

## Underlying Causes of Turf Trouble

NUMERABLE futile attempts at turf improvement emphasize the necessity for an orderly scheme of procedure, which is fundamentally sound, with each operation performed in the order of its importance. Success and economy are the inevitable reward of such a program. But success depends upon a clear understanding of the underlying causes of turf trouble—and their remedies.

Careful examination of soil and turf is the first necessity. Drainage, kinds and amount of grass, soil texture and chemical composition should receive especial attention. Although of less importance, watering and mowing practices, control of insect and fungus diseases, should not be overlooked.

**DRAINAGE:** Obvious drainage needs are usually provided, but damage from seepage, and in northerly districts, detrimental effects of almost imperceptible pockets and depressions are overlooked.

Poor turf along lower hillside slopes is due usually to seepage. Damage occurs during fall and spring. Blue grass and fescue fare worst, whereas moisture-loving bents usually thrive. In these locations tile lines, placed at right angles to direction of flow, and backfilled with gravel, should precede improvement by reseeding or fertilization. In aggravated cases, besides tile, encouragement of bent may be necessary.

Clover, knotweed, or other weeds are often the sole occupants of imperceptible pockets and depressions because blue grass and fescue winterkill each year. Tile drainage is not the answer, because deep frost prevents tile from functioning when injury occurs. Improved surface drainage or the use of bent grass is the permanent solution.

**HERBAGE:** A survey of existing herbage is always essential. It discloses possible need for reseeding, weed eradication, or grub control, in addition to fertilization.

When desirable grasses, adapted to local soil and climate predominate, and turf is uniform but thin, extensive reseeding is not necessary. These grasses spread naturally to form dense turf in the presence of ample food and moisture. Except for spot seeding on occasional bare areas, the only other justification

for reseeding is to introduce favorable grass varieties on areas such as those just mentioned.

Ordinary weeds and clover can be suppressed by fertilization. Special treatment is necessary only on areas which are practically devoid of grass. Reseeding and fertilization should follow weed elimination.

Where grubs abound, their control with lead arsenate should precede, or accompany, fertilization.

### TOPDRESSING NOT ALWAYS NECESSARY:

Contrary to the belief of some, topdressing with soil is not necessary to eliminate objectionable small "cuppy" lies. They disappear as existing grass spreads. Fertilization, not topdressing, is the economical solution.

It is futile to attempt material modification of heavy soils, which are already in turf, by dressing with sand, peat, or manure. It is more sensible to encourage denser turf development. Even on sandy soils, installation of an irrigation system may be more effective, and less expensive, than extensive topdressing.

Fairway irrigation eliminates moisture as a growth retarding factor, but is not the sole solution of turf improvement. Unless associated with fertilization, clover and weeds may overshadow grass.

**NEED FOR LIME:** Next in order comes need for lime and fertilization. In devising a sensible program, reliable determinations of soil reaction and plant food deficiency would be extremely useful. Satisfactory methods are available for soil reaction. Some phosphorus methods are useful; potassium methods often show need for potash not substantiated by field experience; all nitrogen methods are of no practical value.

First it is necessary to decide upon possible need for lime, phosphorus and potassium, even though they are secondary to nitrogen in any scheme of fertilization on established fine turf. Unlike nitrogen, their use is not a major necessity each year, even when soil deficiencies are acute.

Soil reaction tests determine need for lime. Definite need is indicated only when soils are moderate to strongly acid. With borderline soils, no serious harm will result from delay until definite need is established by field tests on trial strips. Kentucky blue grass needs more

feed with

# MILORGANITE

THE ORGANIC-NITROGEN TURF FERTILIZER

# The A B C of TURF CULTURE

lime than fescue or bent; larger quantities should be used on heavy soil than on lighter soils of the same reaction.

**PHOSPHORUS AND POTASH OVER-EMPHASIZED:** Often on established turf, need for phosphorus has been over-emphasized. Generous applications of phosphate should be confined to soils known to be low in available phosphorus. A heavy initial rate tends toward deeper penetration before fixation occurs. When clippings are not removed, at least 2 to 4 years can elapse before additional phosphate is needed in quantity. With moderate to high available soil phosphorus, a fertilizer containing about one-half as much phosphoric acid as nitrogen will give entire satisfaction.

