

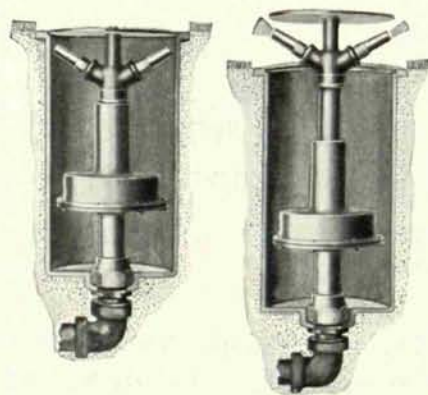
The Golf Show Exhibits

Complete description of new equipment and supplies which will be exhibited at the 5th Annual Greenkeepers' Golf Show at Columbus, February 3-6

L. R. Nelson Mfg. Company, Peoria, Illinois, Booth No. 23

THE Nelson Mfg. Co., Peoria, Illinois, manufacturer of the well-known Lark Golf Sprinkler, are giving a new service to Green Committees and Greenkeepers by offering to help them develop plans for watering fairways through underground pipe systems, the hoseless method. They will furnish without charge, when fairway sketches are submitted, blue prints and plans showing the arrangement, amount and sizes of pipes, fittings, valves, etc., necessary for fairway sprinkling. From these plans as furnished, anyone competent in pipe installation can readily figure the cost of installation.

For sprinkling fairways in connection with these underground systems, the Nelson Mfg. Co. are offering the new "Robin" Pop-up sprinkler, which covers a diameter of 90 to 100



NEW NELSON POP-UP SPRINKLER

feet, eliminating half the cost of installation, when compared with the old type of underground sprinkler head.

The "Robin" Pop-up is permanently placed in a malleable iron casing that is set in the ground with the top even with the surface. The water is fed to the sprinklers by pipes placed a foot below the surface, arranged for draining in winter.

The "Robin" Pop-up is used to

The Exhibitors and Where to Find Them

Worthington Mower Company	1
The F. & N. Lawn Mower Company	2
Ideal Power Lawn Mower Company	4 and 5
International Harvester Co. of America	7
O. M. Scott & Sons Company	8
Stumpp & Walter Company	9
E. G. Staude Mak-A-Tractor Company	10
Roseman Tractor Mower Company	11
Toro Manufacturing Company	15, 16 and 17
Virginia-Carolina Chemical Corp.	18
J. Oliver Johnson, Inc.	19
Wendell P. Miller & Associates	20
Buckner Mfg. Company	21
Peter Henderson & Company	22
L. R. Nelson Mfg. Company	23
Standard Manufacturing Company	24
Friend Manufacturing Company	25
J. M. McCullough's Sons Company & Fraser Pub. Co.	26
Armour Fertilizer Works	27
C. B. Dolge Company	30
National Mower Company	31
Mallinckrodt Chemical Works	32
Chilton-Crocker Company (Come Putts)	33
Smith Agricultural Chemical Company	34
Golf Course Supply Company	34-A
Pennsylvania Lawn Mower Works	35, 36 and 37
Koppers Products Company	38
Lawn Equipment Company	39
George A. Davis, Inc.	40
Economy Irrigation Company	41
American Cyanamid Company	42
Nitrate Agencies Company	43
Ohio Humus Products Company	44
Jacobsen Manufacturing Company	45
Milwaukee Sewerage Commission	47
Fate-Root-Heath Company	48
Universal Sand Equipment Co.	49
Atkins & Durbrow	50

best advantage in series. If the water supply is sufficient, from two to five acres may be sprinkled at one time. Eight to ten sprinkler heads are used to an acre of fairway.

When the water is turned on, the heads are raised by the water pressure and immediately start sprinkling. When sprinkling is finished, the con-

trol valve is closed and each head controlled by that valve drops to its place in its casing, closing the top of the casing with a metal plate that is even with the ground surface. There is no projection that will interfere with mower, tractor or golf ball.

The use of the pop-up type of sprinkler in connection with under-

ground pipe systems eliminates almost all of the labor connected with sprinkling, doing away entirely with the handling of hose and the frequent changing of sprinklers. The "Robin" pop-up positive-drive principle is simplicity itself and has been in almost constant use in a limited territory in California for two years. Its even sprinkling and long wearing qualities have been thoroughly proved. It has no gears, but its action is as positive and sure as a geared sprinkler.

**Worthington Mower Co.,
Stroudsburg, Penna.
Booth No. 1**

THE Worthington Mower Company's exhibit this year will consist mainly of special models of their machinery that embody improvements of unusual importance. This company has been devoting much time during the past year or two, to increasing the efficiency of mowing equipment and of reducing the time expended on the major mowing operations. They have met with remarkable success.

Not content with the wonderful accomplishment of the Worthington Triple and Quintuplex mowers which this company some years ago gave to the golf courses of the world, it has been their effort to still further cut the time of fairway mowing.

This they have accomplished with a mower which they call the "Multigang." One of these will be on ex-

hibition at Columbus. It cuts a swath sixteen feet wide. When drawn by a Worthington tractor it will completely finish the mowing of the eighteen fairways in five hours actual cutting time. This is practically cutting in half the time that is now required for this work on any course using either triple or quint. It is claimed that the "Multigang" is as easily handled as any of the well-known machines; is as simple and as flexible. It is of the "convertible" design of this company, capable of being transformed into either a triple or a quint without more than a minutes delay.

Their 1931 Scout Overgreen, will be on exhibition also. The three units of this model are of the Roller type which with the high wheel type of last year's Overgreen, give to the greenkeepers the choice of either one or the other. It has already been discovered by the present large number of users of the Overgreen, that the time now consumed in cutting an average putting green by hand (which is forty minutes to an hour) is reduced to eight or ten minutes. All of the eighteen greens may be cut in four hours actual cutting time.

The Worthington company has been pleased to find that these time-saving machines are not as a rule made the excuse for discharging men, but merely for differently distributing their activities. Instead of having so large and unbalanced a proportion on the greens and fairways, the men who are released from these jobs are more advantageously put to work on the many things about the

course that are now done on overtime or to save expense are left undone altogether. The great advantage in this reassignment of the force, made possible by these Worthington time-saving machines, is found particularly in the preservation or improvement of the standard of upkeep, without any increase in the payroll.

In these times of retrenchment the company feels that the great danger to the golfing interests of the world is that the present high quality standard of our courses may suffer. At all hazards this should not be permitted. With the falling off in the condition of the courses there will be a corresponding fall in the interest attaching to the game itself. At no time is it more important than in these days of stress that our golfing business men, in seeking the relaxation and exercise they require, should find the courses in good shape.

