



NEWS LETTER

Unless a man undertakes more than he possibly can do,
he will never do all that he can.

—Henry Drummond.

JULY

1937

This NEWSLETTER is published monthly by the Greenkeepers Club of New England, and sent free to its members and their Green's Chairmen. Subscription price ten cents a copy, or a dollar a year.

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July, 1937 Vol. 9, No. 7

We recently came upon an advertisement which we believe contains a great deal of truth for us, whether we are buying furniture or golf course equipment. We believe that our equipment advertisers will believe in this message, and that every buyer can think over with profit the lesson in it. From this advertisement of The C. F. Wing Co. comes this message:

DO YOU BUY ALLOWANCES OR MERCHANDISE?

The World is Full of Words

but what words can express the futility of buying where you get the "biggest allowance" for the old—or the biggest discount for the new?

You know the story of the honest New Bedford mariner who charged up his new suit—as such—on the ship's books, whereat the owners grumbled and said they were not paying for the captain's clothing.

Observing the method pursued by some of the other masters—our honest mariner on the next voyage put the cost of his clothing in the potato bill.

Like your "biggest allowance" the cost of the suit was covered, but the cost was there just the same.

It is not what allowance you get—or what is taken off—or even what price you pay—but **What you get for what you pay.**

Balancing the Budget

Is it hard to keep your budget right?"

"My dear, it's perfectly terrible! This month I've had to put in four mistakes to make it balance."

—Bank Notes.

SECTIONAL-WORK-LABOR SYSTEM

by Edward J. Casey

Wykagyl C. C.—New Rochelle, N. Y.

(Presented at Recreation Conference)

Greenkeepers or any other group become much better acquainted with talking shop. I have a subject that has, I believe, a great deal of shop talk atmosphere. It is wide open for discussion any time or in any place. It is necessary, however, to keep in mind fundamental principles, your knowledge-understanding of them, and your attitude, and this is a purely personal factor. Your attitude toward these principles determines whatever success you hope to enjoy.

To speak of golf course labor, we speak of a cost item that consumes on an average 70% of the total cost of the product, which is the golf course. Regardless of how the total cost of the product is reduced, that labor cost item still consumes the greater part. We can, however, materially reduce that labor cost item by eliminating as far as possible lost labor time.

Departments under your management are: budget, finances, materials, equipment, and labor. The first three are your personal contact, you control them as well as could be done,—your knowledge of them is well directed; but that other department, **labor** is a little doubtful. By doubtful I mean the possibility of there being a good piece of labor time lost. As good managers, you are very observant; without hesitation, you snap up a smart idea or method and make it part of yourself. It becomes a precision tool in your hands. You use it; you accomplish things with it; you are proud of it. Why? Simply because your attitude towards the value of the idea or method leads to its incorporation in your maintenance system.

Incorporating the sectional work-labor system in your management of the golf course. Not to any one of us is the system original, yet its application may be very original. None should doubt that it deserves plenty of serious thought. The two definite terms Work-Labor associate in speech very well, associate in our minds to give us the true meaning of them. Yet, how do we associate them in a practical manner in our everyday work? Do we group

our labor to the demands of the work, or do we have the labor scattered about, hopping from one job to another, sacrificing a lot of good labor time between jobs? Control labor and you certainly control work.

If your budget is around \$15,000, you probably spend for labor in the neighborhood of \$3000 to \$4000 for greens alone. Out of that from \$750 to \$1000 to pole and cut greens. That greens labor item could cost you more or cost you less—your management determines that! There isn't time, nor is it necessary to analyze the value of time saved or the cost of time wasted, but we can analyze conditions that mean time and efficiency just as well as figures do. The number of players and the periods of heavy traffic at your course greatly influence the extent of the labor time lost. Call it unproductive time if you will—time expended for which there is no return. Cutting greens, top-dressing, or doing other work at a time when the margin of interference between player and labor is greatest does not promote satisfactory work-labor control.

Primarily, waste of labor is due to not planning work ahead. Train your labor from job to job, from hour to hour, and you train them inefficiently. Give them a day's work,—two,—three—give them a week's work ahead; they like it; they are happier; they develop initiative and become more efficient. Time saved—walking for instance—many of your greens are a half mile away.

