Where rugged endurance, sturdiness, and quality come first, the latest 1932 Model National Heavy Duty Fairway mower will meet your severest problem.

The 5-gang fairway mower of this new type cuts a swath of 11½ ft., weighs 773 lbs., with draw bar pull of 250 lbs. The new 3-gang outfit which cuts a 7-ft. swath weighs 485 lbs., with draw bar pull of 160 lbs. This new frame hook-up is to be offered by Ideal in 1932 in addition to its standard frame that has been on the market for nearly 10 years. The new cutting units built for 1932 can be used in connection with either type of frame.

In addition to the new fairway equipment on display there will be the Ideal power putting green mower which was shown for the first time last year. The 1932 power putting green mower embodies a number of refinements including a new and easily operated pneumatic rubber tire transport cart—a power driven carrier stand strain, is carried on two wide faced wheels so that there is no weight of the frame resting on the cutting units. Pull arms extending from the frame back to the cutting unit side frames are attached by special lug at a point slightly below the wheel center so that the cutting units are held right to their work even in heavy cutting. Cutting units will have 7-inch, 7-blade reels with knives of special heavy steel and the reels geared to operate at a speed that gives a fine, smooth job of cutting.

Using the most powerful frame, double sets of tempered steel cut gears in oil tight cases, Timken Bearings—it lasts longer.

**PRICES ATTRACTIVELY LOW**

Write for descriptive literature and prices on Fairway mower equipment and tractors. Thousands of NATIONAL mowers have satisfied owners covering every state.

**TO YOUR OWN CLUB BE TRUE AND IT WILL FOLLOW**—that before ordering Charge Checks, Score Cards, Guest Registers, Caddie Cards and other forms you will first see our line of standardised golf printed matter.

**JOHN H. VESTAL COMPANY**
703 South La Salle Street - - Chicago

**Racks HANDICAP Cards**
John Willy Handicap Racks and Cards are standard with practically all the leading American golf clubs. Write for booklet.

**JOHN WILLY, INC.**
443 S. Dearborn St.
CHICAGO, ILLINOIS

**The Toro Compost Machine**
Grinds and screens in one operation. Handles the material as fast as your men can shovel it in. Nearly a thousand of them in use at very small upkeep cost. Write for full information.

**Toro Manufacturing Co.**
3042-3168 Snelling Ave., Minneapolis, Minn.
Arthur D. Peterson  
Graybar Building  
Telephone MOhawk 4-0410, 4050  
420 Lexington Avenue  
NEW YORK  
Exhibit in Booth 28  
National Greenkeepers’ Golf Show, 1932  
**GOLF COURSE and ESTATE SUPPLIES**  
Write for 1932 Catalog  
No connection with any other concern using my name

**IDEAL GOLF EQUIPMENT**  
**BULL DOG GANG MOWERS**  
**POWER GREENS MOWERS**  
**FLAGS, POLES, ETC.**  
**IT’S GOOD**  
**EVANS IMPLEMENT COMPANY**  
569-71 Whitehall St., S. W.  
ATLANTA, GA.

New Perfection sprinkler in action.

available at slight extra cost—and a new type greens brush attachment.

Another new item to be displayed is a new running-in stand for back grinding cutting units to be sold at a low price. The stand will be supplied complete with electric motor.

**SPRAY DISC IS MAIN FEATURE OF PERFECTION SPRINKLER**

Plymouth, Mich.—A spray disc, eccentrically mounted, which revolves in operation and intermittently interrupts the stream of water to secure even distribution is a major feature of the new Perfection Sprinkler which the Perfection Sprinkler Co. is introducing to the golf field.

No adjustments are said to be necessary with this sprinkler. The device operates on any pressure from 15 lbs. to 60 lbs., with continuously automatic slow motion at any pressure and in any position up to 45 degrees, regardless of strong winds. The sprinkler has an open nozzle. Sprinkling area is from 40 ft. to 100 ft. diameter, according to pressure used. The maker says the sprinkler will distribute 400 gals. to 1,200 gals. per hour with 3/16 in. (standard size) nozzles. The device is not automatically propelled.

