

Market Place *and* Buyers' Guide

Where reputable manufacturers and dealers list and describe their products. Greenkeepers are requested to write the Market Place for any special information they desire about supplies or equipment.

Airport Drainage

Armco Culvert Mfrs. Association
Wendell P. Miller and Associates

Ant Control

Royal Products Company

Ball Washers

J. Oliver Johnson, Inc.
Worthington Mower Company
Ideal Power Lawn Mower Co.
G. B. Lewis Company

Ball Locators

Worthington Mower Company

Bent-Coos County State Sealed and Certified

J. M. McCullough's Sons Company
Seaside Bent Company

Bent Seed

Stumpp & Walter Company
Peter Henderson & Co.
O. M. Scott & Sons Co.

Bent Seed—Prince Edward Island

J. M. McCullough's Sons Co.

Bent Stolons

Hubbard Nurseries
O. M. Scott & Sons Co.
Stumpp & Walter Co.
Ohio Humus Products Co.
Illinois Grass Co.
Hiram F. Godwin
Lyman Carrier Products

Bluegrass—Seed

J. G. Peppard Seed Company

Brown Patch Control

Stumpp & Walter Co.
J. Oliver Johnson, Inc.
Arthur D. Peterson
American Cyanamid Sales Co.
C. B. Dolge Company
McClain Bros. Co.
Arthur Boggs & Co.
Mallinckrodt Chemical Works
Lyman Carrier Products

Charcoal

Cleveland Charcoal Supply Company
Wood Charcoal Research Bureau

Cocoas

Lyman Carrier Products

Compost Distributors

Toro Mfg. Company
The Root Mfg. Co.

Compost Mixers

Toro Mfg. Company
Royer Foundry & Machine Co.
Beardsley & Piper Company
Silver Mfg. Company
Kemp Mfg. Company

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Cultivators (Disc)

John H. Graham & Co., Inc.

Cultivators (Spike)

John H. Graham & Co., Inc.

Drainage Engineers

Wendell P. Miller and Associates

Dump Carts

Toro Mfg. Company
J. Oliver Johnson, Inc.
Worthington Mower Company
Peter Henderson & Co.
Ideal Power Lawn Mower Co.

Fairway Fertilizers

Synthetic Nitrogen Products Corp.
Armour Fertilizer Works
Lyman Carrier Products

Fairway Irrigation

Buckner Mfg. Co.
Campbell Irrigation Company
Economy Irrigation Company
L. R. Nelson Mfg. Company
Double Rotary Sprinkler Co.
Lyman Carrier Products

Fairway Mower Blades

The Budd Mfg. Company

Fairway Mowers

Pennsylvania Lawn Mower Works
Toro Mfg. Company
E. G. Staude Mak-A-Tractor Co.
Ideal Power Lawn Mower Company
Worthington Mower Company
The F. & N. Lawn Mower Co.
National Mower Company

Fairway Tractors

International Harvester Co. of America

Fertilizers

Milwaukee Sewerage Commission
J. Oliver Johnson, Inc.
Peter Henderson & Co.
Nitrate Agencies Co.
Atkins & Durbrow, Inc.
Arthur D. Peterson
American Cyanamid and Chemical Corp.
Lyman Carrier Company
Bayer-Semesan Company
Synthetic Nitrogen Products
Wayside Gardens Company
Armour Fertilizer Works
Cobwell Reduction Co.

Fertilizer Distributors

International Harvester Co. of America
Synthetic Nitrogen Products Corp.
The Root Mfg. Co.

Flag Poles

Ideal Power Lawn Mower Company
Standard Mfg. Company

Flexible Steel Mats

J. Oliver Johnson, Inc.

Fungicides

Bayer-Semesan Company, Inc.
Sherwin-Williams Company
Mallinckrodt Chemical Works

Fairway Rollers

Toro Mfg. Company
Philadelphia Toro Company
Worthington Mower Company

Golf Architecture

Charles Evans, Jr., and Associates

Golf Course Construction

Ohio Humus Products Co.