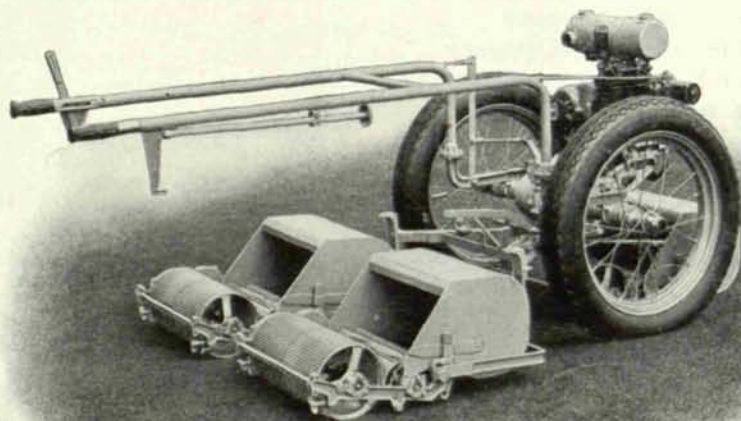
The Worthington company stands for time-saving machinery, to be followed however by a reassignment of the men. Their time on one line of work on the course should be saved, in order that it may be expended on another and equally important one, now frequently neglected.

The following representatives will be at the Golf show: E. H. Worthington, vice-president; R. S. Worthington, vice-president; R. VanderBeken, treasurer; J. C. Dee, Chicago manager; J. B. Hurlock, Cleveland manager; E. R. Sawtelle, Boston manager; J. C. Russell, Canadian manager.

**Roseman Tractor Mower Co.,
Evanston, Ill. Booth No. 11**

THIS company will exhibit at Columbus the Roseman tractor and a single mower unit. The latter as everyone knows is of the roller type and is very light and efficient. It makes a twenty-six inch cut and keeps the turf in a fine healthy condition.

The Roseman tractor is light and sturdy and has a special rear end assembly, which fits in perfectly with the Model A Ford chassis. All of the details will be thoroughly demonstrated at the show and will be found most attractive.



1931 WORTHINGTON SCOUT "OVERGREEN" MOWER

Toro Mfg. Company, Minneapolis, Minn.

Booth Nos. 15, 16 and 17

THE new Toro power-driven roller is one of the many new interesting items that will be found in the Toro exhibit at the Columbus Golf show.

The new Toro power-driven roller follows closely the lines of heavy rollers used extensively in street paving jobs. The Toro rolls a swath of 30 inches, weighs approximately 900

International Harvester Co. of America, Chicago, Ill.

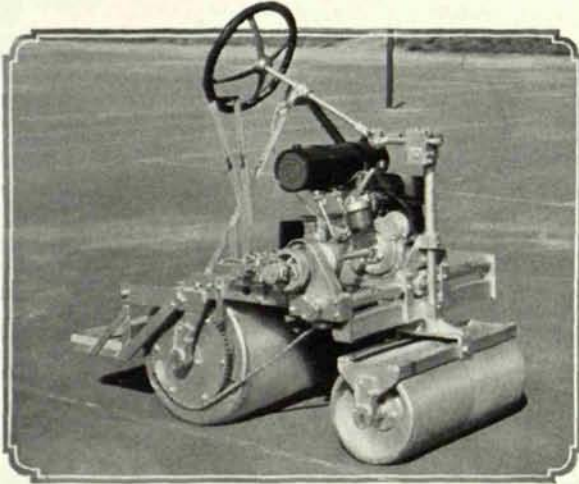
Booth No. 7

THE International Harvester Company of America will occupy space No. 4, and will exhibit their Fairway tractor. This tractor is a practical all-purpose power plant for maintaining golf courses, country clubs, parks, and estates. It satisfactorily meets all requirements for Fairway maintenance, for mowing in the rough, and for construction

the heavier jobs of plowing, disking, harrowing, seeding, and distributing fertilizer. It can be used in construction and improvement work for moving dirt, materials and equipment. When necessary the Fairway will operate equipment on belt or power take-off as efficiently as any other type of tractor of equal capacity.

The Fairway has a beneficial effect on the sod as it is equipped with wide wheels and is a roller in itself. The weight of the tractor is proportionately distributed on the four wheels. The rear wheels do not follow the front wheels, thus the dirt is being rolled with each movement.

When desired the tractor can be equipped with a power mower cutting a 7-foot swath. This mower is operated from the power take-off of the tractor, and is under perfect control of the operator. Every modern feature to render the highest service and increase the life of the tractor is incorporated in its construction. Among these are the renewable cylinders, air, fuel, and oil cleaners, while the generous use of ball bearings throughout the machine reduce draft and increases the life of the tractor.



TORO POWER-DRIVEN ROLLER—A 1931 MODEL

pounds, and is equipped with forward and reverse gearing.

For golf courses, tennis courts, and all jobs requiring a medium weight roller, it will be found far superior to hand rolling.

Among the other interesting items which will be shown are the new Trojan fairway mower, the three-wheeled rubber-tired Knockabout, a quick transportation unit, the power disk, together with many of the old items.

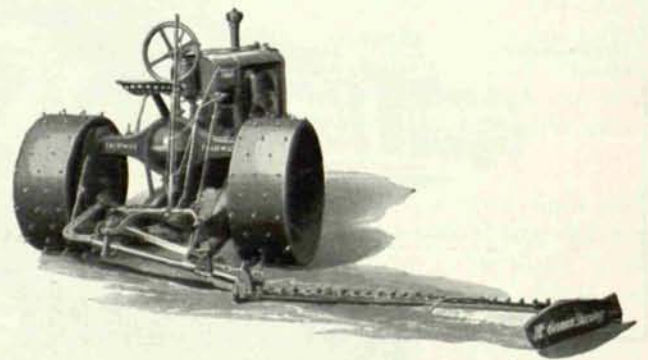
and improvement work. It is easily controlled and turns in a circle with an 8-foot radius. It works in close corners, turns quickly, cuts close to obstacles and is out again, leaving a surprisingly small amount to be done by hand labor.

In addition to maintaining golf courses and lawns, it pulls rollers, sprayers, compost distributors, wagons, etc., uphill and down, over smooth going or rough. The Fairway can be shifted immediately to

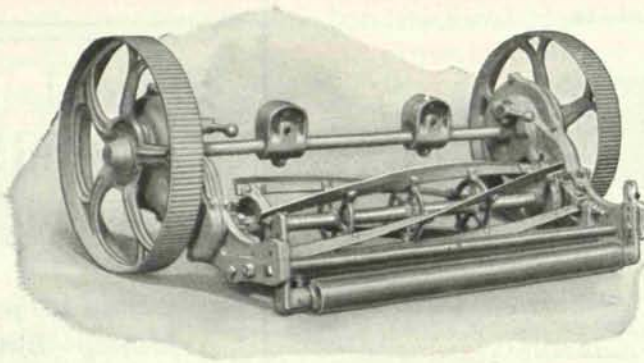
Pennsylvania Lawn Mower Works, Philadelphia, Pa.

