

to putting greens, and in any case it must be used with extreme care; he mentioned, moreover, that at Washington he regarded *Poa annua* as an asset, calling attention to the fact that it made beautiful greens in the early spring and then afterwards gradually disappeared for the balance of the season.

Mr. Sargent suggested that the liberal use of peat and manure might have a tendency to facilitate the spread of brown-patch. Dr. T. J. McClenahan, of the Washington Golf and Country Club, Rosslyn, Va., reported that there are greens on his course which have never had applications of these materials and yet are badly ravaged by the disease.

The lack of sufficient rolling of turf was then mentioned. Prof. Piper called attention to the fact that although only a few years ago there was a tendency to roll too heavily, there has since been a reaction and the tendency now is probably to roll too lightly. Mr. James L. Taylor, of the Ekwanok Country Club, Manchester, Vermont, stated that they practice heavy rolling on their sandy soils, but light rolling on the clay soils. If heavy rolling is not done, the sandy soils swell up very unevenly. They also spike the turf to facilitate aeration. Prof. Piper stated that agronomic experiments indicate that where there is satisfactory drainage soils are sufficiently aerated for the growth of roots without recourse to spiking.

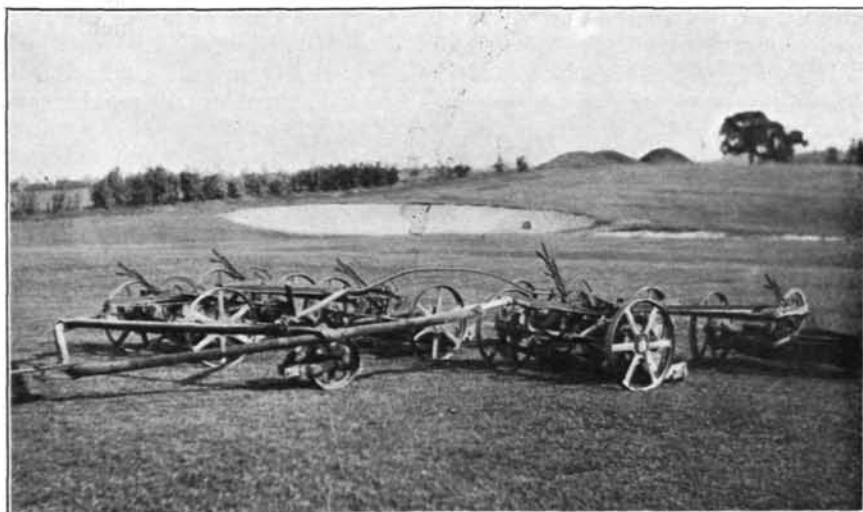
At the close of the meeting the Chairman announced that the regular meeting of the Green Section and its delegates would be held some time next winter, at the same time as the annual meeting of the U. S. Golf Association.

A buffet luncheon was served through the kindness of the Golf Association.

Improvising a Mowing Machine

W. C. FERGUSON, *Glen Echo Country Club, Normandy, Mo.*

Horse-drawn mowing machines only were used for mowing fairways around St. Louis until last fall. As Grounds Committee for Glen Echo Country Club, we felt the need of machinery which was more reliable during hot weather and which after a prolonged spell of rainy weather and intensive growth would be able to get the fairways in shape more rapidly. With this object in view we looked over the machines on the market which would accomplish this purpose. Our first consideration was to get a machine which would not damage the course by packing or by tearing up the turf on the hillside during wet weather. The next quality we desired in the machine was reliability, for any equipment which could not be depended upon to "stay on the job" would be worse than a nuisance. Some of our members during trips looked over equipment being used on other courses, and while some of these outfits appeared to be doing satisfactory work they were all of very recent origin and insufficiently tested. We therefore decided to try out a well-known commercial tractor which we judged furnished the element of reliability, believing that if the treads of the wheels could be modified so as not to injure the turf it would likely be the best proposition available. It had the advantage of allowing us to use our two sets of triplexes, and the entire outlay would not exceed more than one-half of what was asked by some concerns for a complete mowing



Two triplex mowers connected to the tractor with tubular hitch. Glen Echo Country Club

outfit. The dealer was very glad to test his machine on our course for a month or six weeks.

We cut the flange off each back wheel and had a flat rim 8 inches wide put on the front wheels, as the radial rim of these front wheels could not be taken off. We first tried running without any cleats on the back wheels, but we found that slipping on dry spots were very objectionable. We then wound rope around the back wheels and found that in going up hills the rope would "yank" out the turf. We then tried putting cleats diag-



Tractor used at the Glen Echo Country Club. Note the altered front wheel and spiked rear wheel

onally across the wheels, but noticed the marks of these cleats on the fairways. Someone then suggested that we use spikes on the back wheels. We had these spikes made at the blacksmith's and put on the back wheels. They are bolted into the rivet holes that originally held the diagonal cleats. This arrangement has worked perfectly. We can get over the entire course in about two days. The outfit travels at the rate of about eight miles an hour, and has not been out of service more than a day for the entire year. We had a tubular hitch-belt after first trying one out which was built of wood to see that we had properly spaced the two triplexes which it had to pull.

There was at first some question as to whether the tractor, which weighs about 2,700 pounds, would crush down the grass on the fairways and rough, thus preventing the mowers from cutting it. We would say that we have never had any evidence of this trouble either in wet or dry weather. In fact, the wheels of the mowers leave the only tracks discernible behind the cutting outfit. This at first seemed strange to us, until we sat down and figured out the actual weight per square inch put upon the ground by the tractor and the mowing units. We were much surprised to find that the mowers put a greater load upon the turf than did the 2,700-pound tractor.

We are not in the tractor business ourselves, so having nothing to gain out of any compliments paid to the tractor we selected, but certainly we have received full value for the money expended in this machine, and any golf club that uses horses and would like to find a tractor to replace them would make no mistake in rigging up an outfit such as we have.*

BURNING THE ROUGH

Referring to the note on this subject on page 24 of No. 2 of this volume of THE BULLETIN, Mr. Charles P. Crowe, greenkeeper, Hermitage Country Club, Richmond, Va., has the following criticism to make:

"In THE BULLETIN of the Green Section for February 23, you say in what appears to be an editorial paragraph on page 24, 'it is quite probable that burning at least once in two years is helpful.' This statement will injure greenkeepers, especially in the South, where humus is so rapidly used up that turf maintenance is difficult. If none but us greenkeepers read the statement, less harm might result; but club members see or hear of it, and so are encouraged to set fire to any patch of grass or weeds that might baffle their way. I learned as a professor in an agricultural college to 'thank God for a good crop of weeds' after a crop was taken from a fertile patch. By mowing them and raking up all coarse material for the compost pile, all land can be kept nearer self-supporting. 'Burning the rough' is a crime of southern farmers, and I would be glad to see further articles about it in THE BULLETIN. Of course, I understand that there are times when I might gain something by burning a patch of rough, but insist in nearly every case (if not all) that the best way is to mow and hoe and rake and haul the stuff from where you don't want it to where you do."

* There are now available on the market a number of tractors designed or modified for use on golf courses. The relative merits of each can be determined only through extensive comparative trials by competent judges. In the meantime the favorable or unfavorable experiences of the golf clubs will furnish data of interest to all.