



Restored green on the Los Angeles Country Club course after installation of new storm drain.

Drainage Eliminates Uninvited Los Angeles Hazard

WHILE a certain number of hazards are necessary in a golf course in the interest of a good game, prompt steps are usually taken to eliminate and guard against those improvised by the whims of nature to unfairly penalize shots, interfere with play and boost maintenance costs.

On the widely known "north course" of the Los Angeles C. C. the overflow of storm water caused a ravine which broke the sloping contour of the new sixth green.

A remedy for this condition called for a storm drain that would remove the excess water which caused the overflow with its accompanying damage. The situation also made it necessary to speed up the installation of this drain before additional damage was done.

In this case an effective, quickly placed remedy was found in the installation of 240 feet of 42-inch Armco corrugated iron pipe. Included in this length of pipe were two 45-degree elbows required by the changing direction of the flow line. A fill was then made until the slope of the ground over the pipe was continuous with that of the rest of the green.



It takes big shop facilities to keep the Louisville Park Board's equipment operating at peak efficiency, but it pays.

GREEN SECTION IN

Arlington session reveals financial needs of section

By B. R. LEACH

AUGUST 19th witnessed the gathering of the greenkeeping clan at Washington for the annual summer meeting of the United States Golf Association Green Section. A good crowd turned out for the occasion and was blessed by that rare event in Washington—a cool August day. The morning was spent in an intensive inspection of the green section experimental turf garden at Arlington Farms, the experimental grounds maintained by the government just on the edge of the city of Washington. Dr. Monteith and his associate, Mr. Welton did the honors and to those who knew the Doc in his more bashful days it is enough to say that the old boy has become very clever in piloting the crowd.

The experimental turf gardens at Arlington are intensely interesting to any one sufficiently familiar with the problems besetting those charged with the maintenance of fine turf in this country. In fact a visit to the gardens will net you information exactly in proportion to what you know about the fundamentals of turf management. If you don't know much you won't learn much, if you know your stuff you can learn a whole heap more.

The north end of the garden is laid

out in an extensive series of plats planted to practically every species and strain of grass which will do anything at all in the Washington climate. This layout came in for a great deal of inspection and comment.

Putt Test Explodes Old Notion.

During the course of the morning Monteith gave a demonstration of the machine devised for testing any given turf for its putting qualities. It consists essentially of a pendulum which swings with mechanical precision and hits the golf ball as would be the case with a legitimate putt on a green. The mechanical swing of the pendulum being the same in all cases the trueness of direction taken by the ball in its passage across the turf together with the distance traveled by the ball as indicative of the resistance offered by the turf all combine to say whether a given turf area is fast or slow. Monteith drew attention to the fact that there was a general impression among golfers that stolon bent greens offered greater resistance to the ball and were harder to putt on but with the aid of this mechanical putter he showed that up or down hill the ball went

(Continued on page 54)



Greenkeepers study the Arlington turf garden plats during the annual mid-summer meeting.

MID-SUMMER MEETS

Record attendance marks the first outdoor meet at Chicago

By HERB GRAFFIS

ALMOST 300 attended the first of the mid-summer meetings of the Green Section, inaugurated August 26, as an annual event to be held at the Mill Road Farm experimental station for the benefit of course maintenance in the central states. Greenkeepers from Illinois, Indiana, Wisconsin, Michigan, Missouri, Kentucky, Iowa and Ohio, and many chairmen from these states gave the new station an inspection, looked over A. D. Lasker's private golf course and played it. They had the work and aims of the national green section and the Chicago District green section presented to them by Dr. John Monteith, Jr., Kenneth Welton and C. M. Harrison of the U. S. G. A. Green Section and Guy Peters, chairman of the Chicago group.

