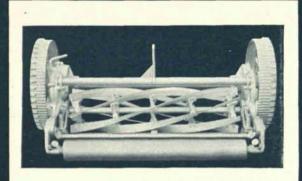
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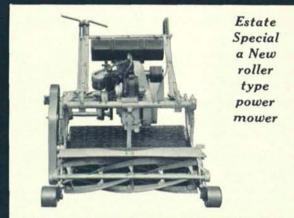


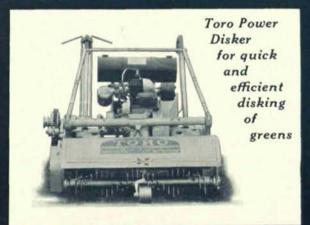
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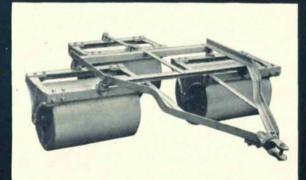


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VOLUME V

The NATIONAL GREENKEEPER Registered U. S. Patent Office

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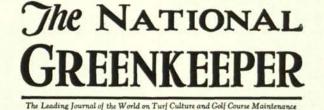
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Official Organ of The National Association of Greenkeepers of America

How We Sod Greens In Pittsburgh

By JOHN QUAILL, Greenkeeper Highland Park Golf Club, Pittsburgh, Penna.

THE Pittsburgh method of sodding a putting green was originated by Emil Loeffler of Oakmont Country Club a good many years ago. At least that is what I have heard and he was the first one to use it that I know of.

It differs from most methods as the sod is handled in larger pieces than most other methods, thereby saving time and having less joints. I have successfully sodded about twenty greens by this method and have had wonderful results every time and have opened them up for play within two weeks from the time we started to lift the sod.

The sod bed is prepared in the usual way having a good layer of topsoil and about two inches of screened soil or compost on top of this. The green should be thoroughly rolled to compact the surface and then carefully scraped with the back of a rake or a scraper made for this job. The secret of a true surface depends on the rolling and the scraping. The surface should be as true as the finished green to secure the best results. All little humps and hollows should be cut off or filled and a final rolling given the green.

CUTTING THE SOD

THE next step is cutting the sods. For this purpose I use an English-type turf edger. A steel plate ten by forty-eight inches is used as a pattern and the man who does the cutting must follow this plate exactly to secure sods of even dimensions. The plate is about 3/32 of an inch thick or just thick enough to have plenty of stiffness.

The sod is lifted with a regular turf lifter and is cut about two inches thick. This allows for trimming. The sod is slid onto another steel plate and carried to the trimming box where it is shaved to a thickness of one and a half inches. This box is eleven by fifty inches, inside measurements. A table can be made about the right height to accommodate the trimmers while trimming the sods.



PREPARING THE SOD BED



CUTTING AND LIFTING THE SOD

January, 1931



LIFTING SOD ONTO STEEL PLATE TO CARRY TO TRIMMERS

The knives are made out of old fairway unit bottom knives. They should be ground off to a sharp edge and a handle made on both ends to resemble a draw knife. The sod is placed dirt up in the box and a trimmer on both ends works out on it. The result is a sod $10x48x1\frac{1}{2}$ inches. All the same size and all the same thickness.

LAYING THE SOD

THE sod is turned out onto a one-inch board and carried or hauled to the green. By lay-



LAYING SOD Note Board on Which Sod Was Carried

ing a row of sods through the center of the green and then working on both sides of this row it is as easy as laying bricks on the ground. The joints



TRIMMING SOD TO ONE THICKNESS

should be broken so that no two seams come together. It is easily seen now the importance of having a true surface to lay the sods on as they are all one thickness and the resulting job will be true and level.

If a topsoil is used that has the proper mechanical condition, as soon as it is watered it will immediately take hold of the sod and knit together very fast.

After the sod is laid, the joints are all gone over and a mixture of compost and sand is placed on each crack. At least half sand should be used as it seems to bind better and has the tendency to get into the joints better.

The men laying the sod walk and work on boards so as to not disturb the surface of the ground. A medium watering follows the crack filling and as soon as it gets into the soil the sod is tamped lightly using a plank to tamp on. Another watering follows the tamping and after setting for a while the rolling begins.

Several medium rollings are better than a few heavy ones. In about a week, a heavy roller may be used but this is seldom necessary if the surface has been properly prepared and the sod carefully handled.



FILLING THE CRACKS WITH COMPOST



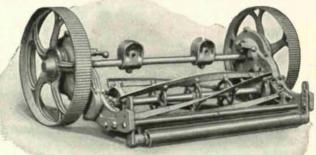
THE GREEN ABOUT COMPLETED

January, 1931

The National Greenkeeper [hree Cheers.]]

Here's a gang mower unit with frame and wheels of **UNBREAKABLE**

MALLEABLE IRON



F you don't see anything else at the Greenkeepers' Convention in Columbus, you'll get your money's worth just looking at the 1931 model of the PENNSYLVANIA "New" Fairway Mower (Quint or Trio). That is, looking and pinching yourself to make sure that you actually see before you gang mover units with complete frames of MALLEABLE IRON, including the wheels.

What a relief ! No more broken wheels, side plates, lower knife bars, roller brackets or shields. Here, for the first time, you have a large mower unit that's built to automotive standards, with high tensile strength malleable iron in every part that needs it.

The 1931 "New" Fairway has several other new features-but what's the use of telling you all about them here. See you Feb. 3 to 6!

PENNSYLVANIA LAWN MOWER WORKS

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Winter Play on Permanent Greens

By PROF. LAWRENCE S. DICKINSON Massachusetts Agricultural College, Amherst, Mass.

