



Johnny Dawson, popular amateur, makes merchandise selection from Cooper's large stock of accessories—Note open display on counter and orderly arrangement of stocks in showcase which runs full length of shop.

early in the afternoon for another five hours of lessons.

With the full teaching schedule and a shop full of sales Cooper claims that the only way he can meet his teaching assignments without neglecting personal and expert attention to shop business is to operate on the timetable he has now established.

"And the only way the timetable can be maintained," declares Harry, "is through a broad display of all products manufactured by leading sporting goods



Harry has an able staff to assist him in his merchandising operations at Lakeside. (L to R) Cooper, Al Roush, ass't pro, Bill Douglas, club repair and Chev Burness, caddy-master.

and sports accessories concerns. The large inventory stimulates a desire to buy. There is no lost time on either the part of the member or the pro when it comes to making sales.

"A pro is not hired by a club as a salesman," says Harry, "but as a teacher.

"The best way in my book that a pro may serve his club and his members, and

at the same time experience profitable shop operation, is to have a shop that sells itself.

"If a large stock is carried, and if it is well displayed, a shop will sell itself and the professional can devote his time to his job: teaching and advising."

### Box Score Tells Vivid Story Of Western Open

Joseph C. Hogan, promotion director of the Western Golf Assn., and his staff at the Western Open at St. Paul supplied the press with quick "box score" summaries of each day's play so sportswriters could provide newspaper readers with clear, accurate accounts of the play that resulted in Snead's 268 triumph.

Hogan and his staff repeated the demonstration made by Mark Cox and his outfit at the National Open; the sort of a story golf fans want on a big tournament can't be told without box-score data.

From the Western Open box score: Snead's rounds of 69, 67, 66, 67, were scored with, respectively 31, 32, 30 and 31 putts. Sam was in traps once in the third and once in the final round. His birdies were for the rounds, 6, 6, 7, 6 and his bogies, 3, 1, 0, 1. He was in the rough, by rounds, 4, 1, 2, 3. He didn't have an eagle.

Middlecoff who finished with a 65 for 272 and second money had only 25 putts on his final round. He had 118 putts to Snead's 124. Demaret and Mangrum who tied for third money at 273, each had 125 putts. Snead, Middlecoff and Demaret each were in the rough ten times during the 72 hole route. Harbert was in the rough 18 visits.

Merry Christmas  
for  
Some Lucky Guy



HOW TO

# Make Sales Grow

## WHERE NONE GREW BEFORE

**A GREAT CHRISTMAS PROMOTION IDEA FOR EVERY PRO IN THE LAND! . . .** Get this! One dozen **D. T. Titleists**, each marked with the **owner's name**, packed in the most beautiful, usable, solid mahogany case you ever saw . . . all for **the regular price** of one dozen D. T. Titleists!

What a gift for **any golf player!** What a swell idea to sell a member's wife as the one thing she can't go wrong on for "his" pile under the Christmas tree! And what a **knockout stunt** to boost those "off-season" sales for **your profit!**

We're advertising this deal in the *Saturday Evening Post* **September 10th** to upwards of 12,000,000 people. We have counter cards and samples for you to promote it to your members. Your Acushnet salesman will tell you all about it and show you samples if he hasn't done so already and, in case of any slip-up, please write us direct.

There's a whale of a big Christmas gift business on golf balls. Heretofore the retail stores have picked off most of it. Here's the best chance you Pros ever had to get in on the biggest sales season of the year. Acushnet Process Company, New Bedford, Mass.

**GET YOUR ORDERS IN NOW . . . SUPPLY IS LIMITED**



# ACUSHNET

*GOLF BALLS*

# How Minikahda's Watering System Was Installed

By GORDON C. BRINKWORTH

Supt., Minikahda Club, Minneapolis, Minn.

From many years experience around golf courses I know that many laborious hours are spent in turf care only to have a desired goal not met. The turf is scorched and dried out for want of an adequate watering system. The results are poor conditions and criticism against the staff responsible for the maintenance of the course.

A problem like this can mean only one thing to a club with a high standard to maintain: Immediate action to correct faults and to furnish whatever is needed to reach that desired goal, properly maintained turf.