You send a man out to cut—15 minutes walk. He comes back—15 minutes walk! Send him out to another job—15 minutes walk; finishes job—comes back—15 minutes walk; and so on. Send the man out there and keep him there! Give him a section to take care of and make him responsible for its upkeep. If you have the right man, he will accept the responsibility and like it. Not only that, he becomes a mighty good manager of his own section. Now we have three definite terms: section-work-labor. All are as familiar to you as your own golf course. It is reasonably safe to say that there isn't an 18 hole course that hasn't one or two—or more—outlying sections, groups of three or four holes together, so far from your work buildings that transportation of materials, equipment and labor is a mighty expensive item not included in the budget but is assumed to be part of the labor cost. Whether you have 18

holes or 36 holes or more, this sectional-work-labor system should certainly appeal to you. It must appeal to you as the one responsible for the management of your golf course. Your section man, knowing his responsibility, takes pride in his work, trains himself,—his observation is keen. Walking over turf, he can detect immediately any serious grub injury. He watches the natural landscape; in fact, he learns to know his section that any unusual change in appearances of turf or other vegetation immediately registers with him. Naturally, he investigates. Here in the section man you have a control centre that is extremely valuable, if you make use of it. Assume, for instance, that your course is infested with an insect pest, an infestation that is extremely difficult to control—perhaps the Japanese beetle, web worm, chinch bug in turf or gypsy moth—canker worm—or some other pest in the trees. What do you do? Chart the infested areas on the course map? Chart the increase or decrease of infestation? We know that you use insecticides, but you have got to know the extent of infestation. These pests don't work under your feet where you can fall over them. No! They start in out-of-the-way places: in the short rough, the long rough, banks of tees, greens, edges of traps. You find the small infested area in a section; scout the entire section for further infestation. Who can do that job better than the section man you yourself have trained? Any of you who are up against the Japanese beetle or the chinch bug know what an insect pest really is, and appreciate the value of a good scouter.

Weed eradication in the fairways, rough, banks of tees, etc. Preventing reinfestation through weed seeds. Allow your section men to give you every assistance they are capable of in spotting the pre-blossom and seed formation periods of the troublesome weeds. Whether you use sodium arsenite, iron sulfate, kerosene or some other material, the section man will prove valuable in the work and in checking the results.

The principle of the sectional-work-labor system can be applied to short or long range planning for course improvement, be it construction, drainage, irrigation, weed eradication, fertilization or general turf betterment. Such planned work, required to be completed within a certain period, is well adapted to sectional division of the course. Completing the work in one section of the

course, the experience gained together with the results of the materials and labor methods employed would be extremely valuable in determining the best procedure for completing the following section.

You should experience little difficulty in establishing work sections on your course. You have to determine the best method of supplying the section men with equipment. That of itself suggests the erection of a central section house to serve one, two, or three sections. Keep in the section house every stick of equipment necessary for efficient workmanship. The section house, like any other piece of good equipment, saves you money, not costs you money. You may say: "Well, look at all the extra equipment we need." Certainly, if you are ill equipped. If every laborer on your course has not a complete set of small equipment for his own particular use, then you are ill equipped. Do you want five or six men scrambling over three or four good shovels with the unlucky ones using the worn-out shovels? Keep every man equipped and keep the equipment up to date. You can just as well keep the small equipment in a section house as in a main building. What better control of equipment have you than to make a man responsible for his own set? (He keeps them in good shape too.)

Your section man is on the job all the time. He spots fungus attacks, injury from rodents, injuries from turf insects, and other damage to club property. He spots drying of turf on greens, tees, around the apron, approaches and mounds on the green. I am sure many of you have experienced the difficulty of keeping mounds on and around the greens from drying out in the summer. Many of them need particular and frequent attention. They are a part of the green. Their condition may complete or mar a beautiful picture.

If anything serious happens, your section man lets you know pretty quickly. He has all the equipment for his work; for emergencies, he does not have to walk to the barn for a rake, a pole, or somewhere else for a piece of hose. Everything is right there at his own headquarters. With a man out there in a section, you have better control of the work to be done. You do not have to watch him. Time is a limiting factor for labor juts as it is for you yourself. It often occurs that you send a man out with a machine; something happens to

the machine—the man pulls it back to the barn; he either has to wait or is given another job while the machine is being repaired.

That lost time can be avoided under the sectional work-labor system. The man could drop the machine job and do something else. Why? Because he has plenty of other work to do and all the equipment he needs right at his elbow. A broken machine can be picked up, repaired at the shop and delivered back to the section. So far as handling the cutting machine stored at the section houses, that is a simple matter. If your section men are trained to properly adjust machines, so much the better. You cover the course at least twice a day. You can check adjustments and behaviour of the machines on your way around. For major repairs, such as grinding or sharpening, the machines can be picked up by a tractor or truck, repaired and delivered to the sections where they belong. Your materials, labor and equipment are always distributed and transported with minimum loss of time, and that's what you want. Should you decide that you need a section house for equipment, do not retain the impression that you should hide it in the woods or some other place out of the way. Put up a decent looking building in a convenient place, keep it neat and clean, and it will be something good to look at. Perhaps your course needs more shelters for convenience of members. In that case, it may prove practical to erect a combination building, using one part for a section house and the remainder for shelter.

