

HAPPY HUNTING

TRIANGLE BRAND COPPER SULFATE

makes hunting for golf balls a much happier sport by clearing water hazards of algae, scum, murkiness, and odors. We'll be glad to tell you how to do this in an attractive free booklet on pond treatment. Write to Phelps Dodge today!



PHELPS DODGE REFINING CORPORATION

300 PARK AVENUE ■ NEW YORK 22, NEW YORK



AT LONG LAST THE
combination
TOP DRESSER - SPIKER
PLANTER

Will spike and topdress in one operation.
 Also an ideal stolon planter.

Dressing Capacity 4 cu. ft.
 3 Foot Spread

POWER DRIVEN

3 Horse, 4 Cycle Motor



This machine will topdress 150,000 sq. ft. of putting surface in one 10 hr. day. All metal-electric welded. Four rubber tires and two split rear rollers. Sold through dealers only. See your local dealer or write:

(Patent applied for)

Fraser Top Dresser-Spiker

12 Center Street
 Travelers Rest, S. C.

Many are the cases where the product was blamed instead of inaccuracy of application.

Jesse DeFrance used to maintain an area of putting turf at Rhode Island that measured precisely 1,000 square feet. Visitor's guesses as to the area involved soared to 2,500 sq. ft. and dropped as low as 500. Truly, the eye can deceive.

N Sources Important

Part of our concept of Accuracy involves telling the whole truth, not just part of it. There are mixed fertilizers on the market that contain "xx per cent organic nitrogen". Part comes from inorganics, part from natural organics, part from dry urea-forms. Only when it is known how much N each source contributes is it possible for the supt. to evaluate and to use the product properly and intelligently.

All labelled chemicals must carry a statement of the percentage of active ingredient. It was not always thus. Only thru concerted action was this accomplished. The seed industry has had its moments also. When Merion bluegrass came on the market there was a scramble to market "Merion Mixtures" and to capitalize on the free publicity. There was

nothing illegal or dishonest about selling a mixture which, according to the label, "Contains Merion bluegrass" but the 2 per cent that some of them contained did nothing to produce repeat customers.

More than 30 years ago we were impressed with the need for accuracy in diagnosing turfgrass troubles. Several persistent attacks of "dollarspot" were dosed with every remedy in the book (and some that were not in the book) only to have supts. learn, sadly and much later, that the grass was being eaten alive by sod webworms. More common today is the diagnosis of drought for nitrogen starvation. Much like the "dollarspot-sod webworm" mixup, the symptoms are similar. Water mistakenly applied to correct a nitrogen deficiency only makes it worse.

Winter Play Dilemma

Q. Each fall when we close our club, I have the supt. remove the cups from greens and use temporary greens. We treat for snowmold, etc., just before the supt. is through for the season.

Complaints come rolling in from members, other post-season players and hundreds of college kids who play many rounds after we close free of charge. The board doesn't think I

NEW
International®
404
LO-BOY



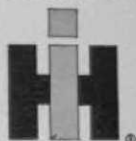
**Light
treading**

*fast
stepping*

Drive light but lively on softest sod with the low silhouette, wide-tread International 404 Lo-Boy. Dual drive tires divide the load to reduce turf pressure . . . balanced power-weight ratio keeps tires from scuffing grass on grades or under heavy pull. And low center of gravity combines with the wide tread to give unusual stability for mowing steep hillside rough or sloping fairways.

Proven International stamina means maximum availability with lower maintenance expense. For name of nearby IH dealer and specification folder, write International Harvester Co., Dept. G-2, P. O. Box 7333, Chicago 80, Illinois.

INTERNATIONAL HARVESTER



THERE'S A **Cyclone** FOR ALMOST
**EVERY SPREADING AND SEEDING JOB
 ON THE GOLF COURSE**



**CYCLONE
 POWER SEEDERS**

CYCLONE MODEL S-3 POWER SEEDER (left, above). Does a fast, accurate job, whether used for seeding or applying fertilizers. Spreads up to a 30-foot swath, depending on material being spread. Operates from heavy duty, flexible drive shaft which fits tractor PTO. Double agitator, easy setting rate gauge, and positive shut-off. 1, 2½, 3 and 5 bushel sizes.

