forest in the nursery gives best germination of tree seeds, may we not also surmise that sowing grass seed in mid-winter should be studied in comparison with the efficiency of spring or fall seeding.

Likewise, the pros and cons of spring vs. fall fertilization of turf have been thrashed out many times, while the effect of applications in the winter has apparently aroused little curiosity. While we should not want to be understood as advocating fertilization of grass during dormancy, an interesting example which has come under our observation seems to be worth recording. The wide-awake pro-greenkeeper of an Iowa golf club near to an old army camp noticed that the manure from the stables had been carried to a place in some nearby woods. At a negligible expense to the club this well rotted manure was hauled to the club grounds during the winter and was applied liberally to all of the tees, which were of Kentucky bluegrass. When the playing season began the slight amount of litter that was left was raked off. The density and deep color of the turf the following season was remarkable. One noticeable effect was that the grass of the tees was green and in active growth, while the adjoining fairways were still brown and lifeless.

Work on Trees in Winter

Trees on the golf course may be pruned during winter or early spring. Pruning aids in controlling insect pests or diseases. Local outbreaks of one or the other are common, but fortunately most of them are not very destructive for more than a few years. Thus a little attention over a short time may save valuable trees on the course.

A typical example of an insect pest which is causing a loss of fine trees on some of the golf courses of the corn belt just now is the two-lined chestnut borer which works just under the bark and injures the layer of the tree from which growth takes place. The leaves drop from the tree in midsummer and soon the tree becomes stag-headed. If the infestation is severe the tree soon dies. The insect is especially deadly to red or black oaks, but causes little damage to the white oak. About the only things which can be done are to fertilize the trees to keep them in vigorous enough growth to repair the injury, and to cut down and burn dying trees. This will prevent the spread of the adults to other nearby trees the following season, and will furnish good firewood for the club fireplace or the heater in the work shed.

Policing the Grounds

There are many things which can be done around the course during the winter. Perhaps there is rubbish to destroy, new sand to haul to traps, etc. There may be places where an additional bridge could be used or where a few steps and a railing on a steep incline would be appreciated by the elderly members. Calendars of operations for various times of the year for florists, gardeners and other horticulturists have been published.

The value of a good heated workshop for indoor work in winter is being realized, and the trend is definitely toward the building of more compost and machinery sheds and more workshop space. Here the machinery can be overhauled in comfort. Ball washers, benches, and all kinds of wooden and metal fixtures about the course can be painted at a temperature which will be high enough to give the best results. The life of flag poles and other fixtures of the greens and tees has been all too short in the past.

In order to keep up with new ideas the greenkeeper should set aside a few days of the winter to attend the convention of the NAGA and also some college short course if possible. He may have time to read some good books on soils and fertilizers, or some of the articles on turf culture in back issues of GOLFDOM or other turf publications which he didn’t have time to read during the summer.

Undoubtedly the greenkeeping profession carries with it some degree of seasonal employment. It has been our humble effort to show that it need not be so, if greenkeepers sell the idea that their services are valuable in the winter as well as in the summer. Perhaps nothing will do it as well as a goodly number of actual demonstrations.

“CUREX,” NEW TURF PREPARATION, BEING INTRODUCED

New York City.—A new brown-patch preventive and turf disinfectant, to be marketed under the trade name “Curex,” is being introduced by W-G Chemical Co., 500 Fifth Ave. G. G. Wittwer of that organization writes: “Dr. E. D. Wilson and I have been working with turf disinfectants for a long time, know the game, and in ‘Curex’ we have a really unusual and outstanding product.” The company will gladly supply literature on request.
Not only BETTER COMPOST but:

—compost in which all the raw materials have been used—no waste!
—compost made from lumps or sod, wet or dry—no delays!
—compost mixed and delivered in the finest, uniform grade—as fast as two men can feed the hopper!

That’s why ROYERS ARE SAVING 70% to 90%

Made in four models
SEE THE ROYER AT THE CONVENTION

A Model “M” ROYER will be on display in the booth of Golf Equipment, Inc., during the National Greenkeepers’ Convention, William Penn Hotel, Pittsburgh, Jan. 30th-Feb. 2nd.