**ADALINK TO DEMONSTRATE CHICKWEED ELIMINATION**

Jersey City, N. J.—Adalink Chemical Co. has arranged an exhibit of its Purfeck Chickweed Eliminator at the sixth annual

---

**IMPROVES SOIL HYPER-HUMUS for LAWNS AND GARDENS**

Most economical and efficient for putting greens either in top dressing mixtures or incorporated into soil. Write us for literature and practical suggestions.

**HYPER-HUMUS COMPANY**  
51 Park Place  
Newton, New Jersey

**THE PEERLESS MOWER SHARPENER**

NEW MODEL D  
Grinds all type of power-driven, fairway, putting green and hand mowers without removing mower wheels or reel knives. Carriage has travel of 42 inches. Very fast and extremely accurate. 6-inch grinding wheel driven by 1/3 H.P. motor and V belt. Very quiet running.

A Reconditioner Attachment can be furnished at an additional price for “lapping in” putting green mowers with emery paste. This Attachment can be quickly clamped to the Sharpener by two clamps. Write for Catalog.

**THE FATE-ROOT-HEATH CO.**  
432-468 Bell St.  
Plymouth, Ohio
National Greenkeepers' Show. An actual demonstration will be given of how chickweed-infested turf is "cured" by spraying on Purbeck, eliminating the necessity for hand-pulling, digging or patching. The manufacturers state that they have now strengthened the solution to such an extent that it is possible to cover an entire acre for a considerable reduction in cost, even if there is as much as a 50 per cent infestation of chickweed.

PENNSYLVANIA'S GIANT MOWERS
MAKE DEBUT IN 1932

Primos, Del. Co., Pa.—For 1932 Pennsylvania Lawn Mower Works is introducing two new fairway models, each using the Pennsylvania unit of all malleable, unbreakable construction, fitted with wide blade 6-knife reels and double edge bottom knives, Timken reel bearings, and other refinements.

The first model is a new Giant Quint using 36-inch units. The total cut is 14.5 ft. wide, which is only slightly less than the width of cut with a 7-unit gang using 30-in. units, and costs about $200 less.

Advantages of this model are, as mentioned by its makers, greater use of control, lower cost of purchase and maintenance, doing away with difficulties encountered with a 7-unit gang, such as crossing bridges and storing in buildings, as well as fewer general repairs.

The second new model is a 9-unit gang. Pennsylvania believes this is the largest grass cutter ever manufactured. With the usual 30-in. units in position, the width of cut is 21.5 ft. If 36-in. units are used, the width of cut is 26 ft.

These outfits are both as easy of control as a standard Pennsylvania Quint, and the 9-unit gang can be converted into a 7 or 5-unit gang by easily removing end units of one or both rows. Another feature is that standard Pennsylvania frames can be coupled together, so that any present user of Pennsylvania fairway mowers can purchase the necessary parts to build any type of frame needed. Again, if a user has 9-unit frame and for any reason wants to separate it into a quint and trio, it can easily be done in a short time.

The Pennsylvania Greens Mower is made for 1932 with an 8-blade reel as standard, and produces a correspondingly finer cut than the earlier model.

ECONOMY
Quick Coupling, Adjustable Opening Valve
Recommended for all hoseless sprinkling systems for golf courses, where speed, economy and efficiency are desired. Write for name of our agent nearest you—he will give free demonstration.

PENNYSYLVANIA IRRIGATION CO., Inc.
21 Spokane Street
SEATTLE, WASHINGTON

A complete service for
DAILY FEE
GOLF COURSE PROJECTS
Surveys to determine potential play and profits.
Plans for group or individual ownership.
Course and clubhouse operating routine and maintenance.
Complete architectural and construction service.
Costs guaranteed by contracts.