Booth Nos. 35, 36 and 37

A NEW fairway mower bearing the famous Pennsylvania trade-mark will be shown by this old reliable company at the Greenkeepers' Show at Columbus. It is a gang mower unit with frame and wheels of unbreakable malleable iron and has several other new features that will be of tremendous interest to everyone interested in up-to-date cutting machinery.



INTERNATIONAL HARVESTER WILL SHOW THEIR QUICK TURNING TRACTOR WITH MANY UNUSUAL FEATURES



NEW PENNSYLVANIA FAIRWAY MOWING UNIT
The machine has malleable iron wheels and frame and is unbreakable.

Heretofore greenkeepers and superintendents of grounds have been beset with broken wheels, side plates, lower knife bars, etc., causing delay and putting the cutting unit out of business until repairs were made. The new Pennsylvania Fairway mower eliminates all trouble of this sort and its features are so many that it will bear the closest inspection.

**Ideal Power Lawn Mower Co.,
Lansing, Michigan.
Booth Nos. 4 and 5**

THAT the exhibit of the Ideal Power Lawn Mower Company will prove especially interesting this year to greenkeepers is evidenced by the fact that in the display will be some brand new equipment exhibited for the first time, as well as very important improvements on other Ideal equipment that will be shown.

One new Ideal machine that every greenkeeper and golf official attending the show will want to see is the new Ideal Power Putting Green Mower. During the past few years the tendency among golf clubs has been toward the use of equipment that tends to lessen labor expense and one item that greenkeepers have been seeking is a practical yet very light weight, easily handled power mower for putting greens.

The new Ideal Power Putting Green Mower that will be displayed at the show weighs but little more than most hand putting green mowers, in fact the manufacturers state that this machine actually weighs less than one hundred pounds. The light weight is secured through the liberal use of light weight material, aluminum being used for such parts as the engine base, clutch brackets,

clutch parts, side frames, roller, pulleys, casters, etc.

As will be noted by the accompanying illustration, this power greens mower is of the roller type. Small engine is mounted directly above the roller of the mower, drive being taken directly from the end of the engine shaft through the clutch and to the end of the reel shaft. The simple drive of this machine is one of the big secrets of its successful operation and exceptionally fine work.

By driving direct from the reel any danger from slipping in touch cutting is eliminated because the reel is actually power-driven with the pawls in the roller reversed so that the drive roller is operated through its chain of gears back through the reel. In other words, instead of driving the roller and pushing the reel ahead, the operation is reversed, driving the reel and pulling the roller.

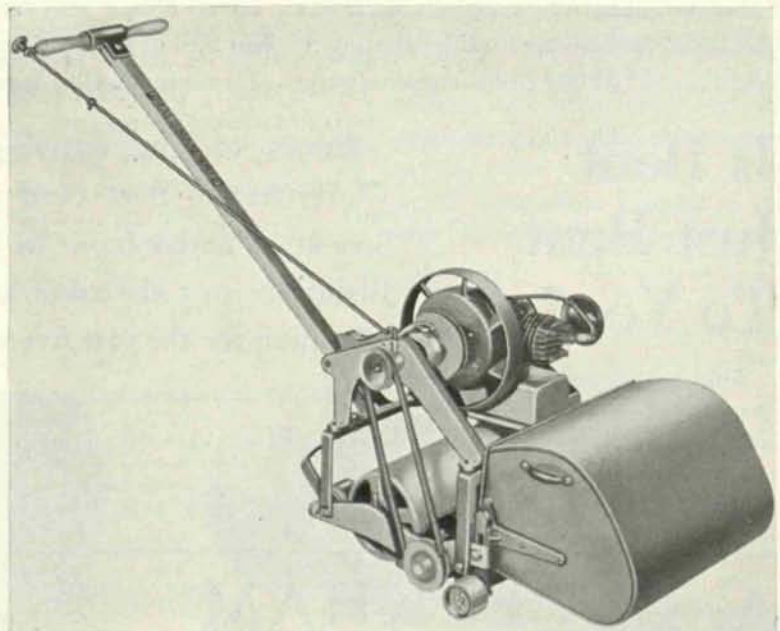
By means of a simple and unique clutch arrangement the operation of this mower is extremely simple and easy. The clutch lever comes back through an eye located on the end of the handle and on the lever is a small stop by which the clutch is engaged merely by lifting the mower handles.

With the mower is furnished a very simple, little wide-faced carrier so arranged that merely by lifting up the rear of the mower with one hand the carrier can be slipped underneath the mower, then tilted back by the regular handles and moved from one green to another just the same as the operator can wheel an ordinary hand mower.

Every detail of this machine has been worked out to make the mowing of greens easy, quick and simple. The mower has an 18-inch cut and therefore can be used safely on greens having sharp contours and undulations, does a perfectly smooth job in the heaviest bent grass and on rolling greens also. Cutting reel is 4 inches in diameter, seven blade, operated at a speed that gives absolutely smooth finished service.

NEW ROUGH MOWER

Another new piece of Ideal equipment to be displayed at the show is the new Bulldog rough mower which has been used by some of the best clubs in the country the past year and proved especially satisfactory. This rough mower is built along exactly the same lines as the Bulldog fairway



NEW IDEAL POWER PUTTING GREEN MOWER

mower with the exception that the units themselves are built especially for high cutting, the side frame and complete assembly is so built that with the mower standing in its natural cutting position the bottom bar is approximately 2 inches from the ground. It can be adjusted somewhat lower than this, also nearly an inch higher, which gives sufficient range for properly cutting any rough as they are maintained on the modern course today.

On every course where these rough mowers have been used the past season greenkeepers report a big saving in labor as well as better roughs, some clubs reporting as high as 50% labor-saving over the old method of rough-cutting previously employed.

One of the three-unit rough mowers will be shown at the Show in combination with the new Ideal Bulldog Tractor. This tractor is also shown for the first time. It is a light-weight, wide-wheeled tractor, built especially for golf, having the wide golf wheels, with steel or rubber wheels optional in front, equipped with starter, lights, etc., and furnished either with or without dump body.