See it!... You’ll get a good idea what the ROYER will do.

SOLD THRU LEADING GOLF EQUIPMENT DEALERS

ROYER FOUNDRY & MACHINE CO.
158 Pringle Street (Kingston Station) WILKES-BARRE, PA.

ST. MUNGO’S FORMER PRESIDENT DIES IN ENGLAND
Alexander C. Wood, former president of St. Mungo Mfg. Co., of America, and a former partner of the St. Mungo Mfg. Co. of Glasgow, died Oct. 11 in England, to which country he returned after retiring from the St. Mungo Mfg. Co. of America presidency in 1931. He was well known and liked by many American friends and business associates who will mourn his loss.

VANDERBECKEN TO ANNOUNCE NEW GOLF SUPPLY CONNECTION
Robert Vanderbecken, former sec. of Worthington Mower Co., is planning an interesting new connection in the golf course supply field that will retain in this line of work a widely known and able operator.

Vanderbecken formerly was with Carter’s Tested Seeds in England, Canada and the United States, and also was active in golf course architectural and construction work, prior to joining the Worthington forces in opening their business in Canada. He also was active in establishing the Worthington business in England and other export territories.

McCLAIN ADDS “KOOLDRINK,” NEW COURSE SPECIALTY
Canton, Ohio.—The McClain Brothers Co. line of putting green specialties will be continued in 1934 as heretofore. “Fungol” for the control of brown-patch and the eradication of soil vermin is their headliner. Also important is the McClain all-chemical and wholly soluble putting green fertilizer, “Veg-e-tonic,” which the makers claim has unusual value for green fertilization, with high rating of nitrogen, phosphoric acid and potash, and containing no useless fillers.

Along with “Fungol” and “Veg-e-tonic” the McClain line includes the “Hydro-Mixer,” an inexpensive piece of equipment which makes it possible to completely treat or fertilize an entire green in 10 to 15 minutes; the McClain underground hose locker, an all steel, permanent receptacle for the hose and sprinkler at every green; and the new “Kooldrink” outfit for supplying cold drinking water from present water system at any part of the course, without the use of ice, electricity, chemicals, machinery or other expense. The makers expect this novel and interesting piece of golf course equipment will prove attractive to those clubs, supplying players with cold drinking water during the warm summer days.

Literature on any of these items may be had by writing McClain Brothers Company, Canton, Ohio,
CHANGE NEW YORK OUTLET FOR WORTHINGTON MOWERS

"GREENSKEEPER" IS LATEST IN MOTO-MOWER LINE
Detroit, Mich.—After two year's experimental work, the Moto-Mower Co., 4600 Woodward Ave., is introducing its new "Greenskeeper" model putting green mower. Weight of machine has been held to 165 lbs., without sacrifice of sturdy construction or necessary features for satisfactory operation. Moreover, according to the makers, weight has been distributed so that ground pressure on greens is no greater than that of a golfer's foot.

Among the specifications are: double gear drive, oil tight housing; throw-out clutch disengages reel for transport; cutting unit, 8 crucible steel blades; ½ to ¾ in. cutting height; forward catch grass-box; motor air cooled, built-in reduction speed gears, oil splash lubrication, Tillotson carburetor and air-cleaner.

For a full description of the "Greenskeeper," write the manufacturers for their recently issued folder.

PENNSYLVANIA TO PUSH WIDER FAIRWAY UNIT
Primos, Pa.—Pennsylvania Lawn Mower works plans no changes in its putting green mower for 1934, believing the few refinements added last season, including the high-speed 8-blade cylinder, to be all needed to produce smooth, ridgeless greens.

IN THE BAG FOR 1934
While you are making up the maintenance budget for 1934, set aside some money for brown patch prevention with Semesan or Nu-Green.

When the weather is against you these Du Bay fungicides keep greens healthy and unscarred at remarkably low cost! Semesan, with its ten-year history of successful control, is recommended for normally fertile turf. Du Bay Nu-Green is equally effective, but it is advised where fertility is lower.