Excepting peat, mucks, and extremely sandy soil, potash is seldom needed on fairways or lawns. Most soils contain ample potassium, which is augmented upon decay of clippings. The excessive use of potash will encourage clover.

**NITROGEN FEEDING KEY TO SUCCESS:** From then on, nitrogen feeding is the key to successful fairway and lawn management. Annual feeding is best practice, because appreciable loss may occur from leaching, and sometimes from denitrification.

On nitrogen-starved turf, heavy rates spring and fall are justified until turf of desired density is obtained. After that, rates can be reduced to a bare maintenance level, and possibly confined to one application a year. In districts where crab grass is a serious pest, major nitrogen feeding should be in the fall, with lesser rates in spring so as not to encourage crab grass unduly.

The true organic nitrogen fertilizers can be applied, even in the generous quantities needed on impoverished turf, in a single application; but with soluble fertilizers, split applications are necessary to avoid serious burning.

**ESSENTIAL FACTORS:** Contrary to the general impression, good turf can be developed from seed short of two to four years. Besides fertilization, success depends upon proper drainage, thorough seed bed preparation, selection of grasses suited to local soil and climate, and the use of ample seed of good quality.

Quick development of uniform coverage depends upon ample phosphate to stimulate initial root development. For this purpose, superphosphate is superior to bone meal. Ni-

trogen is needed also to promote healthy vegetative growth.

Because golfers demand turf perfection at all times, irrespective of weather, greens maintenance is always a problem.

Without adequate drainage and soil of proper texture, it is almost impossible to cope with adverse weather. Good drainage is an absolute essential. This applies to surface as well as subsoil drainage. Pockets and depressions which hold water are apt to cause serious trouble, both in summer and winter. The necessity for good subsoil drainage is obvious. Suffice to say that the tendency is to space tile lines too far apart. Texturally, the soil must be sufficiently open to facilitate rapid removal of surplus water, yet possess enough fine material to insure adequate water-holding capacity. A supply of organic matter is necessary also, not so much to increase water-holding capacity, but to enable greens to hold a pitched ball without the necessity of overwatering. In excess, organic matter produces spongy surfaces, and its large water-holding capacity accentuates turf loss in wet seasons.

**SAND AND MOISTURE ABUSES CAUSE TROUBLE ON GREENS:** A few still make the mistake of topdressing greens with pure sand and peat. These layers interfere with free movement of soil moisture, and are the cause of frequent trouble in summer.

On greens, irrigation is a necessity, yet the privilege of water is often abused. The tendency is to overwater, especially on greens in sheltered locations. When greenkeepers exercise more care in the selection and training of water-men, troubles will be lessened.

Greens present a slightly different fertilizer problem than fairways. Phosphoric acid and potash increase in importance, because clippings are removed. Their use spring and fall will suffice. Then feeding becomes a matter of nitrogen. Major applications should occur in spring and fall, with summer nitrogen feeding at light rates only.

Greens can become too acid even for bent grasses, so when tests show soils are moderate to strongly acid, the judicious use of lime is warranted.

In times of stress, when more or less turf loss occurs, the underlying cause must be determined before corrective treatments are tried. Otherwise trouble may be aggravated rather than relieved.

