be ideally located when an additional nine holes have been installed.

The clubhouse exterior is constructed of quarry stone and concrete block relieved by white pine that has been stained a dark brown.

Built in the shape of an "H," the building's two wings are separated by a spacious main lounge. The east wing houses an ample-sized kitchen with the ladies' lockerroom located in the rear and separated from the kitchen by a small storage room that can double as a cloak room when the necessity arises. The women's lockerroom is finished in white and contains adequate shower and locker space. A comfortable three-room apartment for caretaker's quarters occupies the second story above the east wing.

The men's lockerroom, decorated in yellow and green, contains 85 lockers and is situated in the west wing, behind the bar. Flooring in the bar as well as in the lockerrooms and kitchen is of concrete with master plate finish. An intercommunication system for ordering golf clubs is installed between the pro shop and the clubhouse with loud speakers in each lockerroom.

Quarry stone used on the exterior forms one side of the bar, the other side being of concrete block and knotty pine, a design which achieves an unusual "outside-inside" effect. The effect is enhanced by drapery with a cherry branch pattern. Both the bar and bar stools are constructed of knotty pine. A liquor storage room lies between the bar and the men's lockerroom.

**Rustic Theme Emphasized**

The main lounge affords a striking view of beautiful Lake Superior through large sliding-type picture windows or from sturdy log-type chairs on the plain front veranda. Measuring 53 by 30 feet, the lounge has knotty pine walls and ceiling and an oak floor. It is furnished with "sophisticated rustic" lounges, chairs and tables of smoky pine. The furnishings, manufactured by Habitant, have been grouped so as to form several separate "visiting units." The lighting scheme includes lamps hung from the ceiling and table and floor lamps, all of which have matching deep green shades. Emphasizing the general rustic theme is a large quarry stone fireplace built against the east side of the lounge.

Green, yellow and red comprise the color scheme in the lounge and throughout the building. The upholstery pattern in the lounge is deep green with a pheasant print. Drapes surrounding the windows have been cut from the same pattern. Grass type rugs are used for carpeting. A feature of the lounge is an oversized coffee table in which has been sunken a bas-relief model of the course. There are seven entrances to the clubhouse: the main entrance, two rear entrances to the lounge, caretaker's entrance and separate entrances to the bar, men's lockerroom and ladies' lockerroom.

When the new building was opened, the small former clubhouse was converted into a pro shop and caddies' shelter. Previously, the pro shop and clubhouse were crowded into the single building.

A landscape project will put the finishing touches on the new clubhouse. Included in the plans is a terrace in front of the kitchen wing. At present the terrace extends the length of the main lounge only. Half-log steps will be set into the slope leading to the main entrance and a tanbark path will be laid through the small grove of trees along the incline leading down from the ninth green to the rear of the clubhouse.

**Local Firms Cut Costs**

The club's cash outlay for the building, which would ordinarily run to something like $83,000, amounted to only $28,000, the low figure being made possible by the wholehearted generosity and interest of local merchants and individuals as well as club members. Several firms in Marquette and nearby Ishpeming made liberal donations of services or materials to the clubhouse. Contractors for the building were MacDonald & Kaake, of Marquette.

The large main lounge figures prominently in plans to defray operating expenses. Two hundred persons can be accommodated comfortably in the lounge, making it an ideal site for banquets and other social events. An oil heating system makes it possible to keep the building open during winter months for such
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Jacobsen POWER GREENS MOWER
22-inch Cutting Width
Price: $295.00 including transport wheels, comb and metal grass catcher. Plus freight.

Greenkeepers everywhere, responsible for the maintenance of America's finest golf courses have a marked preference for the Jacobsen Power Greensmower because:

- Its easy maneuverability makes it possible to get maximum capacity without tiring the operator.
- Its high frequency of cut in proportion to the operating speed, results in the smoothest putting surface that is possible to obtain.
- It will not scalp.
- Its simple bed-knife adjustment is made by hand — no tools required.
- Its "Quick-on, Quick-off" transport wheels are easily handled without tools.
- Its smooth, Jacobsen 2-cycle engine is economical to operate, easy to maintain.
- It is completely chain driven assuring positive frequency of cut under all conditions — no slipping or replacement of belts.
- It is equipped with a comb which raises grass runners into position for cutting, insuring a perfect putting surface.