The Ideal Bulldog five-gang mower will be shown complete at the Show, and this five-gang mower will be equipped with new Bulldog unit. The new unit for 1931 will be built standard with seven blade, 7-inch reel, giving a very high frequency of cut and insuring absolutely smooth fairways. These seven-blade Bulldog units were developed the past year where the Ideal Bulldog mower was used on courses having bent fairways and the Ideal seven-blade produced so much better looking work in cutting fine bent grass that it was decided to make all fairway machines for the next year with the higher speed, closer-cutting units.

The Ideal roller type hand putting green mower will be shown complete with grass catcher as well as special model of the hand mower mounted on stand for close inspection in reference to adjustments, bearings, etc. For close examination the exhibit will also have one of the Bulldog fairway units, also one of the Bulldog rough units mounted on special display stands.

Another brand new machine to be



F. & N. ALL STEEL QUINT

shown will be the 25-inch Ideal power lawn mower. This is a wheel type mower equipped with new engine developed during the past year and with which all walking type Ideal power lawn mowers are to be equipped for the coming season. The 25-inch machine will be displayed at the Golf show because it is a size best adapted to general work around the golf course such as mowing clubhouse lawns, trimming up in narrow spots, mowing approaches, bunkers, etc. The 25-inch machine is equipped with rubber tires which can be furnished special wherever desired. Standard wheel equipment, however, is regular corrugated metal wheel.

The F. & N. Lawn Mower Co., Richmond, Ind. Booth No. 3.

This company, said to be the largest lawn mower manufacturers in the world, will be represented at the Greenkeepers' Show with a line of new, all steel fairway mowers, also a putting green, tee and hand mower.

The F. & N. all steel Quint consists of five 30-inch Titan mowers, giving a total cutting width of twelve feet. They are equipped with Timken bearings, cut steel gears and oil tight gear cases, with the result that the company believes they lead the field in the correct adaptation of these modern devices in lawn mower construction.

It is claimed that this equipment can easily cut seventy-five to one

hundred acres a day and the all-steel flexible frame permits it to operate efficiently on all kinds of ground.

An exclusive feature of this frame is a special control construction that compels the mower to continue overlapping when making turns. This company also has an exclusive patent on the self-adjusting feature of the bearings of the revolving cutter through the use of Timken roller bearings.

The F. & N. unit is absolutely guaranteed and the company states that it will refund the purchase price if the customer is not satisfied.

E. G. Staude Mak-A-Tractor Co., St. Paul, Minn. Booth No. 10.

THIS well known company will exhibit the \$695.00 Model "A" Staude General Utility Golf course tractor complete with cubic yard steel dump body.

A few of the big improvements on the 1931 Model "A" Staude General Utility Golf Course Tractor are:

Motor-equipped (standard equipment) with air cleaner to prevent dust and dirt from being drawn into the motor through the carburetor, thereby preventing cutting out of the pistons and cylinder walls.

Reinforced Model "A" Ford frame to stand the gaff of good hard service.

Rolled edge rim steel-tired front and rear wheels.

All steel cubic yard dump body



1931 MODEL "A" STAUDE GENERAL UTILITY GOLF COURSE TRACTOR

with automatic tail gate. Tail gate opens automatically when dump body is in the dump position without operator leaving the tractor seat.

Mere words cannot convey the truly high standard of quality material and quality workmanship that the Model "A" Staude General Utility Golf Course Tractor stands for.

Greenkeepers who know, recognize in the Model "A" Staude General Utility Golf Course Tractor a lack of complicated parts and a simplicity of construction throughout that means freedom from breakage and repairs, and 100 per cent service day to day. The tractor is sold on a money-back guarantee. A user must be satisfied with his purchase before we are satisfied with the sale.

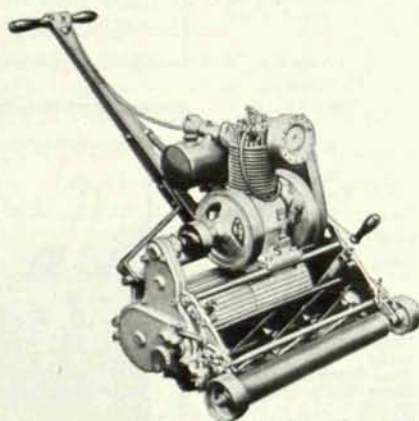
At an additional cost of only \$50.00 we equip the Model "A" Staude General Utility Golf Course Tractor with a steel wire mesh cab, giving the operator of the tractor full protection against being struck by golf balls while operating the tractor on the golf course. This insurance against accidents is well worth the small cost in view of the protection it gives.

Jacobsen Manufacturing Co.,
Racine, Wis. Booth No. 45

THE 32-inch Heavy Duty Twin, one of the mowers to be displayed, is the latest addition to the 1931 Jacobsen line. The illustration shows the mower with gang attachment and riding sulky being put

through its paces at the Kenosha Country Club, Kenosha, Wisconsin, by Mr. Burrows, the greenkeeper.

We might mention at this time that Mr. Burrows, as well as Mr. Paul Jensen, professional and greenkeeper at the Kilbourn Country Club, Ra-



JACOBSEN PUTTING GREEN MOWER

cine, as well as Roy Anderson, professional at the Meadowbrook Country Club, Racine, were frank in saying that the new 32-inch with gang and sulky would be ideal for many of the nine-hole golf courses and could be used in places where it would be impossible to drive the tractor with the fairway mowers, in other words, what is known as those "close places."

The 32-inch being equipped with a twin motor has a world of power and with the gang and riding sulky will easily climb and cut grass on a 15-degree incline, not sideways, but straight up. With just the sulky it will climb and cut grass on a 25-de-

gree incline and without the sulky or gang attachment the mower will operate and cut grass on any hill upon which the wheels can get traction.

One of the important features of this new model is the two-speed transmission—low and high. Low speed for exceptionally heavy grass cutting work and hill climbing. High speed for ordinary grass cutting on level ground. In other words, where the going is easy, high speed can be used, just like in an automobile and where there is a heavy pull, second speed is used, naturally eliminating wear and tear on the motor as well as on the mower itself.

The entire operation is controlled from the steering handle, very simply and easily. The mower can be handled under all conditions because of the surplus of power of the motor which responds instantly to acceleration and deceleration. The mower can be turned around trees, shrubbery and at the end of cut, on its own power, without scuffing the turf. This is because of the fact that it is equipped with a caster wheel instead of the rear roller, which is another feature.

The gang units are quickly and easily attached to the mower. Just a few minutes' time is necessary. The side units are of high quality and are 20 inches in width.

The 24-inch Power Putting Green Mower will also be exhibited and you will probably be interested to know that in 1923 the Jacobsen Manufacturing Company first introduced power putting green mowers to golf clubs.