Once the seed of interest is sown the next step is to engage a reputable irrigation engineer to survey and estimate the proposed project. C. E. Stewart was retained by the club for this service. It was the spring of the year following the establishment of such an arrangement that I took over my present duties as grounds superintendent of Minikahda Club and supervised the job of installing our new irrigation system.

With contractors' estimates extremely high, due in part to uncertain materials prices, and because of some experience, I felt capable of handling this situation. With the advice and assistance of several engineers on the grounds committee, and the able assistance of the clubhouse engineer and grounds foremen we commenced operations. The first thing we decided, before adopting a definite plan, was to ascertain the permanency of tees, greens, traps and any other contours that were likely to be altered in the near future by our maintenance program. This pre-arrangement of our work schedule helped to route the proposed pipe line, thus forestalled the need for any major piping alterations after the lines were installed.

## Pump Capacity and Pressure Vital

The pump capacity and pressure are vital to all irrigation systems, and in our case two centrifugal pumps, each with 350 GPM capacity, working in parallel, each driven by a 25 HP electric motor, were installed. These two pumps discharge into an overhead tank providing a hydrostatic

head of about 45 lbs. gauge at grade level. A booster pump rated at 700 GPM and driven by a 30 HP motor discharges into the 8" main header at 125 pounds gauge. Hydraulically speaking, our new pumps are thus capable of delivering 700 GPM at a pressure of 125 lbs. gauge. This is not required, however, since 90 lbs. minimum at the hydrant enables a large Buckner sprinkler to discharge approximately 60 gals. per minute, which will cover a circle 180 ft. in diameter. The medium size sprinkler for greens will discharge 30 GPM with a coverage of 140 ft. to 150 ft., and the small type for tees with an output of 9 to 12 GPM will cover 100 ft. to 110 ft. The discharge of the sprinkler and the distance covered depends on the size of the nozzles and the orifices.

Consideration must be given to friction or line loss and the more lineal feet of pipe used, plus the angles and bends, the greater the loss. Therefore, one of the main things to bear in mind is the proper size of pipe and its reductions throughout the system. Too small a main or laterals will definitely result in insufficient pressure and water supply. Once the figures are proved by practical use a watering schedule can then be worked out to insure that the maximum efficiency is derived from the entire system.

Active operations on our project actually started with the "taking off" of a bill of materials from the engineer's plans and specifications. This is an exacting task, as every line on the blueprint must be measured to scale to ascertain the number of feet of pipe we were to requisition. Also every joint, tee, elbow, valve, coupling, and reducer had to be tabulated in order to be included on the order for material. Once this is completed and you have confirmation of delivery, the next step is to arrange for a railroad siding to spot the carloads of pipe and fittings for the unloading.

## Organizing the Job

The manpower, labor and equipment enters into the picture next. Once the delivery date of the pipe is known, the



...the line with a  
**PROtection**  
(Policy)

The makers of Power-Bilts have never deviated from the exclusive Pro-only protection policy adopted when Power-Bilt's were first introduced . . . and they never will. Our representatives are on their way now with the 1950 Power-Bilts.



HILLERICH & BRADSBY CO.  
Louisville, Kentucky



time is opportune for the organization of the crew.

First to be considered was the equipment and tools necessary. For our particular project we equipped our Minneapolis Moline industrial tractor with a boom to lift and transport all the pipe at the railroad unloading site and on the golf course.

I might mention at this point that we had chosen to install 8", 6", 4" and 3" cast iron pipe with bell and spigot joints, with 2" and 1½" copper tubing for the smaller lines. The cast iron pipe came in lengths 18 ft. long and weighed approximately 300 to 800 lbs. per length. So the handling of this heavy material was not a light chore. The copper tubing was delivered crated 10 lengths to the bundle, each length measuring 20 ft. We used Type K hard and soft copper, and found the soft very useful in making angles and bends without the use of fittings. Although copper tubing was substituted in lieu of galvanized pipe at a somewhat higher price, the labor saving to install it was considerable, as the fitting and coupling operations were very easy. Other items of equipment and tools will be mentioned as we proceeded with the installation.

We did not own a ditch digger, therefore it was necessary to hire a machine that we felt would not mark or scar the turf. Several were considered, but we agreed to use a Jeep trencher with a 14" wide claw and a boom long enough to dig 6 ft. deep. The main line was then measured, staked, the turf was removed, and the trencher went to work, digging approximately 300 to 900 ft. a day. The depth of the ditch depended on the contours, but the minimum was to be deep enough to give us an 18" coverage over the pipe. Before going further with the actual work I will treat briefly the work allocation and crew organization.

