



At the Charles River CC, Newton Centre, Mass., this rink attracts large winter patronage. Cabin is warming house for shelter and dressing.

there are provisions for hockey, which unquestionably should be encouraged. An "all purpose" rink however is about as worthless as most "all purpose" things. Hockey and general skating do not mix on a small rink. Wherever facilities are not available for separate rinks some provision should be made for special times for each.

Allot Rink for Figure Skaters

With the increased interest in the fascinating sport of figure skating there may be enough interested members to justify setting aside a section of the rink or some special hours for figure skating. To a figure skater, a group of hockey players are about as unwelcome as a big caterpillar tractor operating at the edge of a green is to a golfer. Figure skating, like good putting, requires good surfaces for its successful execution. Therefore figure skaters, like good putters, are likely to be the most critical (not just knockers) of the surface provided. They likewise are likely to be the most appreciative group when any efforts are made to provide satisfactory conditions for them.

A skating rink to continue to attract skaters must be kept in good condition. Cracks or those mysterious "warts" or "blisters" that develop on rinks are to skaters what worm casts and brownpatch on putting greens are to the golfers. Unless remedied by filling, planing, spraying or other means the skating season will prove to be a short and unpleasant one.

Where the course is hilly and suitable for skiing or tobogganing these sports should be encouraged. Little if any damage is done to turf by these sports. The injury that does occur is invariably done when there are bare areas over which

someone has gone when the surface soil is thawed. If the bare areas on the principal sliding areas are covered with snow occasionally, such injury can be avoided. With some urging from fellow skiers the careless individual who will shuffle across a soft piece of exposed turf can no doubt be persuaded to change his habits. The occasional damage to turf by such individuals should not close the course to other enthusiasts, for after all such an individual is perhaps the same one who chops a piece of turf out of a putting green by slamming down his club when he misses a putt.

In most cases skiing results in more damage to young trees and shrubbery than to turf on a golf course. Near the principal skiing areas any low trees and shrubs that may be largely covered with snow should be clearly marked as far as possible.

Late Winter Bird Care—See that you provide late winter food needs of birds if you want lots of help in insect control next season. Also see that the birds are supplied with water; they need it daily.

Feeding stations to be effective must be easy for the birds to get at; not situated some place that just happens to be convenient to you. Locate feeding places near the birds' shelter.

It's important, too, that birds have sand and gravel during the winter.

Protect the birds against cats, dogs and thoughtless hunters.

Toward the end of winter see that plenty of bird nesting material is available around your course. Boxes containing pieces of string and yarn, feathers, broken straw and with some mud available, will attract birds to nest-building.

EXCESS RAIN IS TURF MENACE

By O. J. NOER

Milw. Sewerage Comm.

AS LAST season ended, torrential rain was the outstanding maintenance feature of the year in many sections. Both the spring and summer seasons were abnormally wet. Spring rains caused no visible damages aside from preventing deep root development, and clover encouragement in fairways. But successive heavy downpours during hot summer months played havoc in many districts, whereas close-by rainfall was often so nearly normal that courses were in perfect condition.

Because of these striking nearby contrasts, some greenkeepers received severe censure for bad turf when their methods were perfectly sound. Members blamed them because they did not know or recognize the wide difference in local weather conditions.

Courses in the Metropolitan New York district and adjacent areas, were among the real victims. After a week or more of constant rains, courses were deluged with flood waters on July 23rd. From 5 to 7 inches of water are said to have fallen that day. Consequently, many of the low fairways were transformed into lakes for a week or more, and side hills remained sopping wet for days as a result of seepage waters.

Little or no damage results from overflowing water in the cooler spring or fall season, but when this occurs in mid-summer, it is beyond the power of man to prevent damage. Furthermore, when tragedy overtakes turf in July, worthwhile recovery seldom begins until temperatures moderate in early fall.

Loss of grass results from a variety of causes. Roots long deprived of air soon die, and death of tops inevitably follows. Heavily matted grass always fares badly

As an indication of how John Monteith, Jr. of the USGA Green Section is kept hopping about to meet member club demands for his services, his mid-summer consultation trip last year kept him in a Pullman berth 15 nights out of one 17-day swing from Washington as far south as Atlanta, southwest to Tulsa, and north to the Twin Cities.