CYCLONE ELECTRIC MODEL M-1 (shown on garden tractor at right, above). Mounts on garden tractor or front or rear of large tractor, truck or jeep. Powered by a self-contained electric motor which operates from the electric system of the vehicle upon which it is mounted. Does a fast, accurate job of seeding or applying nitrogen and other pelleted and granular fertilizers. Resistor available for control of spread width. 1, 2½, 3 and 5 bushel sizes.



CYCLONE HAND SEED SOWER. Accurately and quickly distributes grass seed, also pelleted fertilizer. Exclusive double-oscillating feed. Instant shut-off. 7- to 28-foot spread.



CYCLONE LAWN SPREADER. Famous for speed, freedom from streaks, accuracy. Covers a 6- to 8-foot swath. Ideal for fast, precision spreading of pelleted and granular fertilizers, herbicides, insecticides, seed, ice melters, etc.

See your distributor or write for information

THE CYCLONE SEEDER CO., INC.
 URBANA 60, INDIANA

should take the cups out; I catch the devil for doing so.

I give as my reasons to them: I don't want weed seeds tracked on our greens in fall; the golfers wear the dry, dormant bent grass off around the cup, leaving large worn spots; there is nobody around to change cups.

Am I right or wrong? Please answer this so I can show the board and convince them I'm doing the right thing. Also, I hope you can tell me other good reasons why I should stick to my guns.

P.S. Is there anything one can do to keep poa annua from spreading in a wet season? (Minnesota)

A. You seem to be caught on the horns of a dilemma. It appears that the board approves (1) closing the course; (2) letting the supt. go until spring; (3) leaving cups in for continued play after closing the course.

From the viewpoint of this department, you have our 100 per cent backing in your stand. When greens are closed for the season, there is no other alternative. You need no additional reasons other than this is the only way to have presentable greens in spring.

If the board votes to leave the cups in for post-season play on dormant grass, you have little choice but to comply. Point out in a letter the consequences and recommend that the supt. be retained on a 12-month basis to look after the damaged greens. Recommend a larger budget and a large putting green nursery so that ruined

areas on the greens can be resodded the first thing in the spring. Recommend a realistic schedule of green fees for out-of-season play to help repair the damages and to hire the extra labor that will be needed.

Another way out is to build an extra set of greens, one for summer and one for after-season play. The greens that are ruined by late play can be repaired at leisure during the next season.

P.S. Before the poa annua problem can be discussed intelligently it will be helpful if you will outline in detail the management practices that are in effect all through the season. Send a copy of your soil tests for several years. Outline fertilizer treatments, how often irrigation water is applied, the kind of grass you have on the greens, etc. It should be possible for you to minimize poa annua so that it ceases to be a problem.

Thomas Heads Mid-Atlantic

James E. Thomas, supt. of Army-Navy CC, Arlington, Va. and former head of the national GCSA, has been elected president of the Mid-Atlantic GCSA. Vice president is Thomas A. Doerer, Jr., Ft. Belvoir GC. Sec.-treas. is Sheldon R. Betterly of Chantilly National G & CC. Directors of the organization are George C. Gumm, Angelo Cammarota, James A. Reid, Bob Shields, Barclay Whetsell and Frank J. Haske.

The Royal Montreal Golf Club and The Royal and Ancient Golf Club in Scotland both use this mower



Ransomes CERTES

Ransomes 16" Certes is specially designed for cutting only the very finest turf. It is used on world-famous international championship courses such as the Royal and Ancient at St. Andrews in Scotland and on fine turf in many countries of the world.

Ransomes AUTO-CERTES

This 18-inch machine is the motorised version of Certes. It too is used at St. Andrews and gives 2,000 sq. yds. of very fine cutting in 1 hour.

