

# BLAMES SPIDER AS CAUSE OF Brown Patch Studied by Doctor —HANDLED LIKE SICK MAN

By W. Frank Beck, M. D.

IN looking over many golf courses, I find the name *brown patch* is misleading. Those who are in charge of the maintenance are too liable to call everything that is brown or looks brown, brown patch. It should be named grass blight, the same as potato blight. They are, indeed, very similar in character. The experiment about which I am writing has extended over a period of two years, entailing much labor and hardships.

## Cause

In this article I am considering only two conditions, the cause and the treatment of brown patch. I like to consider and look upon greens as the human body subject to various bacterial and infectious diseases. Bacteria causing brown patch first come from a small black spider about the size of a pin-head. It is very shy and in its rapid motion is not exceeded by any creature. The bacteria first appears on the tiny web that this spider spins. No doubt it comes from the inside of the spider. When the dew forms on this tiny web and the climatic conditions are just right for its growth and development, it will then colonize on the dew. This always occurs at night or very early in the morning.

At this stage the disease is extremely contagious. It is blown by the wind or carried by the feet of birds to other places on the green. But wherever it forms it always retains its original concentric formation. As soon as the sun or early light strikes this formation the bacteria die and break down very rapidly, producing a deadly ptomaine. This scalds the grass, turning it brown and we have now, for the first time, true brown patch, which is dead bacteria and broken down vegetable matter forming vegetable pus. Generally, we speak of pus as dead

bacterial matter and as destroyed flesh.

At this stage it is not contagious nor can it be carried to other sections. Before the death of the bacteria, I had been able to produce brown patch in all kinds of grasses and in all kinds of shapes. In one place I produced it in the shape of a moon, quarter full, by cutting out the center and walling it off with strips of glass before the bacteria died. The attack of brown patch will vary in degree just the same as a disease of the human system.

For example, one member of a family may take typhoid extremely hard while another case in the same family and under the same conditions will be quite all right, depending upon the strength of the bacteria on the one side and the resisting forces on the other. Sometimes brown patch will be so severe that it will kill every blade of grass, while at other times it will be only slightly brown.

I wish here to bring out a very important fact: brown patch depends on a specific bacteria and a climatic condition suitable for its growth. The type of soil, the kind of fertilizer used and the variety of grass has nothing whatever to do with its growth. If a certain kind of grass seems more subject to it, it is only because the condition of the turf affords a more comfortable and suitable home. The same might be said of many diseases of the body, such as diphtheria which ordinarily forms in the throat, yet I have seen it in the eyes, nose, and other parts of the body.

## Treatment

We must treat this disease just the same as an infectious disease of the human system. When brown patch breaks out, the whole green is sick or is affected in some way even though in certain portions of the green it is not noticeable. For that reason I am strong in the belief

A physician who is intensely interested in course maintenance advances the accompanying theory of brown-patch origin and treatment. GOLFDOM offers his opinions and observations, not by way of endorsing them, but for the comment of other students.

that we must use the same heroic means that we would in treating diseases of the human body. I am more positive than ever that all cases of brown patch can be prevented. My long investigations have led me to the belief that there are only two forms of treatment that should be used. The first I wish to mention is whipping the greens. If one could whip a green one hundred per cent perfect before the light or sun touches it, it is my opinion that this would be one of the most effective ways of preventing brown patch. One learns a great deal about a green when in the act of whipping. It is very much like placing the finger on the pulse of a sick person. The character of a pulse, although it is indescribable, tells the learned physician whether the patient will live or die; so will the rod in the hands of the experienced operator give him the same thrill and the same information.

### Chemicals

I am not recommending any particular preparation for the treatment of brown patch; I wish merely to mention some of the chemicals which I used in my investigation. Any strong poison or antiseptic that will not destroy the grass will be effective. My early investigations were carried on with a solution of bi-chloride. I had not gone very far until I found that it broke down the vegetable cells so rapidly that on a fine turf I would not recommend its use. In many of my experiments I used semesan. I am now positive that such a preparation will prevent the development of brown patch if 1 lb. is used in solution on a small green and 2 lbs. on large greens, spraying the green every 9 days, starting two weeks before the brown patch season and always using a good force pump.

You will notice that I am very strong on the preventive treatment of brown patch. I am sure that the future treatment will be to keep the green always under the influence of a strong antiseptic.

## Municipal Golf Pays in Grand Rapids

OPERATION of public golf courses by the local government authorities is accepted today in Grand Rapids, Mich., as a matter of course. It is not uncommon

for more than 1,300 rounds of golf to be played on the four municipal courses in one day. These courses are not only self-supporting; they are operated at a profit to the city.

In 1924, the Department of Public Welfare, seeking to demonstrate its contention that the time had come for active, rather than passive, recreation, opened a nine-hole course experimentally at John Ball Park. Interest in municipal golf from that time on was rapid and sustained.

At a nominal fee of 15 cents per round, or two rounds for 25 cents, the course was self-supporting from the start, and last season, on an income of \$6,685, it produced a profit of \$2,189, 35,375 rounds being played by 23,839 patrons.

Following the success of this demonstration, the late Charles R. Sligh gave the city a long-time lease of 67 acres in the northern section, and advanced \$9,500 toward its improvement as a second course. This course has a total length of 5,066 yards, par 66. On a fee of 50 cents per round, 35 cents for nine holes, or 75 cents for a day's play, it showed a profit of \$8,233 in the 215 days of permitted play last season. The season's receipts were \$22,834, and maintenance, \$14,601.

In 1928 the Indian Trails municipal golf course was completed and opened on a 100-acre section of Woodlawn Cemetery property that will not be needed for cemetery purposes for a number of years. Although opened late in the season, it showed an operating profit for its first year of \$3,390. A second small course, opened this year at Highland Park, has not entirely met the demand.—*American City.*

IT MIGHT be said that the "natural" school of architecture means that the original topography is disturbed as little as possible, and where such is necessary, the actual work is disguised as much as lies within the art and skill of the designer and constructor to look as if the work had been done by nature herself. Needless to say, working along these lines leaves a memorial pleasing to the eye of the golfer and gratifying for the green-keeper. Freakish mounds and greens of extraordinary originality are hard to keep up and really give little satisfaction in proportion to their cost. In my opinion, they rarely conform with what might be called ideal golfing holes.—*C. A. Tregillus.*