Power equipment is adaptable to the sectional system as well as hand equipment. The question of sabotage is a minor one. Your main buildings can be cleaned out of equipment just as readily as the section houses. Many of you have a course watchman.

Modification of this system makes it adaptable to any condition or circumstance, so long as you are able to coordinate its three principal features: the section, the work to be done, the labor available.

Before I conclude, I want to bring out a factor that is important whenever this subject is discussed. That factor is the section man. How to obtain the type of man possessed of some quality that places him ahead of the usual run of labor, the type having an honest interest in his work. All of you have one or more men on your force whom you consider

more valuable than the others. Valuable because you have made full use of them and by so doing, have trained them to your particular methods and requirements. Isn't it possible to select the better type of labor, train them, and round out a force 100% valuable, allowing the men freedom of thought and action to develop that competitive initiative? It means more effort on your part, which isn't anything unusual. Your effort and determination to obtain objectives set before you has moved golf maintenance to the high standard of today. To keep these selected men available, some effort is necessary to provide employment for them during winter months.

SOME LAWN INFORMATION

by Dr. Howard B. Sprague
N. J. Agri. Exp. Sta.

Prevent Drought Injury To Lawns

Prolonged dry hot weather has resulted in severe injury to the home lawn during the past season. Certain lawns or portions of them, however, have withstood injury more successfully than others. In most instances, noticeable resistance to drought may be attributed to the difference in character of the soil or to the treatment followed. In order that the lawn may be made more drought resistant, soil conditions should be carefully examined and the cultural practices considered to determine the limiting growth factors.

The lawn soil should have a desirable water-holding capacity to support grass in dry periods. This capacity is greatly influenced by the presence in the soil of organic matter in liberal amounts. Organic matter is particularly important on sandy, shaley, and heavy clayey soils, and the incorporation of such organic materials as well rooted manure, spent mushroom soil, or cultivated peat is frequently necessary to provide the required water-holding capacity. Moreover, the soil should be well supplied with available phosphates to stimulate deep root development and efficient absorption of moisture. Also, the correction of strong soil acidity with lime is essential for satisfactory root penetration.

Mowing should be no closer than one inch on lawns, particularly in spring, since shorter clipping restricts root development, and, consequently, the vol-

ume of soil from which moisture may be derived. Artificial watering must be deep and thorough, rather than light and frequent, to permit the storage of moisture in the lower soil layers for subsequent use. Light waterings are largely dissipated by evaporation and prove of little value to the grass. In general, fertilizers should be withheld in summer months to avoid injury from burning. Early autumn and early spring are the ideal seasons for fertilizing lawns. The application of plant food at such seasons will meet the requirements for growth during the balance of the year.

Careful Watering Essential For Healthy Turf

Careful watering is necessary to maintain the lawn in a thrifty condition without stimulating crab grass and other annual weeds. Lawns generally require some artificial watering during dry hot weather from May to September, since summer rainfall is irregularly distributed throughout the season. Moisture should be supplied, however, only when the turf would actually suffer from lack of water. Frequent sprinklings in hot weather benefit summer weeds more than the lawn grasses, particularly if the soil is superficially moistened. As a general practice, the lawn soil should be soaked to a depth of 4 to 6 inches. No further watering should then be necessary for several days on loam soils.

Lawns located on sandy or shaley soils or on soils with low organic matter content, have relatively low moisture holding capacities. Consequently, water must be applied more frequently than on loam soils. Improvement of soil structure by the incorporation of organic matter and heavy top-soil on sandy areas, and of organic matter and lime on shaley and clayey soils, will greatly reduce the danger of drought injury.

Terraces frequently suffer for lack of moisture due to heavy run-off losses. Water must be applied slowly on such locations to permit absorption by the soil, but it should be added in sufficient quantities to moisten the soil to a depth of at least 4 inches.

One should remember that excessive watering compacts the soil, causes water logging on loams and clay loams, and is harmful to the turf grasses. Lawns cut regularly at a height of 1 inch or

greater will require less watering and suffer less from drought than turf that is closely mowed.

Making Temporary Lawns

A luxuriant temporary green lawn may be produced within three weeks' time under a great variety of soil conditions. With proper care this turf will persist throughout the summer, until a permanent lawn may be established.