CANADIAN DISTRIBUTORS

T. Brochu, 151 Rue Cartier, Pointe Clair, Montreal 33.
Gormans Ltd., Duchess St., Saskatoon & 10238-104th St., Edmonton.
Duke Lawn Eqpt., Ltd., 1184 Plains Road East, Burlington, Ont.
Arnolds Eqpt. & Supplies, 7275 Main Street, Vancouver 15.
Mayhew, Strutt & Williams Ltd., 2312 Douglas Street, Victoria, B. C.
Henderson Power Eqpt. Ltd., 560 Pembina Highway, Winnipeg.

AMERICAN DISTRIBUTORS

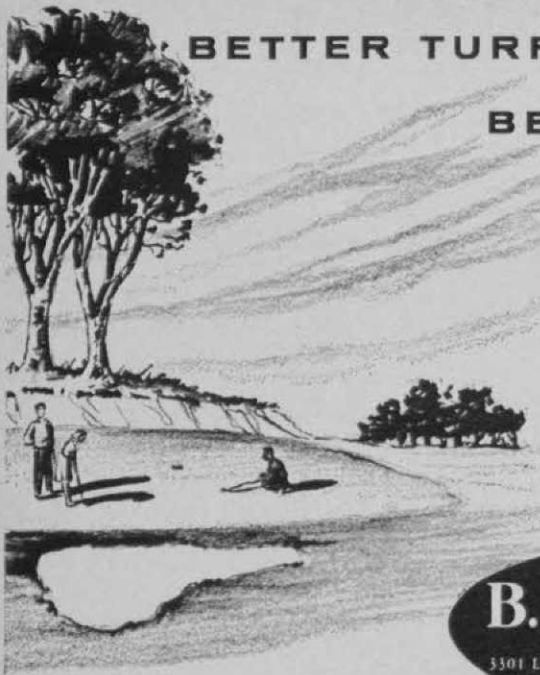
Ferti-Soil Company, 673 New Brunswick Ave., Rahway, New Jersey.
Hiram F. Godwin & Son, 22366 Grand River Ave., Detroit 19, Michigan.
Turf & Garden Division of Todd Company Inc., 3516 Billups Road, South Norfolk 6, Virginia.
Williams Equipment Company, 1813-15 Market Street, Chattanooga, Tennessee.

It has this excellent specification:

- * 10-knife cylinder specially hardened for long life giving 100 cuts per yard.
- * Especially thin bottom blade for very close cutting.
- * Accurately machined front and land-roll to avoid damage to the finest turf.
- * Adjustable handles.



RANSOMES SIMS & JEFFERIES LTD. IPSWICH, ENGLAND



BETTER TURF MAINTENANCE STARTS WITH BEST EQUIPMENT

Every golf course superintendent has enough problems without compounding them through use of mediocre or worn out equipment. Since creating and sustaining greens, tees, and fairways in consistently superb playing condition is an absolute essential, it follows that the best equipment for the work is also absolutely essential. B. Hayman Co. is constantly searching for the finest equipment based on lasting quality and performance. And we offer the quickest and most thorough parts availability service. All inquiries promptly answered.

B. HAYMAN CO. INC.
Since 1876
3301 LEONIS BLVD., LOS ANGELES 54, CAL.
Telephone: LUdlow 3-1851

Predicts Increase in Sales of Sports Goods in 1963; Competition to be Keener

The retail consumer market for sporting goods in the U. S. should reach a record high in 1963 of \$2,445,500,000, up 4 per cent from the revised record total of \$2,351,400,000 for the year 1962. The 1962 figure is 5 per cent above 1961 sales.

This stimulating prediction for the sporting goods industry is reported in a special economic survey for the National Sporting Goods Assn. by Richard E. Snyder, Chicago economist.

Hit \$2 Billion in 1960

Sporting goods sales passed the 2 billion dollar mark for the first time in 1960. The first billion dollar year was 1947, fourteen years after the depression low of \$167,300,000 in 1933.

The statistical research study reveals that indicated sales gains for 1962-63 for various categories range from a low of 2 per cent for firearms and supplies to a high of 25 per cent for winter sports equipment.

