

ers have been too retiring and too modest in their demands for the good of not only themselves but their clubs.

COST ANALYSIS

REGARDLESS of the accounting system used by the club officials, the greenkeeper should use a simple cost analysis system of his own. An individual account should be kept for each green and a record should be made of the date of each treatment such as fertilization or topdressing, together with the amount of material used. An estimate of labor cost is useful also and a standard time can be determined and used for each treatment. This will be accurate enough for all practical purposes. Fairway costs can be treated in the same manner.

Where such records have been kept, the variation in the cost of maintenance of the different greens has often been marked. A green with faulty construction is likely to prove expensive in some items, such as fungicides and in the removal and replacement of turf. Thus when a green should be taken out and rebuilt, the greenkeeper has something definite to support the facts presented to his committee. The personal records of the greenkeeper put the facts about the operation of the course in their true light, while the accounts of the club officials are usually too generalized to do this.

LAYOUT AND MAINTENANCE

THE small town golf course is apt to have defects in construction, as it is not likely that the course was designed by a competent golf architect. While the layout may be faulty from the standpoint of play, the errors which are most commonly seen are those which interfere with the growing of good turf.

A few common examples may be cited. Sharp rolls in the surface contour of the green necessitate continual cutting from a certain angle. Steep, rough backs or sides of greens cause difficulty with the use of any kind of mower and may require much hard work with a scythe. Certain types of terraced greens and some freak designs in vogue a few years ago have proved unsatisfactory and are being taken out. Greens with rolls placed without due regard to the surface drainage have given endless trouble with scald and brown patch.

There are courses on which the surface water from a long slope runs across the green, or where the seepage from surrounding hills keeps the soil soggy.

Oversized greens on some of the smaller golf

courses are now a costly burden. A large green increases the cost of labor, power, fertilizer, fungicides and every other item of maintenance expense. Greens of over 6,000 square feet are apt to be regretted by the small club. A green need not appear small, but it certainly will do so if it is given a very irregular outline with large sand traps on the approaches. A wide untrapped approach from the front or from one side will help to make the small green playable for the relatively unskilled players who predominate in most clubs.

The situation is quite the reverse with tees. They are often not large enough on the average small course and require much repairing and returfing. Bent grass tees are beautiful but under midwestern conditions require too much care for the small club to consider them.

It may be observed that sand traps and water hazards are often sadly neglected on the smaller courses. Where they have been put in, an effort should be made to maintain them. Probably clubs will be less hasty in placing them over the course in the future. The small town courses should follow some of the ideas in natural and optional hazards which are being used by many municipal and fee courses.

Along with the regular maintenance of the course an effort must be made to keep the grounds neat and attractive. If the club is not in a position to do much planting of nursery stock, even a few well chosen annual and perennial flowers will take little care and the added color will be appreciated by the members. We must never forget that contact with natural beauty is one of the great values of golf.

THE GRASS PROBLEM

TAKEN as a whole, the smaller golf clubs of Iowa have made many serious mistakes in the selection of putting green grasses. The vast majority of the greens are in some sort of bent. Only a few of the greens of red fescue remain, and blue grass greens are not much more common.

The early seeded greens were sown to mixed South German bent, and under our conditions the various grasses formed small segregated patches which gave the green a spotted appearance. The early experiences with stolonized greens were even more unsuccessful because of the inferior strains which were being sold at that time as Washington bent.

Spurious grasses are still on hundreds of greens in our state and, in spite of all the efforts of the greenkeeper, remain coarse, nappy, diseased at times and undesirable in color. The dissatisfied players and club officials often do not realize that a mis-named grass is the one and only source of their troubles.

It is well to keep the greens of a course all in one strain of grass; otherwise one has the bother of growing various sorts of grasses for turf repair. Where there are a number of bents on one course they tend to be carried by the mowers and in time become mixed, causing the greens to take on a spotted appearance. The best place for the trial of new grasses is on the practice putting green and a certain amount of such experimentation is to be encouraged.

Some of the new strains resulting from the breeding efforts of the Bureau of Plant Industry and several of the agricultural experiment stations in the East seem to be very promising and may have unusual merit. Trends toward one definite species of bent are noticeable in various regions. The seaside, colonial, creeping and velvet bents each seem to have localities where they thrive best. The old question of seed versus stolons has been revived again because of recent advances in the production of pure strains of seed.

CLUB ORGANIZATION AND THE GREENKEEPER

AN INTERESTING development in the status of the greenkeeper is found in Iowa and has attracted some attention locally. It is essentially a contract system which increases the responsibility of the greenkeeper and allows him to share directly in the economies which he is able to effect in the use of labor and materials. The greenkeeper thus becomes in a very definite sense a business partner with the club.