In the day time he was able to relax—that is if you consider inspecting golf courses and addressing 16 group meetings in day and evening sessions, any part of relaxation.

in hot, wet periods. Brown-patch and other diseases run rampant in grass which is sopping wet, and fungicide treatments, which are otherwise effective, become questionable in periods of heavy rainfall.

Around New York, greater damage to fairway turf is the striking contrast between last year and 1928. More water fell in a shorter period, so surface runoff was unable to cope with the abnormal volume of water. Besides the inevitable



Among the turf experts who attended a New Jersey course superintendents meeting held last fall at Hackensack CC, Oradell, N. J., were (l to r): O. J. Noer, Milwaukee Sewerage Commission; T. C. Longnecker, N. J. Agricultural Experiment Station; E. E. Evaul, U. S. Bureau of Soils.

damage in the submerged lowlands, much grass was lost along seeping slopes and sidehills, and even on high fairways injury occurred in pockets and depressions which held water. Although the behavior of bent was disappointing in many instances, there is no better substitute for wet locations at this time. Despite general misgivings, similar loss of bent is not likely except in the occasional abnormally wet year. Aside from these times, bent will certainly withstand more moisture than fescue or Kentucky bluegrass,

the other permanent turf forming grasses. Pure bent fairways require closer cutting than bluegrass or fescue. Unless this is done, a deep surface mat forms. When this occurs, grass rots out in wet years, and in dry seasons thatching of the grass prevents water penetration, so grass dies for want of moisture.

In some instances, when water subsided, afflicted fairways were cross-disc'd and treated with light doses of hydrated lime. It was hoped discing would speed removal of surplus water; that the hydrate would check algae and prevent formation of deleterious products during decay of the surface organic debris.

Opinions varied regarding benefits. Aside from controlling algae, no other benefit could be expected when all grass is dead, but it is reasonable to expect improvement where some semblance of life remained.

Remove Dead Grass Before Re-Seeding

In areas where grass was killed completely, there was no alternative but to re-seed. It is seldom possible to sow seed in a surface mat of dead grass, and obtain a satisfactory stand. Either this objectionable mat must be removed, or an alfalfa and grass disc seeder used. The discs cut through the surface mat, and seed is deposited in the slit formed by each disc. Cross seeding is necessary for best results. Besides economizing on labor, this machine saves seed also.

In the memorable year of 1928, damage to greens was widespread, irrespective of location, whereas last year serious loss in New York was confined to greens badly situated with relation to drainage; more particularly when heavy surface run-off and excessive underground seepage occurred. Even the best of grasses cannot remain sopping wet and survive for long.

A few greens gave trouble for the first time in years. These were located on hill-sides, near the crest of the slope, with no break between the putting surface and the adjoining slope. Last year surface run-off was sufficient to keep greens wet and cause trouble. A shallow, gently sloping runway between the green and slope would have diverted most of the water and thereby reduced the possibility of injury.

Greens with a heavy surface mat of grass fared badly. The thick mat became

John Morley, founder of the National Association of Greenkeepers, and for 26 years greenkeeper at the Youngstown (O.) CC, was given a watch by the Ohio PGA on his 71st birthday. It was an especially happy recognition of Morley's able and persistent work in selling the idea of the pros and greenkeepers being a team for the good of the game instead of being at cross purposes because of individual considerations.

saturated with water and grass then rotted. While the situation is hopeless in a wet year, in dry seasons heavily matted grass can be maintained. The secret is to apply water whenever grass begins to wilt, so the price of thatched surfaces is eternal vigilance and enough man-power to water during daytime whenever necessary. However, since too much grass is objectionable from the standpoint of the golfer, as well as good management, its removal and maintenance of tighter turf is the obvious answer.