Dr. Monteith opened the outdoor session by displaying several glass tubes in which various typical soils were contained. The bottoms of these tubes had been immersed in water. The demonstration vividly showed the slow movement of water in clay, the fast travel of water in sand, and the various performances of water in other soils. It was a simple and striking reminder of the necessity of varying watering practice according to the soils. Although the station at Mill Road Farm

has not been established long enough to be the source of any information that might be uniquely applicable to its section of the country, it has served to check many observations at Arlington, according to Monteith. He went over the various details of the layout with the crowd and dwelt especially on some of the plots of the same turf, cut to different lengths. Short cutting, so Monteith pointed out, affected fescue unfavorably, but did no damage to the bents. Harrison showed a very interesting array of root growth specimens to reveal the effect of short and long cutting.

Plan Snow Mold Tests

Arrangements are being made for conducting snow mold tests at Mill Road this winter, said Dr. Monteith. He also stated that seed tests were to be conducted on seeds of the same grasses, but from different sources. He emphasized that all grasses were getting an even start at the new station, so all possibility of erroneous conclusions due to varying initial conditions had been eliminated.

An exceedingly interesting demonstration of the putting machine was staged. It was shown that the various seeded and stolon greens varied but slightly in their



Some of the record crowd at the first Mill Road Farm meeting of the U. S. G. A. Green Section.

putting speed. To many of the visitors the tests with the old and new ball were most impressive. The larger and lighter ball goes nearly 7% farther on a level putt. On a slight down-hill slope it goes 18 inches farther than the present legal ball on approximately a 15-foot putt.

A Complete Laboratory

The Lasker golf course itself affords many opportunities of education in means and methods. Although the course is but two years old its condition would do great credit to that of clubs four times older. The greenkeepers who looked it over considered it a shining example of what could be done with money to spend correctly in the early stages rather than spread the same amount of money over a long period of years without ever attaining the shape the Lasker layout is in at the present time. Shining examples of what soil conditioning will do were evident to those who wandered into some of the heavy rough of the incoming nine. A few feet away from properly treated fairways in excellent condition, there was the untreated soil of the rough, cracked open wide enough to lose a caddie.

Lasker, starting his business career as a Texas newspaperman, became the head of one of the largest advertising agencies in the world, and the chairman of the U. S. Shipping Board by virtue of being able to show people how to get plenty for their money. It is his hope that the Green Section station to which he has given a ten year lease on his property, will function notably in the same respect. In talking informally with a group of greenkeepers he stressed the possibilities of maintenance savings as the result of conclusions arrived at by the Green Section's work at the station. He cited the greens at his own course as an example. As uniformly true putting surfaces these greens have

been put by Supt. Tregillus in condition that defies reasonable criticism. This work, however, on this particular strain, requires such a heavy maintenance expense that eventually the greens are due for replacement. Due to the great difficulty of correctly identifying the strains of bent the Lasker course didn't get what the buyer and seller both thought was being supplied and such errors as this have no place in any enterprise that calls for operation on a business basis, Lasker maintains.

So much publicity has been given the excellence and exclusiveness of the Lasker course that the Green Section visitors fairly mobbed in accepting the invitation to play it. Almost 50 foursomes competed for the prizes given by the U. S. G. A. Green Section. Contestants were in such a hurry to get going that in many cases the alignment of green-chairmen and greenkeepers was not registered on the scoreboard. This left a job for Alex Binnie, Alex Law and "Hap" Martin, in determining the winner of the chairman-greenkeepers prize.

Peters Pilots Dinners

The meeting concluded with a dinner at the new clubhouse of the Onwentsia club, with Guy Peters presiding as chairman. W. A. Alexander, one of the prime movers in the organization of the Green Section and a dean of green-chairmen, opened the evening session. Alexander dates back in mid-western golf far enough to have "fit the pesky redskins off the

land" on which now are some of the prize golf courses of the Chicago district. He commented on the fact that golf, thru governmental participation in Green Section activities, is the one popular sport that gets the government's financial help. He stated that golf had made American sport conscious



Kenneth Welton of the Green Section and C. A. Tregillus, superintendent of Mill Road Farm, demonstrate the green testing putting machine.

and paid high tribute to the pro and greenkeeper as vital factors in the continual growth of the game.