#### Crew Duties Assigned

The crew was divided into three sub-crews, each with its assigned task. In Crew No. 1, headed by the clubhouse engineer, all the plumbing and fitting was carried out involving the packing and caulking of all the bell and spigot joints. The locating and fitting of all the hydrants and drain valves, as well as the plumbing and leveling of all the lines, was important in order that they might be drained in the fall. To do this work, four

Special equipment was important factor in speeding up installation operations of Minikahda's watering system. 1. Minneapolis-Moline tractor equipped with boom to lift and transport pipe. 2. Special boom for hand lifting. 3. Jeep trencher was time and labor saver. 4. Jeep digging 300 to 900 feet per day.

FALL WEED CONTROL IS IMPORTANT!



## Use the RIGHT DOW WEED KILLER

### Dow Sodium TCA—New!

Now, control quack, Johnson, crab and many other noxious grasses. Useful in spot spraying along ditchbanks, fence rows, drainage ditches, parking areas. Fall spraying with Dow Sodium TCA will reduce resprouting of perennial grasses in the spring.

### Esteron 44

A powerful 2,4-D weed killer especially effective against woody plants and sprouts—also many difficult to kill herbaceous weeds.

### 2-4 Dow Weed Killer Powder

Kills a wide variety of broad-leaved weeds—saves grass. Low cost. Ready to mix with water.

### 2-4 Dow Weed Killer, Formula 40

Liquid form—goes into solution easily in hard or soft water and won't clog the sprayer. Especially formulated for low volume spraying. . . .

Your inquiry will be handled promptly by any Dow distributor—or you may wish to write direct. In any case you will be supplied with some interesting facts about economical weed, brush and grass control.

# Dow Weed Killers

Agricultural Chemical Division

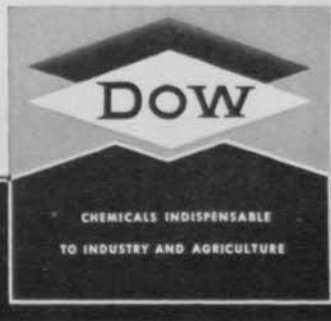
THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN

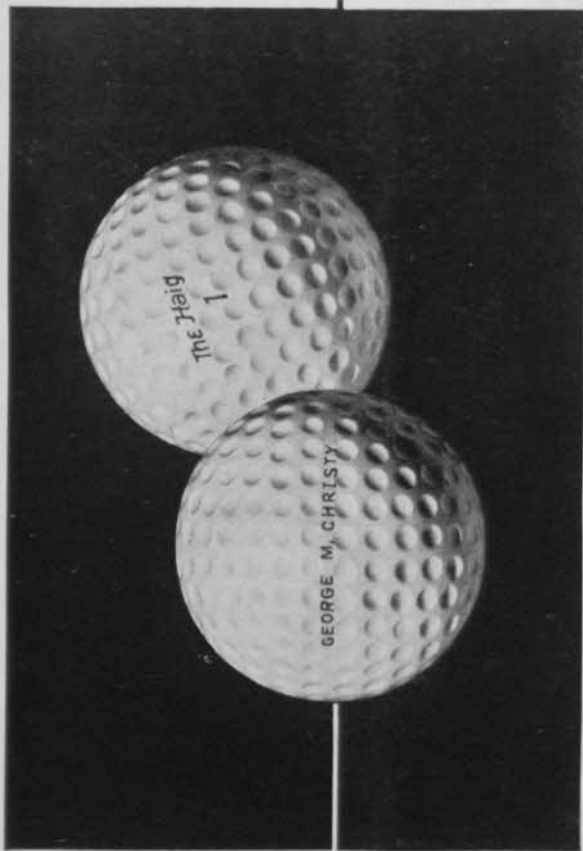
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WEED AND GRASS KILLERS • INSECTICIDES • FUNGICIDES  
SEED PROTECTANT • PLANT GROWTH REGULATORS  
GRAIN AND SOIL FUMIGANTS • WOOD PRESERVATIVE

You can do a better job of progressive weed control if your maintenance program contains plans for fall spraying of weeds and brush. Many weeds just won't be a problem in the spring if you go after them now with the *right* Dow weed killer.