On some greens, turf was ruined by tree roots penetrating into the green. Elm, maple, poplar and other similar trees with spreading root systems are the offenders. Their roots permeate the soil to a depth of several feet and utilize all the available water to that depth. While some blame tree roots for depriving grass of needed food, their effect on soil moisture is far more important. When soil is dry to a depth of several feet, surfaces become exceedingly hard, grass thins out, and applied water does not penetrate. Then algae covers the surface.

Removal of the offending tree, or trees, is the obvious permanent solution. The other alternative is to sever the offending roots by trenching between the tree and the green. Some claim tar paper and fine copper screening placed along the face of the trench retards re-entry of roots into the green.

Forking Fails When Soil Becomes Dry

When soil becomes bone dry to a depth of several feet, even deep forking followed by thorough drenching is not effective. It fails to remoisten the deeper soil. Unless moisture is restored throughout the dry zone, faulty drainage may be suspected, because the dryer layer underneath prevents downward movement of surplus water. Sometimes the surface soil becomes so dry that it is impossible to insert the fork tines.

A sub-irrigator, such as is used for

trees, is excellent for restoring moisture to the deeper soil, and simplifies elimination of localized dry spots. Penetration to depths of several feet is simple, even in soil which is too hard and dry for forking. After soil moisture is restored, the area can be hollow-tine forked quickly, if necessary, preliminary to the introduction of better textured soil by topdressing.

Early morning watering was more than vindicated in some districts, where heavy downpouring rains occurred mostly in early morning. With night watering, grass received double doses, but with early morning watering irrigation was omitted on showery mornings. Likewise, hand-watering in July and August was vindicated on heavily contoured greens.

When serious trouble occurs in midsummer, the tendency is to try hypodermic measures. Rather than be stampeded into somebody's panacea, it is more sensible to do the few simple things which will assist recovery, and to formulate plans for longer-time improvement to be started later.

When grass thins out from excessive moisture, forking or deep spiking to speed water disappearance is helpful. A light application of hydrated lime is beneficial, also. It retards algae, and seems to speed recovery. When grass begins recovering the surface soil must be kept barely moist by frequent light hand waterings, otherwise new roots will die and then further recovery does not occur. After grass is well started, light feeding can begin again.

In formulating the long time program, the necessity for improved drainage comes first. This applies to surface as well as underground water.

Possible need for improved soil structure, better grass varieties as well as changes in water, fertilizer and disease control practices should be canvassed also.

USGA Announces Green Section Will Issue Monthly Turf Publication

THE USGA Green Section resumes publication of a permanent periodical beginning with the January, 1939, issue. The new publication appears under the title, *Turf Culture*.

Those who followed the old Bulletin of the USGA Green Section, which was discontinued with the completion of the 1933 volume, will be surprised to find the

change in size and general appearance of the new publication. It is a pocket-size issue of the type of Readers Digest and several other popular magazines. The cover page includes a table of contents which should make the material more readily available for future reference.

The scope of *Turf Culture* is broader than that of the old Bulletin. It is pointed out that while some of the problems of maintaining turf on putting greens are limited to golf courses, the big majority of the problems encountered, especially in the fairways and rough, are common in the maintenance of turf for lawns, parks, sports fields, cemeteries, airports, etc. The material in the periodical although retaining the same interest and educational value to those in charge of golf course maintenance, should prove useful to those who are maintaining turf for many purposes.

In a general way the subject matter in each issue will be divided into three groups, the first and principal one of which will include original contributions. The second section will be devoted to a review of literature dealing with turf. Here the Green Section will endeavor to keep its readers informed on all recent developments that appear to have some bearing on the problem of maintaining turf. It will draw on both American and foreign publications. The third division will include a collection of questions and answers.

Wherever practical the major papers in any one number will be centered around one particular subject. The first number will be concerned primarily with weed control by means of chemicals. As in the old Bulletin, the new publications will contain no advertising.

Cooke to Head WGA—Leslie L. Cooke, of Bob O'Link GC (Chicago distr.) is slated for the presidency of the Western Golf Association when that body meets Jan. 6 in Chicago for its annual meeting. Running mates are: T. C. Butz (Exmoor) and Jas. L. Girard (Indian Hill), vice-pres.; John G. Searle (Glen View) secy; W. T. Woodson (Flossmoor) treas.; Carleton Blunt (Glen View) general counsel; and E. B. Babcock (Los Angeles), Ben Ames (Okla. City), E. B. Roberts (Cantebury), J. Harvey Irwin (Eastlake), and T. P. Heffelfinger (Minikahda), directors.

