

Push-Button Sprinkler System Does Men's Work

By VERNE WICKHAM

A COMPLETELY automatic, clock-controlled sprinkler system has been installed by the Los Angeles County Department of Parks and Recreation at the new Eaton Canyon golf course, between Pasadena and Sierra Madre (Calif.)

With six clock-controlled valves the superintendent can set his water system as simply as milady moves a bobby-pin from one curl to another. He can even set the system in June for September; daily or weekly, throw the aspirin box away and go on about his business, knowing that the water will pop on when he wants it, run the exact time he wishes and pop off again.

He can set his clocks, which use no more electric energy than his kitchen electric clock, punch his time card at 4 p.m. and go home knowing that starting at midnight automatic electrical gremlins will turn on a battery of three sprinklers at the ninth green while another clock is popping a battery of sprinklers on the dry spot along side the sixth fairway. He can know that the ninth green will get exactly 25 minutes of life-giving water, while the sprinklers on the sixth fairway will run a full hour. He can rest easy before his T-V set at home knowing all this will happen and that no mortal night-waterman can fall asleep and allow the ninth green to get an hour of watering and the sixth fairway have only 25 minutes.

Clock-Controlled Valves

The system was installed at a cost of under \$50,000. The cost of a manually-operated system, as estimated when the clock-valve system was designed and bids called, was roughly \$42,000. The saving in labor is expected to pay the difference in the first year. Under normal weather conditions no labor will be assigned to the night watering of the golf course. The superintendent will set—or days before will have set—the watering schedule for the night. If weather or wind conditions suddenly change, it may mean a visit to the golf course by some member of the crew to make necessary adjustments. It doesn't happen very often.

The "brains" of the system are six clock-controlled main valves. These are installed in metal vandal-proof panel boxes. Each clock activates 11 valves, operating from 3 to 12 sprinklers (three at the greens and banks of 12 on fairways). There are some 64 Cla-Val Co. automatic valves, activating about 600 rotary pop-up Buckner 1284 sprinklers. The sprinkler throws water a 55-foot radius or a 110-foot diameter. The operation of the watering plan calls for no more than four clocks to be in operation at any one time. Under a four-clock control, approximately 600 gal. a minute will be covering the greens and fairways as effectively and with the timing and precision that a concert pianist runs the scales on the piano keyboard. If all six units were used at once more than 960 gals. per minute could be thrown on the golf course.

The clock-controlled system installed at the Eaton Canyon golf course represents the combined efforts of Jack Nees and his staff, of the J. C. Nees Turf Supply Co., distributors of Buckner products in the Los Angeles area, and Bob Harper, of Cla-Val Co.

The basic water system to cover this par 33, nine hole course on approximately 40 acres, uses 7000 ft. on four and six inch transite pipe and 38,000 ft. of galvanized steel pipe, size one to three inch. The water pressure at the city water department meter is 85 lbs. or above. With the full system on, it drops to 65 lbs. and the sprinklers have been designed to operate with 45 lbs. pressure. There are 30,000 ft. of copper tubing to carry the water impulse to the valves.

One hundred ten volts of electric power comes into the property from the municipal service. There is a safety factor in that the system will operate successfully on 80 volts. There is 2600 ft. of conduit carrying approximately 7000 ft. of insulated wire.

The cost of material, pipe, conduit, valves, copper tubing and sprinklers ran about \$35,000. Labor costs are estimated at under \$10,000, being done by crews of

the mechanical division of the Parks and Recreation Department.

Can Be Manually Operated

All clocks can be manually operated. Provision for manual operation was made to take care of any power breakdown, or other emergency. In addition to the valves and sprinklers on the clock system, "hot heads" have been installed. There are two quick-coupler valves at each green, one on each tee and some 27 on fairways. The design and placement of these 60 quick-coupler valves make it possible to do spot watering, or take care of trouble spots in emergency periods and at no time calling for use of more than 100-ft. of hose. The vandal-proof boxes containing the clocks are located in out-of-play spots around the course. They are hidden in trees or shrubbery and it is questionable if the ordinary golfer will even know they are there. Three are within 100 to 150 yards of the service yard and all within easy walking distance.

The system was put in use prior to the start of the seeding operation. It was used to soak the soil in preparation for seeding and that operation was performed with ease and dispatch. The superintendent just set his clocks on Monday morning. Exactly at midnight each night of the week, sprinklers started popping on where needed, ran their prescribed time and popped off again.

Diaphragm controlled valves eliminated any "bumping" of the pipes, since the flow is regulated to come in slowly, trickling out of the sprinkler at first and gradually taking shape to full spray at maximum capacity before the roto-type sprinkler starts going round and round, doing a man's work during the long night.

Timing Range

The timing range is from three minutes to 12 hours. In the early periods of seeding this will permit frequent watering when needed. The timing will permit turning water on every half hour, running five to eight minutes and then shutting down and repeating the process around the clock.

From the golf players' standpoint, no sharp undulations or breaks will be encountered at Eaton Canyon. With sprinklers popping on automatically and operating a prescribed period of time, design of the greens had to eliminate the danger of flooding. Putting green breaks were more gradual. Each area covered by the spray from one individual sprinkler had to be treated separately. The result was

long, gently sloping breaks which require just as much skill to negotiate as extreme undulations and do not cause as many heartaches as extreme, sharp breaks. Turf on the Eaton Canyon greens will be more uniform and grain less pronounced in the opinion of the planners of this split-second automatic sprinkler system.

Court Rules Pro Shop and Club Are Not Independent

That old puzzler—"Who really owns the pro shop, the pro who runs it or the club that houses it?"—worked its way up to the Idaho Supreme Court recently. A waiter at the Pocatello (Ida.) G&CC broke into the clubhouse one night. First he entered the lounge through a door that opened on a patio, and with a snatch reminiscent of the grand old days of Prohibition, helped himself to three bottles of Scotch. Returning to the patio he then broke through another door to the pro shop from which he took clothing and other articles.

He was picked up with his burden not far from the club and was tried and convicted of the theft. But either he or his lawyer made the discovery that the information under which he was tried did not differentiate the offenses of breaking into the club and breaking into the pro shop. An appeal was taken and it was argued that as the two places were not under the same control and ownership, there was not one offense, so there was a fatal variation between the original allegation and the proof at the trial.

That put the old question squarely in the lap of the Supreme Court. In support of the idea that the pro shop was an independent institution, it was shown that only the pro and his wife had keys thereto. But the Supreme Court was unimpressed and upheld the waiter's conviction, although it did not rule as clearly as one might wish on the question which has troubled golf clubs and golf pros for years. The Court, in its opinion, said:

"The evidence tending to connect him with the entry into both the lounge and the pro shop on the same location, both parts of the building described in the information, would bar a second prosecution for the entry into either one separately. Further, Hogue, as president of the club, would have some general supervisory control of the entire building." (State v. Love, 283 Pac. 2nd, 925)