See your Jacobsen dealer for demonstration.

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Johnston Lawn Mower Corporation, Ottumwa, Iowa
THE design of the new Model F Chief represents a big step in the development of better golf course mowing equipment. Here’s what puts this unit so far ahead.

Cutting units mounted in front, cut the grass before tractor wheels compact it — no streaking. In addition, driver sees what he is doing without looking back, guides cutting more accurately, reduces width of overlap — gets the job done more quickly.

With drive wheels in front under the engine, 75 percent of the Chief’s weight is on the traction wheels. On any terrain, this machine handles more gang units — 5 instead of 3; 7 instead of 5; 9 instead of 7 — with far less scuffing.

The Model F Chief mounts from one to nine gang mower units in balanced or unbalanced arrangement. Place your combinations to fit the job.
events and the club intends to rent the building for these special occasions. Proximity of the clubhouse to Marquette (it is located one mile southwest of the city) and its inviting setting increase its appeal for social gatherings.

Membership increased above 200 during 1949, the largest in the club's 21-year history, and club officials believe the new clubhouse played no little part in attracting new members, both in the playing and the social classifications. What's more, an even greater membership is anticipated next season, which is causing officials to focus their attention now on expansion of the course to 18 holes. If they get the same enthusiastic support they received on construction of the new clubhouse, theirs should be a readily realized goal.

Jim Standish Named for USGA Presidency

James D. Standish, Jr., widely known veteran Michigan amateur, has been nominated to be president of the USGA. Nomination is tantamount to election at the association's annual meeting, Waldorf-Astoria hotel, New York, January 28. Standish as a Williams college student, was president of the Intercollegiate Golf Assn. in 1912. He was Michigan Golf Assn. president from 1937 to 1947. He has won the Michigan, North and South, and Austrian amateur championships. He was on the USGA Executive committee from 1927 through 1937 and again since 1946. He became first chairman of the Public Links committee in 1922 and donated the Amateur Public Links championship Cup. He has been a vp of the USGA since 1948 and is chairman of its Green committee. Standish was president of the U.S. Squash Racquets Assn. in 1938-39. He also was vp of Western GA in 1924-25 and is a director of the Michigan Seniors' GA. He was a quarter-finalist in the 1915 National Amateur and runner-up in Western Amateur championships of 1914 and 1915.

Isaac B. Grainger, former sec., USGA, has been nominated for a vice presidency. Totton P. Heffelfinger will be re-elected a vp. John D. Ames, sec. of the Ball and Implements committee, will become treasurer. Richard S. Tufts, chairman of the Championship committee, will become secretary.

New members of the Executive committee will be J. Frederick Byers, Jr., Sewickley, Pa.; Frederick L. Dold, Wichita, Ks.; T. R. Garlington, Atlanta, Ga., and Lewis A. Lapham, San Francisco. Fraser M. Horn, New York, will become General Counsel, succeeding James H. Douglas, New York, who has served in that capacity since 1942.

Pinehurst's Frank Maples Dies

Frank Maples, Pinehurst (N.C.) CC greenkeeper for nearly a half century, died at Pinehurst Nov. 9, following an extended illness. He was 63 years old. Regarded as the mid-south's foremost course maintenance expert, Pinehurst's famous courses and others in the Carolinas are living memorials to his ability as a golf architect and builder. Mr. Maples never left Pinehurst from the day, shortly after the turn of the century, when he walked from his home at Southern Pines and began construction of the Pinehurst courses. Richard S. Tufts, president of Pinehurst, Inc., paid the following tribute to the man who had given so freely to the advancement of golf turf throughout the mid-south district:

"The professions of greenkeeper and golf course architect call for a blend of many exceptional qualities; Frank Maples had them all to an unusual degree. These attainments made him a leader in this country in his chosen profession and, at the same time, a man of great personal character. Golfers the world over are indebted to him for the pleasure his work here has afforded them and his influence on greenkeeping and architectural work elsewhere."