Spade the area to be seeded or loosen and pulverize the surface two inches of soil with a hoe in preparing the seed bed. Apply a complete commercial fertilizer carrying at least four percent of readily available nitrogen, at the rate of 10 pounds per 1,000 square feet of surface. The fertilizer must be uniformly distributed and thoroughly incorporated with the upper layer of soil before planting. Grade the area by raking. Seed perennial rye grass or domestic rye grass at the rate of five to eight pounds per 1,000 square feet, and cover by raking lightly. Keep the soil surface moderately moist until the grass is well established, and mow at a height of two inches during the first month of growth.

The lawn obtained by this method is a temporary one but it makes an excellent substitute for a permanent turf during the summer. Late spring and early summer months are unfavorable seasons for new seedings of permanent lawn grasses due to injury by heat, drought, and competition of weeds. The temporary grasses now seeded may be spaded or plowed under in August or early September and a permanent lawn established. At that time the addition of organic matter, lime, fertilizer and other materials for soil improvement will aid in developing a thick sod of permanent grasses. Seed of desirable grasses is uselessly wasted when sown at a season of the year offering little chance of success.

Close Mowing Injures The Lawn

Regular mowing of the lawn at the proper height aids in producing a fine closely knit turf. Many lawns are seriously injured by failure to cut the turf in a suitable fashion. Ordinary lawn grasses are improved by frequent mowing at a height of one inch or longer. This practice stimulates the production of shoots and leaves, and thus maintains a fine texture and desirable

color of the sod. A period of neglect which permits the grass to become tall and coarse, followed by close mowing, invariably produces an open unsightly turf even though the finest grass species may be present.

Extremely early or close clipping of the average lawn should be avoided, since these practices greatly restrict root growth and the vigor of the turf. Experiments conducted by the New Jersey Agricultural Experiment Station have shown that a large proportion of the grass root system is regenerated each spring. Consequently, early close mowing reduces the quantity and extent of the roots for the entire season. As a result, the lawn is made more sensitive to hot, dry weather, and is less able to endure competition from weeds, or injury due to other causes. The first spring mowing should be postponed until the grass is approximately 2 inches long in order to permit vigorous root growth. Thereafter, the lawn may be mowed frequently as desired, provided the height of cutting is one inch or longer.

The lawn enthusiast is inclined to mow the turf considerably closer than one inch. In order to practice close cutting, it is necessary to plant species which tolerate this treatment, such as one of the bent grasses, and to develop a smooth soil surface by rolling and topdressing the sod. The bent grasses which withstand mowing at heights of $\frac{1}{4}$ to $\frac{1}{2}$ inch, are velvet bent, creeping bent, and Colonial bent.

Haphazard adjustment of the lawn mower may prove disastrous. A simple method of adjusting the height of cut consists of placing the machine on a level floor or sidewalk, and setting the roller on the back of the mower so that the bedknife is the desired height from the floor at each end. The bedknife is the long flat blade against which the blades on the revolving reel cut. Periodic adjustment of the mower will avoid injury from excessively close mowing.

If YOU know of a fellow member who is ill, or who needs assistance, be sure and notify the chairman of the Welfare Committee, Howard Farrant, 132 Russett Rd., West Roxbury, Mass. He needs and requests YOUR assistance so that he may properly carry out his duties.

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WOODRUFF FIELD DAY

The annual Field Day for Greenkeepers was held on June 22nd at their Proving Ground in Milford, Conn. by the Grass Seed Division of the F. H. Woodruff & Sons. Some fifty or more greenkeepers from several states examined with great interest the 143 plots of many species and strains of grass.

To give our readers a comprehensive picture of this experimental work, we quote from introductions to two reports of the work which have been submitted by the company.

Our Grass Laboratory

Grass is the principal background of all landscaped areas, whether home lawns, parks, golf courses or cemeteries. This somewhat detailed and organized study of grasses in relation to their best employment and maintenance under controlled conditions is proving both interesting and informative, and therefore should engage the interest of all workers in landscaping.

Grass is popularly recognized as a most humble member of the vegetable kingdom, no doubt because it is accepted as a matter of course as a pleasing, ready-made gift from Nature. Although it may be appreciated for what it contributes to the beauty of the landscape, few people realize what care must be exercised in the selection of proper seed for a given area, its sowing, and the proper maintenance throughout its entire existence.