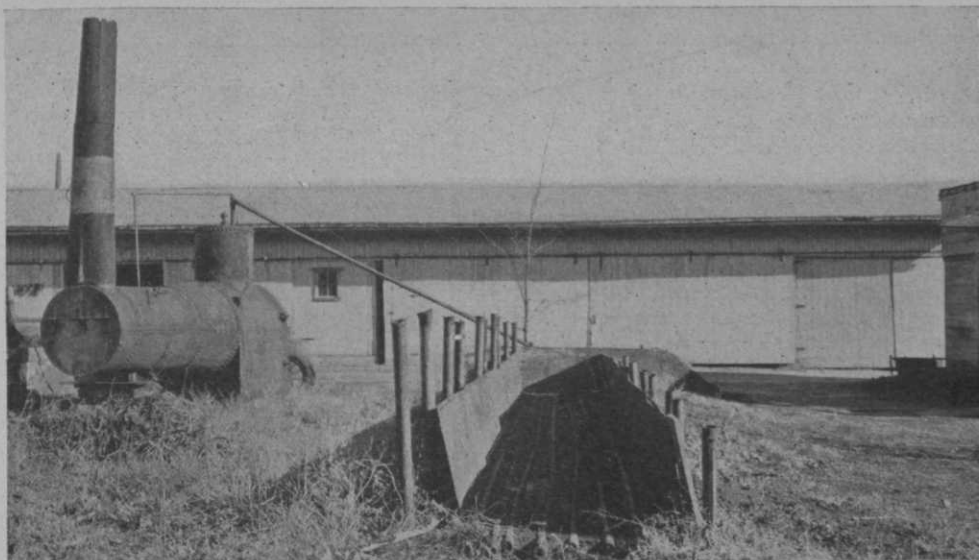
(To be continued)

Presented by THE SEWERAGE COMMISSION MILWAUKEE, WISCONSIN

Printed in U. S. A.

**MILORGANITE**  
BUILDS STRONGER, GREENER, DENSER TURF

Tear out this sheet and save for permanent reference



Findlay's ingenious sterilizer uses steam furnished by the oil field boiler at the left. Some second-hand sheet steel and about 500 feet of pipe complete the outfit.

## CLUB HAS WEED-FREE COMPOST

By BERNARD E.  
SWISHER

*Home-made Sterilizer Costs But  
6 Cents Per Cu. Yd. to Operate*

**O**N putting greens it is much less expensive to use weed-free compost than it is to continually weed the greens. Destruction of the weed seeds carried in compost cannot be over-emphasized.

Formerly it was common practice to build fires on top the seed bed to sterilize the soil. This method has been discarded. Another way, used today, is to place the soil on a pan and cook it by building a fire under it. This method requires large amounts of fuel and, unless ample quantities of cheap fuel are available, is too expensive. Chemicals are not used to a very large extent because many seeds are too resistant to this type of treatment.

Dry heat is very convenient and does good work but in practice we have found it to be more expensive and less efficient than the use of live steam. Here at the Findlay CC, we use steam under 100 lbs. pressure and direct it through the compost in such a way that it is all heated uniformly. To have a convenient means of doing this we built our own sterilizer three years ago and have never regretted doing it.

The sterilizer itself consists of a 25 h.p. oilfield boiler, donated by an interested member of the club, which furnishes steam at 100 lbs. pressure through 146 yds. of perforated 2" pipe. Pipes are laid in 8 parallel rows 55' long, as close together as the return ells will permit, and have a total width of 5'. Each pipe is perforated every 18" with a  $\frac{1}{8}$ " hole but the holes are so spaced that, by staggering, a hole comes every 9". These pipes are laid on a floor of steel sheet which is underlaid with 10" of sawdust to prevent loss of heat downward. The floor is higher at one end which causes all of the water (condensed steam) to run to the lower end where it is drawn off by means of conveniently placed taps in the return ells. This feature facilitates winter drainage.

Sides are also of steel construction. The back is 4' high while the front is only 2' high. By building a slight grade up to this front, we are able to back our trucks

squarely up to the sterilizer and dump in their loads with a minimum of hand labor.

We rarely load the sterilizer to capacity. Our usual load is to a depth of 18". This takes about 8 truckloads and is equal to approximately 16 cu. yds. It takes us about 3 hours to sterilize this quantity of compost and costs us about 6 cents a cubic yard.

We are never troubled with soggy compost. Ordinarily we leave it in the sterilizer to cool or to remain there in storage until we need it. Upon removal, after cooling, the compost is in the same physical condition, as far as texture is concerned, as when we put it in there.