This arrangement is found at the Green County Golf Club, a 9-hole course, located at Jefferson, Iowa, and has worked ideally in practice. The club has just completed its fifth season. Most of the present greens are but three years old. They are in Washington bent and are nearly all of a quality worthy of the finest course.

The club pays the greenkeeper a fixed stipend each year. From this he provides his own salary and the necessary additional labor for course maintenance. The greenkeeper also furnishes a tractor, which is practical in this instance as he also operates

a farm. Fertilizer, tools and other materials are furnished by the club. The greenkeeper collects the green fees and by the provisions of his contract is allowed to retain one-fourth of the fee money. As this course does not have a professional golf instructor, he also operates a concession for the sale of golf merchandise.

As the years have passed, more direct authority has been given to the greenkeeper and the club officials have been gratified with the results.

At the start, this greenkeeper was a farmer in the vicinity who took over the job without any previous experience or knowledge of turf culture. By obtaining information from every source and by hard work he has secured unusually good playing conditions. Perhaps the key to the success of this course is disclosed in the statement by the greenkeeper, Mr. C. B. Whitson, that, "A person must be deeply interested in his work to accomplish what the members of the club desire."

CLUBHOUSE OPERATED BY SEPARATE ORGANIZATION

ONE other unusual feature of this course is that while there is a clubhouse adjoining the grounds it has no direct connection with the golf club organization, as it was erected long before the course was built and operated by another organization. Because of the large number of members in the latter who had no particular interest in golf, the two organizations have cooperated but not united. Thus some of the golfers do not have clubhouse privileges.

The fact that the course does not have the upkeep of a clubhouse explains the very low annual dues of \$20.00 for resident members and \$10.00 for non-residents. The club has a membership of about 140.

CONTRACT SYSTEM HAS GOOD FEATURES

THERE are some good features to such a contract system, although the organization would have to vary according to local conditions. Perhaps it is time to get rid of the idea that a greenkeeper is simply another laborer at so many dollars per week or month and strive to effect arrangements whereby he is able, in addition to his fixed salary, to share in the economies which his management secures.

Good greens mean an increase in new members who are attracted by the fine playing conditions on

the course. The attraction of non-resident players is also becoming the financial salvation of many clubs.

Other types and extremes of organization are found also. There are small courses which do not have a greenkeeper in the true sense of the word. The Green chairman, usually a retired business man with some leisure, spends considerable time on the course and directs the labor. While the budget of such a course may show a very low labor cost, the best playing conditions are not apt to result.

GOLF COURSE MANAGEMENT

THE basic ideas which have revolutionized the steel industry were worked by Frederick Taylor of Philadelphia over a generation ago. He was virtually the founder of modern ideas of management in industry and practically all of the time studies and "speed up" methods which exist in every industry today were inspired by the astonishing results which he secured.

In later life he frequently said that there were several great duties of a manager. He must develop a science for each operation of work in place of tradition and rule of thumb. He must use care in the selection and development of workers. Furthermore, cooperation must be secured between laborer and employer in order to apply the correct method to the work. In addition, there must be proper supervision.

There is a similar situation in greenkeeping. There is a faster way to pull a weed, topdress a green, or route a fairway mower than most of us are using. A great many useful methods which would make for cheaper and quicker maintenance have never been collected and organized and must be learned from experience or from personal contact with the greenkeepers who are the leaders in their professions. At the points where greenkeeping touches the science of pathology, entomology, agrostology and a dozen others, much information is available. The whole subject is expanding so rapidly that textbooks on greenkeeping soon get out of date.

The men who have charge of the smaller golf courses have sometimes been too isolated to keep in touch with the best information in greenkeeping. The educational work of the various greenkeepers' organizations, the NATIONAL GREENKEEPER, the U. S. G. A. Green section, and the specialized short courses given at a number of the colleges undoubt-

edly is leading to great improvement in the average standard of golf course maintenance.

HANDLING LABOR IS IMPORTANT

VERY little has been said about the selection and handling of laborers, but the subject is worthy of consideration regardless of the size of the course. Machinery and golf turf are both too expensive to trust to any kind of worker, and possibly the higher type of laborer could be used with real economy. A different situation exists in every club.

Greenkeepers, like army officers or athletic coaches, differ widely in the methods which they use and in the response which they can get from their men. The occasional story of the greenkeeper who carries a field glass to observe workers in distant parts of the course may be a bit humorous, but only one who has handled laborers knows how much time a worker can waste. Definite working rules are useful in some cases, and often there is need for them in such matters as lost and broken tools and in the cleaning of machinery after use.