The 19-inch mower is desirable on the sporty or undulating putting greens now so much in favor. It will cut the round surfaces and pronounced hills and valleys smoothly



32-INCH HEAVY DUTY JACOBSEN TWIN

and easily, without scalping or gouging the greens. The 24-inch mower has the advantage on larger greens where the undulations are not so pronounced as it has a greater capacity and will effect a saving in time and labor.

The Jacobsen Power Putting Green mowers are so nicely balanced that a very slight pressure of the hand raises the mower from the ground. The center of gravity is over the large rear roller so that little if any pressure is exerted on the green by the front roller—a decided advantage over a mower which is balanced on the front roller and caster wheels. The Jacobsen Mower travels on its own power and turns on its own power.

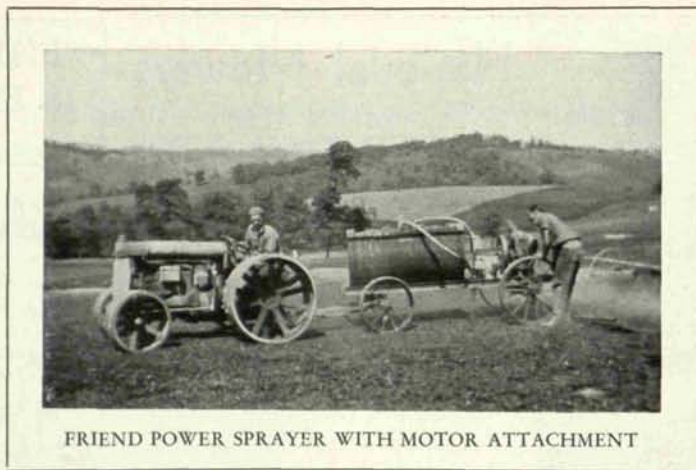
The light weight is evenly distributed since the power is perfectly balanced over the traction roller. There is no more pressure on the green than the weight of man's foot, which means that the mower will not pack the green.

All major castings of the Jacobsen Power Putting Green mower are made of aluminum of the same specifications as are used in airplane construction. The castings are very light in weight but have the necessary tensile strength to withstand the strain to which they are subject in mower use.

The "Friend" Exhibit Gasport, Niagara County, New York. Booth No. 25

THE "Friend" Manufacturing Company of Gasport, New York, will have in their exhibit the latest model "Friend" Golf Sprayer. The success that many greenkeepers have had has been due to the use of a "Friend" Golf Course Sprayer known to all greenkeepers as a "Friend."

The machine on display this year is a model DK with a 200-gallon tank. Upon close inspection, we find that the pump capacity of this machine is 12 G. P. M. and that the pump has been equipped with Zerk Alemite fittings which lubricate the plungers, yoke bearing, and crank bearings. We are informed all machines now have this equipment. The pump maintains its drip proof construction and is operated by a Stover Oilrite engine.



FRIEND POWER SPRAYER WITH MOTOR ATTACHMENT

Upon inspecting the tank, we find that it is made of knot free cypress and has two compartments. We learn that the two compartment tank has a time-saving value which is impossible to overlook. As we know, each green has its own water supply. When the sprayer is being used, the material, whether it be fungicide or liquid fertilizer, can be applied from one tank while the other tank is being refilled. In this way, the machine is in continual operation while at the green and no delay is necessary while the tank is being refilled.

The construction of the "Friend" embodies many refinements which are essential and desirable from the greenkeeper's viewpoint. The improvement and protection of his greens by the aid of one of these machines will make him an outstanding figure in the eyes of all the members of his club.

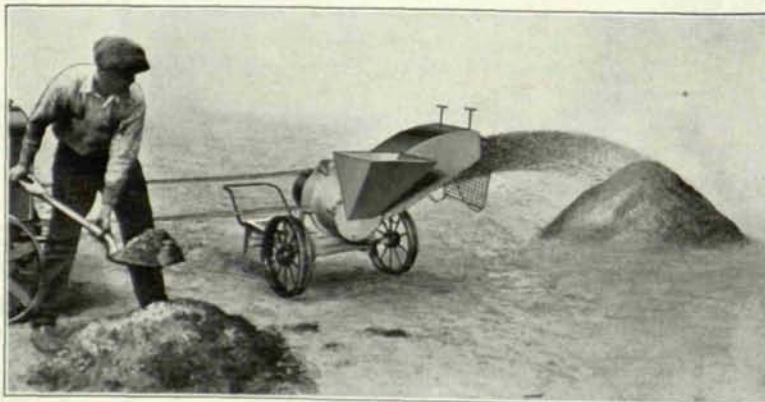
The Universal Sand Equipment Co., 1833 Columbus Rd., N. W., Cleveland, O. Booth 49

THIS company will have on display one of their new, improved Universal Compost Mixers,

together with advertising material and photographs of the machine in use. The Universal Compost Mixer presents the most modern method of preparing compost and top dressing. In a single operation, the machine produces and delivers perfectly blended and prepared compost into fluffy piles. It will take soil, sand and manure as fast as three or four men can shovel into it, preparing the compost five to ten times faster than any other method and saving fifty to ninety per cent in labor.

The machine is a compact, integral unit, rugged and substantial in construction. The mechanical principal of operation consists of the rotation of an impellor assembly within an impellor housing, having intake and discharge openings. The compost or top dressing material is shoveled directly into the intake hopper, from which it passes through the machine where it is subjected to the impact action of the impellor blades which, together with the blast effect developed by the impellor, serve to thoroughly mix the material, discharging it through the air.

The heavy steel impellor blades



UNIVERSAL COMPOST MIXER SAVES MONEY FOR GOLF CLUBS

operating at a speed of 1200 r. p. m. strike the material as it enters the machine, thoroughly breaking up all lumps. The adjustable impellor housing regulates the position of the discharge chute, allowing the material to be piled in any direction or location as desired.

The machine is intended for drive from the power take-off of a tractor or where desired can be furnished with a small gasoline motor mounted directly on the main frame. The entire unit is mounted on a substantial steel frame, fitted with wide tread wheels and can be readily transported to any location.

The simplicity of construction of this machine, together with the absence of any complicated belts, chains or gears to wear or require adjustment insure long life, with practically negligible upkeep expense.