C. A. Tregillus, superintendent of the Mill Road Farm and formerly operating head of the Canadian Green Section, spoke briefly on the work at the Lasker course and experimental station. He told of the intention to tackle problems peculiar to the midwest. In telling of the turf garden construction he related that there was no tile under the experimental plots. Tregillus put in a lot of hard work in making the first outdoor meeting in central territory and to him and his chief, Lasker, thanks and credit was given in full measure.

Guy Peters suggested that the Green Section work on the problem of watering fairways without having the fairways go heavily into clover. He suggested that others make suggestions for Green Section work. The problem of too much clover on watered fairways was one that the St. Louis delegation, headed by Eberhard Anheuser and Walter Reed, shared with the Chicago bunch. Other troubles mentioned were dandelions, plantain, ants and gophers. The greenkeepers suggested that the Green Section go into the matter of proper cutting length further in carrying out the work mentioned by young Harrison of the Section during the morning demonstration.

Jack Patterson of Midlothian was called upon to tell of his experience with arsenate of lead and his testimony concerning the material for weed, grub and worm control in the Chicago district made many "believers." Jack also had some practical statements to offer on drainage, emphasizing the point that surface drainage on slopes wasn't sufficient if one wanted to get good turf at these locations; sub-surface drainage bringing water to the grass roots, was necessary.

Dr. Monteith dwelt upon the plans of the Green Section for sectionalizing its work so it would be eminently applicable to each location and showed what the Section was up against due to its limited funds. He cited the case of a Florida greenkeeper's complaint about the Section not doing enough in Florida. Each club member of the Green Section pays \$30 a year to the Section. In Florida there are 14 members (of which the complainant's club was not one). This made a total of \$420 a year from Florida, where the Green Section spent \$900 last year.

The citation was illuminating. Monteith told of some of the expenses of turf laboratory work and quickly disillusioned any who might have thought that an experimental station could be run properly on a shoestring.

Alex Binnie, president of the Midwest Greenkeepers' association announced that all visitors would be welcome at any of the Midwest's member courses the following day and in closing activities of a crowded session lauded John MacGregor, first president of the Midwest, for his work in stirring up the central states to a keen interest and effort in better golf course maintenance.

J. B. Buckner, Sprinkler Maker, Dies

FRESNO, Calif.—J. B. Buckner, sales manager of the Buckner Mfg. Co., which is headed by his father, died of heart failure August 12. Young Buckner was widely known by greenkeepers in all parts of the country, his likeable personality and knowledge of his business of golf course watering winning him a welcome everywhere.



J. B. Buckner

His passing at a time when he was coming into the rich years of his career is greatly lamented by his host of friends in the golf field.

Northeastern New York Pros Promote Glen Falls Open

GLEN FALLS (N. Y.) C. C. and the Northeastern New York P. G. A. will hold a 72 hole open event Sept. 16 and 17 at the Glen Falls course which is 200 miles north of New York City at the headwaters of the Hudson. Prize money to the extent of \$1,670 is offered, divided fifteen ways, with the winner taking \$500 and the last five \$20 apiece. Entry fee is \$5. Entries close Wednesday, Sept. 11, with Ben Lord, the Glen Falls pro.

LAST ACTS ON SEASON'S COURSE PROGRAM MAKE OR BREAK GREENKEEPER

By FRED W. SHERWOOD

Greenkeeper, Birmingham (Mich.) Golf Club

WITH the advent of late summer greenkeepers might take a little breathing space and a general survey of what work has been done since the season opened and what is to be done before the season closes.

To my mind this time is a very trying one for the greenkeeper. He may have, to a certain extent, caught up with the growth of grass. He has bare fairways and very little rough to speak of. He will also find that his greens don't produce the luxuriant crop of grass that has been forthcoming in the previous months. What with the scorching sun, the dry winds and lack of moisture golf courses are passing through a time where the grass has become exhausted.