It will be more of a problem than ever to maintain a contented, interested and loyal working force after a series of pay cuts during these times. Yet it can be done. Men will work whole-heartedly under adverse conditions if they feel that they are treated fairly and that their efforts are appreciated.

Much of the responsibility for the working force rests on the greenkeeper. Usually he must be a hard worker himself if the others are to have the right attitude, and yet who has not seen the foreman who is so engrossed in the work he is doing at the moment that the labor force is wondering what to do half of the time. At any rate, he must have the ability to plan the work or much time will be lost.

IMPROVED MACHINERY HAS HELPED

IMPROVED machinery made it possible for some clubs to keep up normal maintenance last summer. Others practically abandoned topdressing and fertilization throughout the season. While the grass held up remarkably well, a day of reckoning will probably come if such a practice is continued during the coming year.

Radical changes in such operations as topdressing enabled certain clubs to get along fairly well in spite of a reduced labor force. Some clubs are handling topdressing soil in sacks, which eliminates some

Ornamenting House Grounds

By L. C. BREED

THE surroundings of the house can be made attractive by carrying out some of the following suggestions. Among the means of accomplishing this, the first step would be to have some small evergreen trees or shrubs not over six feet high, planted near the entrance to the grounds and continue them along the passageway to the house.

Three trellies should be placed on the house near the entrance to it. One of them could be used for clematis, which is a charming flower with other qualities to recommend it for the garden. It makes a good display when used on a trellis and flourishes under ordinary conditions.

The second trellis could be used for rose, which, besides its beauty, is an excellent climber and is a hardy flower. The third trellis could be used for wisteria. Among flowering vines, besides being attractive, it is found that these hardy vines will outgrow nearly all kinds of climbers. They will reach the second sometimes the third story of a house.

Placing window boxes on the house furnishes another pleasing feature and affords an opportunity to use several kinds of flowers.

If a pool is provided, some water lilies and other pool flowers will flourish. These flowers require but little care further than to see that the pool is kept clean.

A garden plot on the sunny side of the house could be used in which to grow flowers such as gladioli, dahlias, daffodils, petunias and other favorites.

Bird houses placed on poles add variety to the garden features. An additional novelty is bird baths. Some of them are made to look like a huge mushroom.

It is noticed that fruit trees furnish a striking contrast among other trees on account of the brilliant colors of their blooms. These are desirable for display, independent of their fruit.

There is a tree which recently has been introduced from China that is known as the "Hurry tree" on account of its rapid growth. This renders it very useful if wanted for shade in a short time.

Golf Course News

(Continued from page 9)

FROM THE SOUTH

By MERLE ZWEIFEL

THE Oklahoma A. & M. College of Stillwater, Oklahoma, is making an extensive study of grasses adaptable to golf courses and estates in Oklahoma. This program is being aided materially by the assistance of Prof. H. J. Harper of the Agronomy department.

Prof. Harper has been engaged in considerable research work with the bent grasses and at the present time is making a thorough study of brown patch and other fungi diseases that attack bent grass. He believes that within a short time he will be able to give the actual cause of brown patch and a complete explanation of the fungi family from which it originates.

Assisting him in the research are professors Roff and Henderson of the Botany and Entomology departments respectively.

WHEN the winter blizzards sweep down upon the state of Oklahoma it usually brings a thick blanket of snow which affords protection for Bermuda grass fairways and tees. But last winter seemed to be an exception.

During the month of February a severe cold wave brought icy winds and zero weather but no snow and although fairways throughout the state are beginning to show green, there are numerous ugly spots on most of the Bermuda fairways.

Nature leaves Bermuda in the fall with a thick coat of straw for protection but late fairway mowing forces the grass to go through the winter with no covering whatever.

PACIFIC COAST GOES ECONOMIC

By ARTHUR LANGTON

A SYMPOSIUM on how to maintain an eighteen-hole golf course with the assistance of three men or less could be compiled from the daily doings of a score or more Pacific coast greenkeepers.

What is astonishing is the fact that the layouts so short-handed are able to provide playing conditions of any kind, let alone of a quality sufficiently good enough to attract a few paying players. Yet a brave attempt is being made throughout the length of the Coast.

GREENKEEPERS themselves are attacking the situation with philosophic calm. As one expressed the situation, "It really doesn't make any difference, one man more or less, after you get below five. There is too much for everybody to do." Another voiced the hope that club officials would leave him with at least one man, because he wanted someone to talk to.

