of no dam-



This soil sample shows roots starting in hollow tine holes. Cultivation of greens in spring and fall with Aerifier or drilling with turferator may prevent recurrence of injury to greens caused by prolonged hot spells.

age this year where injury was severe two years ago during the hot spell in August. The greens were cultivated spring and fall

66

Mr. L. E. Warford Melflex Products Co., Inc. 410 S. Broadway, Akron 8, Ohio

Dear Sir:

Your new Vinyl rubber material, which covers both men's locker room and the professional shop at Florence Golf & Country Club, withstands the severe wear of spike golf shoes wonderfully well.

It is by far the best covering I have yet had or seen in any golf professional shop. It is very easy to keep clean and always maintains a tidy appearance.

> Yours sincerely, (Signed) Bob C. Ford, Professional Florence Golf & Country Club, Florence, Ala.

11

June 30, 1949

#### MELFLEX TEE MATS

Heavy duty-made from bomber airplane tire carcasses. Smoothest playing and longest lasting of all tee mats.

#### **MELFLEX RUBBER TEES**

Specially molded, tough, tubular rubber golf tees for Melflex Golf Tee Mats. \$15 per hundred. Real economy. with an aerifier on one course, and at the other the greens were drilled six times with a turferator. Plugs taken from both of them showed long white roots in the aerifier or drill holes.

The tendency is for greens to have shallow roots. Soil compaction from traffic, mower equipment, etc., is one cause. Poor soil from imbedded layers of matted grass, from the use of too much organic matter, etc., is another reason. Soil cultivation with an aerifier or turforator in fall and again in spring will do more than anything else to provide better roots.

From the fertilizer standpoint, greens should get enough phosphate and potash to replace the quantities removed in the clippings. On many courses the tendency has been to use phosphate to excess and to apply too little potash. Too much phosphate may be partly responsible for the iron chlorosis. Greens should get about 5 pounds actual phosphoric acid per 1000 square feet and 10 pounds actual potash per season. Then it is a matter of using enough nitrogen to maintain growth.

Mention has been made of tree roots. Greens which are surrounded with elms, poplars, willows, etc., should be examined for tree roots. When they are present in quantity, trenching between the green and the trees is advisable. One face of the trench should be faced with sheet metal before it is back-filled with soil.

Faulty drainage should be corrected be-

## Use is the Proof! MELFLEX VINYL RUNNERS

Melflex new Vinyl runners are truly outstanding in their beauty, maintenance ease and durability.

This extra spike resistent—heavy duty, resilient material available in three colors (Black,



Green and Terra-Cotta) will keep your lockerroom, pro shop and traffic aisles *neat* and *safe* for years. Write for folder on Vinyl Runners and other Melflex Golf Products.

### MELFLEX CLUBHOUSE PRODUCTS

Melflex underfoot safety: Landing Mats; Step Treads, Shower & Kitchen Mats and Link Type Standing Mats.