ROBERT H. HUMPHREYS & CO.
1569 Sherman Ave.
EVANSTON, ILL.

DIAMOND
Steel Center
TRACTOR SPUDS
Long wearing—sharp until completely worn out—because of hard tool-steel center—outside wears away faster. Made in all sizes to fit any size or make of tractor. If your dealer can't supply you, write direct for sample or literature.

DIAMOND CALK HORSESHOE CO.
4702 Grand Ave.,
Duluth, Minn.

DOWN Goes Mowing Upkeep!
Away DOWN in EXPENSES, but away UP in RESULTS—where Budd goes on the job. Conditions today make Budd a prudent necessity—with its four-times ordinary blade service. Budd uses the sensible safety razor principle—so its popularity is rapidly spreading. Don't delay investigating.—Write for Price List "G" with full details and new low prices.

BUDD MOWER BLADES
Rate for these Ads is 10 cents a word—Minimum Ad is $2.50

JOBS

SALES MEN WANTED

Nationally known and established golf club manufacturer wishes to add three more men to pro sales organization to cover Eastern, Midwest and Southwest territories. Only experienced, successful pro salesmen or well acquainted golf professional, who feels he can sell, should respond. Others will only waste time and postage. Give history for past five years and complete story about yourself in first letter. Address: Ad 1901, % Golfdom, Chicago.

Professional-Greenkeeper-Manager open for position; 19 years' experience in teaching, club-making, greenkeeping, club management, golf course design and construction and landscaping of golf courses. Eight golf courses designed and constructed. Age 37, married, no children. Unquestionable ability, references and integrity. Address: Ad 9999, % Golfdom, Chicago.

Position Wanted—By experienced golf instructor to take complete charge club and course. Wife splendid caterer. Eight years with last club. No encumbrances; best references. Address: Ad 1811, % Golfdom, Chicago.

Professional—20 years' experience as pro and superintendent of grounds; married, age 42. Unusual success as instructor. Seven years with one club, six years with another. Have 20 years' highest references. Address: Ad 1702, % Golfdom, Chicago.

Position wanted as pro at smaller club or assistant at larger club by single man 28 years old, past 10 years in service of two of the finest professionals in the country. Good clubmaker, instructor and on the job in shop selling. Address: Ad 1703, % Golfdom, Chicago.

HOT SPRINGS NATIONAL PARK
ARKANSAS

CURATIVE BATHS

in Radio-Active waters owned and controlled by the U.S. Govt. Splendid for circulatory ills and reconditioning.

GOLF

Grass Greens

Three 18-Hole Courses

Golfdom, Chicago.

ALLERTON HOTEL

701 N. Michigan Ave., Chicago
Philip E. Cobden, Manager
Official Chicago Residence 102 Colleges
1000 Rooms
No Surrounding Buildings
R. C. A. Radio Speaker in every room at no extra cost. World's greatest receiving installation.

An Outstanding Residence of Executives. Route Your Staff to the ALLERTON.

10 floors exclusively for Men.
7 floors exclusively for Women.
4 separate floors for Married Couples.

NEWEST RATES

Daily, $1.75 to $4.00

Transient, $10.50 to $25.00 Single.

Weekly, $8.50 to $12.50 Double Per Person
Expert successful greenkeeper, college trained and with splendid record, desires change. Nationally known as authority on first-class maintenance at low cost. Young, but with extensive experience. Married, thoroughly dependable and hard worker. Moderate salary. Address: Ad 1802, % Golfdom, Chicago.

Professional-Greenkeeper, age 36, married, now employed, desires change. 19 years' experience in teaching, clubmaking and greenkeeping. Civil service graduate of Parks Superintendency, Forestry and Tree Surgery. An expert on brown patch and other grass diseases, capable builder or reconstructor of golf courses and playgrounds. A-1 rating with all sporting goods companies. Real golf courses and playgrounds. A-l rating now employed, desires change. 19 years' experience on a first-class daily course. Well established play and good proposition. Requires injury. Address: Ad 1910, % Golfdom, Chicago.