HERE seems to be a bright side, however. The less water that is applied, the less grass will grow to require cutting. And as more turf is neglected, there will be less to require either cutting or watering. This will narrow the fairways considerably, forcing players to improve the accuracy of their game. Thus everybody will be benefited.

But depression or no depression, on the Pacific Coast as elsewhere, the golf courses which are getting the play are those which are maintaining a high standard of course upkeep.

CANADIAN GOSSIP

By J. H. EVANS

WITH only the usual routine, superintendents of golf courses in eastern Canada were able to offer courses in excellent condition for golf by Good Friday.

A mild winter with little frost followed by a spring with no frost, warm weather and no rain were the factors which contributed to the fine condition of courses when golfers returned to them during the Easter vacation.

Practically every club was able to provide a permanent course before Good Friday, which is somewhat earlier than usual. In so doing, course superintendents

and greenkeepers carried out their annual task without a problem of any consequence.

WITH a trying season before them, greenkeepers were pleased that the season opened without presenting the possibility of unexpected expenditures to meet damage incurred during the winter months.

President W. J. Sansom of the Ontario Greenkeepers' association, expressed the opinion that none of the clubs would be involved in more than the ordinary expenditures this year and the hope that none would resort to economies other than those forced on them last year. He was satisfied that clubs realized the necessity of maintaining courses in a proper manner.

President Sansom further announced that the program for the association this year would be along the same lines as last year. Monthly meetings could commence in May and continue until the fall, possibly closing with a meeting at the Royal York course to observe the result of experiments with various types of grass.

Last season a successful gathering—the first of its kind—was held at the Royal York course with officials of the Royal Canadian Golf association and the Green section of the United States Golf association present.

Ten Years With a Turf Nursery

By GUY C. WEST, *Superintendent*

Fall River Country Club, Fall River, Mass.

TEN years ago the turf nursery was not thought to be necessary to the average golf club, but today there are few clubs which do not boast of at least a few square feet of sod which can be used for patching.

The various types and strains of bent grass which have been used in the past ten years are reflected in a ten-year history of our turf nurseries at the Fall River Country club. Such a history represents somewhat of an evolution, and is of interest to all interested in turf. The telling of this history must of necessity be somewhat personal, and I hope I may be pardoned for telling it in the first person singular.

When I assumed the duties of superintendent at the Fall River Country club in the late summer of 1922 there was no turf nursery. Following the vegetative planting of some new greens shortly after my arrival, I found that we had a bushel of grass left, and had it planted in an out-of-the-way place. This was the first turf nursery here, and the

grass, bought by the Green Committee for Rhode Island bent, proved to be a strain of a Seaside bent.

In the spring of 1923 I seeded about half an acre to Rhode Island bent, and it is significant that we used all of this sod in the next few years, mostly for fairway patching.

EXPERIMENTS WITH VELVET BENT

ALSO in 1923 I started experimenting with various strains of bent, mostly velvet, which I found growing in various parts of the course. These were grown in nursery rows and then planted in plots the year following. I have kept these year after year, discarding some as they proved undesirable for any reason, and now have but two of the original strains.

In 1924 the Green section recommended the Virginia strain of creeping bent highly, and I secured some of this, and worked with it considerably for a few years. It did not prove desirable with us, and hence was discarded a few years later.

In 1925 I received some samples of Washington

creeping bent and Acme velvet bent, and played with these for some years. I planted considerable Washington as the years rolled on, and had several thousand square feet of it for several years, transferring it to several greens. During this year I developed more fully one of the Fall River strains. This was a stoloniferous bent, similar to Flossmoor in color and texture, but better with us. I propagated this and used considerable for several years, but finally discarded it in 1930, as I felt then that there were other strains more desirable.

In 1926 we continued with the Fall River strains, planted a large area of Washington, and smaller areas of a few other strains. In 1927 I secured samples of several other strains, including Metropolitan, Flossmoor, Coocos, etc., and I experimented with these in plots side by side in the nursery. This work was continued in 1928.

KERNWOOD BENT WAS VERY SUCCESSFUL

BY 1929 the original strains of bent picked up around the course had been reduced to four, three velvets and one colonial, similar to Astoria. I secured in this year my first Kernwood velvet bent, with which we have done much since.

I planted an area to Prince Edward Island velvet bent from seed in 1930, continued in a larger way with the Kernwood velvet, and seeded a new area of fairway sod to a mixture of Colonial bent, Chewings fescue and red top.