The constant cutting, the tread of thousands of feet on the hard baked soil are conditions that have brought on a state of collapse. Being in this state it is only natural and quite feasible enough that greens and fairways are more liable to be inflicted with the ills and diseases that are common to all grasses. The constant cutting of grass impoverishes and so does copious watering, therefore it follows the more you take off in crop the more you have got to put on it to feed it.

I don't mean by that that one should resort too strongly to chemical compounds, which have a tendency to force, but rather that top dressings of good compost be used to stimulate and cover up plant life that has become thin. A doctor prescribes nourishment to a weakened and tired body, is it not logical that the same treatment applies to a weak and tired green.

Weeds Pick on Sick Greens

Crab grass generally honors us with its presence this month and an impoverished green will produce the finest crop of this pestilent weed. From now on greenkeepers will be planning or some may have already mapped out the work they contemplate doing in the fall. Pick out

the features of your work which are essential and features that will count for you when spring comes along.

Many of us may have a program that entails the construction of new greens, tees and traps, others that are on a course where there is no planning of new holes, etc., will be able to concentrate and prepare for spring; subject, of course, to conditions and also the budget.

I have known golf clubs where the greenkeeper mistakenly thinks as soon as the season finishes for golf likewise all work on the golf course must of a necessity finish, forgetting for the moment that there are such items as renovating greens and tees, resodding fairways and all places where the machines have scalped, picking out sunken drains, filling in hollow undulations where the machines can't cut. Fill up these spaces, spare your mowers and make the members happy. Take a fairway that has any of the defects so mentioned and it is really astounding what a gang from 6 to 12 men will accomplish in a day.

Advance Work Pays

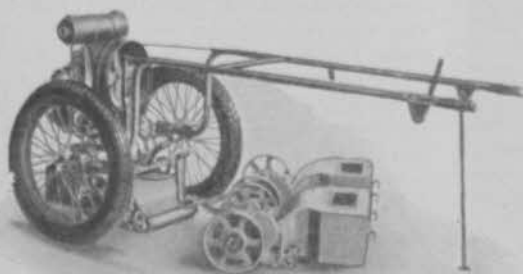
Another important item is the compost pile. It is advisable to have enough topdressing screened in the fall, before the heavy rains set in and put under cover in the dry. What a helpful item this is in the spring when you want an early start. Catch the dry days to do your screening, you can always turn your compost over when you can't screen.

A new compost pile may be started. It will always come in useful, no matter what it is made from, so that it decays and rots. Some greenkeepers use all their grass clippings in their compost pile. Other common ingredients that are used are manure, ammonium sulphate tankage, lime, etc., almost anything that will make a good soil. Greenkeepers I find have their own ideas on making a compost pile. If they get results that are good from their

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Illustrating the Worthington Lawn tractors, mowers and power green mowers at Winged Foot Golf Club where the National Open Golf Championship was recently held.



**Worthington "Overgreen" Tractor
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The "Overgreen" will cut an average green in 15 minutes. The most remarkable machine offered for reduction in golf maintenance since Worthington gave to the world the fairway gang mower. Light, efficient, 36" swath. Fully guaranteed.

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It is significant that Worthington Gang Mowers are used on more golf courses in the world than all other makes combined.

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methods they stick to them; results count a great deal in greenkeeping.

Care for Trees

Trees are another important item that ought to claim attention. It is a common saying of men and women, "I love trees." Beyond letting them grow, do they ever do anything else for them? I venture to say not much. These silent, stately landmarks of time that have been buffeted and blown by a thousand winds, whose limbs and branches have been battered and broken, ought to be given a helping hand, by removing all dead and decayed limbs. Help them grow, by pruning them. Some may need spraying. Feed them occasionally and the effect will be manifold. Fall is a good time to dig around shrubs and deciduous trees, replace all vacant places where there are dead trees and take plants out where overcrowded or congested.