In the 10 to 20 per cent predicted in-

crease range are gymnasium equipment, 15.6 per cent; archery equipment, 12.3 per cent; billiard and pool tables and playing supplies, 11.6 per cent, and hockey goods, 12.3 per cent. Both golf equipment and squash goods are expected to show 10 per cent sales gains.

Pressure Will Mount

Snyder's study points out that 1963 will bring an intensification of competitive pressure. "In 1963," Snyder says, "this market will be in a more 'splintered' state than ever before."

It is estimated that there were 187,000 retail outlets for sporting goods last year, compared to 144,000 in 1948, 146,000 in 1954 and 171,000 in 1958. The growth in the number of retail outlets now exceeds the population growth rate, with the average number of persons per outlet in 1962 reaching what was probably a record low of 999 persons per outlet.

"When any trade develops an extreme condition of 'outlet-itis' that is the time for the operators therein to show how good they really are in the managerial and sales arenas," the survey states.

Geographically, the survey indicates 10 states will share 61.88 per cent of the 1963 sales potential — New York, Cali-



FORD LCG* TRACTORS

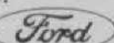
Low-Cost Go-power—year around!

Mow and tow in a hurry with the Ford LCG (low center of gravity) tractor. Then use the versatile LCG for golf course maintenance and construction, landscaping, loading and many other jobs that single-purpose mowing rigs can't handle.

Get year around use with the wide range of maintenance equipment available for the LCG. Optional power steering, 3-point hitch, and Ford's advanced Live-Action hydraulics provide work-speeding performance with handy rear hitch equipment.

Choice of two power sizes—134 cubic-inch engine, and 172 cubic-inch engine available. Both power sizes are available with gas or diesel engines. Five transmission choices, including power-shifting Select-O-Speed.

Ask your Ford dealer for an LCG demonstration soon!

PRODUCTS OF  MOTOR COMPANY

FORD

FOR 101 INDUSTRIAL USES

10 reasons why you should call your Toro distributor before you buy any golf car

1. EASY TO DRIVE (Toro offers 1-pedal start, shift and stop plus automatic clutch)

2. EXTRA EMERGENCY STOP BRAKE PEDAL (in addition to accelerator-interlock braking system)

3. REAR ENGINE (less vibration, less heat, less noise)

4. 20 GAUGE FORMED STEEL BODY (built to last, cut down maintenance)

5. EASY ON TURF (low center of gravity and wide tires for traction)

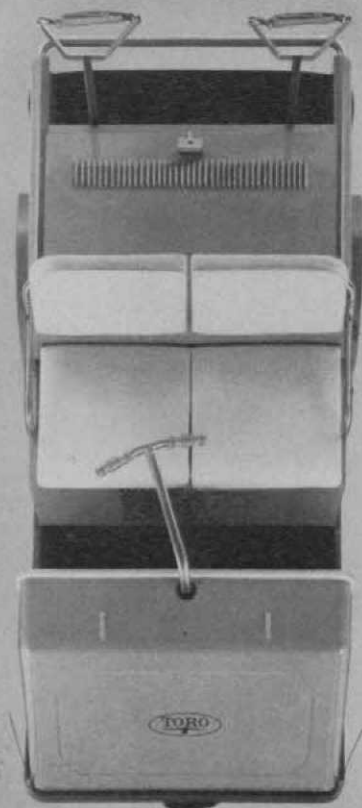
6. QUIET—YOU CAN HEAR A PUTT DROP (you can't hear Toro idle at 10 ft.)

7. PRECISE STEERING (a 2½ to 1 ratio)

8. POWER TO CLIMB 48% INCLINE (Toro's gas model has 10 hp. industrial engine)

9. GOLFER COMFORT (foam padded car-type seats, optional sunshade)

10. 72-HOLE FUEL CAPACITY (needs less attendant service; no "out of gas" distress)



ONLY TORO GOLFMASER HAS THEM ALL!