During the process of sterilization we cover the top of the sterilizer with a heavy canvas. This acts as an insulator in preventing the loss of heat and is beneficial in preventing the steam from blowing holes through the compost. Steam under 100 lbs. pressure attains a temperature of 377° Fahrenheit. As yet we have never attained a temperature approaching that in the sterilizer. Such high temperature is not necessary. For our purposes it is only necessary to bring the soil to a temperature of 160° F. Temperatures higher than 180° are injurious to the compost.

### Clarence Radke Elected President of Heart of America Greenkeepers

**A**NNUAL meeting of the Heart of America Greenkeepers' assn., held in mid-November, resulted in the election of Clarence Radke, supt. of St. Joseph (Mo.) CC, as president of the body for 1937. Other officers elected were: Harold Henry, Hillcrest CC, Kansas City, vice-pres.; P. L. Pepper, Oakwood G&CC, Dodson, Mo., secy-treas.; and Chester Mendenhall, Mission Hills CC, Kansas City, chairman of the board of directors.

Highlight of the meeting, according to Secretary Pepper, was the acceptance speech of President Radke, in which he outlined the purposes of the HAGA and asked the whole-hearted aid of the members in furthering the work of the association.

Following are excerpts from the speech: "A greenkeeper loves his work. He likes to watch things grow, likes to see nature unfold in all her splendor. It must be this; it can't be the salary, because I know of many jobs that pay more than the greenkeeper makes. In no other profession are

there more reasons to become discouraged than in greenkeeping."

"If you called your doctor and told him you had a terrible pain in your stomach, he wouldn't say, 'Oh, I know what's the matter with you. You've got appendicitis. I'll just cut out your appendix and you'll be all right.' No, he'd give you a thorough examination to find the cause of your pain and then treat it accordingly, because there are probably a dozen different causes for that pain.

"So it is with greenkeeping. Just because a green has brown spots on it, is no sign that it has brown patch. There are several reasons why greens turn brown. So we must be able to diagnose the case, find the cause of the trouble, and apply the remedy."

"Almost everything we do on a golf course is contrary to the laws of Nature. We force growth by using all kinds of chemicals to keep a green beautiful; and Nature, in her determination not to be conquered, springs some new trick that makes us scratch our heads and try some new experiments.

"No man was ever intended to know the secrets of Nature. And that is why greenkeeping is so fascinating, so interesting. It is because of our desire to find out why we can't conquer nature that we have this association to discuss the different problems confronting us."

"The average golfer knows nothing about the greenkeeper's problems. When he does begin to hear a little about it, he is so old he is ready to die and go to heaven (if golfers ever go to heaven!)

"When the greenkeeper dies and goes to heaven, (he deserves to go there), he won't even find peace there, because some 110-shooting angel will probably wing his way to the greenkeeper and say, very dignified: 'Jake, this is a hell of a place. I played a perfect shot to the eighth green, just at the left of the Throne, and it slid over and cost me a nine playing out of a cloud-bank. Don't you ever water around here?'"

"This organization must sell itself to the golfing public not by demands or force, but by demonstrating its determination to improve playing conditions and make the game of golf produce the pleasure-giving, health-retaining qualities that it was intended for."

# WE GIVE 'EM GOLF AT A BARGAIN

By BILL ADAMS, Pro,  
Sioux City (Ia.) Boat Club

BILL  
ADAMS



WHEN guests play the Elmwood golf course of the Sioux City (Ia.) Boat club, situated four miles from the downtown district, and enjoy in addition the social advantages of this organization, they insist it is unique in the United States. Golfers from various clubs in large and small cities, have played this course in thousands since I first joined it in 1930 as club professional. Two years ago I was engaged as club superintendent and professional.

The Sioux City Boat club was organized forty-nine years ago for the purpose signified by the name. It is situated on the Big Sioux river, a tributary of the Missouri. It was a strictly boat club for many years.

Thirty years ago, members began agitating for a golf course. Acreage for a nine-hole layout was obtained across the Big Sioux from the clubhouse. This later was enlarged to an 18-hole course, but it was short. Par was 65. Five years ago the club bought more land, a wooded tract that lay adjacent to the course. A golf architect was engaged to lay out a new course, combining the area already in play with virgin woodland. Then we went to

work and built Elmwood, which, I do not hesitate to say, is one of the most attractive I ever have seen.