While voting is limited to club delegates, all members of clubs belonging to the WGA are invited to attend the dinner and annual meeting.

DENVER SET FOR MANAGERS

THIRTEENTH annual convention of the Club Managers Assn. of America, to be held at Denver, Colo. Feb. 4-8, will bring to a climax the most thorough planning job ever done on one of these sessions at which managers get together to subject club operation and policies to an expert clinic.

For more than six months the Mile High chapter of the Association has been arranging the schedule for handling its guests and treating them to hospitality that will combine a showing of the historic and scenic spots that abound around Denver, with arrangements for business sessions of notable value.

Howard Mehlman, president of the Mile High chapter; Fred Wood, former president of the national organization, and other Denver club managers have banked an entertainment fund of sufficient size to assure gala treatment of the boys and girls.

Practically all social functions of the convention will be held in the hospitable clubhouses of the Denver clubs. A cocktail party Saturday afternoon will be held at the University Club, the Sunday luncheon will be given at the Denver AC, the Denver Club will serve the directors luncheon, the Denver CC will entertain the delegates Monday night, and the Lakewood CC will be the scene of the Tuesday night party. The ladies' afternoon affairs will be held in clubs, too. The Brown Palace Hotel in Denver has been chosen as official convention headquarters, and reservations should be sent directly to the manager, J. Bingham Morris.

Special Train from Chicago

The Chicago Club Managers' Assn. will hold a reception at the Palmer House, Friday, Feb. 3, from 3 to 5 P.M. From the reception the contingent from north, east and central states will go to the "City of Denver" streamliner. Due to limited space on this feature train, Barney O'Grady, 5 South Wabash ave., Chicago, chairman of the national association's transportation committee, asks that he be advised promptly of reservations. Round trip fare, good for 30 days, Chicago to Denver, is \$46.60.

From as far west as Salt Lake City civic organizations have been bombarding

members of the Club Managers Assn. to make visits, so many of the convention attendants and their spouses will make sight-seeing tours and inspection visits to clubs, after the business details of the convention have ended. At Colorado Springs a special party is to be put on for the convention people, February 9. One of the high spots will be an ice show at the Broadmoor rink. Each of the convention attendants will be given a 10-gallon hat as a welcome gift. Men and women's entertainment programs establish a new high for these annual affairs.

President Fred H. Crawford, Pendennis Club, Louisville, Secretary Wayne Miller, Treasurer William Roulo, and other officials and committeemen of the CMA have set a program of business that promises to have a positive influence on profitable operations at the club of each attending member.

Extensive surveys have been made among managers and club officials to determine subjects of timely importance. From this data the convention business program is being prepared, and experts being assigned to lead discussions.

The Club Managers' Assn. has been a definite factor in directing the successful piloting of many clubs during the depression and makes its annual meetings occasions for the exchange of operating knowledge.

New chapters added to the CMA so far this year are the Western New York organization, with Guy Michael, Rochester (N. Y.) Club, president; and the Toledo chapter where D. E. McKaye of the Glengarry CC, Toledo, is head man. Under the direction of Max R. Beck, Columbia CC, Chevy Chase, Md., the managers in the Washington territory are also organizing a new chapter.

Crawford has traveled over 3,800 miles during the past year visiting most of the associations and chapters throughout the East and Midwest.

THEY KEEP BUSY

GOLFDOM recently asked several prominent greenkeepers what their work routine consists of in the winter months, particularly during January, February and March, and their replies, practically alike as far as kinds and amount of work are concerned, build up a strong case against those clubs who fail to see the logic of employing a year-round greens crew, or at least a full time greenkeeper.

