

to six days unless washed off by rains or sprinkling, and when dry does not come off on golf balls. The fungicide effect of the coloring material is temporary and will not take the place of the commonly used mercury treatments for dollar-spot.

Monteith also set forth hope of the Green Section that research in chemical control of weeds would soon reach the point where the Section would feel safe in recommending chemical treatment under certain conditions. He reported that bents were sometimes adversely affected by the chemical controls with which experiments had been conducted, but that bluegrass had shown a fairly high resistance to bad effects. He gave brief summaries of the experiments with arsenic acid, sodium arsenite and iron sulphite, and emphasized light applications for safety's sake.

A vivid demonstration of what golf courses have suffered as the result of too drastic reduction of maintenance budgets was in evidence at the Mill Road Midwest experimental station, which after six years of highly valuable operation in golf turf research, was practically shut down this year as a research station, due to lack of funds. It was evident at the station how quickly weeds, disease and other factors that ruin golf turf condition, take hold when maintenance vigilance is relaxed. The contrast between the necessarily neglected station plots and the finely conditioned course adjacent to the experimental grounds provided an impressive object lesson of the value of a long term policy in course maintenance.

### 'Soil-Concrete' Mixture Solves Step Problem at Orchard Lake CC

**T**HE first known flight of "soil-concrete" steps in the United States leads to the locker-rooms of the Orchard Lake CC. (Detroit District).

During the past few years, the U. S. Bureau of Public Roads has developed definite formulas whereby natural soils combined in correct proportions and provided with a moisture bond (calcium chloride is used for this purpose) will form a tightly-bound stable mass. This science of combining soils is known as "soil stabilization" and is now a recognized method of building low-cost, all-weather roads.

In previous years, the Orchard Lake club has found it difficult to maintain the locker-room steps in any satisfactory condition using ordinary loose gravel or

cinders. So this year it was decided to experiment with a plant-mixed stabilized mixture, which is being produced by a local concern for road surfacing.

A truck load of the stabilized mixture, composed of slag, clay and calcium chlor-



These steps leading to Orchard Lake's locker-room are dense as concrete, but are made of 'stabilized' soil.

ide, was delivered to the club, spread and shaped into steps by club employees. The wood-risers served as forms for the mixture, and some degree of compaction was obtained by hand tamping. Subsequent usage has packed the stabilized steps almost as dense as concrete.

The steps were built about the 1st of July and an average of 1200 persons a week have walked up and down them since that time. They have proven more satisfactory for this purpose than would concrete steps because the stabilized material is slightly resilient and "gives" a little under spiked golfing shoes.

Officials of the Orchard Lake CC are greatly pleased with the stabilized steps and are considering the use of the same material on the club driveways, tennis courts, inclined walks on the course and on the parking lot.

Further details of the new and inexpensive method may be secured from Robert Fosburg, 33rd floor, Book Tower, Detroit, Mich., an associate of the chemists who worked out the method.

**A** pro reminder: Make a deal with your caddie committee for old clubs that you take as trade-ins. Caddies go strong for reconditioned clubs.