Par is 72 and the yardage is 6506 on the Elmwood layout. The ground is level for the most part. Elms in profusion border all fairways, many of which are narrow and a stiff test for the straightest golfers. Greens at Elmwood are all Washington bent.

Many of the tees are landscaped, with trimmed hedges forming three sides of an open square. Evergreens are to be found on other tees. Wind-vanes are mounted on several of the tee posts. Our golfers rarely have to pull up the grass to toss it overhead and get the drift of the wind.

Our clubhouse is in Sioux City, Iowa. Our golf course, however, is in South

The Sioux City BC course, shown here, is in a different state from that of the clubhouse!





One of the highly popular features of the club is its picnic grounds.

Dakota. Three years ago the United States war department, which contended that the Big Sioux river was a navigable stream, gave us permission to construct a draw bridge, built on sturdy piling, across it. Thus we were able to abandon the power boat in which for years golfers were transported from one state to another for a round.

We have an excellent clubhouse and spacious grounds. In the house proper are the showers and locker rooms, also a refreshment room, a vast parlor and ball room.

There is a large swimming pool which is especially attractive to the juvenile members of this family club. We also have excellent tennis courts.

#### **Picnic Grounds Has Unique Service Set-up**

A feature of the club that appeals to the scores of families composing its membership is the kitchen service and the outdoor picnic grounds. We have a large kitchen equipped with gas ranges where members may prepare the finishing touches to meals brought from their homes. There is a large refrigerator room in which members may temporarily store perishables.

And we have white enameled tables and chairs placed on a lawn in a deep grove of elms, and there during the summer our members and their families dine after enjoying a round of golf, a swim or a fast set on the tennis courts.

Each member family provides its own food and sets its table. The club provides utensils for any cooking that is to be done, the china and silver and the ice for cooling drinks. There is an ice house on the club grounds near the kitchen and members help themselves.

When the family has finished dinner, kitchen attendants gather the dishes and silverware and take them to the kitchen where they are washed and stacked for the next day.

On the first Friday of every month during the summer we have "Family Dinner" night. On this night we have as many as five hundred persons dining on the lawn. The club furnishes coffee, sugar, cream and ice cream.

In this club are men and women members, heads of families, who grew up in it as children. Throughout the club's existence as much consideration has been shown to children as to grownups. The youngsters are looked upon as real members of the club.

The Sioux City Boat club is in excellent financial condition. Throughout the depression its membership had been close to the limit desired. Every year this club winds up "in the black".

The club is well landed. It has five acres in Iowa. In addition to owning outright the Elmwood golf course of 130 acres of fine South Dakota land across the Big Sioux river, it has some 900 acres of fertile farm land now being cleared by squatter tenants. Ultimately revenue from this property is expected to increase the club's income.

#### **Painless Plan Brings Water Fund**

Fairways are to be watered by raising the dues \$5 a year and selling redeemable certificates—not bonds—to the value of \$50 each to the members. Every year for five years the holders of these certificates will pay \$10 less than the annual dues, until the \$50 is refunded. If the member leaves the club before the expiration of the 5-year period, the unused portion of his certificate will be refunded to him.

The cost to members of this unique golf and country club? I've saved that for the last, for it is the best part of the story about the Sioux City Boat club and its Elmwood golf course. Golfers who visit us are amazed to find that members come into this club by paying an initiation fee of only \$75 and annual dues of only \$60.

We have not operated "in the red" a single season. Instead, we have had sufficient surplus to make improvements from year to year to give our members what they want—a golf and country club for every member of the family and a golf course that is a delight from the first tee to the eighteenth green.



Six strains of bent are planted side by side in this green on the Penn State course. See diagram next page.

## TO TEST TURF UNDER FIRE

By H. B. MUSSER

**D**ID you every try to photograph the surface detail of a green? If you have, you know what a heartbreaking job it is. We have tried it in about every way possible. We've taken shots when the brilliant sunshine of the early morning was reflected back sharply from every grass blade. We've mugged it when the rays of late afternoon went slanting off to the eastward. We've sneaked up on it on cloudy days when we thought perhaps variations in the grass texture and density might register.