Golf Equipment

Stumpp & Walter Co.
Peter Henderson & Co.
Arthur D. Peterson
Ideal Power Lawn Mower Company
Lawn Equipment Corp.
T. W. Wood and Sons
Worthington Mower Company

Golf Flags

Ideal Power Lawn Mower Company
Stumpp & Walter Company
Peter Henderson & Co.
Arthur D. Peterson
Philadelphia Toro Company

Grass Seeder

The Root Mfg. Co.

Greens Fertilizers

Armour Fertilizer Works
Synthetic Nitrogen Products Corp.
Lyman Carrier Products

Greens Sprinklers

L. R. Nelson Mfg. Co.
Buckner Mfg. Co.
Double Rotary Sprinkler Co.
Perfection Sprinkler Co.

Hand Mower Blades

Budd Mfg. Company

Hole Cups

Standard Mfg. Company

Hole Cutters

Ideal Power Lawn Mower Company
Lawn Equipment Corp.
Standard Mfg. Company

Hole Liners

Chilton Crocker Company

Hole Rims

Ideal Power Lawn Mower Co.
Arthur D. Peterson

Horse Drawn Mowers

Pennsylvania Lawn Mower Works
International Harvester Co. of America
Worthington Mower Company
Ideal Power Lawn Mower Co.
Roseman Tractor Mower Co.

Hose

Peter Henderson & Co.
Arthur D. Peterson

Humus

Hyper-Humus Company
Ohio Humus Products Co.
Peter Henderson & Co.
Atkins & Durbrow, Inc.

Hydro-Mixer

McClain Brothers Company

Insecticides and Fungicides

American Cyanamid and Chemical Corp.
Sherwin-Williams Company
Bayer-Semesan Company
Arthur Boggs & Co.
Mallinckrodt Chemical Works

Iron Pipe

McWane Cast Iron Pipe Co.

Lawn Mowers

Pennsylvania Lawn Mower Works
Toro Manufacturing Company
Worthington Mower Company
Ideal Power Lawn Mower Co.
The F. & N. Lawn Mower Co.
Jacobsen Manufacturing Company

Lawn Seed

Henry A. Dreer
O. M. Scott & Sons Co.
J. Oliver Johnson, Inc.
Stumpp & Walter Co.
A. N. Peckham
Peter Henderson & Co.
J. M. McCullough's Sons Co.
Illinois Grass Co.
Arthur D. Peterson
Henry A. Dreer
Philadelphia Seed Co.
Seaside Bent Company
Lyman Carrier Products

Lime Spreaders

International Harvester Co. of America

Marvel Turf Conditioner

Walter B. Helms, Inc.

Mower Blades

The Budd Mfg. Co.

Mowing Equipment

E. G. Staude Mak-A-Tractor Co.
Toro Mfg. Company
Pennsylvania Lawn Mower Works
Ideal Power Lawn Mower Co.
Worthington Mower Company
Arthur D. Peterson
International Harvester Co. of America
Roseman Tractor Mower Co.
The F. & N. Lawn Mower Co.
Jacobsen Mfg. Company
National Mower Company
Philadelphia Toro Company

Motor Trucks

International Harvester Co. of America

Mower Sharpeners

Fate-Root-Heath Company
Toro Manufacturing Company
Henry H. Doty
Palmer-Bee Company

Nitrophoska

Synthetic Nitrogen Products Corp.

Peat Moss

Atkins & Durbrow, Inc.
Richard Gertstell

Perforator

Philadelphia Toro Company
J. F. Buel

Poa Annua

J. M. McCullough's Sons Co.

Power Mowers

Cooper Mfg. Company
Toro Manufacturing Company
Worthington Mower Company
International Harvester Co. of America
Jacobsen Mfg. Company
Ideal Power Lawn Mower Company

Putting Cup Illuminators

Chilton Crocker Company

Putting Green Mowers

Toro Mfg. Company
Pennsylvania Lawn Mower Works
Worthington Mower Company
Cooper Mfg. Company
Ideal Power Lawn Mower Co.
Roseman Tractor Mower Co.
The F. & N. Lawn Mower Co.
Jacobsen Mfg. Company

Power Putting Green Mowers

Jacobsen Mfg. Company
Worthington Mower Company
Ideal Power Lawn Mower Co.