MINORITY of the club members aided and encouraged by a winter playing Green chairman, frequently cause the Board of Directors to vote to play permanent greens during the winter.

Without discussing the merits of the vote the fact is the vote has been passed, and the greenkeeper has been told the sad news. That vote should affect the winter maintenance program of work and should cause an increase in the maintenance budget.

Undoubtedly many putting greens are permanently injured by the combination of winter play and incompetent maintenance. Incompetent maintenance is more often caused by failure to realize just what is happening to the turf than to lack of ability.

FALSE ECONOMY COSTS MONEY

THERE is another factor helping to cause winter injury to the greens; that is the feeling of hesitancy to spend money for winter care. Green committees are more often hesitant than the greenkeeper, but whoever hesitates is practicing false economy if a certain standard of turf quality is to be maintained. It requires much more money to repair winter injured turf than to properly maintain it during the winter.

Dormant turf cannot overcome injury from the rubbing and tearing by players' shoes, because it isn't growing. The injury thus caused becomes cumulative during the late fall and winter, while during the growing season the grass keeps ahead of the injury unless traffic is very heavy.

CUPS SHOULD BE CHANGED FREQUENTLY

THE accumulation of wearing injury necessitates more frequent changing of the cups during the late fall and winter (if shallow frost permits). As the time of changing the cup is governed by the number of players using the green, the above means that fewer rounds should be played between cup changes. Cold days and a warm shop are great influences causing a greenkeeper to fail to realize the number of players on the course.

Unfortunately the winter playing golfers frequently insist on having the cup placed within the ideal cupping area. The cupping area is used continuously during the summer, and to add winter use is expecting too much from the turf. It would seem that if the winter golfers were acquainted with the facts they would be willing to at least play to cups set outside the real cupping area. Winter golf is more exercise and luck than side bets and skill.

Play on days that surface thawing takes place is particularly hard on the turf and during the period of the annual "January thaw" the greens should be absolutely closed to play.

Greens having a southern exposure are more likely to be injured by winter play than those having a northern exposure. The injury is particularly aggravated during the late winter. Grass tissues can withstand very cold temperatures and slow freezing and thawing are seldom injurious. Rapid thawing causes the bursting of many of the leaf's tissues and the combination of physical wear and burst leaf tissue is very injurious, if not deadly, to the grass.

COVERING OF BRANCHES HELPS

A COVERING of branches placed on the early and rapidly thawed greens will very often more than repay the cost with fine quality turf. Furthermore the early greens are held back so that all greens come into playing condition at nearly the same time. This is a decided advantage.

It should be distinctly understood by Green committees, finance committees, and boards of governors that winter play on most permanent greens located north of the latitude of Washington, D. C., is an expensive privilege that is enjoyed by a small percentage of the clubs' playing membership. If that is understood, funds should be provided for the winter maintenance of the greens.

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BY

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Snow Mold and Its Control

Notes on a most excellent address By MR. A. S. DAHL "Disease Specialist," U. S. G. A. Green Section, entitled "Snow Mold" and delivered before a meeting of the Midwest Greenkeepers' Association, Dec. 5th, 1930

THE investigation of snow mold has been carried on by the United States Golf Association Green Section at the University of Wisconsin and the University of Minnesota. These two universities have cooperated to the extent of furnishing space and use of equipment and materials. Greenkeepers in various cities have also cooperated in a very satisfactory way.

As Dr. Monteith's duties in the Green Section

increased to such an extent that he was unable to carry on the experimental work, the investigation of turf diseases fell on the shoulders of Mr. A. S. Dahl. Mr. Dahl's experience with snow mold covers a period of three years. He has carried on experimental work on golf courses at Detroit, Grand Rapids, Chicago, Milwaukee, Madison, St. Paul, Minneapolis and Duluth. At the same time laboratory work has been carried on at the two universities and correlated with the field work.

The following problems confronted Mr. Dahl. First to find the best control for the disease; second to study the conditions of its development; third to find the condition which encouraged its development.

Snow mold according to Mr. Dahl is most prevalent in the northern tier of states and in Canada. It is very important in Michigan, Wisconsin and Minnesota. When conditions are favorable it may occur even farther south. It causes most damage on putting greens but also occurs on fairways. In some cases it may kill out large areas on the putting greens which must be resodded or reseeded.

The disease although only recently observed in

this country is by no means a recent discovery. It has been recorded in literature since the middle of the 18th century. It was observed on a lawn in Vienna in 1763 in a winter when unusual and heavy snow fell in that city. This snow fell on unfrozen ground and as it melted large areas in the lawn were found to be killed out by snow mold. Almost the same time it was observed on winter grains in Northern Europe.

MR. ARNOLD S. DAHL

In 1820 the organism was isolated and its pathogenicity proved by artificial inoculation. Since that time much work has been done on the disease as it occurs on grain by European scientists. The organism attacks all of the winter grains but is most prevalent on rye.

Although the disease is widely distributed on golf courses in this country it is not found on our winter grains. The reason for this difference in occurrence in this country and Europe is that here the leaves of the grains are subjected to several heavy frosts and freezes before snowfall while in Europe the snow usually falls on unfrozen and green plants which are more succulent and more susceptible.

On golf courses here the grass is succulent and in about the same condition as the grain in Europe so that they are more susceptible. All of the commonly used grasses are subject to snow mold injury including creeping bent, red top, blue grass, fescue and Colonial bent.

SNOW MOLD OCCURS IN IRREGULAR PATCHES S Now mold occurs in irregularly circular patches of a few inches in diameter. These patches