To present vividly and with reasonable exactness the differences existing between grasses, not only between species but between varieties or strains of the same species, and their general habits as they mature, we established our first experimental and proving grounds for turf grasses on one of our farms at Milford, Connecticut, in the fall of 1931. Each season since, we have added to them, trying the different varieties and strains under several conditions, so that now we believe that we have in trial every variety of grass adapted to and used for turf production in northeastern United States. Many are duplicated in order to study their response to different lengths of mower cuts; others for comparison of fertilizing materials; still other tests are being made by sowing the same grasses during every month of the year.

In 1933 additional trial grounds were inaugurated on the area adjoining our

store at Bellerose, Long Island. Others were also established on the grounds of the Cherry Valley Country Club at Garden City, Long Island. Mr. William Howell, superintendent of the Poughkeepsie Rural Cemetery of Poughkeepsie, New York, is also conducting a series of trials for us, as is Mr. Harold Smith of the Forest Hills Cemetery at Utica, New York. We hope to have other plots under way in Springfield, Mass., and in northern New Jersey during 1934.

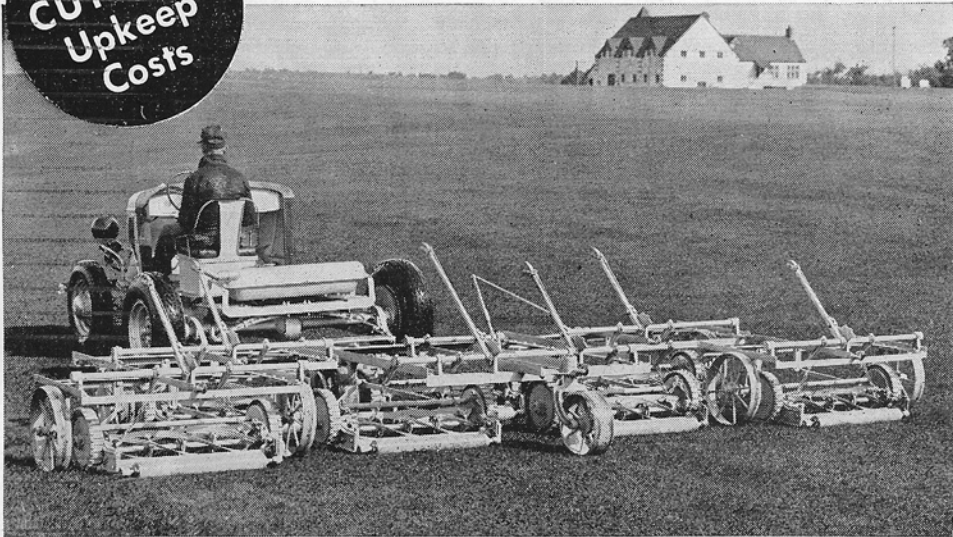
These investigations throughout the East offer accurate information on what you can expect from grass seeds and the findings are available through this medium or by a visit to any of these grounds, where you are always welcome to come often and stay as long as you wish.

Our trial grounds at Milford are located on the Boston Post Road (New Haven Turnpike) about a mile and a half east of Milford or about seven miles west of New Haven. They are on the south side of the road, immediately adjacent to the highway. During the growing season a man is in attendance during business hours, 8 a. m. to 5 p. m., except Sunday.

Our methods of fitting the soil have not been out of the ordinary, nor have there been any organic materials such as peat moss, humus or manure, worked into the soil before seeding. The soil on the main grounds at Milford is a heavy loam type running somewhat to clay, so that it cakes and bakes very hard in summer.

The farm on which our plots at Milford are located has been owned by us for many years and has been used (until 1928) for growing vegetable seeds. It was thoroughly tilled each year and fertilized with commercial 4-8-4 fertilizer. For two years the farm was in other hands who contemplated the construction of a commercial air landing field. During this time a portion of the farm now occupied by our turf trials was seeded to Wyoming Bluestem, an Agropyron similar to quack grass and a native of the middle west, where it is valuable for a forage grass in winter. The object of sowing this grass was to learn its possible value as an airport turf grass, but it was never to serve its purpose as the landing field never materialized. It did thrive, however, and as it spreads by strong, hardy rootstocks, we found a heavy stand when we plowed it up preparatory to seeding in

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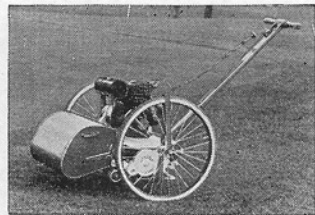


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the fall of 1931. Like quack grass, it has been hard to eliminate, as every small piece of root seems to grow and multiply. Further mention of this grass will be made later.

The topsoil is from 8 to 10 inches deep over about 3 feet of sand, and below that is a clay hardpan. There are numerous rock ledges throughout the area, but none are nearer than 18 inches below the surface. The sand permits good drainage and we are well pleased with the general conditions for trying out grasses.