It is not wise to leave all this work until spring, for the chances are with all the other work crowding on they will be neglected again and be forgotten.

Pathways from tees or over bunkers may need a little attention, bridges may need strengthening and shelter-houses may need repairing. Take in bird houses, signs and markers. There will be plenty of wet days later on when these can be cleaned and painted. Fences should be looked to in the fall. Roadways and drives can be fixed also.

Any greenkeeper will be able to find work up till Christmas for 2 or 3 men if given a free hand and possibly after that time he will still need a little help for he will have the cleaning and repairing of machinery, painting benches and scores of other little jobs will come along at all times which will need doing. Many of these jobs are never seen by the chairman or members of the Green Committee but they are vital to a properly maintained course.

Weed Control by Use of Iron Sulphate

By JOHN MAC GREGOR
Greenkeeper, Chicago Golf Club

THE subject of weed control by the use of iron sulphate has been discussed many times, and articles by me on this topic have appeared in GOLFDOM with special reference to the eradication of dandelions. A great many letters of inquiry

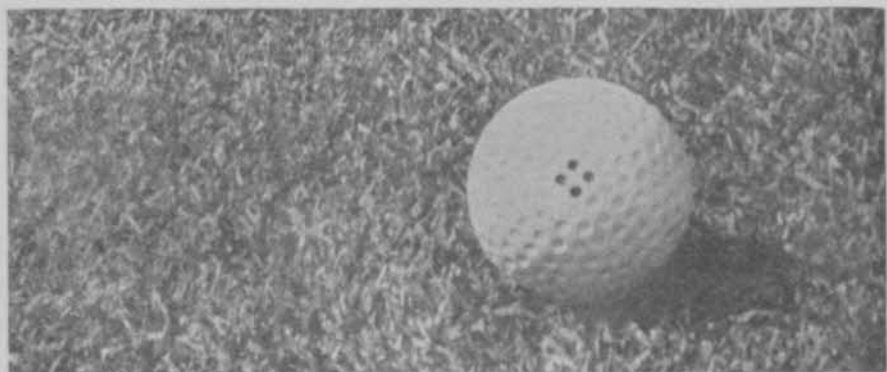
regarding eradication of dandelions I have answered. What success has been attained by those advised I do not know, as, I have never heard from them since. If, there are any with whom I have communicated I would be glad to hear from them. Someone may have hit on a better solution. If so, I would like to get in on it.

For the benefit of those who may not have read the articles previously printed; the dandelion was a rarity in this country a great many years before golf was much thought of, but an energetic truck gardener immigrated to this country from Italy and some time after he located, discovered the greens which his countrymen loved so much were very scarce. So he imported from Italy a few pounds of dandelion seed. I must say it must have been a reliable seed house he bought the seed of. The dandelion has become a curse especially to the golfer; it is almost impossible to find a golf ball among the white seed tops. Now we must find ways and means of destroying them, it seems an impossible task, but it is not; I have met with considerable success in combating them.

Washington was the first thought when we, (the Chicago G. C.) thought seriously of fighting the dandelion, so we wrote to the Department of Agriculture, and these are the instructions we received, "Copperas has been found to be the most effective means of eradicating dandelions, formula $1\frac{1}{2}$ pounds to one gallon of water, dissolve thoroughly and apply with a pressure sprayer 150 lbs." So we secured a power sprayer of 200 gal. capacity. Iron sulphate was secured. We commenced on the worst infested area. The morning after the application had been made we inspected the result and were disappointed. The iron had only caused rust spots to appear on the foliage.

But where the wheels of the sprayer had travelled the foliage was entirely black. This gave me the thought that the leaves must be bruised before the iron would penetrate. I had a chain drag which had been used during the construction of the course. This I attached behind the sprayer, and found this to be the correct method as the drag bruised the leaves and rubbed the material into the wounds; two hours after the application the entire area sprayed was black. I found it necessary to spray five consecutive times two weeks apart to destroy the entire plant.