Mr. Maples is survived by his wife, a son, Henson, now in charge of Pinehurst's courses, a son, Ellis, pro-greenkeeper at Raleigh, N.C., and a daughter, Mrs. Harold McAllister who lives with Mrs. Maples.
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Modern Machines --Cut Costs of Aerification

The quick and plainly visible benefits of turf aerification justified the heavy expense of considerable manual labor in the past. But, it was the low cost of the operation made possible by the recent development of speedy, efficient machinery that has moved aerification high up on the list of essential continuing maintenance operations throughout golf and other sports turf fields. Many undesirable conditions can be corrected through aerification and better turf, more economically maintained.

The vast majority of American courses are considerably over 20 years old. Soil compaction, resulting from years of play and equipment traffic, inadequate drainage, etc., has been generally recognized as one of the most common, and perhaps most costly handicaps to natural turf development. When soil is compacted, water and air cannot move through it, plant food

1—Turf is going out due to lack of moisture because water runs off compact ground. Aerification to open up soil and admit water would correct this. 2—A layer of undecomposed organic material on the surface prevents penetration of air, water and fertilizer. Aerification breaks through such surface layers so materials can enter soil. 3—Uniformly good root growth on lawn which has been aerified regularly. 4—Deep roots spread out in Aerifier hole due to presence of air, moisture and plant foods beneath the surface. 5—A poor

New England Turf Association Holds First Field Day

The New England Turf Association held its first field day at the Univ. of Mass. October 21, 1949 to give members an opportunity to inspect turf research they have partially financed.

Prof. Lawrence S. Dickinson opened the meeting in the morning by outlining the progress made since turf research was resumed at the University in 1948. He gave some idea of the program to be followed next year, stating that considerable attention to watering problems is justified. Closely allied to this subject is an investigation into foundations for putting greens, a project which is being started this autumn at the University. Variety tests will be continued and expanded together with the study of fertilizer treatments for flat areas and

Golfdom
Broaden Benefits Aerification

cannot get down to the root zone and the resultant shallow-rooted turf cannot stand up under adverse weather conditions.

The existence of thatched layers and matting at the surface of the soil also prevents efficient entry of elements essential to the turf’s healthy growth. Turf is more susceptible to disease when compacted or thatched conditions are permitted to exist.

Uniformly good establishment of grass has been obtained by aerifying several times to prepare a seedbed in existing turf.

Water efficiency and conservation are important benefits of adequate aerification which helps the soil to capture the water without run-off, and hastens its penetration through the usually 2 in. to 3 in. upper compacted layer.

The accompanying illustrations show some of the reasons for, and benefits of, aerification.

mixture of soil in this green has resulted in poor turf. With regular aerification, soil will become mixed and new materials can be added to it. 6—Compact, heavy soil breaks apart. Roots will not penetrate. Regular aerification to loosen soil and help introduce coarser material will bring improvement. 7—Localized dry spots need aerification so water can penetrate well down into soil. 8—Cross-section shows how the cultivation action of the Aerifier loosen the under surface soil with but a small opening left at the surface.

slopes. This experiment involves fertilizing of a putting green on which flat areas receive different fertilizers than the slopes.

Prof. Dickinson mentioned the large enrollment in turf courses. 105 students were enrolled in courses under himself and Mr. Cornish, 25 majoring in the two year turf course; others were students majoring in Landscape, Ornamental Horticulture and Arboriculture, who are taking one course in turf. This figure did not include students to be enrolled in the ten weeks Winter School commencing January 1 which is already oversubscribed.