During 1934 and 1935 several plots were discontinued because their usefulness was proven of minor importance in comparison with certain new trials which we believed to be pertinent to current problems of the day. These new experiments were started and will be carried on with the same care exercised in the past.

Our Milford Proving Grounds now include more than 145 different turf plots. The fact that they are located near the coast and on a definite type of soil must be taken into consideration in presenting a true picture of our efforts. One must realize that the physical structures of soils vary with their origin, and that environment inland or along the coast differs materially even within a short distance. Our method of meeting these factors has been to establish other Proving Plots at various points in northern United States where the soils and weather conditions may differ from our own.

BOWLING GREENS

A Bowling Green is a square of fine turf measuring 120 feet by 120 feet, on which the game of Lawn Bowls is played. The pastime is one of the oldest enjoyed by English-speaking people, being traced as far back as the thirteenth century or earlier.

In the game of Lawn Bowls, each player uses two or four solid wooden bowls, turned with a "bias" so that their course is slightly curved. The object is to place one's bowl nearest to a white ball or "Jack," which is thrown at the commencement of play. Bowling on the Green is a game of skill, interesting to young and old and appealing to players of both sexes; although it is not violent in character, it develops muscle, is figure-improving and weight-reducing.

Building A Green

(1) Plow or dig an area about 140 feet square, turning the soil but not going deeper than the thickness of the topsoil. Remove the topsoil and place it in heaps off the area.

(2) Grade the subsoil to an even level surface. Note, however, that some greens are "crowned": that is, the center is mounded some twelve to eighteen inches above the grade with a gradual slope to the sides in all directions. This type of construction makes the game more sporty and is advantageous on heavy or poorly drained land, because surface water is shed freely, but an accurate level area is usually preferred.

(3) Take every care that the subsoil under-drains readily. On sandy or gravelly soils no special preparation may be necessary; on clay soils drain-tile should be installed in ditches dug in the under grade, commencing these eighteen inches below the surface of the subsoil and allowing a fall of six inches to each 100 feet. The drain tile should be covered to the level of the subsoil with coarse stone or gravel. Distance between drains, and hence the quantity of tile used, will depend upon the character of the soil, but an average of 100 feet of six-inch (diameter) tile and 250 feet of four-inch tile may be necessary.

(4) The topsoil should be replaced in an even layer, and it should be from four to six inches thick. Additional quantities should be procured if there is any question as to the quality of the original topsoil. It is spread only on an area 120 feet by 120 feet and is, preferably, retained by steel curbing or boards. Outside the curbing is a path or ditch 30 inches wide, floored with wood or gravel, and beyond this the surface is graded evenly to a bank, enclosing the green.

(5) If the topsoil is of a heavy character from ten to twenty cubic yards of sand may be mixed with it by spreading and raking under. Most topsoil in the northeastern part of the United States is deficient in organic material, and an application of five to ten tons of humus is usually desirable, broadcast evenly and worked in.

(6) The surface should be rolled and any inaccuracies in the grading corrected by adding more topsoil.

(7) Seven hundred pounds of Fertilizer may then be applied and raked in.

(8) Water thoroughly, and as soon as the surface is dry, broadcast 35 lbs.

"GENTLEMEN! . . ."

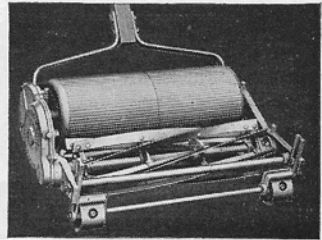
Here's a way to BEAT YOUR RISING COSTS!"

The most acute operating problem facing Golf Club Managers today is that of rising wages and material costs . . . At a recent Club Managers' Convention, one Manager said: "Gentlemen, the rise in wages and material costs is inevitable; we can't stop it, but we can *beat* it. We can install more efficient equipment."

A typical example of what this Manager had in mind is the use of Pennsylvania GIANT 36-inch Fairway Mowers, which save 20% in labor cost, 20% in maintenance cost and 20% in power cost, over the conventional 30" mowers. This saving runs into hundreds of dollars yearly. At the same time playing conditions are improved.

Every golf course equipped with Pennsylvania GIANT DeLuxe Fairway Mowers has proved these facts. Furthermore, as a direct result of improved playing conditions, a steadily growing club patronage brings increased income.