Don Boyd, Portage CC, Akron, Ohio, superintendent, gives an enlightening report of his winter activities at Portage. Don says:

"In addition to checking drain lines and the general reconditioning work that must be done, I schedule my plans to keep at least 5 of my most valuable men busy during Jan., Feb., and March. In order to do this I have equipped my tool-shed with complete electrical machinery which enables us to repair and overhaul neighborhood tractors and mowers. Last year we handled all of the mechanical repairs for 9 courses in this district. We are very careful in this work and our business increases each year.

"We also trench around all trees adjacent to tees or greens, placing asphalt paper in these ditches to prevent the roots from absorbing nourishment and water from the areas where needed.

"Several years ago I took over the job of designing and installing the illuminated Christmas decorations for the clubhouse and grounds. At that time the members were satisfied with fairly simple arrangements, but now they have come to expect elaborate ornamentation and design. This work requires at least 10 days, is very interesting and our display attracts thousands of spectators each year.

"A considerable amount of my time is consumed making detailed reports for the coming year's operations, and I have found that the enumeration of details with proper explanations enables me to get better cooperation from my green-chairman.

"The winter months mean one thing for

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When you're making up your calendar of club events for this year don't forget that each year September and October play is increasing in the north and central states.

Don't let your schedule of lively affairs run out too early.

me that I think too many superintendents neglect, namely, education. I digest all the golf articles accumulated through the summer, attend every short course possible, and try in every way to improve my store of information. I always inform my members of this bit of action on my part. I have attended the past 10 national greens' conventions and always feel that my time is well spent. I always manage to come away with at least one progressive idea that more than compensates for the expense of going."

Herb Shave, greenkeeper at Oakland Hills CC, Birmingham, Mich., says:

"Our force is kept plenty busy repairing all our equipment, such as mowers, tractors, ball washers, benches and the like, and painting up anything that looks shabby. We make a thorough check of our pumps and wells, and we also get our trees in shape during the winter months. Sometimes we move large trees from one spot to another, and we always rid the trees of any dead branches. Shrubbery is cleaned out and taken care of, also.

Haul When Turf Is Frozen

"Winter is a good time to do your hauling of sand, and to topdress those bare spots on the fairways for spring use. I usually burn all the rough I can, as it cleans out the bottom and destroys much of the weed seeds. I try to find out about all the improvements that have been introduced in new equipment, and I want to know about any new maintenance methods. Important, too, is to make up the budget for the new year intelligently, so that your chairman knows he can rely implicitly upon you and your recommendations."

Guy C. West, greenkeeper at Rhode Island CC, West Barrington, R. I., in addition to the many regular duties that keep him and his crew busy during the winter months, has the added job of repairing the damage caused by the tidal wave and hurricane last September. West says: "We lost some 3,000 trees in the storm, and now we're cleaning up what is left of them, splitting most of the fallen trees into 3 ft. lengths for fireplaces in the clubhouse. We are also giving many loads of limbs to the poor. Stumps that are in any way near play, are being removed.

"Loam is being hauled for fairway areas that were damaged by the storm, and we are doing considerable liming of fairways, especially where they were cov-

erd by salt water. Another major winter job here is screening and hauling sand for traps. We are fortunate in having a supply of beach sand on our property, and this keeps our 130 traps, most of which are large sized, in good shape.

"We have the problem of snow removal here because we have golf play throughout the winter on good days. We use the regular greens, unless the course is too soft. We do our cupping in the front halves of the greens, and change the cups several times.

"Winter offers the greenkeeper the best opportunity for self investigation and self improvement. He should study all available sources for knowledge and should attend as many meetings of his fellow-workers as possible. The wise greenkeeper adjusts the work to the weather and does not keep the gang inside working on equipment during fair, warm weather, and then have them dig loam when the ground is solid.

"In cleaning my equipment, I've found an Oakite solution very effective and another excellent method is some coarse steel wool. For many paint-up jobs, aluminum is very handy; it covers well, prevents rust, and makes a good priming coat on metal. I hate to see something such as a ball washer all cleaned and painted, and then have a wornout paddle or brush installed in it. Do a complete job and use new brushes and paddles as needed. Don't wait until the last minute to get things done, but don't paint up the equipment so early that it will need another coat to freshen it up before use.

