cal phases of greenkeeping at this year's conference, rather than instruction in elementary soil fertility and related subjects. Sessions of the conference will be held in the Nittany Lion inn on the campus. For further information, write H. B. Musser, State College, Pa.

IOWA State college's annual greenkeeping short course will be held February 28-March 1. S. W. Edgecombe, Extension Horticulturist, is general chairman of the two-day course to be held at Ames, Ia.

Speakers and their subjects are: Dr. L. E. Haseman, Missouri State Entomologist, who will speak on "Canker-worm Control in Shade Trees and Control of the Various Borer Types of Insects;" Dr. H. B. Musser, associate professor in experimental agronomy at Penn State college, whose subject is "Soils in Relation to Greenkeeping"; Dr. John N. Martin, ISC, who will give a talk illustrating how grass plants make their food, take in water, etc.; E. P. Sylwester, ISC, on "Control of Weeds in Fairways," and Prof. H. W. Richey, of the ISC department of horticulture, who will speak on "Pruning Shade Trees and Shrubs."

Panel discussions will be held following the speaking programs both days. Additional information on the course may be obtained by writing S. W. Edgecombe.

GREENKEEPING short course at the University of Wisconsin, Madison, will be held March 6, 7, 8, although officials may decide to start the course one day later. Prof. James G. Moore of the U. of W. agricultural college is planning the program for the course, which as yet has not been annot red.

MASSACHUSETTS State college's 13th annual school for greenkeepers is now in session, having gotten under way January 3, and will conclude with an exhibition show from March 10-12. Prof. Lawrence S. Dickinson was the founder and director of this course, the oldest of its kind in the country.

The course this year has been divided into two terms of five weeks each. A student can take the first term in 1939 and the second in 1940 or later, but no certificate is awarded until work is completed in both terms. In addition to regular Mass. State college staff members, Prof. Dickinson will be assisted by Carleton E. Treat, veteran greenkeeper.

Buffalo Muny Course Gets Modern Watering System with WPA Aid

INSTALLATION of an extensive sprinkling system costing approximately \$55,000 has been completed at Grover Cleveland Park public golf links, Buffalo, N. Y., under a project operated by the WPA and sponsored by the Buffalo Municipal Parks department. This golf course, located north of the city limits, was formerly the privately owned Buffalo CC.

The golf course proper occupies 120 acres and is an 18-hole links with a 70 par.

Eighteen greens, fairways, and tees plus one practice green have received the benefits of this new sprinkling system. Buckner fairway valves were installed on all fairways. Eighteen sprinkler heads, 18 gate valves and 18 pop-ups, one for each tee, were installed.

A pump house 14 by 18 also was built and equipped with a double suction centrifugal pump connected through a flexible coupling to a motor of ample size and having 50 h.p. This pump has a capacity of 500 gal. per minute. This capacity was necessary to feed the extensive system of pipe lines laid by the WPA.

Statistics dealing with the project of installing this sprinkling system reveal that its estimated cost was \$54,424, of which the Federal government allocated \$33,224 for relief workers' wages and \$8,400 for equipment costs, while the city of Buffalo sponsored the work at a cost of \$12,800 for materials.

Total steel pipe placed in the grounds amounted to 20,420 feet, costing more than \$35,000. The WPA excavated 1,935 cubic yards of earth and cared for backfill, costing \$8,707. Five hundred cubic yards of rock excavation were necessary, costing \$2,395. Two hundred and seventeen sprinklers were installed on the course at a cost of \$2,743. Grading and seeding of 7162 square yards of land cost \$4,435. The new pump house of concrete cost \$950 and electric service lines and wiring cost \$875.

Original plans for pipe laying contained the following specifications: 1,800 feet of 6" galvanized pipes; 3,700 feet of 4"; 5,000 feet of 3"; 2,600 feet of 2½"; 1,600 feet of 2"; 200 feet of 1½"; 7,200 feet of 1¼" and 150 feet of ¾ inch. After the original plans were drawn and the task almost completed it was found essential to add 1,000 feet more of pipe lines.