

Houston, Texas; Southington Country Club, Southington, Conn.; Dedham Country and Polo Club, Dedham, Mass.; Sequoyah Country Club, Oakland, Calif.; York Country Club, York Village, Maine; Manufacturers' Country Club, Oreland, Pa.; Williamsport Country Club, Williamsport, Pa.; Humboldt Golf and Country Club, Eureka, Calif.; Hyde Manor Golf Club, Sudbury, Vt.; Milburn Country Club, Baldwin, N. Y.; Tumble Brook Country Club, Hartford, Conn.; Spartanburg Country Club, Spartanburg, S. C.; Augusta Country Club, Augusta, Ga.; Waseca Lakeside Club, Waseca, Minn.

OPERATING A NINE-HOLE COURSE WITH FIVE MEN.—I have not seen any discussion in THE BULLETIN as to the number of men required to operate a 9 or an 18-hole golf course, keeping the course in fair condition, and not throwing money away like water as appears to be done by the majority of clubs. I have found that we can operate our 9-hole golf course with a greenkeeper and four other men. One of these men is an all-round mechanic who likes to work out of doors in the summer. I figure that one man can take care of three greens and tees easily, including the weeding. Another man drives the tractor, which requires only two days a week, leaving him available also to drive our truck and cut the rough. The rough is cut on the average not oftener than once every two months. The cutting is done with a bar mowing attachment fitted to the tractor. This leaves the man also plenty of time to haul compost to the greens and run our manure grinder and pulverizing machine used in making compost. During seasons of the year when the grass is not growing rapidly, this man's time is devoted to the improving of bad spots on the fairways and rough, as well as to miscellaneous work which is always turning up on a golf course. We have found that with 5 men the labor charges against the course run between \$4,000 and \$5,000, depending on the length of the playing season. We are adding 9 holes to our course and building them with our own tractors and men. We have had some tough propositions to overcome, but it looks as if we would build these new 9 holes for about \$30,000, which covers also the cost of the equipment bought to build the holes and maintain the course after it is finished.—*W. R. Hurd, 2d, United Shoe Machinery Athletic Association, Beverly, Mass.*

### Brown-Patch Investigation

By R. A. Oakley<sup>1</sup>

Possibly it would be well first to outline a sort of background upon which to sketch this subject of brown-patch and its control. I have reference now to the disease we call the large brown-patch. As many of us know, there are two kinds of brown-patch. We have designated them the large brown-patch and the small brown-patch. But more about this later. For the present when brown-patch is mentioned, the large kind is meant unless otherwise specified.

Some of us may not be entirely familiar with the history of the disease, or, in fact, with a demonstration of its destructive manifestations. Therefore I will give briefly something of its history.

In 1914 the late Fred W. Taylor, well known for his experiments with putting greens and putting green grasses, called Dr. Piper's attention to a condition that obtained on the lawn at his home in Chestnut Hill.

<sup>1</sup> In this article Dr. Oakley presents in substance his address delivered before the annual meeting of the Green Section in New York City January 5, 1924.