Write your seedsman or supply house now for free turf disease pamphlet, or send direct to Bayer-Semesan Co., Inc.

NEW LOW PRICES

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BAYER-SEMESAN COMPANY, INC., DEPT. A-1
Du Pont Bldg.
Wilmington, Del.
without blade marks. For lightness and ease of pushing, aluminum alloy castings are now standard for the Aristocrat, a side-wheel mower suitable for greens, and Pennsylvania's tee-mower.

Because the price per width of cut is less and scalping is no greater, P.L.M.Wks. plans to emphasize and recommend its 36 in. fairway unit this season, rather than the 30 in. unit. Results obtained with the wider model last season were very satisfactory, according to N. D. Perine, vice-pres. of the organization.

Innovations in the Pennsylvania line in-
products with its regular guarantee to replace free of charge any part of the mower unit that breaks during service and to refund purchase price if purchaser is not satisfied of the mower's efficiency after a fair trial.

Greenkeepers and green-chairmen are invited to write for literature describing the F. & N. line in detail.

U. S. RUBBER CO. TO MAKE LINE OF PGA BALLS

Providence, R. I.—United States Rubber Co. announces two new golf balls for sale only to members of the Professional Golfers’ Association of America. Both the U. S.-PGA Championship, a distance ball for the better golfer, and the U. S.-PGA Tough for the good player who wants a tough ball with plenty of distance, will retail for 75c each, and will be made in recess marking only.

The two brands will be ready for delivery to PGA members January 25.

WORTHINGTON IMPROVES MODELS FOR 1934

Stroudsburg, Pa.—Worthington Mower Co.'s “Overgreen” will be equipped in 1934 with a special brush, mounted in the front of the machine and designed to be used at the same time the greens are cut. It will have an over-all swath of 45 inches and pressure on the green surface will be regulated by a spring.

Putting green units of the “Overgreen” may be disconnected and in a few seconds, tee mowers, approach mowers, spikers, rollers, discers and rakes attached. This makes it possible to keep the machine actively employed and has led the manufacturers to guarantee that there is no eighteen hole course that cannot pay for this machine in one season's time out of savings alone.

A new style front roller has been perfected which combines in one both roller and casters with all the advantages and none of the disadvantages of either. This has been done by enlarging the ends of the front roller ¼ in. in diameter. These enlarged ends will have all the advantages of the caster wheels' non-rolling feature, but if they sink too deeply into the surface of the ground, the center part takes up the weight and prevents scalping.

The Worthington Lawn Tractor, for 1934 will embody latest improvements of the Ford Motor Co. The 1934 motor is used and Ford’s latest straddle mounted truck type differential. This gives a 40% increase in strength over last year; Worthington warrants the transmission of their tractor unconditionally. Pneumatic tires, 9x13, tried during 1933, have met with such success that they will be recommended
For Best Results  
use  
McCullough's Seeds  
Specialists in all  
GRASSES and BENTS  
THE J. M. McCULLOUGH'S SONS CO.  
330 E. Front St. Cincinnati, O.

Southern Golf Clubs  
Cut Your Maintenance Costs and Improve Your Course

A complete course inspection service with the specific object of pointing out cost-cutting maintenance practices, suggesting such changes as will make for improved course design, condition, economical upkeep.

This service is based on more than 30 years' experience in building and maintaining several of the finest courses in the South and North.

The nominal fee invariably has proved to be but a small portion of the amount I have been able to save clubs.

For further details address:

JACK DARAY
White Pines Golf Club, Bensonville, Ill.

SUCCESSOR TO GOLF BAGS

GOLF PAX

GOLF BAGS — SUCCESSOR

DIAMOND TRACTOR SPUD

in practically all service for the coming year. These tires eliminate shock and jar to the tractor itself and add very greatly to the comfort of the operator.

