golf meet. He answered questions in a round table discussion.

Clarence Yarn, Woodside, told about the great strength and durability of the new Atlantic City bent, which he is using on a public course. He claims it is one of the toughest and finest putting turf yet raised in Iowa. Announcement was made at the meeting of four new members having joined the organization: Jack Anderson, Ft. Madison CC; E. J. Holcombe, Walton GC; Bud Connell, Geneva G&CC; James Towhig, Mad Creek GC.

Make Your Course Famous For Turf Health With Less Time And Labor — Use **ROTOTILLER**



FOR PUTTING GREENS that stay springtime fresh and thriving all season long and for fairways, patch-free, evenly grassed and thriving, use Rototiller — you'll get these better results with less time and less labor.

BNGINE DRIVEN, fast revolving tines tear up the ground, doing the work of plow, disc and harrow, in one operation — doing it far better. Once over, it prepares a deep, finely pulverized, completely aerated putting green foundation—fertilizer worked in evenly from top to bottom—ready for planting. And there is no packing down as fast as it's loosened up, no hand-raking necessary.

nand-raking necessary. EQUIPPED WITH "MAJOR BUTT'S GOLF COURSE DISCS," ROTOTILLER cuts clean, sharp, narrow slits in the turf, deep enough for ideal aeration, moisture penetration and fertilization. With field-mower attachment, it cuts the rough, 42 inches wide at 3 miles an hour. Otherwise, you'll find any number of jobs to keep your ROTOTILLER busy... eliminating quack grass, weeding, tilling and cultivating club-house vegetable gardens.

FREE BOOKLETS — Profusely illustrated. Please and cultivated ground so we can send correct information. Also, let us arrange a demonstration which takes but a few minutes. Address Dept. K-2.



ARTIFICIAL WATERING BENEFITS ARE MANY

By Robert Trent Jones

I IS embarrassing to a designer of a golf course to see a player get home with a drive and a spade on a hole 450 yards long. Furthermore, it is not conclusive proof that the winner of a tournament would necessarily be the best under normal conditions. After playing over the Royal York course in the Canadian Open championship of 1933, Gene Sarazen said to me, "This would be one of the hardest tests of high-class golf in the world if it had a fairway irrigation system." Who is in a better position to utter such a pungent statement?

Irrigation can now be installed much more economically than was previously thought possible, the cost now being as low as from \$10,000 to \$25,000 for a complete system, depending upon conditions.

Why, then, should we gaze upon grass burnt to the crispness of toast? Besides the pleasure of seeing throughout the whole season the rich green turf that is expected only in the months of May, June and late September, artificial irrigation has other innumerable benefits.

Fairway irrigation makes turf operation independent of rainfall. If rain falls, artificial irrigation will heal the broken ground, germinate young seed, and foster young grass, resulting in a fine, firm turf free from criticism.

Seed After Water Installation

It is uniformly agreed that one good seeding is required after installing a fairway system, unless the grass is old and well established. After that, the annual cost of seeding will be considerably reduced. With less seed, less labor, and less tilling, the ultimate saving is substantial.

A uniform system of watering prevents gamble in applying fertilizer. Fertilizer may lie inert until a rainstorm comes along and produces the solution necessary to make the fertilizer into plant food. Now if the storm happens to be a cloudburst, creating miniature rivulets, fertilizer may wash into low pockets, making a concentration that is und sirable. The fertilizer is washed from higher spots where it is needed, and by accumulating in the low areas, the concentration may be too great and cause a chemical burn. A dependable



spray of artificial watering eliminates this condition and provides plant food in a quantity that stimulates a vigorous growth of turf.

Turf on a fairway subject to regular watering recovers with amazing rapidity. The soluble food in the soil is made available to the plant through the water medium. The bare spots tend to fill in, removing that unsightly, spotty appearance that mars the beauty of a course as well as eliminating the cost of trying to grow turf on pieces of fairways that seem unable to make grass thrive.

Where clay soil is the prime factor, it is the general practice of greenkeepers to try to break up this undesirable condition by perforating, discing, spiking, scarifying and other mechanical operations, after which a quantity of humus is added, to try to get the soil in a friable condition. With uniform watering, the hardening and caking is decreased to a minimum and while the mechanical renovating of the turf is desirable, it is possible to cut it down to a quarter of what would ordinarily be needed. In addition, the plant finds it less difficult to thrive on a loose soil than on a tight, rock-like mass such as one finds in baked conditions.

Where sandy soil is the menace the treatment is to build up the soil by the aid of humus so that it will retain its moisture, which normally would leach rapidly through the open quartz grains of sand. Where a dependable system of irrigation is installed, the cost of such procedure is decreased, because an abundance of humus



GOLFDOM



is not necessary. It does not take long until the turf is sufficiently luxurious to build up a root growth sufficient to retain its own moisture over longer periods.

Weeds thrive best under conditions which are unfavorable to the growth of good grass. Certain weeds love an overabundance of water which normally sours the soil. The solution of that problem is a question of drainage. But there are many tap-rooted weeds which can withstand drought better than grass. For that reason the grass becomes scarce and the weeds more abundant. With regular watering and plant food the grass will be brought to a stage where it can vigorously compete with the weeds and for the most part defeat them, causing the weeds to decrease and the grass to become lush.

Summing up, we find that rainfall independence through a watering system



will lower seeding costs, improve fertilizer results, eliminate turf repair expenses, improve the mechanical condition of the soil, aid growth in clay and sandy soil, and eliminate weeds to a great extent.

Besides these factors we have the pleasure of walking over lush carpet-like turf that is restful rather than fatiguing, and enjoying the aesthetic value of looking at a uniform greensward. We may revel in the pleasure of playing a crisp clean iron and feel it drive through firm, sturdy turf, rather than skid in rock-bound clay or dusty sand.

Now Is the Time for Greensmen To Get Needed Publicity

N^{OW} is the time for golf course supts. who want to get some publicity for their clubs and themselves and take part in community beautification, to get in touch with garden editors of their local