Prof. G. Cornish reported on results he had obtained in a comprehensive experiment conducted over the last two years on the control of clover in turf. He stated that he had verified quantita-

January, 1950
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$10.95 to $12.95 retail
Slightly Higher West of Rockies

FROM THE BOOTSHOP OF CHARLES A. EATON, BROCKTON, MASS. Fine Bootmakers Since 1876.
Members and officials of the New England Turf Assn. gather at Univ. of Mass. for first Field Day. Group shown above inspected turf plots and research work resumed in 1948 at the Univ. under direction of Prof. Lawrence S. Dickinson. Special emphasis has been placed on study of watering problems in 1950 because of unusual drouth conditions experienced in 1949 in most of New England area.

tively by direct count under controlled conditions, that the long established sulfate of ammonia practice by greenkeepers to reduce clover was justified. But for complete eradication, he found that applications had to be very heavy, and he feared that the use of nitrogen at these excessive rates might cause conditions equally as bad as the clover. However, the treatment need not be so drastic if the greenkeeper resorted to aeration in some form at the same time as the nitrogen application and also checked overwatering. The time of season of application is also important.

Prof. Dickinson conducted the group over the experimental putting greens, demonstrating to the visitors, the results of fertilizer practices.

On a nearby area, he showed the group the start of an experiment to determine the tolerance of various grasses to a deficiency of either nitrogen, phosphorus, or potash. These plots are on a dry sandy side hill. They were seeded in May and received no water other than rainfall. This year the value of a no nitrogen fertilizer for seedlings was clearly shown by the varied growth of grass on these plots. Some grasses under nitrogen treatment were practically wiped out, while others despite the drought, had formed a good even turf.

**Western Canada Pros Withdraw From Canadian PGA**

Western members of the Canadian PGA irked because the dates for the CPGA tournament and the Canadian Open did not follow one another last summer as reportedly had been agreed upon withdrew from the organization and formed the Western Canada PGA. Officials of the two tournaments which were held in Eastern Canada apparently did not see fit to schedule both events close enough together to allow the western boys to play in one without laying over in Montreal or Toronto for a week to play in the other. This coupled with the fact U.S. pros take a sizable chunk of the top prize money in the Open leaving little more than experience for the Western Canadian boys to play for helped bring the rift between the Eastern and Western groups into the open and the break which resulted in formation of the new group. The new organization includes Manitoba, Saskatchewan, Alberta and British Columbia.

**Stanley Van Dye New Chicago District GA Head**

At the annual meeting, Dec. 6, 225 members of the Chicago District Golf Association's 87 member clubs applauded the reports of out-going pres. Frank Whiston and his officers on one of the most successful years in the district group's history and welcomed the well qualified Stanley Van Dye (Beverly and South Shore CC), as their new pilot for 1950. During 1949, 13,483 handicap cards were distributed, 1,992 golfers participated in the CDGA 66 day event schedule and 11 new clubs joined the fold. Report of chrmn. John Garrow of the Club Management Committee, having to do with group cooperation and action in helping solve district club's operating problems, indicated considerable progress made in important big business of golf club management. Increasing willingness of clubs to exchange their hard earned do's-and-don'ts promises more rapid headway in 1950, according to Garrow.
### Chemical Application Guide

**Originated by Robert Williams and Developed by the Practical Turf Research Committee of The Midwest Association of Golf Course Superintendents**