For several years I had been using sod for plugging tees, from plots whose turf was not acceptable for greens, but about this time I started to plant yearly an area to be used for plugging tees. I have used various strains for this purpose, but have had the best results from Metropolitan with chewings fescue planted as the stolons are planted. Usually some annual blue grass seeds were put in, and this combination gives a very satisfactory sod for tee plugging.

Planting in 1931 consisted mostly of various strains of velvet for greens, and an area of Metropolitan fescue for tees. The Acme strain was definitely discarded after 1930, as a plot which I had had for several seasons had not done well. Plots of other strains not desired were disposed of by using the sod for fairway patching or tee plugging.

I secured a sod of the Green section numbered strain No. 14276 in the fall of 1931, propagated it,

and planted a plot in 1932, to add one more to the velvets already at hand. Practically all areas planted in 1932 were various velvets, and an area for tees.

This year completed ten years' work in the nursery, and a survey of that ten years' work and the results showed conclusively several things.

The first thing of importance was the great value of a turf nursery, not only as a means of growing sod for use on a golf course, but also as a place to experiment with various strains and types of grasses, and with various fertilizers and chemicals on these grasses.

Also shown to advantage was the undesirability of some species and strains, and the desirability of others. During this period some forty or fifty different species and strains were grown, subjected to close cutting, observation, etc., and many discarded. It is true that the results agree to a large extent with similar results at various turf plots here and there, but there have also been differences that show this work to have been well worthwhile.

The mixture of grasses to give a satisfactory tee sod was found by various experiments, and it is now possible to grow tee sod at little expense.

VELVET BENTS PROVE BEST

THE fact that the velvets are the most desirable strains for us in this climate was probably the most striking result of all the work carried on in the nurseries. The Kernwood strain has given me very satisfactory results for some five years now. It is a very desirable dark green, grows free from weeds, is a fast grower for a velvet, and has very little disease with me here. This last is different from results obtained elsewhere, as it has been found to be susceptible to small brown-patch, but easily controlled.

The strange and helpful thing found here has been the lack of brown-patch on this strain when other strains close at hand have been badly infected. As a direct result of finding the velvets best we are now devoting all our energies with velvet strains, and using nothing else with which to patch greens. The next few years will probably tell the story of which strain of velvet is best for us.

Our Fall River strains still need more work, and will prove of some value possibly. I still have areas of these two strains, and hope to continue with them. I fully expect too, from results obtained elsewhere, that I shall get good results from the No. 14276 strain when I have had more time with it.

Work with this strain will be interesting the next few years. An interesting characteristic noted this past winter was the deep purple shade in the cold weather.

EXPERIMENTS HALTED BY HARD TIMES

IF THESE times were bringing us more money for experimental work, I should like to experiment with some strains which can be detected in a planting I have of Prince Edward Island velvet bent, now some three years old. Some of these strains look promising, and might produce an interesting result. However, money is tight at present with most of us, and we must confine our nursery work to the essentials of growing the sod needed.

Herein lies another satisfaction, in that the experimenting through the years when there was money available has given us the knowledge of what to grow for success, and now that money is scarce, it costs little to have a fine nursery of desirable sod for use on greens and elsewhere.

I hope that this report of our nursery work has not sounded too expensive. Our average expenditure over the past five years has been under three hundred dollars, and this is not excessive when it is remembered that we have averaged nearly ten thousand square feet of sod in our nurseries in that time. In addition, the value of the knowledge gained from the nursery is of uncalculated worth to us.

Turf Conditions In Arizona

By PAUL ADDESSI, *Greenkeeper*

Arizona Biltmore Golf Course, Phoenix, Arizona

IHAVE just completed a very interesting soil test of the Arizona Biltmore golf course, which may prove to be of some help to the boys of this district.

Upon my arrival at this course a comparatively short time ago, I was led to believe that this land was all alkali in nature. At first sight I thought it was black alkali, but in taking soil tests I found it calcium chloride, a deliquescent salt, which absorbs moisture from the atmosphere keeping the surface soil moist and giving it a dark brown color which is often attributed to black alkali.

Black alkali is the most harmful of the alkali salts that I know of and land affected by it is very hard to reclaim. It can be reclaimed, however, by applications of gypsum or sulphur which is the best in leaching and removing the salts.

When gypsum or sulphur is used it will react with the carbonate and changes it to white alkali. After you have done this it is much easier to reclaim the land.

ARIZONA WATER IS ALKALINE

IT is true that our water to a certain extent is alkaline. Tests which have been made shows the water that we use from the canals to have a small amount of alkaline which isn't enough to be harmful, providing you have proper drainage.

I have found from my past experiences that proper drainage is the backbone of a good golf course, especially in stony loams or what is known here as caleccia.