Dow weed killers are used successfully by many greenskeepers and maintenance men throughout the country. Dow produces a complete line of specific purpose weed killers—each of which has been thoroughly tested in use.





Ten personalized Haig golf balls  
in this beautiful gift package at no  
extra cost to you or your customer...  
and in a price bracket exactly  
right for maximum sales—\$9.50



*You Can't Miss with*

**HAIG** personalized golf balls

for your Christmas gift selling!



Here's a *pro shop only* gift seller that's a natural. Ten "Split-Second" HAIG balls *that no ball made can outperform for click, distance or accuracy* . . . packed in the richest looking gift container ever created for golf balls—a distinctive, *usable*, metallic-finish chest, crafted in finest jeweler's chased silver effect—with the owner's name factory-marked on each ball if desired.

Send NOW for the special poster we've prepared to speed HAIG gift chest sales in your shop. And here's a tip. Don't miss out on the quick over-the-counter gift sales you can make to members who, for one reason or another, won't want to bother with factory name markings. Put in a display of these chests and be prepared to sell them with or without personalizing.

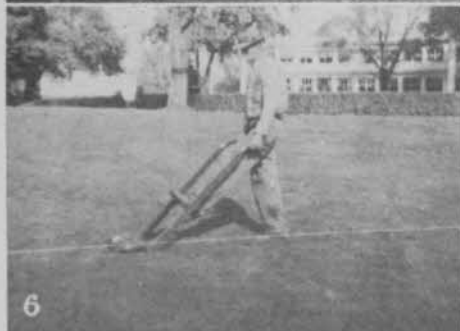
Remember, too, you have a real price advantage with the HAIG ten ball package at \$9.50 . . . there are a lot of customers everywhere who will want to keep some of their gift purchases within the limits of a ten dollar bill.

Yours for more golf gift sales,

*Walter Hagen*



WALTER HAGEN Division of Wilson Sporting Goods Co., GRAND RAPIDS 2, MICHIGAN



helpers were required, one to pack the jute, one to melt and pour lead, one to drill holes for the hydrant and drain outlets, and one to measure and install the pipe upright and sprinkler valve. For tools and equipment there were required melting furnaces, lead pots, and other incidental tools such as hammers, caulking tools, spirit levels, crowbars, ropes, lead running clamps, etc., and of course the means of transporting these tools, material, and equipment along the line that was being worked.

To drill the holes through the cast iron pipe good use was made of a portable Onan generator that permitted utilization of our large power drill, using a 1½" and 2" hole saw (it was necessary to drill a hole every 90 ft. to provide an outlet for a sprinkler hydrant). The No. 2 Crew was under the supervision of the house grounds foreman, who had a gang totaling from six to 18 men at different times. This crew had to lift all the turf, roll and pile it a suitable distance from the line to make room for the trenching machine, and also the tractor handling the pipe. Once the ditch was dug by the Jeep digger, bell holes had to be dug at intervals of 18 ft. to enable a man to get into the trench and prepare and caulk the joint. After the digging of the bell holes the pipe was lowered into the ditch and made ready for the No. 1 or plumbing crew, coming behind.

#### Turf Temporarily Relaid

Crew No. 3, under the direction of the greenkeeper, consisting of eight or ten men, was responsible for checking all the joints and valve outlets to guard against incompleteness, and to make sure all open holes were plugged to prevent dirt and small animals from getting into the line. The ditch then was filled, packed, and the turf relaid, but not relaid permanently, as there was anticipated a substantial settlement during the spring thaw which would subsequently necessitate minor relaying.

We worked on the theory that a hydraulic test on the line could wait until we were prepared to put it into actual use, presuming that leaks would soon be evidenced by their appearance on the surface of the ground and could easily be taken care of as they presented themselves.

It was hoped, of course, that good workmanship would prevail, and the number of leaks would be negligible.

5. Portable Onan generator provided power for drilling holes for sprinkler hydrant outlets. 6. Cutting, lifting and rolling turf was biggest hand operation. 7. Hand dug bell hole for caulking joints made easier work for plumbing crew (8) which followed.