an application about once a week with Nu-Green and have had very satisfactory results.

Have had more crab grass this year, especially in my grass greens than I have ever had before. The worms did not bother me very much as I brush or pole my greens every day during the playing season.

Here is the way I have handled my new greens that I put in a year ago. My greens are all very large and well undulated, tiled, and have a top of five inches peat and loam mixed and will average six thousand square feet; have two that have eight thousand square feet. On these greens before putting on stolons I worked into the top soil five pounds of arsenate of lead and five pounds of sulphate of ammonia to each thousand square feet. After the bent was started I followed up with one hundred pounds of Armour's fertilizer to a green and just before it froze up I topdressed them about onehalf inch and in the spring they came out in fine shape.

The process that I went through at this time was raking lightly with bamboo rakes once a week and topdressing with fifty percent peat and fifty percent sand once a week and mowing every other day until the greens were covered over. My object in brushing was to get the bent standing on end so as to topdress full and level.

My greens were playable on Decoration Day, but don't think they were perfect as they were not; as you will not get a perfect putting surface in a day or a week, but I had a great many comments on how well my greens looked.

On the last nine holes I put in, I closed the second nine on the ninth day of September and in ten and one-half days I was through with seeding and my greens are all growing fine so that you are able to see the bent all over the greens. Of course they require a lot of watering and I do all of my watering in mid-day now on account of the cool weather and frosts.

I am now building a practice putting green and am lengthening one hole and building a tee, so you see I have had a very busy season as the better you can satisfy your members the better it is for you. I find that the better results you can show the more money the club will give you to use for maintenance. Our budget was \$1200.00 and we are going to stay within the limit. I operate my course with eight men.

This is the first letter I have ever written to the National Greenkeeper and if any fellowgreenkeeper has any criticism to offer I will be very glad to hear it. I hope to see you at the National Convention at Louisville.

> Red Top for Winter Greens By HUGH C. MOORE, Pro-Greenkeeper Saint Simons Island, Georgia



I AM not bothered much with brown patch. I have a light touch of it each winter in my red top which I use for winter greens. I use 1 lb. of Semesan to 50 gallons of water, fifty gallons to each 1,000 square feet. On some greens I sprinkle in various places with a watering pot and have splendid results.

I've had a considerable lot of weeds. Most all new courses do. For the greens and

HUGH C. MOORE

tees I keep one man after weeds and crab grass also using Carbon Bi-Sulphide with a funnel to kill the Porto Rican Cricket Mole and for these moles on the fairways I use lead arsenate.

Have put in twenty seven new traps in the past four months. I will revet these traps this coming winter to keep the face from crumbling in after heavy rains. I also built one new green and this work was a very tedious job owing to the fact that I couldn't use a sod cutter, I had to take the sod off of the old green by hand and replace it the same way owing to condition of sandy soil. This kind of soil is very hard to maintain good turf especially through the fairways. You also have to be very careful when you fertilize because if you should get a hard rain right after, more than likely the fertilizer would be washed below the roots. In the past six months I have built a very picturesque lake, leaving a beautiful oak on a little island in the center of the lake. We also have four swans which add to the beauty of this lake. At one time this was an alligator pond and nearby was a place for dipping cattle. So you will see that a beauty spot can be made from an unsightly muddy pond. The dirt taken from this lake was used to build a very pretty practice green at a very small cost. I used a drag line for this work.

I am also top-dressing, fertilizing and putting in my winter seed using 200 lbs. of Milorganite to each green. My winter greens will be red top which I've had wonderful results with in the past two winters.

## Caring for Municipal Courses

By A. G. MCKAY, Greenkeeper Louisville, Kentucky

I HAVE charge of three golf courses here, Cherokee, Shawnee and Crescent Hills and have forty-five greens under my care. The brown patch has been very light here this year, I suppose owing to the dry season. I have had a great deal of crab grass on the Cherokee course in the greens that are in bluegrass, but not bothered with it very much on the bent greens.

Worms were bad on the Crescent Hills course during August and September, mostly grubs. I gave the greens a liberal dose of arsenate of lead about thirty pounds to a green and they have disappeared.

I have done a lot of new work this year, as Shawnee is a new course. I laid a complete water line and also built eighteen new greens and planted them to Washington bent. I have also built a great many traps, as Shawnee is a flat course, but I believe a very interesting one as it lays along the river. We also built a nice new clubhouse which was opened about the end of June and we have used temporary greens all summer.

The play has been heavy; some days we had over three hundred players. Next year I expect Shawnee to be the most popular municipal course around Louisville and I trust you will take time to look over Shawnee when at the Convention. I also hope to make your acquaintance there. I have also built six new greens at Cherokee and one at Crescent Hills. At Cherokee I have twelve greens in bent and have other six to remodel and plant to bent next year as the funds would not permit me to build more this year. So I have built twenty-five new greens and laid a pipe line which I consider enough new work for one year along with looking after the other greens and courses.

Our dues are very cheap here. We charge for women and boys during week days twenty-five cents up to twelve noon and fifty cents a day for men. On Saturdays, Sundays and holidays fifty cents a round or one dollar a day for everyone. We also sell tickets for the year at twenty dollars each which entitles the holder to the use of the three courses.

We have taken in \$31,000 this year which is the most that the courses have ever taken in in Louisville. I expect a bigger year next year as Shawnee will be in good condition. I was appointed supervisor of the city courses a year past and my aim is to improve and make them better.

While writing I will tell you something about myself. I am Scotch and came to America seven years ago and held positions as professional for over two years, then I went in for building golf courses and built two in Rhode Island, from there I went to Audubon, here in Kentucky and from there to the city work. I have been in Louisville three years and hope to be many more. I learned greenkeeping and pro business in Scotland, in Aberdeen where the Jews starve to death.

## Uses Very Little Fungicide

By ALEX MCWHINNIE, Greenkeeper Morrison Country Club, Morrison, Ill.

 $\mathbf{O}^{\text{NE}}$  year ago we were reading and talking of the year just closing (1928), as be-

ing a brown patch year. Very few greens escaped it. The attacks were so severe and came with such frequency that it seemed at times that the use of fungicides was a waste of money.

If the weather conditions during the year just closing (1929), had been as unfavorable as in 1928, then those of us who took our greens through this year in good shape would know with more certainty whether the re-