Perhaps you get the idea. We wanted a picture of that green pretty bad. Well, the best we have been able to do to date is the accompanying photograph. If you look closely you will see the green, but very little of the detail we wanted to show.

This green is our first effort at the Pennsylvania Experiment Station to set up a piece of turf testing experimental work under actual playing conditions. We have long had a feeling that the only sure proof of the pudding was to make experimental turf companions under actual playing conditions.

Budget troubles of one sort or another always interfered with the plans for construction of such a green. Finally, last fall, with Bob Rutherford, coach of the college golf team and general factotum in affairs golfing at Penn State, contributing his experience in design and with very material financial aid from the De-

partment of Grounds and Buildings, the green was built.

The college golf course on which it is located is an 18-hole layout and gets from 200 to 300 rounds of golf every day. The play is of a type that—well, it makes one suspect that a good many early golfing educations have been sadly neglected. At least there is no question about the severity of the “wear” on the turf. This is particularly true of the tenth hole where the green was built. It is a one-shot 5 or 6 iron layout and should get a lot of rough treatment. The original green on this hole will be kept in condition to take care of play while records are being taken or other work done on the new one.

### Special Care Taken to Make Soil Uniform

The green has an area of approximately 6,000 sq. ft. and is roughly circular in outline. There are no playing surface contours and just enough slope is provided to insure satisfactory run-off. Our chief concern was to provide a playing surface that would be uniform throughout in con-

struction. At the same time, it was necessary to provide for the uniformity of the soil and see that all lime, fertilizer and other treatments were evenly and thoroughly mixed. We believe the construction is such that any differences in performance that may develop among the various grasses tested will be due to the grasses themselves and not to serious variations in growing conditions.

The first job we are asking the green to do is to function as a proving ground for our creeping bent selections that have given the best account of themselves during the last five year period in the test plots. Three of these were planted last fall along with the Washington and Metropolitan strains and a seeded area of bona fide South German mixed bent.

The accompanying diagram shows the layout. Each strain is planted in a wedge

particular hard beating at one time will get a good "break" at another.

By checking frequently on turf condition and keeping a detailed record of maintenance operations necessary to keep each strain in the best possible condition we should get a good picture of their performance. If no trouble develops the green will be ready to open for play in late May or early June and we hope to have some very interesting figures by the end of the 1937 season.

### Here's Dope on New Jersey and Iowa Greens Short Courses

**U**NDER direction of Dr. Howard B. Sprague, the ninth annual one-week course in Turf Management will be held February 15-20 at Rutgers College, College of Agriculture, New Brunswick, N. J. The course, designed to acquaint greenkeepers and others with the principles underlying the successful establishment and management of turf, will consist of lectures and discussions supplemented by laboratory demonstrations.

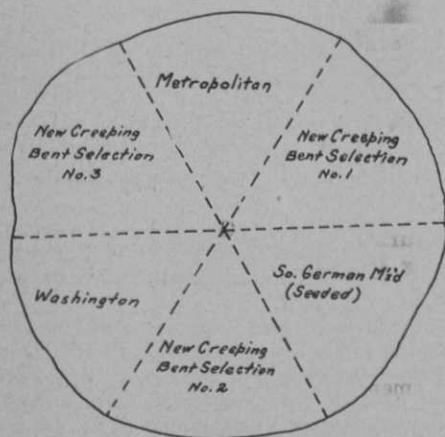
Any resident of the U. S. over 17 years of age is eligible for the course, for which the only charges are \$5.00 for registration and \$1.00 for outlines of lectures. Registration will be held Monday a. m., February 15. The course will be limited to 60 persons. F. G. Helyar, director of resident instruction, will accept applications.

Among the subjects to be covered are: soil types, drainage, soil and plant chemistry, fertilizers, soil acidity, forms of lime, micro-organisms, compost, seed testing, insects, weeds, turf diseases, renovating poor turf, and watering.