The first copperas we bought was very



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coarse and hard to dissolve. We found later that we could buy granulated or sugar copperas which dissolved much more quickly.

Destroys Crab-grass

We started the eradication of the dandelion in August just when they commenced to flower. About this time crab-grass was fully matured and dropping its seed. We had one piece of rough in which the crab-grass had about taken possession. The chairman of the green committee and I had come to the conclusion that the best thing to do was plough and reseed. While spraying I decided to experiment and sprayed this area. It killed out the crab-grass entirely. We decided to wait until the following August to see whether or not the seed had been destroyed when the spraying was done. I never have seen crab-grass in that area since. I sprayed three fairways last fall where crab-grass had taken quite a hold. This year I find them clean. I feel quite elated, as, next to the dandelion, crab-grass is the worst weed we have to contend with.

Copperas will also destroy chickweed and the plantains. The broad-leaved plantain is harder to destroy than the narrow leaved as its leaves are tougher and leathery requiring successive sprayings the same as the dandelion. Iron sulphate also will destroy clover, and knot grass.

How Olympia Fields Runs Its Terrace Colony

(Continued from August Issue)

When today a member decides to build a cottage in the Terrace, he makes application to the Terrace Committee, submits plans for his cottage for approval, selects (in company with a member of the committee) a site, and receives from the club a license, which reads as follows:

OLYMPIA FIELDS COUNTRY CLUB LICENSE FOR HOUSE

OLYMPIA FIELDS COUNTRY CLUB, a corporation not for profit, hereby licenses and permits (Name of Member) to have the use of a space 307 square feet in that part of the grounds of said Club known and designated as Olympia Terrace for and during the year 1929, for the sole and only purpose of erecting not more than one house thereon, which house shall not exceed in size 368 square feet including porches, and shall not exceed in height one story; the location of said space for the erection of said house is subject to the ap-

proval and direction of the Olympia Terrace Committee of said Club; the cottage so constructed shall be occupied only by the owner thereof or his immediate family and shall not directly or indirectly be sublet to any other person or persons except by consent of the Olympia Terrace Committee.

This license terminates on the Thirty-first day of December, 1929, unless sooner terminated or revoked by the Board of Governors for any cause or reason which to them shall appear for the best interests of said Club. This license is not transferable for any cause except by the consent of the Olympia Terrace Committee, and upon termination for any cause the use of the space hereinafter mentioned shall revert to the said Club.

No automobile or motor vehicle shall be stored on said Olympia Terrace and no signs or names to be on houses. This license is given subject to all rules and regulations made or hereafter to be made governing the said Olympia Terrace.

Upon sale of membership, this license automatically is revoked. Within thirty days of such sale house and furniture shall be removed from Club premises, otherwise house and furniture will be removed and stored at owner's risk.

Dated this day of 1929.

OLYMPIA FIELDS COUNTRY CLUB.

By Manager.

At the same time, the member agrees to abide by the simple rules and regulations that the years have showed to be fair and equitable to all the cottagers. They are.

Entertaining in cottages prohibited after 10:00 p. m.

The Terrace must be a zone of quiet from 10:00 p. m. until 7:00 a. m.

All unnecessary lights shall be extinguished at 10:00 p. m.

Members and their guests are requested to speak quietly while going to and from and while in their cottages. Parents must see that children also obey these rules.

Clothes lines and washing not allowed in any part of the Terrace.

Dogs, cats or other pets not allowed on the grounds.

Cooking shall not be permitted and meals will not be served in cottages.

A charge will be made for all Club property taken to the cottages.

No hammocks in Terrace.

Toilet rooms must not be used as dressing rooms.

Parking of automobiles is not permitted.

A fire extinguisher of approved make must be located in each cottage in a readily accessible spot.

(Continued on page 62)