You want to find out which golf car is the best buy . . . runs most economically . . . returns more on your investment . . . gives you the least maintenance problems . . . keeps your course members and golfers happy.

That's just smart business. Especially if you're thinking in terms of a fleet of golf cars.

Toro Golfmaster! has quality features you should see and try. They'll stand up against any competition. Your Toro distributor will demonstrate them all . . . FREE, on your own grounds, without obligation.

He's also ready to give you a FREE course analysis to find out the number and kind of golf cars that will be most profitable for your course. Case histories of Toro Golfmaster fleets in use today verify his experience.

Whether you purchase or lease, choose gas or electric cars, he can show you the fleet financing plan that fits your specific needs.

Like a demonstration? Call him . . . his name and number is on the next page.

TORO[®] GOLFMASER

GAS & ELECTRIC GOLF CARS

TORO MANUFACTURING CORPORATION
8409 Lyndale Ave. S., Minneapolis 20, Minn.

¹Exclusive mark of Toro Mfg. Corp.

He's waiting for your call...here's his number

ASK THESE TORO GOLFMASER DISTRIBUTORS FOR ALL THREE!

**Free course analysis
of your golf car needs**

**Free trial demonstration
on your own grounds**

**Fleet financing plans
(purchase or lease)**

ALABAMA, BIRMINGHAM, Kilgore Toro, Turf & Supplies, Inc., 324-1679, D. L. Schulke
MOBILE, McGowin-Lyons Hdwe. Supply Co., HE 2-8721, W. R. York

ARIZONA, PHOENIX, The Norton Corp., CR 9-5596, David L. Valentine

ARKANSAS, (see Turfaid, Memphis, Tenn.)

CALIFORNIA, LOS ANGELES, Pacific Toro Co., RE 1-2364, Hugh G. McKay

SACRAMENTO, Brady-Holmes Company, IV 3-8448, Harold Sanburg

SAN DIEGO, Pacific Toro Co., AT 3-5451 William Goodrich

SAN FRANCISCO, California Toro Co., VA 4-9692, Russell P. Jones

COLORADO, DENVER, Barteldes Seed Co., 335-7361, Dale Moody

CONNECTICUT, HAMDEN, Bronson-Townsend Co., AT 8-3595, John Ryan

DELAWARE (see Gustin's Baltimore Toro, Baltimore, Maryland)

FLORIDA, JACKSONVILLE, Zaun Equipment Co., Inc., 389-8828, J. B. Oliver

MIAMI, Hector Turf & Garden Supply, 691-8800, Charles G. Mascaro

ST. PETERSBURG, Zaun Equipment Co., Inc., HE 7-5222, E. S. Newton

GEORGIA, ATLANTA, Cowan Supply Co., Turf Division, 875-9021, Howard Goldthwaite

HAWAII, HILO, Theo. H. Davies & Co., Ltd., 51-141, Kenneth Song

HONOLULU, Theo. H. Davies & Co., Ltd., 83-228, A. M. Aldrich

IDAHO (see Salt Lake Turf, Salt Lake City, Utah)

ILLINOIS, CHICAGO, George A. Davis, Inc., RO 3-6363, N. M. BelCastro

DECATUR, Scruggs-Drake Equipment Inc., 428-3485, D. C. Koentop

INDIANA, EVANSVILLE, Heldt-Monroe Co., HA 4-5575, Charles Macken

FORT WAYNE, A. H. Heine Co., TR 2715, Warren F. Fox

INDIANAPOLIS, Kenney Machinery Corp., ME 4-4468, Harry Ranft

IOWA, DAVENPORT, Tri-State Toro Co., 326-4416, Milton Dress

DES MOINES, Tri-State Toro Co., 288-7768, Robert J. Benson

KENTUCKY, LOUISVILLE, Tafel Electric & Supply Co., ME 6-1381, John Rulketter

KANSAS (see Turf Equipment, Kansas City, Missouri)

LOUISIANA (see Louisiana Toro Sales, Marshall, Texas)