**A**NNUAL two-day Greenkeeper's Short Course is announced for Iowa State College, Ames, on March 1 and 2. Program details have not yet been released by Prof. V. T. Stoutemyer and other members of the college staff, but full measure of instructive and interesting material will be provided.

A fee of one dollar covers all costs to the Short Course program, living expenses excepted.

Park board members, golf course committeemen, golf pros and all others interested in the various phases of greenkeeping are welcome to attend the sessions. For further details, either Prof. Stoutemyer at Ames or C. G. Yarn, secy. of the Iowa Greenkeepers Assn., Rte. 4, Des Moines, should be written.



Each of the six bent strains covers an equal segment of the green.

shaped area of approximately 1,000 sq. ft. The areas are large enough so that a strain can be handled as a unit and the type of care given to it which preliminary trials in our test plots indicate as best adapted for it.

To give each grass an equal chance to show what it can do, we will keep exact records of the number of rounds each day and rotate the cup to distribute the play uniformly on all of them. Of course, there will be times when weather conditions will be more severe than at others. The strain carrying the cup at such times will get more than its share of trouble. We think, however, that in a full season such errors will largely take care of themselves. In other words, by changing the cup frequently a strain that may take a



# WHERE WILL MANAGERS MEET?

At press time, GOLFDOM has been unable to get through the flood waters to Fred Crawford at Louisville to learn whether the annual Club Managers' convention will be held in that city as scheduled. The Ohio river should be back in its channel by February 16, but will Louisville and the Brown hotel, awash at this writing, be ready for the managers?

Lacking word from Crawford, we assume the meeting will follow original plans and present schedule details below.

**BECAUSE** of Louisville's central location, plus its reputation for fast horses, beautiful women and southern hospitality, the 11th annual convention of the Club Managers' Association of America, scheduled for the Brown Hotel, Louisville, from Feb. 16th to 18th, is expected to attract not less than 300 managers and their families from all parts of the U. S. and Canada.

Fred H. Crawford, manager of the Pen-dennis club, Louisville, is in charge of convention arrangements and is being assisted by members of the entire Ohio Valley chapter of the assn.

## Program to Keep Delegates Plenty Busy

The convention program promises three busy days for delegates to the convention and a fourth one to those who arrive a day ahead on Monday, February 15. On that day the board of directors will hold a meeting at 1 P. M. and there is an optional side trip scheduled to Churchill Downs in the afternoon. A get-acquainted party is scheduled for later on, to be followed by a "surprise party" at the Brown Hotel at 8 p. m.

On Tuesday afternoon the convention gets down to business. It will be called to order by Fred H. Crawford, general convention chairman. Bishop Charles E. Woodcock of Louisville will deliver the invocation and Horace A. Taylor, president of the Louisville Board of Aldermen, the address of welcome, after which Fred Wood, president of the association, is scheduled for his address.

Wednesday morning, February 17th, offers the opportunity of a visit to the Seagram plant. The afternoon will be given over to nine half-hour educational conferences, each of which will be presided over

by a chairman chosen from the association membership and each of which will have as speaker an authority on the subject concerned.

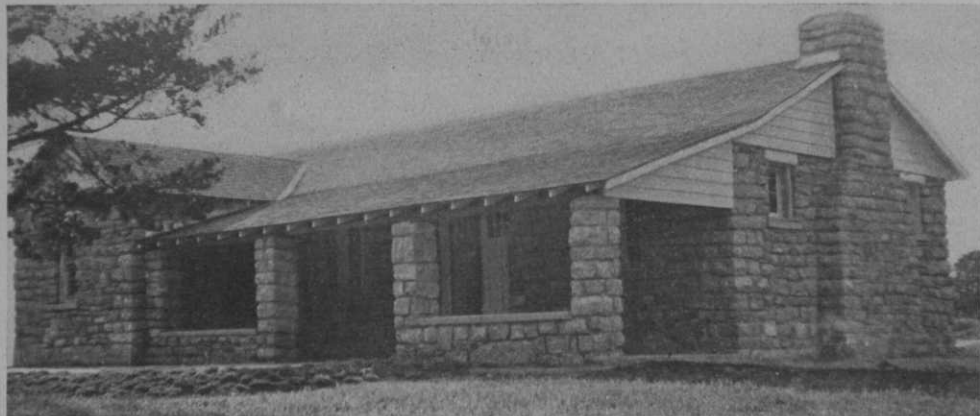
The first conference, at 1 P.M., will consider the Social Security act as it affects clubs; G. O. Podd, Horwath & Horwath, will lead the discussion. At 1:30, Joseph D. Vehling of Chicago will outline the history and development of food and drink and its relation to the progress of civilization.