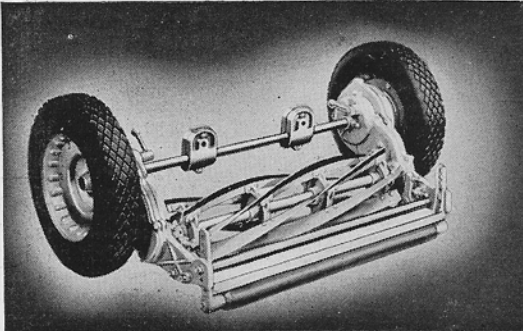
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PRIMOS
PENNA.

of grass seed and rake. On the raked surface broadcast a further 35 lbs. of seed and then roll; observe that the second seeding is not raked under. For Bowling Greens in the northern United States and Canada we advise a seed mixture consisting of equal parts of Seaside and Triple A Bent.

(9) As soon as the young grass is long enough for a new, good quality lawn mower, set to one-inch, to make a cut, commence mowing; thenceforth, during the growing period, mow three times per week.

Make a new Bowling Green in spring or autumn. Avoid the period from mid-June to mid-August for this work.

Maintaining A Green

Roll once a week in dry weather. Use a partly filled water-ballast roller of the one-man type.

Weed when necessary. Fill weed holes with a mixture of one part grass seed to five parts soil.

Water during dry weather, preferably at night.

Brush Away Wormcasts before mowing. If earthworms become numerous remove them.

Topdress twice each spring and twice each autumn with a mixture consisting of fine soil and fertilizer. Use as much soil as can be rubbed into the turf with the back of a rake and without hiding the grass. Mix with the soil for each topdressing 250 lbs. of fertilizer. Protect against Japanese Beetles and grubs. On acid soils 500 lbs. of limestone every late winter will be helpful.

—Golf Turf.

TURF FIELD DAY AT THE NEW JERSEY EXPERIMENT STATION

New Brunswick, N. J.

Over 200 golfers, greenskeepers, and representatives of commercial firms interested in fine turf attended the Turf Field Day of the New Jersey Agricultural Experiment Station on June 21, in spite of the threatening weather which prevailed during the day. More than 300 individual plots showing specific treatments were labeled and on display. A tour of the experiments was conducted by Dr. H. B. Sprague during the course of the afternoon. Among the tests observed and discussed were the following: Comparison of grasses for various

uses, grass seed mixtures, tests on the value of different types of fertilizers on putting turf, experiments on the turf producing ability of various soil types, tests to show the value of different kinds of organic matter for soil improvement, comparisons of different systems of fertilizing fairways, trial plots to determine the putting value of approximately 20 kinds of strains of grasses, breeding nursery of Velvet and Creeping bent strains, and experiments showing the importance of incorporating humus and lime in preparation for new seedings.

A dinner sponsored by the State Golf Association in cooperation with the Metropolitan Golf Association and the New Jersey Association of Golf Course Superintendents, was held at the Hotel Woodrow Wilson in New Brunswick in the evening. The evening program included the following speakers: Mr. T. C. Longnecker of the New Jersey Experiment Station staff, Dr. H. B. Sprague, Agronomist at the New Jersey Agricultural Experiment Station, and Dr. John Monteith of the U. S. Golf Association Green Section. Mr. Longnecker discussed "Studies on the Penetration of Nutrient Elements and Their Seasonal Fluctuations in Grassland Soils as Measured by Rapid Chemical Tests", Dr. H. B. Sprague presented a report on "Studies as to the Growth Requirements of Annual Bluegrass (*Poa annua*)", and Dr. Monteith gave a brief discussion on weed control, also displaying a series of colored slides of golf courses in various sections of the United States. The attendance at the evening dinner was over 75, and interest in turf problems was great. There seemed to be ample evidence of marked revival of attention to this important national recreation.

President Robert A. Mitchell represented the club at the Northeastern New York Carnival of Golf held in Albany and vicinity, May 15-17. This carnival was full of various golf events, including team matches, meetings, dinners, demonstrations, etc.

Schuyler Meadows was the scene of the greenkeepers' and golf equipment show, and also a meeting of the N. E. New York Greenkeepers Assoc., at which Prof. L. S. Dickinson and Pres. Quail of the N. A. G. A. were the principal speakers.

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SUMMONS

COMMONWEALTH OF MASSACHUSETTS

HAMPSHIRE, SS.

To the Agents of our several Counties, their assistants,
and any interested citizen, GREETING;

You are commanded to summon

THE RECIPIENT OF THIS NOTICE

to appear before the Justice of our Court of **Fine Turf Culture** holden at Amherst, Mass.; within our County of Hampshire, on the **last Thursday of July (July 29) A. D. 1937.**

then and there, in said Court, to listen to the truth and give evidence for us touching such matters as concern our peace; and **GREENSWARDS**; and whereof **several prominent persons** shall be brought to trial for the abuse of their fine turf areas.

