Crying Need of Drainage Answered on New Job By J. O. CAMPBELL

Greenkeeper, Wethersfield (Conn.) C. C.

W HEN I came to the Wethersfield (Conn.) C. C. March 1, 1928, the club had been in existence about 12 years without a greenkeeper.

The first problem was drainage. The members had never been able to play over a number of the fairways without rubber boots until late in the spring. Naturally they were anxious to see that condition changed as soon as possible. About half of our fairways are low and wet. There is still plenty to be done, but I have accomplished quite a bit which the members appreciate.

The lower half of No. 6, which leads down to our water hazard, was particularly bad. The chairman of the green committee and the writer started to walk over the course. When we came to No. 6 we found our galoshes were not high enough to keep our feet dry. We decided to start our drainage program right there.

This is the way I put in the drainage and it has been very satisfactory: We dug our main ditch 14 in. wide and 32 in. deep diagonally across the fairway running five laterals into it. In all there was about 500 ft. of ditch. We laid 4 in. glazed bell tile, with the bells against the drainage, covered the tile with burlap bags, then filled the ditch to within 6 in. of the ground level with 2-in. stone. We covered the stone entirely with burlap bags, then filled the ditch with top-soil which I had placed to one side for that purpose.

Old Job Went Bad

I find that in laying tile if the top-soil is placed over the stone one gets better drainage as this soil is much more porous than the soil brought up from a greater depth, and burlap bags prevent loose dirt from filtering into the tile. The glazed tile doesn't freeze and break as does the soft tile.

When I put my drainage across these fairways I found where the old drainage had been put in; 3-in. soft tile had been used. It was badly broken and filled with dirt. It takes 4 in. tile about 3 times as long to fill up as it does 3-in. tile and the cost is but a few cents more. We find our cost of drainage is running about 50 cents a foot, including labor and materials.

Running across No. 1 and No. 18 fair-

ways was an open ditch which provided drainage for approximately 20 acres. In these fairways we used 12-in. tile, 48 in. deep, for our main line, using stone and burlap bags as we did with the smaller tile.

Drainage Work Pays

On No. 2 fairway there was a wet weather spring, which was active until the first of This spring came out about 225 June. yards from the tee. I sank a small well 4 ft. square and 3 ft. deep in this spring, and filled it with stone. I then laid 4-in. tile down to my main drainage line which ran directly across the fairway, into an open ditch which extended across the rough, emptying into a deep swale. This swale gives me a permanent outlet for my drainage. No. 2 fairway was exceedingly wet all over, seepage coming down from the hillside to lower levels, where there was practically no grass. Now we have a good fairway and plenty of grass.

I filled up several open ditches which were about one ft. wide and one ft. deep, supposed to be used for drainage, but had not been successful. All golfers know that an open ditch on or along the side of a fairway is bad.

It is impossible to estimate the value of this work in dollars and cents, but there is always a smile on the members' faces when they play over these dry fairways which once were small ponds until late in the spring.

Dry Spell Kept Glen Oaks Greens Force Busy By ELMER F. AFFELDT

Greenkeeper, Glen Oaks G. & C. C., Great Neck, L. I.

THE year just past was none too good to us located on Long Island. It opened with a cold, wet spring, and ran into a very dry summer of long duration when the fairways looked as though they would never show a vestige of green again without plowing them up. With the fall rains even though they did come late, brought fairways back beyond expectation.

Those fairways, as well as spots on others, that did not respond as well as they should, were top-dressed with a compost of soil-sand-poultry manure, which was applied rather heavily and then were seeded. The fairways then were dragged with a piece of chain-link fencing 8 by 10 ft. which was hooked behind a light tractor. This left them pretty smooth with the cuppy spots



They get neat, quick results in sodding greens at Glen Oaks.

well filled in. The fairways then were rolled with a one-ton roller.

Work that was started early has shown good results so far and we hope the fairways will come around in good shape in the spring. Some of that done later has shown the results of the fertilization in the color of the grass, being very much greener at this time (Jan. 17). The seed, however, did not germinate at all, so that work, too, should come along well in the spring.

One of the accompanying pictures shows one of our home-made fairway watering units covering a surface 90 by 50 feet or more, depending on grades. Five of these units were kept going 16 hours a day during the drought. One new green was constructed and on the fourth week was ready for play, sod for same having been grown in the nursery for that purpose. Another picture herewith shows method we use in laying sod.