<table>
<thead>
<tr>
<th>Treatment for</th>
<th>Distinguishing Characteristics</th>
<th>Materials</th>
<th>Rate 1000 Sq. Ft.</th>
<th>Method of Application</th>
<th>Solution 1000 Sq. Ft.</th>
<th>Wash-In</th>
<th>Time of Application</th>
<th>Local Data</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dollar Spot</td>
<td>Shown colored circular spots /g to 9/g in diameter /attacks bent grasses</td>
<td>Crip or Di Pont 591, Periflora 177, Penclor, Carbyne, Special Sevan, Tevran</td>
<td>3 oz. to 6 oz.</td>
<td>Dry Mix of Spray</td>
<td>25 to 50 gals.</td>
<td>None</td>
<td>Every 2 weeks during growing season</td>
<td>Can use safely anytime during the year</td>
<td>Can use safely anytime during the year.</td>
</tr>
<tr>
<td>Large Brown Patch</td>
<td>Brownish colored circular areas from 6&quot; to several feet in diameter, die ring around extremities /attacks bent grasses</td>
<td>Special Sevan, Periflora, Tevran</td>
<td>3 oz. to 6 oz.</td>
<td>Dry Mix of Spray</td>
<td>25 to 50 gals.</td>
<td>None</td>
<td>Weekly during hot humid weather and/or at time of attack</td>
<td>Can use safely anytime during the year.</td>
<td></td>
</tr>
<tr>
<td>Snow Mold</td>
<td>Shown colored circular spots /attacks bent in disease</td>
<td>Terzan, Crip or Di Pont 591, 2 lbs. to 3 lbs.</td>
<td>25 to 50 gals.</td>
<td>None</td>
<td>About December 1st</td>
<td>Can use safely anytime during the year.</td>
<td>Additional treatment may be applied in early spring</td>
<td>Additional treatment may be applied in early spring.</td>
<td></td>
</tr>
<tr>
<td>Cultural Weevorm</td>
<td>Cultural pests cause leaves to Wilts and Weevorms on roots</td>
<td>Arsenic of Lead, Chloroform (Actico 3-cml)</td>
<td>3 oz. to 5 oz.</td>
<td>Wet or Dry Spray</td>
<td>100 gals.</td>
<td>Heavy</td>
<td>As needed</td>
<td>Additional treatment may be applied in early spring.</td>
<td></td>
</tr>
<tr>
<td>Barrenness</td>
<td>Arsenic of Lead</td>
<td>1.5 lbs.</td>
<td>25 gals.</td>
<td>Dry</td>
<td>Yes</td>
<td>Well</td>
<td>Spring and/or fall</td>
<td>Not to be confused with Stinkworm</td>
<td>Not to be confused with Stinkworm.</td>
</tr>
<tr>
<td>Art</td>
<td>Chloroform (Actico 3-cml)</td>
<td>2 oz. to 4 oz.</td>
<td>Dry or Spray</td>
<td>25 to 50 gals.</td>
<td>Heavy</td>
<td>As needed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groinworm</td>
<td>D.D.T. (Actico 3-cml)</td>
<td>1 lb.</td>
<td>25 gals.</td>
<td>Sprays</td>
<td>100 gals.</td>
<td>Heavy</td>
<td>As needed</td>
<td>In early stages or if first appearance of damage</td>
<td>Do not use on grasses in hot weather.</td>
</tr>
<tr>
<td>Breacheweed</td>
<td>2,4,5 (Anilc Acid)</td>
<td>1 lb. to 2 lbs.</td>
<td>Wet or Dry</td>
<td>25 to 100 gals.</td>
<td>100 gals.</td>
<td>Heavy</td>
<td>As needed</td>
<td>Take back in spring only, with caution. Do not use on grasses in hot weather.</td>
<td></td>
</tr>
<tr>
<td>Crabgrass</td>
<td>Arsenic of Lead, Tar Sand, Sodium Amoin</td>
<td>1 oz. to 2 oz.</td>
<td>Wet or Dry</td>
<td>40 to 100 gals.</td>
<td>100 gals.</td>
<td>Heavy</td>
<td>As needed</td>
<td>Severe discoloration of turf.</td>
<td></td>
</tr>
</tbody>
</table>

**This Chart is compiled for the benefit of our members and is the result of practical research experience by superintendents of this Midwest Association of Golf Course Superintendents. The materials and rates are not to be construed as a recommendation by the Association or its Committees for any given problem. It is hoped that all applications are performed in a sensible and flexible manner. All rates indicated should be double checked for use under individual local conditions.**

The above guide, first of several charts to be prepared by Practical Turf Research Committee of Midwest Assn. of Golf Course Superintendents, will be available for first time at NGSA National Conference and Show, Boston, Mass., Feb. 6-10. The 20" x 30" chart printed on durable paper for hanging on wall or placing under glass top of desk for ready reference was prepared primarily for members of Midwest group. It can be obtained by any greenkeeper at small cost through secretary of his local turf assn. Direct mail orders cannot be accepted. Quantity orders by assn. secys. should be addressed to Donald Strand, Greenerkeeper, Westmoreland CC, 2601 Glenview Road, Wilmette, Ill.