Hereof, fail not, as you will answer your default under the pains and humiliation of having a poor lawn.

WITNESS. WILLARD A. MUNSON, Director of Extension Service at the Massachusetts State College, at Amherst, this 7th day of July in the year for better lawns, one thousand nine hundred and thirty-seven.

LAWRENCE S. DICKINSON,
Chief push 'em up greener.

LAWN DAY PROGRAMME

COURT CONVENES AT 10:00 A. M.

Thursday, July 29, 1937. Room 20. Stockbridge Hall, M. S. C.

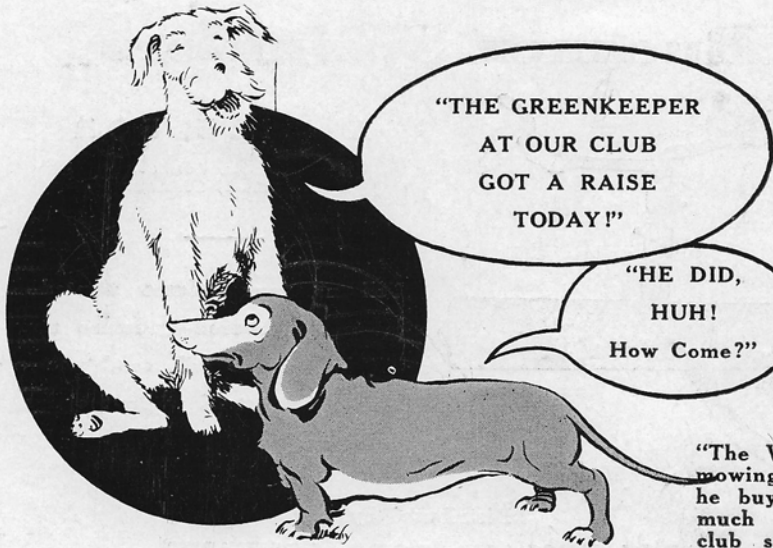
- 10.00 A. M. The statement of Joe Greengrass.
- 10.30 A. M. Cemetery Superintendent on trial.
- 11.30 A. M. Park Superintendent on trial.
- 12.30 P. M. Recess for Lunch.
- 1.45 P. M. Athletic field and Playground Director on trial.
- 3.00 P. M. A Lowley Homeowner vs. Joe Greengrass.
- 4.00 P. M. Rendering of verdicts and general discussion.

There will be recesses during which witnesses may consult experts concerning their particular problems.

The trials of these men should be attended by all persons desiring to grow fine turf and lawns, as it is **known** that much valuable information on the subject of turf growing will be brought out in the **testimony** and evidence presented.

THERE WILL BE

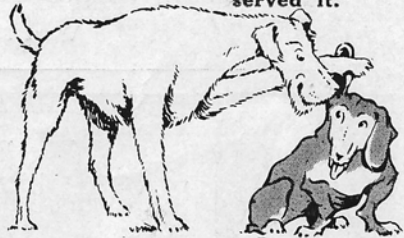
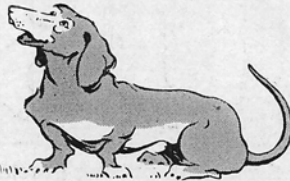
EXPERT WITNESSES SNAPPY LAWYERS JURORS
and a Fair (green) Judge.



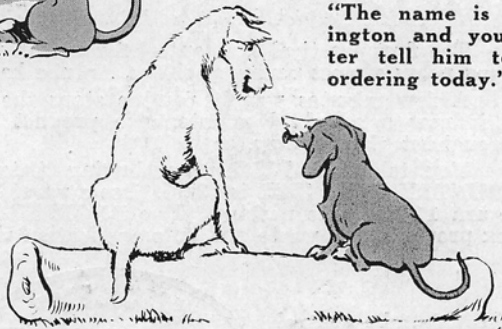
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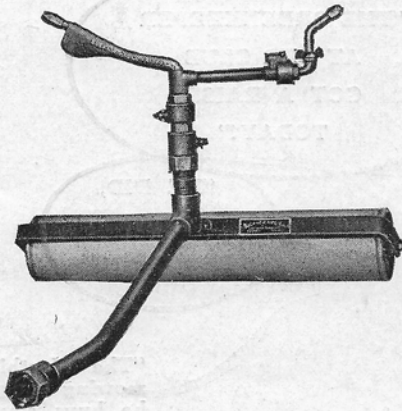
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