Air conditioning, with Paul Holcombe, Carrier Corp. as speaker, is the subject to be thrashed out at 2 P.M. and the science of food purchasing, with Durries Crane, former club manager and vice-president of National Hotel Management, in the driver's seat will take up the period between 2:30 and 3 o'clock. At 3 o'clock, F. C. Ryan, American Playground and Device Co., will discuss swimming pools, their design, equipment and operation.

## Ye Ed Will Offer Yardstick

The 3:30 conference will find Herb Graffis, editor of GOLFDOM, discussing the high mortality in the club management profession and suggesting a yardstick that should be used in measuring the requirements of a manager for various types of clubs. Vertner D. Smith, Brown-Forman Distilling Co. will show moving pictures of the whiskey distilling process and will offer himself as a target for whatever questions the managers care to throw at him during the 4 o'clock conference. Moving pictures will also be used at the 4:30 conference, which will be on the subject of sea foods. Thos. P. Jones, manager of the Harvard Club, Boston, Mass., is the speaker scheduled.

The final conference of the day will be



Above is the recently completed clubhouse of the Tishomingo (Okla.) CC. This building is of native stone, the labor being done by local men under supervision of the WPA. The building consists of a main room 24' x 30', two locker rooms and kitchenette. A stone fireplace is located in the main room.

This clubhouse was made possible by donations of the club members and their friends, and with the assistance of the Oklahoma unit of WPA. It is located on land owned by the State Game and Fish Commission.

on the subject of meat cutting and will consist of a demonstration of the different cuts of meat and their proper use, together with authoritative pointers on the proper handling of meat. The expert for this conference will be Wm. Bauer, Wm. Bauer Company, Cleveland, Ohio.

#### Big Party on Wednesday

Traditionally, the conventions of the Club Managers Association include one elaborate and long-remembered get-together. This year's affair is a "Monte Carlo" party scheduled for Wednesday evening at the Club Greyhound, Louisville's famous supper club. A business meeting is planned for Thursday afternoon, at which time all business of the convention will be wound up, including reports of the convention committees, installation of new officers and consideration of invitations for the 1938 convention. The eleventh annual banquet and reception will be held in the Crystal ballroom of the Brown hotel that evening.

Registration fee for the convention, \$15 for men and \$10 for women, includes all items set forth in the program other than hotel bill and incidentals. Registration is not limited to members of the Club Managers association. Club executives and all other persons interested in the management of clubs are invited to attend and will be welcomed at all sessions of the convention except the strictly business ones.

For additional information and for

reservations write J. Fred Smith, 40 S. 3rd St., Columbus, Ohio.

**True, too True**—Curious, isn't it, that when new green-committees are appointed they immediately look around to see where they can start excavating fresh bunkers. A mania seizes most new committeemen to alter the course somewhere, in order to justify themselves. On the majority of golf courses I visit the question which the green-committee would do well to consider is, "What bunkers can we fill in?"—Golf Monthly.

**Aussie Amateurs Are Hot**—Gene Sarazen, after playing with numerous Australian amateurs on his latest trip to the Antipodes, believes Australia could present an amateur team that would give the American Walker Cup team stiffer competition than the British Walker Cup teams have furnished.

#### GREENKEEPERS' CONVENTION

As GOLFDOM comes from the presses, the 1937 annual convention of the National Association of Greenkeepers of America is assembling in Washington, D. C.

March GOLFDOM will carry the full story of the convention, plus some of the outstanding papers read during the NAGA'S educational conferences.