This caleccia reminds me very much of volcanic slide. When you do not have proper drainage you will see

the effect of the alkali in the low places where irrigation water stands. When this water evaporates it leaves the alkali there and these salts gradually accumulate until the quantity is sufficient to become harmful.

Bermuda grass is commonly used for a summer turf and a variety of winter grasses is sown for the few winter months. This is an absolutely needless expenditure.

BERMUDA GRASS IS A NUISANCE

BERMUDA grass in my estimation is a nuisance on a golf course because it is a self-seeding and a creeping grass. It is very difficult to keep it out of the greens and sand traps. It is my opinion that fine-leaved fescue, hard fescue, sheep's fescue, Canada blue or any of the many varieties of grass which are resistant to cold and tolerant of heat can be successfully grown if the soil is properly conditioned and you have an efficient drainage system and you irrigate moderately.

It is generally believed here that poor soil and the extreme heat of the summer render it impossible to grow a year-round turf. It requires knowledge. Not only from a book, a magazine or college, but from years of practical experience to grow any turf. What I mean by turf is not a sprig of grass here and a bunch there. Any man can sow any variety of seed and if it has any chance whatsoever we all know that a certain per cent of the seed will germinate but that is only a start—not turf.

The climate and soil here perhaps do make it more difficult to grow a good year-round turf, but it does not make it impossible. It merely requires more than ever knowledge and experience.

Turf Culture News

TERRE HAUTE, IND.

Employees of the Indiana State Teachers' college building and ground force recently started the work of landscaping the site of the proposed new training school, formerly known as Heminway park.

The ground is to be rolled and planted with grass seed wherever needed. Trees for the most part will be left in the park by the city park board, which, when it sold the site to the teachers' college, received the right to remove any of the trees it wanted.

HOLLAND, MICH.

A 25 per cent reduction in the charges for annual maintenance of graves and plots in Pilgrim Home cemetery was authorized recently at a special meeting of the park and cemetery board.

Notices are to be sent to the 368 persons who arranged for the services last year. A total of \$2,300 was paid by various individuals, having from one to as many as 60 plots, for maintenance during the past year.

PHILADELPHIA, PA.

The valley of Mill Creek, termed the "Wissahickon of the Main Line," will be set aside as a township park if the planning committee of the township is successful in a project just announced.

William J. Serrill, president of the Community Health and Civic Association, in telling of the plan said the action was prompted by the recent sale of a large estate to a real estate development company.

JEFFERSON, IOWA

Paul Osgood was elected president of the Jefferson Country Club at its meeting recently at the court house. The other officers for the year are: vice president, W. S. Downs; secretary-treasurer, Dr. L. E. Smith; directors, E. G. Greham, Verne Miller, H. E. Smith, and Dr. J. K. Johnson.

HARVEY, N. D.

Charles H. Blanding was elected president of the Harvey Golf Club at a meeting held here. Other officers are Dr. Nines Simmons, vice president, and J. J. Reimer, secretary-treasurer. The board of directors in addition to the three officers are

Aloys Wartner, Rufus L. Bessel, Green committee chairman, and Dr. A. F. Ham-margren.

FORT MYERS, FLA.

Nat G. Walker was reelected president of the Fort Myers Golf and Country Club recently at the annual meeting of the membership held at the club house. James A. Franklin was elected vice president, succeeding Dr. C. M. Joyce. Donald Bellows was reelected secretary and treasurer.

MONTEVIDEO, MINN.

Election of officers and three members of the board of directors of the Monte-Sota Golf club took place at the annual meeting of the club members which was held in the Northern States club rooms. Three directors were reelected for terms of three years each, H. C. Eichorn, I. C. Cann and George Bullard.

H. C. Eichorn was reelected president, I. C. Cann, vice president, and A. T. Goeson, secretary.

AMBROSE, N. D.

G. P. Restvedt was elected president of the Ambrose golf club. Other officers are J. T. Nelson, secretary-treasurer; A. O. Grina and J. C. Korthal, membership committee. Plans for several tournaments were discussed.

TIFFIN, OHIO

Plans for the coming season at the Mohawk Country club were made by the board of governors at a meeting in the Chamber of Commerce rooms at Tiffin. A grounds committee composed of Clifford O. Hanson, Earl Bowe and Irving Glick, was named.

FORT WAYNE, IND.

To increase the safety of flying at the Paul Baer Municipal Airport and in response to desires of transport companies using the field, the municipal board of aviation at a special meeting voted to purchase an additional 80 acres of land adjoining the municipal field.