Rakes

Pennsylvania Lawn Mower Works

Rhode Island Bent Seed

A. N. Peckham

Rollers (Hand)

John H. Graham & Co., Inc.
Stumpp & Walter Company

Rollers (Fairway)

John H. Graham & Co., Inc.
Toro Mfg. Company
Worthington Mower Company

Rollers

Stumpp & Walter Company
Toro Mfg. Company
Worthington Mower Company

**Wheel Spuds**

Quickest to put on and take off. Doubles traction. Durable and low priced.

All sizes for all purposes. Samples and circulars sent free on request. Advise make of tractor and purpose intended.

If your Ford or equipment dealer cannot supply, write direct.

Immediate shipment. Prices Reduced.

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Manufacturer
GENEVA OHIO

Rough Mowers

Toro Manufacturing Company
Pennsylvania Lawn Mower Works
Worthington Mower Company
Ideal Power Lawn Mower Co.
Roseman Tractor Mower Co.
Jacobsen Mfg. Company
Philadelphia Toro Company
International Harvester Co. of America
Gravely Mower & Cultivator Co.

Seaside Bent

Seaside Bent Company
Lyman Carrier Products

Shower Nozzle

McClain Brothers Company

Signs

Standard Mfg. Company

Sod Cutters

J. Oliver Johnson, Inc.
Pacific Greenkeepers' Appliance Co.

Sprayers

Hardie Mfg. Company
Friend Mfg. Company

Sprinklers

L. R. Nelson Mfg. Company
Buckner Mfg. Company
Economy Irrigation Company
Campbell Irrigation Company
Double Rotary Sprinkler Co.
Perfection Sprinkler Co.

Spuds

Diamond-Calk Horseshoe Company

Stolons

O. M. Scott & Sons Co.
Hubbard Nurseries
Lyman Carrier Products

Sulphate of Ammonia

Synthetic Nitrogen Products Corp.

Tee Markers

Standard Mfg. Company

Tee Mowers

Toro Manufacturing Company
Pennsylvania Lawn Mower Works
Worthington Mower Co.
Ideal Power Lawn Mower Co.
Jacobsen Mfg. Company

Tee Stands

Worthington Mower Co.

Tillage Implements

International Harvester Co. of America

Market Place and Buyers' Guide---

Top Dressing

Hyper-Humus Company
The Ohio Humus Company
Atkins and Durbrow, Inc.

Tractors

E. G. Staude Mak-A-Tractor Co.
Toro Manufacturing Company
Worthington Mower Co.
International Harvester Co. of America
Ideal Power Lawn Mower Co.
Roseman Tractor Mower Co.
R. S. Horner
Gravely Mower & Cultivator Co.

Tractor Wheels and Spuds

R. S. Horner

Turf Fertilizers

Armour Fertilizer Works

Underground Hose Locker

McClain Brothers Company

Urea

Synthetic Nitrogen Products Corp.

Water Pipe

McWane Cast Iron Pipe Co.

Wood Charcoal

Wood Charcoal Research Bureau

Worm Eradicators

Peter Henderson & Co.
C. B. Dolge Company
Reade Mfg. Company

EMPLOYMENT DEPARTMENT

GREENKEEPER WANTED

I have a position open for an all-around man, experienced in upkeep of an 18-hole sand green course. Must be A-1 with mowing equipment and machinery. Only one who takes interest in his work and sees that the job is done will be considered. Address all inquiries to Box 10, The National Greenkeeper and Turf Culture, Caxton Building, Cleveland, Ohio.