"I believe that the average club in the Northern belt believes that there is little work to be done around the club during the winter months. This is very untrue; any good greenkeeper can ably occupy at least half of his summer crew doing the many jobs which they haven't had time to do earlier, and getting everything in readiness for the coming season."

'38 PLEASED USGA, REPORT SHOWS

REPORT of the USGA Executive Committee, released at the Association's annual meeting held Jan. 7, boasted of golf's healthy condition during 1938 . . . Highlights of the report:

Rules of Golf Committee adds two footnotes to the Rules for clarifying purposes but no new rules; extends for another year the temporary stymie rule; reiterates its stand against unnecessary cleaning of the ball on greens; and advises that the R&A has adopted the 14-club rule.

Championship Committee reduces the field in the 1939 Amateur to low 130 scorers and ties after first qualifying round; announces dates and venues of '39 USGA events; and frowns on the suggestion that ex-Open champions be automatically qualified.

Membership Committee reports a net gain of 15 clubs for the fiscal year, the membership now standing at 828 clubs.

Amateur Status Committee during year approved 64 applications for reinstatement as amateurs, turned down 15 others, and has 18 applications pending.

Implements and Ball Committee has agreement with ball manufacturers stabilizing ball distance as of today; and reports it examined the usual quota of new club designs and rejected most.

Women's Committee announces increased yardage for women's par, as follows: boosts 3-par from 200 to 210 yds.; puts upper limit of 4-par at 400 yds. formerly 375 yds.; carries 5-par from former 550 yds. to 575; and calls all over 576 yds. par-6, heretofore 551 yds.

Public Links Committee points with pride to the record breaking entries in the annual pub-links championship—248 competitors from 73 communities in 29 states and territories, plus 55 teams; and announces a desire to establish sectional qualifying rounds hereafter.

Treasurer's Report shows dues income of \$22,740, income from tourneys of \$21,344, income from broadcast rights of \$5,000, other income of \$1,063 for a total of \$50,147. Expenses for year were \$49,800, leaving profit of \$347. This profit, plus \$7,073 of Green-Section reserve transferred to surplus, boosted association's surplus from former \$76,463 to \$83,883.

Statement on tournament income and expenses shows: Open—income, \$18,619; expenses, \$8,055; net, \$10,564. Amateur—income, \$10,098; expenses, \$1,711; net, \$8,387. Women's—income, \$3,573; expenses, \$1,060; net, \$2,513. Pub. Links—income, \$1,240; expenses, \$1,360; net loss, \$120. Total tourney income, \$33,531; expenses, \$12,187; net, \$21,344.

CLUB DUMP-TRUCK CONVERTED INTO TREE-MOVER

CLUBS desiring to relocate trees on their property or to replace trees that have been destroyed could well use something along the line of the tree-mover 'invented' and built last fall by Val Flood, veteran pro-greenkeeper at the Shuttle Meadow Club, New Britain, Conn., with the help of his foreman, Tony Ferrivva.

It has enabled him to transfer many large trees from one spot to another this winter. Shuttle Meadow, it will be recalled, suffered serious tree loss in the Eastern tidal wave and hurricane last September, and it was this that prompted Val to construct his mover. How a tree is moved by Flood's device is told in the accompanying 6 photographs.



3. Tree is being loaded on mover. Chain is fastened on roller, put around the center of roots, then wound up tight. Careful undermining and wetting down have kept roots and most of dirt around tree base together



4. Tree is now loaded on truck and is ready to be hauled to new location



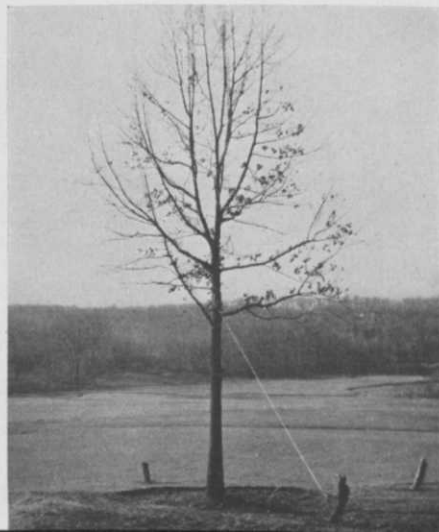
1. Tree mover in position on dump truck which is driven to the tree which Flood has decided to relocate