CHEHALIS, OREGON

Plans are under way for the building of a modern high school football field and

playground on the tract of school property west of Cascade grade school.

ROSEBURG, OREGON

Articles of incorporation have been filed here by O. M. Hult, Paul B. Hult and Gill Nordling, who have secured an option on Umpqua park, a beautiful grove on the South Umpqua river just outside the city limits.

They propose to develop the property as a recreational center, plans having been made for a golf course, swimming pool, tennis courts, athletic field and club house.

EPHRAIM, UTAH

Enlarging of the high school campus into a civic center and the securing of a city ordinance to make compulsory the planting of hardwood trees about town were taken up as projects by the local Lions' club recently.

The club favors joining with the city, school district, high school faculty and students and with other civic organizations in securing additional property to enlarge the school campus to allow the planting of trees, parking and construction of a standardized baseball diamond.

ROCKWELL, IOWA

Much activity has been taking place within the last few weeks in the city park under the direction of Dr. L. E. Eslick, park commissioner. The work has been done by the labor provided by the county work relief organization.

CHICAGO, ILL.

Agitation for a lake front airport to facilitate handling of both passengers and mail has been renewed in Chicago, with announcement of a joint landing field project sponsored by the Chicago Plan Commission and the United States government.

WHEELING, WEST VIRGINIA

Preparations for the opening of Wheeling park for the summer season are progressing rapidly. Manager Chris Hartman announced the nine-hole golf links may be opened within a few days, and Hartman and Bob Biery, professional at the municipal course, will confer on the setting of a definite date.

KENTLAND, ILL.

Dr. G. W. Ross, of Watseka, recently purchased 400 acres of the C. C. Kent estate adjoining the southeast corporation limits of Kentland.

HURON, S. D.

A crew of workmen is busy putting the Huron golf links in readiness for opening of the 1933 season. Under the supervision of Roy Daum, who has been named to manage the course, greens are being resanded and enlarged, sand traps groomed, fairways rolled and other details taken care of in preparation for the 1933 links campaign.

* * *

TONAWANDA, N. Y.

A resolution recognizing the newly-organized Sheridan Park golf course as the home course for the Town of Tonawanda was adopted at a meeting of the Tonawanda Town Board. Permission to arrange a dedication ceremony was granted the golf committee. The course will be opened May 13th.

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WILLIAMSPORT, PA.

Announcement has been made that George B. Richard, of Eagles Mere, has been named professional of the new Cannon Hole Golf club, located south of Montoursville along the Susquehanna river.

* * *

WARREN, OHIO

Work on the Trumbull C. C. golf course has been started and officials of the club believe that it will be in even better shape than last year when out-of-town players generally conceded the layout to be one of the best in this section.

Bill Alves, pro, will again be in charge of the course and golf shop. Alves made a big hit at the club last year, his first, and is expected to increase his popularity. He will also be available for instruction.

* * *

NILES, MICH.

Establishment of an amusement park and auto camp in the 20-acre wooded section of the municipal airport field is planned, according to announcement by C. Duke Muller, manager.

* * *

WHEELING, WEST VIRGINIA

Crews of men whose families are receiving relief from the city are now engaged in a program of beautifying the city. Last week quite a number were employed at Memorial park in South Bellaire and yesterday Director Sam Sherwood started another crew at the city park.

* * *

TOLEDO, OHIO

Work on the Grant Murray park has been begun at the New York Central

tract of land between Earl and Stillman streets and the railroad tracks, formerly known as Page field.

* * *

CHICAGO, ILL.

Brainerd, a Chicago suburb, is to have its long-sought recreational park. Final steps in that direction were taken recently when the city council authorized the city comptroller to accept the bid of the Ridge Park Commissioners for the property between 91st and 92nd Streets, Racine Avenue and Throop Street, a full city block.

* * *

LOS ANGELES, CALIF.

Members of the State Park Commission yesterday received a report from members of the Los Angeles Playground and Recreation Commission in support of a recommendation by the commission that the State purchase 4899 feet of private beach at Del Rey for park purposes.

Raymond E. Hoyt, superintendent of the playground department, and Charles S. Lamb, secretary of the Playground Commission, reported that the city is ready to turn over an adjoining strip of 3135 feet, to be combined with the strip proposed to be purchased.

* * *

BUFFALO, N. Y.

Provided Erie County acquires the necessary rights of way for the construction of a boulevard connecting the proposed new Grand Island bridges, and for a parkway on the West river side connecting the North and South island parks, New York state, through the State Council of Parks, is preparing to expend between \$8,000,000 and \$10,000,000 on Grand Island development over a five-year period, the Erie County Parks Commission was informed yesterday.