POSITIONS WANTED

Experienced greenkeeper with splendid references desires position in the Chicago district. Understands thoroughly soil and climatic conditions. Good man for any club. Address inquiries to Box A, The National Greenkeeper and Turf Culture, Caxton Bldg., Cleveland, Ohio.

Nationally-known greenkeeper with many years' experience in the construction and maintenance of several well-known golf courses, such as Oakmont in Pittsburgh and Plum Hollow in Detroit. Has a son who will act as assistant and is an expert mechanic. This combination should appeal to any golf organization desiring efficient and economical management. The best of references will be furnished upon request. Address inquiries to Box B, The National Greenkeeper and Turf Culture, Caxton Bldg., Cleveland, Ohio.

Greenkeeper with best of recommendations and thorough experience in maintenance and construction. References furnished upon request. Address inquiries to Box D, The National Greenkeeper and Turf Culture, Caxton Bldg., Cleveland, Ohio.

Pro-greenkeeper with many years' experience, seeks position as professional, pro-greenkeeper or greenkeeper. Grand-nephew of the late "Old" Tom Morris of St. Andrews, Scotland. References, John Ball, eight times British Amateur champion, and Jimmie Johnson, ex-American Amateur champion. Previous connections, Town and Country Club, Saint Paul; Midlothian C. C., Chicago; Louisville C. C.; Country Club of Harrisburg, Pa. Address Tom Morris, 1548 E. 64th Street, Chicago, Illinois.

Park and Cemetery Turf

(Concluded from page 10)

all times, and located on soil that will not crumble away when the sod is lifted.

If a wild grass that makes good turf creeps into the lots, tame it and encourage it to grow. Turf is what is wanted and not a particular species of grass. Rhode Island bent and many bent species very often volunteer in turf. The use of acid-reacting fertilizers is much more likely to encourage desirable native grasses to grow than fertilizers that give an alkaline reaction.

Iron Sulphate

(Concluded from page 8)

dition which is often observed (in England) when sulphate of ammonia is used alone.

In conclusion, it should be remembered, that the results obtained in England from the use of iron sulphate, have been ob-

tained under cultural conditions that differ in many respects from those of the United States. It would be interesting to observe the results of similar experiments conducted under our cultural conditions.

Draining Polo Fields

By G. D. JONES, Agricultural Engineer

IN THE management of polo fields, golf courses, estates, cemeteries and aviation fields, unusual drainage problems of more than ordinary difficulty are frequently encountered. A typical case was that of the Hunting Valley polo field, located just outside of Cleveland, Ohio, in the Chagrin Valley.

This field had been under-drained with tile at the time it was made. Due, however, to constant rolling and hard use from regular play, the ground had become so compacted that surface water was unable to get through to the tile, and the latter, therefore, had lost its efficiency in maintaining good drainage. As a result, much loss from winter killing was experienced and the field was frequently unplayable at the time games were scheduled.

The problem was obviously the adoption of some method which would break through the top soil without injuring the turf or the playing qualities of the field, and at the same time would permit the surface water to drain through to the tile, where it could be carried away. The agricultural engineering department of the Cleveland Tractor company was consulted and a treatment recommended with results that have been unusually satisfactory.

In the fall of 1932 a Cletrac Model 25 crawler tractor was used to pull a No. 20 Killifer chisel over this field to a depth of approximately 20 inches. A special sweep-shaped tool was used at the bottom of the chisel to increase the fracture of the compacted soil at the bottom of the chisel cut. The cuts were run across the field at intervals of approximately 30 inches at right angles to the direction in which the tiles were laid. This treatment loosened the compacted top soil and permitted the easy passage of water to the lower levels, where it was carried away by the tile. No injury to the turf was experienced.

The effectiveness of the job was well illustrated one morning early in March, 1933. After a very heavy rain on this particular morning, all the fields in the



will keep new-cut Greens free of ant hills and worms and not injure turf. Trial order to make fifty gallons.

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