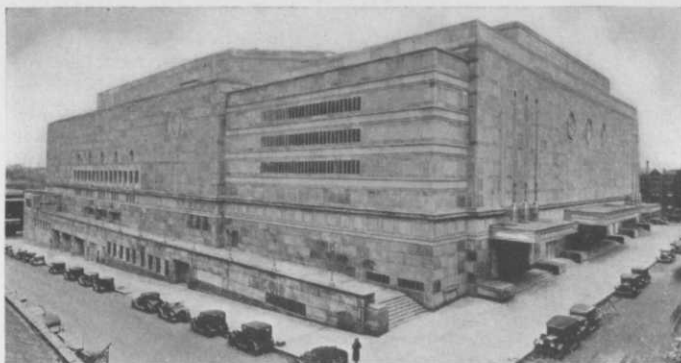
2. Tree is then undermined and pulled over by a tractor. Roots are kept wet to hold maximum of soil



5. The truck backs into hole which has been dug meantime, and dumps the tree into bottom of hole. Tractor then pulls tree, supported by mover, into vertical position

6. The job is finished. A 14-ton tree has been moved 1/2 mile and guyed in new location at little expense





Kansas City's Municipal Auditorium, where GSA equipment show will be held during national greens convention, Feb. 7-10.

ON TO KANSAS CITY!

By KARL SUTPHIN

*Greensmen hold annual meet
farthest west in history*

EVERY indication points to next month's GSA convention and equipment show being one of the largest in the history of the organization, according to word from officials of the Greenkeeping Superintendents Assn. The thirteenth annual meeting, to be held in Kansas City, Mo., February 7-10, will be the first ever held west of the Mississippi. Frank Ermer, chairman of the show committee, reports display space is selling well, and says prospects are good for a sell-out of space, even though the equipment show is being held in the commodious Kansas City Municipal Auditorium. This huge building is fully air conditioned and has exhibition space of 150,000 sq. ft. Convention headquarters will be the President Hotel, only one block from the Auditorium.

**Devote Tuesday
Entirely to Exhibits**

Beginning with the Kansas City convention, the official title of the meeting will be "The National Turf Conference and Equipment Show." The equipment exhibition will open Tuesday morning, Feb. 7, and the day will be devoted entirely to the exhibits. The delegates meeting will be held Tuesday evening, the educational conferences on Wednesday, Thursday and Friday afternoons, and membership meetings on Thursday evening and Friday morning. The annual banquet will be held Wednesday evening.

The putting green building contest will be continued this year and the models will

be built on the show floor with materials furnished by the association. John Gray is chairman of the contest and \$50 prize money has been offered. Chester Mendenhall has been named general chairman of the convention committees. President Joseph Ryan, Rolling Green CC, Media, Pa., and program chairman have lined up an educational program of tremendous value to greensmen attending. Speakers and their subjects are:

"The Living Plant," by Prof. H. H. Haymaker, Kansas State college; "Grass Selections and Improvements," by Prof. F. D. Keim, U. of Nebraska; Dr. Geo. Scarseth, Purdue university, who will speak on "Plant Tissue for Nutrient Deficiencies"; "The Modern Conception of Soil and Its Relation to Plant Growth," by Prof. C. O. Rost, U. of Minnesota; "The Agricultural College and Experiment Station and the Golf Course Superintendent" which will be discussed by Dr. J. W. White, Penn State

Mrs. Rosalie Moran Knapp, formerly pres. of the Women's Long Island GA, and mother of Mrs. J. C. Dey, Jr., died late in November at New York. Mrs. Knapp had won numerous golf titles, and with her daughter, Rosalie, won the Metropolitan mother-and-daughter championship for 3 consecutive years. She was a splendid, beloved sportswoman and her numerous friends in golf mourn her passing.