We are now busy overhauling the cutting equipment. We never send anything out to be serviced as by doing it at home we can keep at least some of our best men together to form the nucleus of a new crew in the spring. It is a costly practice to dispose of men that have been giving good service over a number of years and replace them every spring with green men at a time when called upon to do a great amount of work quickly.

Our method of handling mowers is as follows: first grind the reels, then hone them in with emery and oil, take them completely apart, then place the parts in a tank of very hot water (as near the boiling point as possible) to which has been added one pound of Oakite to every 10 gallons of water. This solution will remove every bit of grease and paint. We then paint the parts, using aluminum enamel for the reel and side frames and a green enamel for the tie rods and wheels. Fairway units are painted solid color in a battleship grey. When dry, mowers are assembled and adjusted. By this method we never have any trouble during the cutting



"This makeshift fairway watering outfit at Glen Oaks is one of the drought desperation measures that the on-rush of fairway watering installations will eliminate.

season. Machines purchased five years ago are still in good shape and giving perfect service. Of course it is understood that worn parts are replaced as we go along with our operation.

After the mowers are done we service as much of the larger equipment as we have time with the help allowed us, working on trucks, tractors, benches, tee-stands, flag-poles, etc. In this way we keep the cost of replacements at a minimum.

Late Evening Scouting Spots Brown Patch

By F. J. ROTH Greenkeeper, Plainfield (N. J.) C. C.

I CONSIDER the best work I did last season was the control of large brown patch. I have been able to do this by consistent close observation and have reached the point where I can see it coming almost the day before it actually forms distinct rings. That is the time I have gotten after it this year and won out with very good success. I have always on hand one 50-gal. barrel and a dozen 12-qt. sprinkling cans which we take from green to green in a Ford with a pick-up body.

I start my men on the greens affected regardless of other work to be done. Of course this means being on the job early and late when the weather conditions are right for the fungus to develop. We look over the greens morning and evenings. By evening I don't mean 4:30 but 7 or 8 o'clock in the evening so that we can get the jump on brown-patch early next morning if necessary. A greenkeeper's job is not a union job so our hours mean just as long, as late and as early as the work demands.

Hoosier Greenkeepers Double Membership First Year

A^T the end of the first year of the organization had doubled its charter roster, with prospects bright for a further increase in 1930. The boys were able to point out a very definite achievement in raising the standard of Indiana course maintenance by lively exchange of information.

Victor George, the husky and able greenkeeper of the Country club of Lafayette, was again elected president of the organization. Other officials elected: Ed Updegraff, Indianapolis C. C., first vice-

Albert Esterline. president: Delaware C. C., Muncie, second vice-president; George Hawkins, Avalon C. C., Indianapolis, treasurer: Carl Bretzlaff, Meridian Hills C. C., Indianapolis, secretary, Bretzlaff had returned from a trip to southern California just prior to the Hoosier annual meeting, and told of his observation of California maintenance methods. The next meeting of the Indiana association will be held during the Louisville national greenkeepers' meeting. A joint session then will be held with Kentucky greenkeepers, who will be invited to join the Indiana association.

Midwest Greenkeepers Elect Bezek New President

MATT BEZEK of the Beverly C. C. was elected president of the Midwest Greenkeepers' Association at that body's annual meeting held Jan. 13 at Chicago. Peter Stewart, Lake Shore C. C., was elected first vice president; John Mac-Gregor, Chicago Golf, second vice president; Fred Kruger, Olympia Fields C. C., treasurer, and A. L. Brandon, St. Charles C. C., secretary.

The organization has sent a letter to every green-chairman in Illinois, enclosing a copy of the program for the Louisville convention and asking that the greenchairman arrange for his greenkeeper's attendance at the national meeting as a proper item in the annual course upkeep cost. All members of the Midwest association also were written soliciting their attendance at the convention.

Sorry Boys, Somebody Looked Up on the Shot

I N the L. A. Young January GOLFDOM advertisement there was one of those boners that make the printers and publishers reflect on each other's geneology. Al Collins was the pro who favorably mentioned the "timely suggestions of your representative, G. F. Goyette," but a twist of the type put the paragraph over Ed White's signature.

When you clean out that waterhole of yours, do you save the muck, leaves, etc., which you drag out, and compost it? Mixed with lime, manure, and sand, in different quantities according to the nature of your material, it will produce compost for your course.—N. E. Greenkeepers' Newsletter.