The standard Fairway unit has been changed in several respects in keeping pace with the increased speed and service which these depression times have put upon all machines of this class. The rear roller has been placed forward 11/2 in. from its former position and a tie-rod is installed between the two housings in the rear of this roller. Knives of this machine are lifted by means of this rod when going from one fairway to another, and all possible strain from bed knife backing is thereby removed. The main axle has been increased in diameter and flanges at either end strengthened in proportion. The rear roller is equipped with hardened steel pins fitted in special bronze bushings and equipped with alemite lubrication fittings.

GARIOARD NAMED CODE ADVISOR FOR SPORTS GOODS INDUSTRY

C. L. Gairoard, president of The Kroydon Co., Maplewood, N. J., has been selected by the sporting goods industry as its industrial advisor to the government under the code. Gairoard has been active in the Athletic Goods Manufacturers' Assn, and as chairman of the Cutlery and the Tool Manufacturers' associations had much to do with drafting the codes for those groups.

He has his hands full with business interests, being active as president of Kraeutner & Co., Inc., tool manufacturers; president of Kraeutner Drop Forge Co., and since 1898, sales manager of J. Wiss & Sons Co., cutlery makers, in addition to his association with Kroydon.

MACGREGOR TO INTRODUCE NEW "SUPER-VALUE" GOLF CLUBS

Dayton, Ohio—Crawford, McGregor & Canby Co. will introduce in 1934 five new lines of popular priced woods and irons to sell at $6 and $5 respectively.

"Never before," says Ed. Canby II, of the MacGregor organization, "has it been possible for us to build so many features into clubs selling at anywhere near these figures. This means that golfers who are compelled to limit their expenditures for equipment can now get clubs they'll be proud to own."

According to Mr. Canby, both woods and irons will be equipped with the MacGregor "Neutralizer" that takes sting and vibration out of steel shafted clubs and gives them the "feel" of hickory. Irons will carry a selection of back designs—a flat back model, a flange sole model, and a back-weight-balanced model. Special face woods with patented "Scruloc" inserts will be
available at $6. Most of the models have True Temper shafts.

Dealers, pros and golfers who have seen these new lines are enthusiastic about them, according to the scores of letters that have been received at MacGregor headquarters in Dayton.

Enthusiasm at the factory over the new "Tru-Whip" woods and irons are being borne out by the pros and players who have tried these new clubs. MacGregor claims greater distance and accuracy for these clubs and points out the three features responsible to be (1) shafts graduated in amount of whip, short pitch clubs being the stiffest; (2) the "control sleeve" which fits over the shaft and under the grip, and is claimed to remove the usual whippy-shaft club "wobble" and put leverage where it belongs, and (3) the patented MacGregor "neutralizer," a section of hickory inside the shaft where it joins the clubhead, intended to absorb shock and sting and make the club evenly flexible from grip to head.

TORO ADDS REFINEMENTS AND NEW MODELS

Minneapolis, Minn.—A number of worthwhile improvements and additions to the Toro Manufacturing Co. line of golf course maintenance machinery have been made for 1934, according to word received from K. E. Golt, Toro sales manager.

Chief among the new improvements are changes on the hand putting-green mower. A new, easily accessible finger tip adjusting gauge regulates the height of cut without the need of wrenches. With this gauge, the mower can be adjusted properly without a straight edge and on uneven ground. New automatic self-takeup ball bearings greatly increase the life of the reel bearings and provide positive alignment of the reel shaft. The bed knife bar and the roller drum spiders, formerly built of cast iron, are now constructed of special aluminum alloy, at no sacrifice in tensile strength. Greater use of aluminum reduces the gross weight of the mower over 5 pounds.

The Master tractors and fairway mowing outfits have been improved with a new, simplified steering gear, providing easy steering. Several structural changes have been made in the frame to increase flexibility, an important feature for hilly courses.

Two brand new mowers are offered: the "Parkway," a 2-wheeled rubber-tired sickle-bar mower for cutting rough, and the "Parkmaster," a 3-wheeled rubber-tired mower for high speed tee and approach cutting.

The company reports an increased volume of spring orders on file and are looking forward to greatly improved business for 1934.