PROMotion, the golf promotion activity in which more than 1,700 professionals have participated during the past two years, is appraised in a recent issue of *Le Golf*, French golf journal as the outstanding demonstration of effective golf development in the game's entire history.

college; Dr. O. J. Noer, Milwaukee Sewerage Commission, will talk on "Turf Maintenance in 1938" and "A Stereopticon Tour in Color"; Dr. John Monteith, Jr., will lecture on "New Developments in Golf Turf Maintenance"; and Herb Graffis, GOLFDOM'S editor, will speak on "How the Greenkeeping Superintendent Improves His Relation With His Members." Dr. Monteith will also direct a round table discussion on experience with bent greens and he will be assisted by outstanding greenkeepers from the South and West.

Hotel rooms will be available at \$2.50 for inside single rooms and \$3.00 for outside single rooms, and \$3.50 for inside double and \$4.00 for outside double during the convention. Lowered railroad fares and excursion rates in several territories are expected to swell attendance and further reduce expenses.

According to new by-laws drawn up at the last executive board sessions, it is necessary that all affiliated locals have an 80% GSA membership and that affiliated locals unable to comply with this requirement will not be permitted to have a delegate or alternate at the Kansas City conference. Proxies will again be mailed to all members in good standing and delegates must have signed proxies before they will be entitled to vote them.

Further information on floor plans and exhibit space can be had by writing Frank W. Ermer, Box 2257, Brooklyn Station, Cleveland, Ohio.

On Bird Sanctuaries—A book valuable for the greenkeeper is "Song Bird Sanctuaries—with Tables of Trees, Shrubs and Vines Attractive to Birds." The author is Roger T. Peterson, with the cooperation of The NY State College of Forestry. Price of the book is 25 cents. It may be obtained from the National Association of Audubon Societies, 1775 Broadway, New York City. The tables on trees, shrubs and vines give common and botanical names, origin, bird cover and nesting features, quality and season of bird food supplied, foliage, flowers, fruit and landscaping values; soil shade and moisture conditions desirable for cultivation, and general remarks.

ACCORDING to figures in "Municipal and County Parks in the U.S.," printed by the U.S. Government Printing Office for the National Park Service and National Recreation Assn., public golf courses make a better financial showing than any other public recreation facility listed, except boat houses.

The 75 many 9-hole courses reporting show income of \$306,427.45 (average of \$4,085.69), and operating cost reported on 76 9-hole courses was \$371,519.76 (average of \$4,888.41).

On 18-hole courses figures are: total income of 126 courses, \$1,290,151.84 (average of \$10,239.30), and operating cost of 121 courses \$1,439,733.87 (average of \$11,898.62).

SCHEDULE OF TOURNAMENTS

Jan. 6-9.....	Los Angeles Open	5,000
Jan. 13-15.....	Oakland, Cal. Open	5,000
Jan. 18-22.....	San Francisco	5,000
	(Match Play)	
Feb. 4-5.....	Bing Crosby-Pro-Am., Del Mar, Calif.....	3,000
	(36 holes)	
Feb. 10-12.....	Texas Open	5,000
	(San Antonio)	
Feb. 21.....	Tin Whistle Tournament, Pinehurst, N. Car.	
Feb. 16-19.....	New Orleans Open	10,000
Feb. 25-26.....	Thomasville, Ga. Open	3,000
	(54 holes)	
March 1-2.....	St. Petersburg, Fla.	3,000
	(54 holes)	
March 5-8.....	Miami-Biltmore	5,000
	(4-Ball Match Play)	
March 16-19.....	St. Augustine, Fla. Open	
March 20-22.....	North and South	4,000
	(Pinehurst)	
March 24-26.....	Gr. Greensboro (N. Car.) Open.....	5,000
March 30- April 1-2	Master's-Augusta	5,000
June 8-10.....	National Open, Philadelphia (Pa.) CC.	
July 24-29.....	National Public Links, Baltimore, Md.	
Aug. 21-26.....	Women's National, Wee Burn Club, Noroton, Conn.	
Sept. 11-16.....	National Amateur, North Shore CC, Glenview, Ill.	
	P.G.A. and Ryder Cup dates and sites to be announced later.	