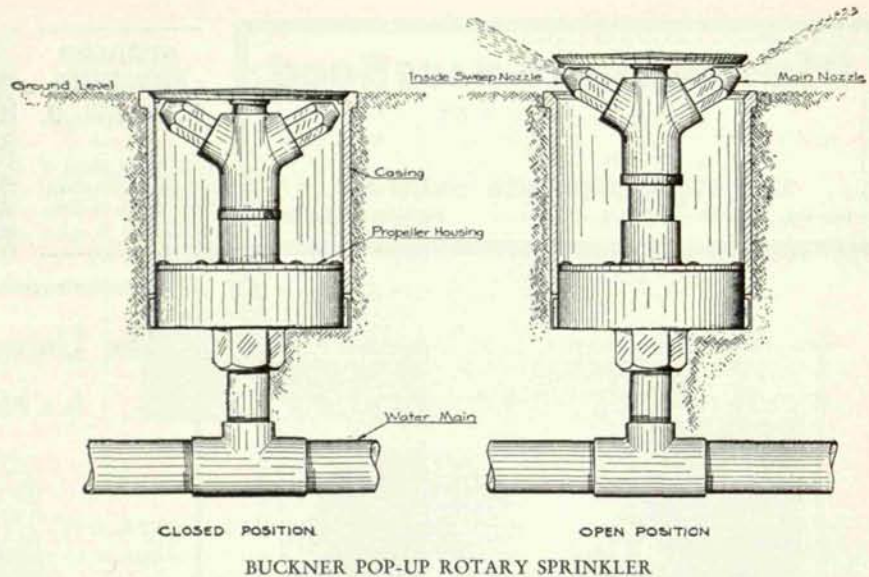
The Universal Compost Mixer eliminates repeated hand shoveling and screening of the materials. Generally complete preparation can be secured with one passing through the machine. The savings in time and labor which this machine effects make it a very profitable investment for any golf course, in addition to providing the benefits resulting from the use of properly prepared compost.

**Buckner Manufacturing Co.,
Fresno, Calif. Booth No. 21**

THE Buckner Manufacturing Company will have a complete exhibit of irrigating equipment including an entirely new line of Golf King No. 9 sprinkler equipment.

Back in August they furnished sprinklers for the San Bernardino Valley Golf Club at San Bernardino, Calif. These sprinklers cost the club \$9,000.00 and an estimate was made that they would save the club \$5,025.00 per year in labor and power bills alone, to say nothing of other expenses such as hose and portable sprinklers. At the end of the first three months they were \$600.00 ahead of the program. The \$9,000.00 for sprinklers had nothing to do with making a pipe installation. Their installation was already in and it was a hoseless installation, where they simply screwed portable heads onto the outlets.

They were paying labor \$20.00 per



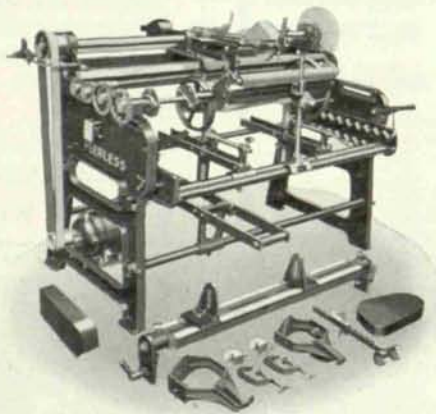
day for this work and using power 16 hours per day. With the new sprinklers they use only one man 12 hours or \$6.00 per day and 12 power hours. They figure 6 weeks of rain per year when no watering will be done. So that the saving on this basis figures as above.

This company is making up some new equipment for Wendell Miller which will enable him to save the clubs in the east an enormous amount of money, if they go in for fairway irrigation, which they are all going to do sooner or later.

**Fate-Root-Heath Company,
Booth No. 48**

THIS year the Fate-Root-Heath Company will again exhibit and demonstrate its Peerless Mower Sharpener at the National Greenkeepers' Golf Show.

The 1931 model Peerless is equipped with a reconditioning de-



THE PEERLESS MOWER SHARPENER
IS POPULAR

vice which turns the spiral knives backward so they can be lapped in with emery paste. This device was designed especially for reconditioning putting green mowers when they become slightly dull. These particular mowers can be reconditioned several times before they require re-sharpening on the Peerless.

This latest attachment can be applied to most all of the old model Peerless Sharpeners. It can be easily removed by a single cap screw.

The Peerless is equipped with a roller support which makes it possible to sharpen putting green mowers with 8-inch rollers behind the cutter bar.

**Peter Henderson Company,
New York City. Booth No. 22**

PETER HENDERSON & Co., 35 Cortlandt Street, New York City, will make a general display, the most attractive feature of which will be several suggested plans for Pitch and Putt Golf Courses.

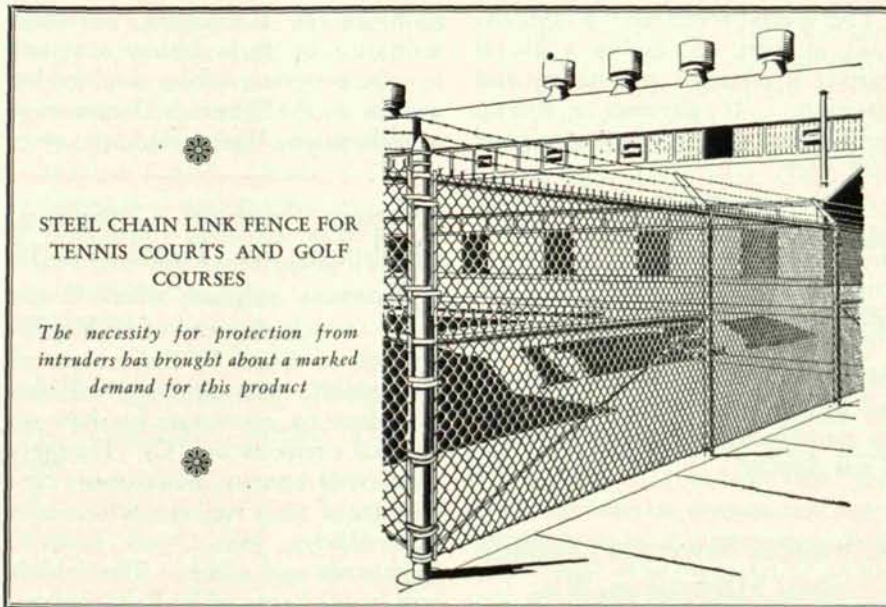
They published a pamphlet by Mr. Peter Henderson on this subject last fall which together with his article in the December number of the *National Greenkeeper* has created a new interest in these short courses.

Copies of this booklet as well as other literature upon golf course construction and maintenance may be had at their booth. The exhibit will be in charge of Mr. Harold S. Gilman.

Golf Course Supply Company, Cleveland. Booth No. 34A

THIS well-known supply house which supplies practically all northern Ohio, will have a complete exhibit of Cleveline products, including flag poles, cups, holes cutters, practice green markers, miniature golf course markers and several styles of tee markers. This line also includes miniature golf course cups, for which there has been a great demand.