MAINE, SOUTH PORTLAND, Yerxa's Inc., 779-2241, Jack D. Mansour

MARYLAND, BALTIMORE, Gustin's Baltimore Toro Co., Inc., NO 8-0500, A. T. Witcher

SILVER SPRING, National Capital Toro Inc., JA 7-9000, Dusty Reines

MASSACHUSETTS, WEST NEWTON, Lawn Products Inc., BI 4-6722, William Weeden

MICHIGAN, ROYAL OAK, C. E. Anderson Co., LI 8-1100, Robert Fauteck

SPARTA, Spartan Distributors, 887-6221, Robert E. Mills

MINNESOTA, MINNEAPOLIS, Minnesota Toro Inc., LI 5-1617, Paul McGee

MISSISSIPPI (see Turfaid, Memphis, Tenn.)

MISSOURI, KANSAS CITY, Turf Equipment Inc., DE 3-8000, Jack Hinson

SPRINGFIELD, Harry Cooper Supply Co., UN 2-4411, Joe Williams

ST. LOUIS, Meisel Distributing Co., MI 7-3513, James Smith

MONTANA, BILLINGS, Montana Toro Sales Co., 259-5523, Otto Reymer

KALISPELL, Manions' Inc., SK 6-3661, Gerald M. Manion

NEBRASKA, OMAHA, Z. W. Credle Co., 553-7353, Dan Harvat

NEVADA (see Salt Lake Turf, Salt Lake City, Utah)

NEW HAMPSHIRE (see Lawn Products, West Newton, Massachusetts)

NEW JERSEY (see Philadelphia Toro, Philadelphia, Pennsylvania or see Toro Power House, White Plains, New York)

NEW MEXICO (see Barteldes Seed, Denver or see Myers, El Paso, Texas)

NEW YORK, HAMBURG, Eaton Equipment Corp., NH 9-2020, Paul Houghton

LATHAM, Hudson Toro Sales Co., Inc., ST 5-6614, Warren Caulfield

ROCHESTER, Haverstick Toro Sales Corp., LO 2-5375, I. Wesley Wells

SYRACUSE, Golf & Tractor Equip. Corp., HO 9-3261, F. C. Robinson

WHITE PLAINS, Toro Power House Inc., WH 9-5290, Bob Graves

NORTH CAROLINA, CHARLOTTE, E. J. Smith & Sons Co., 333-4141, Jim Spencer

NORTH DAKOTA (see Minnesota Toro, Minneapolis, Minn.)

OHIO, CINCINNATI, B. K. Cohee Co., 791-1778, Ben K. Cohee

CLEVELAND, Ohio Toro Company, EV 1-5555, William E. Ebel

COLUMBUS, Woodin Sales Co., AX 4-1631, Roy A. McClelland

DAYTON, Century Power Mower Center, 298-8651, Ernie Buehrer

TOLEDO, Century Power Mower Center, GR 9-7503, Robert O'Brien

OKLAHOMA, TULSA, Wait Manufacturing & Sales Co., LU 4-3334, Logan Wait, Jr.

OREGON, PORTLAND, Oregon Toro Distributors, BE 4-9551, B. L. Larson

PENNSYLVANIA, PHILADELPHIA, Philadelphia Toro Co., DA 9-1300, Robert W. DuPree

PITTSBURGH, J. A. Williams Co., MU 1-5500, Frank H. Allen

RHODE ISLAND (see Lawn Products, West Newton, Massachusetts)

SOUTH CAROLINA (see E. J. Smith & Sons, Charlotte, North Carolina)

SOUTH DAKOTA (see Z. W. Credle, Omaha, Nebraska or see Minnesota Toro, Minneapolis, Minnesota)