The information was contained in a communication from Robert Moses, president of the State Council of Parks.

* * *

LANSING, MICH.

James M. Anderson, Iron county Democrat, has been named superintendent of the Mackinac Island State park to succeed Clarence L. Lachance, it was announced by Roger Andrews of Menominee, president of the park commission.

* * *

YOUNGSTOWN, OHIO

The improvement of parks and playgrounds for a nearly opening for summer activity will begin soon with the employment of 75 "grocery order" workers on the reconditioning jobs, Park Commissioner Lionel Evans announced recently.

Fungol Is Economical



McClain Brothers company, 129 Second St., Canton, Ohio, report a big increase of greenkeepers' interest in the idea of operating putting greens on the more systematic schedule methods in connection with their product, Fungol.

Their products attracted a great deal of attention at the convention in Chicago, and many greenkeepers are studying the features of Fungol for this season's operation of their greens.

A great deal of enthusiasm has been shown in this product from its economical value and effectiveness, not only for prevention and treatment of brown patch but soil vermin as well.

This product, so the makers say, has been under severe usage and tests under varying conditions from one end of the country to the other and it seems to be meeting the ever-present demand everywhere for economy.

One of the most important features which McClain Brothers point out for Fungol is the extra large covering capacity.

It is understood that Fungol may be used at a cost as low as 55c per 1000 square feet each month, and that if this turf disinfectant is used during every month of the entire season it only costs 1/4c per square foot for the entire playing period.

The McClain Brothers laboratories recommend the usage of Fungol on a scheduled system of application, which they claim will be of great effectiveness in protecting golf courses against brown patch outbreaks and at the same time keep turf disinfection costs down to a very low level.

They report that best results from fungicides are always obtained when treatments are begun early and made regularly during April, May, June, July, August and September in order that fungus troubles may be prevented instead of waiting until disease hits the course and then using large drastic doses to cure the disease after the damage is done. McClain Brothers have worked out a very interesting set of schedules and charts for the guidance of greenkeepers which they will send to anyone free of charge upon request at the above address.

Market Place *and* Buyers' Guide

Where reputable manufacturers and dealers list and describe their products. Greenkeepers are requested to write the Market Place for any special information they desire about supplies or equipment.

Airport Drainage

Armco Culvert Mfrs. Association
Wendell P. Miller and Associates

Ant Control

Royal Products Company

Ball Washers

J. Oliver Johnson, Inc.
Worthington Mower Company
Ideal Power Lawn Mower Co.
G. B. Lewis Company

Ball Locators

Worthington Mower Company

Bent-Coos County State Sealed and Certified

J. M. McCullough's Sons Company
Seaside Bent Company

Bent Seed—Cocoos Creeping

Stumpp & Walter Company

Bent Seed—Prince Edward Island

J. M. McCullough's Sons Co.

Bent Stolons

Hubbard Nurseries
O. M. Scott & Sons Co.
Stumpp & Walter Co.
Ohio Humus Products Co.
Illinois Grass Co.
Hiram F. Godwin
Lyman Carrier

Bluegrass—Seed

J. G. Peppard Seed Company

Brown Patch Control

Stumpp & Walter Co.
J. Oliver Johnson, Inc.
Arthur D. Peterson
American Cyanamid Sales Co.
C. B. Dolge Company
McClain Bros. Co.
Arthur Boggs & Co.
Mallinckrodt Chemical Works

Charcoal

Cleveland Charcoal Supply Company
Wood Charcoal Research Bureau

Cocoos

Lyman Carrier
Stumpp & Walter Company

Compost Distributor

Toro Mfg. Company
The Root Mfg. Co.

Compost Mixer

Toro Mfg. Company
Royer Foundry & Machine Co.
Beardsley & Piper Company
Silver Mfg. Company
Kemp Mfg. Company

Compost Screen

Silver Mfg. Company

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Wendell P. Miller and Associates

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Toro Mfg. Company
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Ideal Power Lawn Mower Co.

Fairway Fertilizers

Synthetic Nitrogen Products Corp.
Armour Fertilizer Works

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Fairway Mower Blades

The Budd Mfg. Company

Fairway Mowers

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Toro Mfg. Company
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Worthington Mower Company
The F. & N. Lawn Mower Co.
National Mower Company

Fairway Tractors

International Harvester Co. of America

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Charles Evans, Jr., and Associates

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Peter Henderson & Co.
Arthur D. Peterson
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Lawn Equipment Corp.
T. W. Wood and Sons
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