Greenkeeper—Thoroughly familiar with construction work, wishes position with central states club. Five years' greenkeeping experience; married, age 37, steady habits, steady worker. Best references. Address: Ad 1906, % Golfdom, Chicago.

Wanted—Second-hand indoor net in good condition. Send full particulars to Jack Blakeslee, 2315 Melrose, Rockford, Ill.

Pro and pro-greenkeeper whose work is always a definitely profitable factor for any club with which he is connected, desires larger club for summer or year around preferred. 35 years old, married, neat appearance, good business man, conscious of club business problems today. Excellent, patient instructor. For full details write: Ad 1910, % Golfdom, Chicago.

Manager-Greenkeeper-Pro with unusual experience in all phases of construction and maintenance. Good instructor. Could undoubtedly save money for almost any club, especially new organization. Remuneration reasonable. Locality not important. Why not secure all particulars? Address: Ad 1909, % Golfdom, Chicago.

Greenkeeper wishes position with reputable club located in New Jersey, Long Island or Philadelphia district. Thoroughly experienced in construction and upkeep. Best of references. Address: Ad 1907, % Golfdom, Chicago.

Wanted—Manager and professional to manage splendid daily fee course. Well established play and good proposition. Require $5,000.00 investment, but will make attractive proposition to the right man. Must have unquestionable reference as to character and ability. Address: Ad 1908, % Golfdom, Chicago.

Good assistant is wanted by Michigan pro for coming year. Must be ambitious and well-grounded in instruction and shop sales and repair work. Write, giving details of experience and qualifications. Address: Ad 1905, % Golfdom, Chicago.

Pro-greenkeeper with fine record of instruction, course construction and maintenance, wants to make new connection for 1932. At present with 36-hole club and can stay there indefinitely as his course operating costs have been at record low for first-class establishment. Location of club and condition of membership makes change advisable. Highest references. Married. Strictly sober and hard worker. For full details, write: Ad 1904, % Golfdom, Chicago.

Assistant locker-room man with highest recommendations from the well known clubs he has served, desires new location for 1932 season. Fully conversant with every detail of the work and has excellent memory for names and faces. Address: Ad 1903, % Golfdom, Chicago.
EDITORIAL CONTENTS

How Penn State Strives for Ideal Grass. By H. B. Musser........... 17
What 1931 Taught Greenkeepers. By Kenneth Welton............... 22
Proposed Pro Lab Tests a Buyers' Guide. By Herb Graffis.......... 27
Greenkeepers Meeting Is Timely. By Joe Graffis.................... 30
Don't Let 'Em Tire of Club Grub. By D. Scott Chisholm............. 32
Pro Events Are Bargain Days. By R. W. Treacy...................... 34
Manager Proves Costs Lower by Table.................................. 41
Coast Boys Tell Marks of Prize Pro..................................... 44
Green-Chairmen Turnover Adds to Costs. By B. R. Leach.......... 51
Brown-Patch Clinic Brings Hunches................................. 58
What's New With Manufacturers?........................................ 65