TENNESSEE, KNOXVILLE, Tennessee Turf & Toro Co., 523-3301, Harris H. Davis

MEMPHIS, Turfaid Inc., JA 5-4366, Reg Perry

NASHVILLE, Ernest Hardison Seed Company, AL 6-2659, Charles Travis

TEXAS, DALLAS, Goldthwaite's of Dallas, Inc., TA 4-3619, Ralph Rowley

EL PASO, Myers Co., El Paso, Inc., KE 2-5405, Eugene Dale

FORT WORTH, Goldthwaite's of Texas, Inc., ED 5-5478, Charles Gregory

HOUSTON, Goldthwaite's of Houston, Inc., JA 8-5311, Hugh Pitts

SAN ANTONIO, Goldthwaite's of Texas, Inc., CA 5-1594, Wallis Champion

UTAH, SALT LAKE CITY, Salt Lake Turf Equipment, 486-9375, Karl Burge

VERMONT (see Bronson-Townsend, Hamden, Connecticut)

VIRGINIA, RICHMOND, Richmond Power Equip. Co., Inc., EL 5-7831, George Wingo

WASHINGTON, SEATTLE, Turfco, Inc., MA 3-6161, Michael Luckey

WISCONSIN, MILWAUKEE, R. L. Ryerson Co., ED 2-5064, Ron Schumacher

WEST VIRGINIA, HUNTINGTON, Van Zandt Supply Co., 525-5193, Frank W. Bockway

WYOMING (see Barteldes Seed Company, Denver or see Montana Toro, Billings)

CANADA

BRITISH COLUMBIA, VANCOUVER, Columbia Equipment Ltd., HE 4-7244, Newton Fallis

MANITOBA, WINNIPEG, Consolidated Toro Sales Ltd., SP 2-9514, Bruce Leilbrock

NOVA SCOTIA, HALIFAX, Halifax Seed Company, 422-9368, Nelson Robinson

ONTARIO, DON MILLS, F. Manley & Sons Ltd., HI 7-5166, A. W. Hassard

QUEBEC, JACQUES CARTIER, Agri-Tech Inc., OR 4-4967, Paul Duhamel

Lawn Beauty®

FERTILIZER AND SEED SPREADERS

Model 36 Professional for greens
and tees. Calibrated regulator

for accurate distribution.

Stainless steel hopper
bottom and slide.

Heavy duty galvanized
agitator.

Write for complete details.



SCHNEIDER METAL MANUFACTURING CO.

1814 South 55th Avenue

Chicago 50, Illinois

fornia, Illinois, Pennsylvania, Ohio, Michigan, Texas, New Jersey, Massachusetts and Indiana.

Largest percentages of sales increase in 1962 over 1961 were recorded in Mississippi, New Mexico, Nevada, Arkansas, Kentucky, Kansas, South Dakota, Nebraska, New Jersey and Wyoming.

Discuss Work of Opening New Course at Baltimore Meeting

The many things that have to be done in a maintenance way to get a new course operating were discussed by a panel of four men at the two-day clinic of the Mid-Atlantic CCSA in January, and perhaps gave rise to as much lobby and cloakroom comment and observation as anything offered on the program. Guided by the moderator, Fred Grau, a panel composed of Barclay L. Whetsell, Tantalum-on-the-Potomac, Richard Trevarthan, Island View GC and Harry Carlson, Moslem Springs CC, all of whom are supts., and Charles K. Hallowell, former USGA green section rep, examined just about

every facet of bringing a course into play. It was generally agreed that there are so many of these that a supt. should be called upon to help unwrap a course no more than once in a lifetime.

Others who made technical contributions to the 32-year old Mid-Atlantic conclave were Ralph E. Engel of Rutgers U., who spoke on turf research; D. Ray Booker of Penn State U., who told what makes the weather work; Charles G. Wilson, Milwaukee Sewerage agronomist, who discussed how not to apply chemicals; and John C. Jones and F. Nelson Swink, Jr., Dept. of Interior specialists, who suggested methods of animal control on a course.

Discuss Irrigation

Water systems were explained by Edward Shoemaker of Rainy Sprinkler Sales, and in conjunction with his speech, Charles P. Merrick of the U. of Maryland gave some tips on pond construction and management. Purdy Carson of Jacobsen Manufacturing Co., told the Mid-Atlantic turfmen how to keep their equipment properly serviced. Some of the highlights of course landscape design were discussed by Thurman Donovan of