One of the important features of this exhibit will be a steel chain-link fence for tennis courts and golf



STEEL CHAIN LINK FENCE FOR
TENNIS COURTS AND GOLF
COURSES

*The necessity for protection from
intruders has brought about a marked
demand for this product*

courses, which has been thoroughly tested out and found to be most satisfactory for the purpose mentioned. They will also have a sulphur distributing barrel.

The exhibit will be in charge of A. E. Flack, president of the company; H. J. Streich, secretary-treasurer, and John Alves, one of the famous Alves' family and well-known throughout the trade.

The Golf Course Supply Company are the Toro distributors of the Ohio territory, and they also handle grass seed, Friend sprayers, fertilizers, including Milorganite, and everything needed for golf courses, private estates, parks and cemeteries.

C. B. Dolge Company, West- port, Conn. Booth No. 30

THE C. B. Dolge Company will have on display in its booth at the Greenkeepers' Show the following products and equipment.

Dolge Super-Strength Weed Killer.

Dolco Diworma—A most effective product for ridding greens of worms.

Dolge applying equipment:

(a) Dolco Diworma Cart for applying Dolco Diworma.

(b) Dolge Straitline Sprinkler—effective aid to applying Dolge Super-Strength Weed Killer.

Ban—The cleaner of many uses.

Ball washing machine, demonstrating the ease with which golf balls may be cleaned with Ban.

Dolco Ant Killer.

Dolco Mouse Cereal—The way to rid the premises of mice.

Dolco Rat Scat—Drives the rats outside to die.

Dolge Deodoroma Blocs and Deodorator—The modern way to keep rest rooms and dressing rooms smelling fresh and clean.

Balma Liquid Soap.

Dolge Dispensers for dispensing Balma Liquid Soap in dressing rooms.

Standard Manufacturing Co., Cedar Falls, Iowa. Booth No. 24

THE Standard line of golf course equipment is very well known and is high class in every respect. This company will show its complete line, including reinforced steel flag poles, cast aluminum hole rim cups, tee markers, yardage markers, direction signs, which include a bag rack when desired and other aluminum products which are of special merit.

They state they have made some

improvements this year, particularly in the one-piece hole rim cup, which is being designed with a thin wall to eliminate any possibility of rebound of the ball in putting. The flag pole has also been reinforced so that it is about three times as strong as it was formerly and will stand a lot of abuse. They have also gotten out an arrow tee marker and are putting a cast arrow on their mushroom tee marker.

Visitors to the Golf Show at Columbus will find a great deal to interest them in this exhibit in the line of golf equipment.

Lawn Equipment Corporation, Detroit, Mich. Booth No. 40

THIS company, of which Mr. F. J. Fellman is president and general manager, has just brought out a new machine, called the Universal Sharpening Machine which has been developed after exhaustive study and experimental work. The model which they will exhibit at the show and which is ready for the market, will accommodate any make or size of fairway, greens or tee mowers, and is compact in structure,—the dimensions being four feet, seven and a half inches long, by one foot, eight and a half inches wide.

This new Universal machine has been tried out thoroughly in the Detroit district and has received the entire approval of many prominent greenkeepers who are very enthusiastic about its practicability. The following are now a few of the users of it: Wm. Slack of the University of Michigan golf course, Alex McPherson, Detroit Golf Club; Herbert E. Shave of Oakland Hills golf club; Wm. Smith of Red Run golf club, and the maintenance departments of the following cities: Detroit, Grand Rapids, Saginaw and the Wayne County Road Commissioners.

J. Oliver Johnson, Inc. Chicago. Booth No. 19

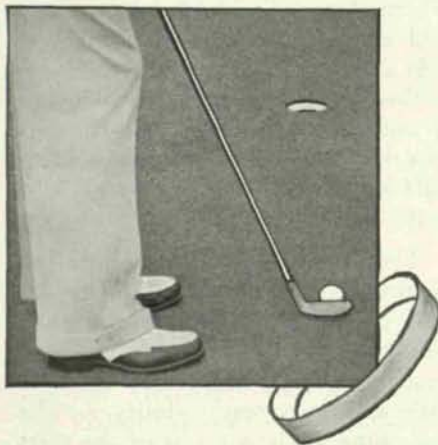
J. OLIVER JOHNSON, INC., of Chicago, will have booth No. 19 at the show and both J. Oliver Johnson and H. S. Bailey will be in attendance and look forward with pleasure to renewing old friendships with various members of the National Greenkeepers' Association.

Chilton-Crocker Company, Boston, Mass. Booth No. 33

ONE of the most interesting newcomers to the show, this year, is "Come-Putts," exhibited by the Chilton-Crocker Company, of Boston, in booth No. 33.

"Come-Putts," introduced to golf last season, have achieved rapid popularity, and many of the best-known courses, the country over, have already adopted them as standard equipment. A number of courses in other countries have also installed this improvement to the putting green.

"Come-Putts" are a real improvement to golf. They are white, special composition rings, of regulation diameter, which line the hole on the green above the metal cup, increasing its visibility and providing support for the turf around the edges of the hole. "Come-Putts" have won popularity with the players, because they



"COME-PUTTS" MAKES PUTTING EASY

make the hole clearly visible as much as forty feet away and enable them to dispense with distracting influences on the green while trying to sink a putt.

They are popular with golf clubs, because they improve the appearance of the greens and make it unnecessary to cut new holes so often. By renewing the "Come-Putts" two or three times a week, a clean, sharply defined, and well illuminated hole is maintained constantly on every green. And the cost is less than a cent a hole per day.

These "Come-Putts" will be demonstrated under actual playing conditions in Booth No. 33, at the show. Two putting greens are provided, and visitors to the show are invited

to visit the display and demonstrate to their own satisfaction the advantages that "Come-Putts" give to the course that uses this equipment.

Armour Fertilizer Works, Chicago, Ill. Booth No. 27

THE exhibit of the Armour Fertilizer Works will particularly display and emphasize the value of Armour's "Special Turf" Fertilizer.

This is a high grade complete plant food made especially to supply the growing needs of golf fairways and greens, park areas, aviation fields, etc.

This special fertilizer is a high analysis mixture containing a liberal amount of nitrogen, phosphorus and potassium. It develops a strong, healthy root system, making a good thick turf.

At the convention, booklets giving suggestions for growing a better turf will be distributed. Samples of Armour's "Special Turf" fertilizer will be on display.

Our representatives, Mr. Randolph Shaffer, Mr. E. L. Ferguson, and Mr. A. B. Hopkins will attend the convention and will be in charge of our display.

Milwaukee Sewerage Commission, Milwaukee, Wis. Booth No. 47

THE manufacturers of Milorganite will be with the greenkeepers at Columbus, occupying Booth No. 47. Their representatives welcome the opportunity of again meeting members and guests of the National Association of Greenkeepers and will be glad to discuss fertilizer problems with those interested.