INDEX TO ADVERTISERS

Adalink Chemical Co. .......................................................... 12
Allerton House ................................................................. 74
American Cyanamid .......................................................... 7
Argo Specialty Corp ........................................................... 49
Armstrong Bros. ................................................................. 74
Armour Fertilizer Works .................................................... 67
Atkins & Durbow, Inc ......................................................... 6
Bo-Cal-Bo Company ............................................................ 46
Bohne, C. E. ................................................................. 2
Budd Mfg. Co., The ............................................................ 73
Carrier, Lyman ................................................................. 12
Caterpillar Tractor Co ....................................................... 58
Converse Co., Inc., F. S ..................................................... 6
Dayton Irrigation Co .......................................................... 5
Des Moines Glove & Mfg. Co ............................................... 48
Diamond CaIk Horsehoe Co ................................................. 73
Dunham Lawn Roller Co ..................................................... 12
Economy Irrigation Co ....................................................... 73
Evans Implement Co .......................................................... 72
Fate-Root-Heath Co ............................................................ 72
Galloway-Betts Co., Inc ..................................................... 71
Golf Course Commonsense ................................................... 14
Graham & Co., John H ......................................................... 4
Henderson & Co., Peter ....................................................... 68
Humphreys & Co., Robt. H .................................................. 73
Hyper-Humus Co ............................................................... 72
Ideal Power Lawn Mower Co ............................................... 19
International Harvester Co .................................................. 1
Kroydon Company ............................................................... 45
Leach, B. H. ................................................................. 34
Lewis Co., G. B ............................................................... 2
Links, The ................................................................. 4
McCullough's Sons Co., The, J. M ....................................... 57
Milorganite ................................................................. 10
Mow-Er-Vak Co ............................................................... 10
National Association of Greenkeepers ................................ 11
National Mower Company ................................................. 71
Nelson Mfg. Co., L. H ......................................................... 64
New England Toro Co ....................................................... 10
Nitrate Agencies ............................................................. 13
Peckham, A. N ............................................................... 71
Pennsylvania Lawn Mower Co ............................................. 12
Perfection Sprinkler Co ..................................................... 8
Peterson, Arthur D ............................................................ 72
Porcelain Products Co ...................................................... 14
Premier Poultry Manure Co .............................................. 14
Pyratec Products Corp ..................................................... 48
Record, Ed ................................................................. 11
Roseman Tractor Mower Co ................................................. 16
Royer Foundry Co ............................................................. 62
St. Charles Hotel ............................................................. 70
Scott & Sons Co., O. M ....................................................... 83
Seaside Bent Co .............................................................. 57
Spalding & Bros., A. G ...................................................... 42-43
Standard Mfg. Co ............................................................. 8
Stimpn & Walter ............................................................... 3
Synthetic Nitrogen Products Corp ......................................... 8
Toro Mfg. Co ............................................................... 12-55-61-71
Tucker & Son, Wm. H ......................................................... 61
United States Rubber Co, Outside Back Cover ......................... 1
Vestal Co., John H ........................................................... 71
W. G. Mfg. Co ............................................................... 70
Willy, John ............................................................... 3
Wilson-Western Sporting Goods Co ................................ 44-47
Worthington Mower Co ..................................................... 59
Young Co., L. A ............................................................. 37-38-39-40

Forms close 20th month preceding date of issue. Address all communications to home office. Circulation: A personally addressed copy of GOLFDOM is mailed free, each month, to the president, green chairman, greenkeeper, house manager and professional of every golf club in the United States. Please notify us at once of any changes in above offices, sending us the new names and addresses. To all others—$3 per year.
Use Urea On Your Greens

Urea is recommended by the U. S. Golf Association. It contains 46% nitrogen (55.9% ammonia) in the same soluble organic form as nitrogen in liquid manure. It is both quick-acting and long-lasting, and does not leave any undesirable residues in the soil. Mr. T. O'Connell, Luzerne Villa Country Club, Hadley, N. Y., writes: "I wish it were possible for me to show you by photographs the beautiful dark green color of my greens since using Urea."

A BOVE everything else, members want the condition of the course maintained—or, better, improved. It is, therefore, good news that you can now have better turf at low cost by the use of Nitrophoska.

Nitrophoska—the concentrated complete fertilizer—is four times as rich in nitrogen, phosphoric acid and potash as the ordinary complete fertilizer. One ton is equal in plant-food to four tons of ordinary fertilizer. Moreover, all of its plant-food is soluble and quick-acting, and because it is granular it is as easy as wheat to broadcast. Early spring application of 200 pounds per acre produces marvelous results on fairways—thickens turf and produces luxuriant growth. Order from your supply dealer or direct. Synthetic Nitrogen Products Corporation, 285 Madison Ave., New York.