As a matter of interest the policy pursued last year will be continued. Colored enlargements of photographs from some of the courses where Milorganite is used will be displayed.

During the past season the sale of Milorganite to golf clubs was twenty-one per cent greater than the preceding year. Thus an unbroken record of increasing tonnage continues. Milorganite now finds favor with more than 1500 golf clubs. Many have been consistent users in the past.

There is a growing tendency among golf clubs to follow a definite plan

of turf improvement. Many outstanding clubs have built their programs around Milorganite. They appreciate that the long continued benefits obtained with Milorganite cannot be equalled with any water soluble fertilizer.

The producers of Milorganite have always recognized the value of satisfied users and appreciate the importance of well-conceived programs of turf development and maintenance. They maintain a Service bureau whose staff specialize in problems of turf maintenance. Representatives will gladly discuss these problems at Columbus, or their assistance in formulating a trustworthy program can be obtained by writing to the Sewerage Commission in Milwaukee, Wisconsin.

Koppers Products Company, Pittsburgh, Pa. Booth No. 38

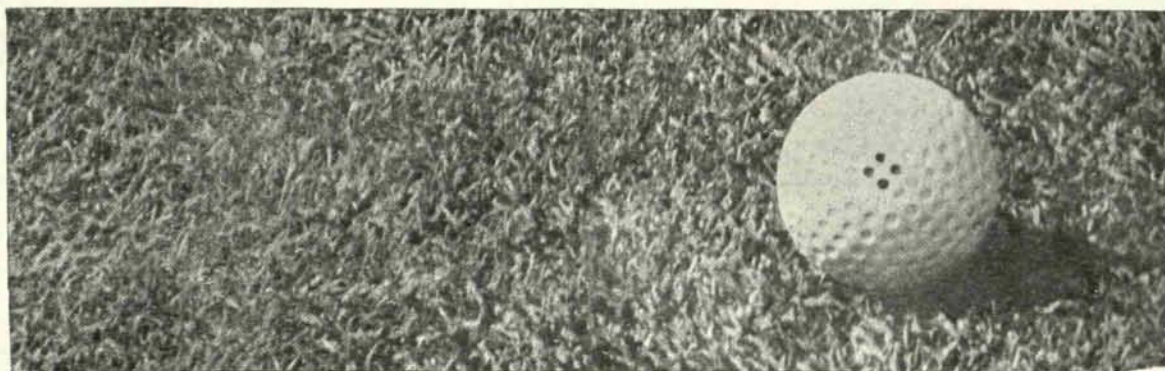
KOPPERS' sulphate which is extremely dry and of high quality will of course be the feature of this exhibit. This company will also introduce an innovation by showing original cartoons by "Cy" Hungerford, well-known newspaper cartoonist, of such well-known men as John Morley, John Quail, Fred A. Burkhardt and others. The exhibit will be in charge of R. B. Weinman, manager Fertilizer department.

Atkins & Durbrow, Inc., New York City. Booth No. 50

THE exhibit in space No. 50 by Atkins & Durbrow, Inc., 29 Burling Slip, New York City, will feature the GPM brand of Granulated Peat Moss and the new all-organic soil improver and top dressing, Driconure. The exhibit will be in charge of Mr. W. A. Rosenbach and Mr. Carl L. Mack.

Granulated Peat Moss and Driconure are of particular interest to greenkeepers. Granulated Peat Moss is used for soil incorporation in the building of new greens to furnish a sufficient amount of organic matter. It is also of great benefit as a mulch both for winter protection and summer moisture retention.

Driconure, the new all-organic fertilizer, is considered by many leading turf authorities as the outstand-



A Piece of Cocos Bent Turf

ing development in fertilizers and fertilizer methods brought about in the past decade. It is composed of only two ingredients—65 parts of pure cow manure and 35 parts of peat moss, combined and dehydrated to strengthen 5 to 1. While it is high in nitrogen, it will not burn and can be used safely on a dry surface. It is used both as a top dressing and for soil incorporation in the building of new greens.

Smith Agricultural Chemical Co., Columbus Booth No. 34

THE Smith Agricultural Chemical Company will exhibit a fertilizer for greens and fairways made from a combination of organic and inorganic materials.

The analysis is 8 per cent nitrogen, 5 per cent of available phosphoric acid and 3 per cent potash with a humus filler.

The J. M. McCullough's Sons Co., Cincinnati, O. Booth 26

THIS well-known firm of seed merchants will exhibit a full line of grass seed, featuring particularly Seaside Creeping Bent and New Brunswick Creeping Bent for putting greens, also Prince Edward Island Bent and Velvet Bent.

In order to bring out the superior qualities of sealed and Certified Seaside bent the company is going to make a special offer to clubs not to exceed one hundred pounds to any one club, for introductory purposes, at the low price of \$1.55 a pound, freight paid. The regular price is \$1.80. It is their belief that the use of Seaside Bent will save the golf

clubs of the country many thousands of dollars each year. They also state that Seaside Bent is not competing with other seeded bents but is competing directly with the vegetative method of planting, having all of the latter's advantages with few of its defects. This Seaside Bent is certified by the State Department of Oregon, where it is grown.

Stump & Walter Company, N. Y. City Booth No. 9

STUMPP & WALTER COMPANY who specialize in grass seeds, fertilizers and equipment for golf courses, polo fields, tennis courts, etc., intend to exhibit something of an educational, as well as interesting nature on grass turf, and will include a special display on such types as Cocos Bent, Triple A Bent, etc.

They will also have a representative wide variety of their equipment and are making every effort to have available at that time their Eighth Edition of "Golf Turf." They also will have some general catalogues for those interested in the selection of better flower and vegetable seeds, as well as shrubs and bulbs, for their clubhouse grounds.

Scott Will Report Convention

THE O. M. Scott & Sons Company of Marysville, Ohio, are making plans to publish a report of the Columbus Convention for general distribution to all the golf clubs in the United States and Canada.

This bulletin will contain condensed reports of all the speeches with special emphasis on those which bring out something new in turf research.

Every effort will be made to compile this report and mail it as soon as possible after the meeting so that golf club officials and members will have a good opportunity to see for themselves just what the National Association of Greenkeepers is doing to better their profession.

If any greenkeeper would like to have this report sent to his Green chairman or anyone else, all that is necessary will be for him to hand in the names and addresses at the Scott exhibit in the Golf Show.



FACTORY OF THE SYNTHETIC NITROGEN PRODUCTS CORPORATION, NEW YORK
This is said to be the largest nitrogen factory in the world and covers an area of 1470 acres.